2025 – 2026 Undergraduate Calendar

Effective date of information, unless otherwise noted:
July 1, 2025.

The University of Northern British Columbia reserves the right to make additions, deletions, changes, or modifications to its policies, practices, procedures, tuition fees, course availability, delivery mode, schedules, or program requirements at any time without prior notice.

The publication of information in the Calendar does not bind the University to the provision of courses, programs, services, or facilities as listed herein.

Students are responsible for informing themselves of the University's procedures and policies and the specific requirements associated with the degree, diploma or certificate sought.

Students are responsible for informing themselves of the risks associated with field and laboratory studies. By participating in such studies they shall be deemed to have accepted personal responsibility for all such risks (including, without limitation, all risks identified by course instructors/supervisors and in literature that has been published by the University or that has otherwise been made available to students), to have agreed to abide by the safety rules and procedures established by their instructors/supervisors for such activities, and to have waived the liability of the University of Northern British Columbia and its instructors/supervisors in respect of such activities.

Students are responsible for informing themselves of the details of international travel programs and whether the program offered to them is a UNBC-sponsored academic program.

EVERY STUDENT ACCEPTED FOR REGISTRATION WITH THE UNIVERSITY OF NORTHERN BRITISH COLUMBIA SHALL BE DEEMED TO HAVE AGREED TO BE BOUND BY THE REGULATIONS AND POLICIES OF THE UNIVERSITY AND OF THE PROGRAM IN WHICH THAT STUDENT IS ENROLLED.

The University of Northern British Columbia specifically reserves the right to exercise its sole, absolute, and unfettered discretion in admitting individuals to the University, its programs, and courses.

The University of Northern British Columbia shall incur no liability for loss or damage suffered or incurred by any student or third party as a result of delay, alteration, or termination of services, courses, programs, tuition, or fees, by reason of acts of God, fire, strikes, lock-outs, damage to University property, inability to procure or produce materials, civil unrest or disobedience, financial exigency, or any other cause of any kind.

The University of Northern British Columbia is a smoke-free institution. Smoking may be permitted in designated areas only.

© University of Northern British Columbia, 2025

The 2025-2026 *University of Northern British Columbia Undergraduate Calendar* was prepared by the Office of the Registrar.

Table of Contents

Faculty 4
Officers of the University 13
Tuition and Fees 16
Academic Dates 20
Admissions 23
Regulations and Policies 35
Programs 44
Academic Structure 48
Academic Breadth Requirement 49
BA (General) 50
BSc (Integrated) 51
Anthropology (BA Program) 53
- Major in Anthropology
- Joint Major in Anthropology and English
- Joint Major in Anthropology and First Nations Studies
- Joint Major in Anthropology and Geography
- Joint Major in Anthropology and Political Science

Biochemistry and Molecular Biology (BSc Program) 58
- Major in Biochemistry and Molecular Biology
- BSc Honours – Biochemistry and Molecular Biology

Biology (BSc Program) 61
- Major in Biology
- BSc Honours – Biology

School of Business (BComm Program) 65
- Bachelor of Commerce Honours (BComm Honours)
- Major in Accounting
- Major in Finance
- Major in General Business
- Major in Human Resources Management
- Major in International Business
- Major in Management Information Systems
- Major in Marketing
- Certificate in Business Administration Fundamentals

Chemistry (BSc Program) 74
- Major in Chemistry
- BSc Honours – Chemistry
- Joint Major in Chemistry and Computer Science
- Joint Major in Chemistry and Mathematics
- Joint Major in Chemistry and Physics

Computer Science (BSc Program) 79
- Major in Computer Science
- BSc Honours – Computer Science
- Joint Major in Computer Science and Mathematics
- Joint Major in Computer Science and Physics

Conservation Science and Practice (BSc Program) 83
- Major in Wildland Conservation and Recreation
- BSc Honours – Conservation Science and Practice (Wildland Conservation and Recreation)
- Major in Landscape Conservation and Management
- BSc Honours – Conservation Science and Practice (Landscape Conservation and Management)

School of Economics (BA and BSc Programs) 86
- Major in Economics (BA)
- Joint Major in Economics and Global and International Studies (BA)
- Joint Major in Economics and Political Science (BA)
- Joint Major in Economics and Mathematics (BSc)

School of Education (BEd Program) 90
- BEd Degree Elementary Years (Grades K-7) Stream
- BEd Degree Secondary Years (Grades 8-12) Stream
- Education Diploma in a First Nations Language and Culture (Elementary Years)

School of Engineering (BASc Program) 99
- Major in Civil Engineering
- Major in Environmental Engineering
- Major in Environmental Engineering (UNBC/UBC Joint Program)

English (BA Program) 106
- Major in English
- Joint Major in English and Environmental and Sustainability Studies
- Joint Major in English and History
- Joint Major in English and Political Science
- Joint Major in English and Women's Studies

Environmental Planning (BPl Program) 112
- Major in Northern and Rural Community Planning
- Major in First Nations Planning
- Major in Natural Resources Planning

Environmental Science (BSc Program) 117
- Major in Environmental Science
- BSc Honours – Environmental Science

Environmental and Sustainability Studies (BA Program) ... 121
- Major in Environmental and Sustainability Studies
- Joint Major in Environmental and Sustainability Studies and Political Science

First Nations Studies (BA Program) 127
- Major in First Nations Studies
- Joint Major in First Nations Studies and Women's Studies
- First Nations Studies Diploma Programs
- First Nations Studies Certificate Programs

Forest Ecology and Management (BSc Program) 136
- Major in Forest Ecology and Management
- BSc Honours – Forest Ecology and Management

Geography (BA and BSc Programs) 139
Geography (BA Program) 139
- Major in Geography
- Joint Major in Geography and History
- Joint Major in Geography and Political Science
- Major in Public Administration and Community Development

Geography (BSc Program) 145
- Major in Geography
- BSc Honours – Physical Geography

Global and International Studies (BA Program) 150
- Major in Global and International Studies
- Joint Major in Global and International Studies and Political Science

Health Sciences (BHSc Program) 153
Major in Biomedical Studies
Major in Community and Population Health – Aboriginal and Rural Health
Major in Community and Population Health – Environmental Health
Bachelor of Health Sciences Honours (BHSc Honours)
History (BA Program) 157
Major in History
BA Honours – History
Joint Major in History and Political Science
Joint Major in History and Women's Studies
Local Government Administration Certificate Program 160
Mathematics and Statistics (BSc Program) 161
Major in Mathematics
BSc Honours – Mathematics
Joint Major in Mathematics and Physics
Nature-Based Tourism Management (BA Program) 164
Major in Nature-Based Tourism Management
BA Honours – Nature-Based Tourism Management
Nisga'a Language Fluency (BA Program) 169
Major in **Nisga'a** Language Fluency
Northern Studies (BA Program) 170
Major in Northern Studies
School of Nursing (BScN Program) 172
Northern Collaborative Baccalaureate Nursing Program
Northern Baccalaureate Nursing Program
Rural Nursing Certificate Program
Philosophy 181
Physics (BSc Program) 182
Major in Physics
BSc Honours – Physics
Political Science (BA Program) 184
Major in Political Science
Joint Major in Political Science and Women's Studies
Psychology (BSc Program) 187
Major in Psychology
BSc Honours – Psychology
Social Work (BSW Program) 189
Wildlife and Fisheries (BSc Program) 191
Major in Wildlife and Fisheries
BSc Honours – Wildlife and Fisheries
Women's Studies (BA Program) 193
Major in Women's Studies
Division of Medical Sciences 195
Northern Medical Program
Course Descriptions 196
Anthropology (ANTH) 197
Arts (ARTS) 202
Astronomy (ASTR) 202
Biochemistry and Molecular Biology (BCMB) 203
Biology (BIOL) 204
Chemistry (CHEM) 207
Civil Engineering (CIVE) 210
Commerce/Business Administration (COMM) 212
Co-operative Education (COOP) 218
Computer Science (CPSC) 218
Economics (ECON) 223
Education (EDUC) 226
English (ENGL) 232
Engineering (ENGR) 236
Environmental Planning (ENPL) 240
Environmental Science (ENSC) 242
Environmental Engineering (ENVE) 245
Environmental and Sustainability Studies (ENVS) 246
First Nations Studies (FNST) 247
Forestry (FSTY) 254
Geography (GEOG) 256
Health Sciences (HHSC) 260
History (HIST) 263
Global and International Studies (INTS) 267
International Exchange (INTX) 272
Mathematics (MATH) 272
Northern Studies (NORS) 275
Natural Resources Management (NREM) 276
Natural Resources and Environmental Studies (NRES) 278
Nursing (NRSG) 278
Nursing (NURS) 281
Outdoor Recreation and Tourism Management (ORTM) 287
Philosophy (PHIL) 289
Physics (PHYS) 290
Political Science (POLS) 292
Psychology (PSYC) 296
Social Work (SOCW) 299
Statistics (STAT) 302
University (UNIV) 304
Visiting Research Student (VRES) 304
Women's Studies (WMST) 304

Faculty

Adesanya, Theresa, Assistant Professor, Environmental Science—BAgrSc (Obafemi Awolowo) MSc PhD (Manitoba)

Agboji, Aderonke, Assistant Professor, Nursing—Dipl. Nurs. (Lagos) BSc Hons (Waterford) MSc (RCSI) MSc (Stirling) PhD (Northern British Columbia)

Ali, Faran, Senior Lab Instructor, Geography—BSc (Lahore, Pakistan) MSc (UNESCO-IHE Institute for Water Education, Elft, Netherlands) PhD (Saskatchewan)

Allison, Sandra, Adjunct Professor, Health Sciences—BSc (Calgary) MD MPH (Manitoba)

Alonso, Esther, Adjunct Professor, Nursing—BSc (Havana) PhD (Université catholique de Louvain)

Anderson, Margaret, Professor Emerita, First Nations Studies—BA MA PhD (Michigan)

Aravindakshan, Nikhil, Senior Lab Instructor II, Environmental Science—MSc (Hyderabad Central) PhD (Regina)

Avoumatsodo, Komla, Assistant Professor, Economics—BSc (Lomé) MA (ENSEA) PhD (Québec à Montréal)

Babicz, Walter, Adjunct Professor, Political Science—BEd (British Columbia) Juris Doctor (Victoria)

Baerwald, Erin, Associate Professor, Ecosystem Science and Management—BSc (Alberta) MSc PhD (Calgary)

Bai, Ping, Senior Lab Instructor, GIS—BSc (Beijing) MSc (Windsor)

Banack, Hartley, Associate Professor, Education—BSc (Trent) BEd MA PhD (Simon Fraser)

Bankole, Julius, Senior Instructor, Business—BSc (Ibadan) MSc (Bejing) (Northern British Columbia)

Banner-Lukaris, Davina, Professor, Nursing—BN Hons (Wales) PhD (West England)

Bartels, Samuel, Assistant Professor, Ecosystem Science and Management—MSc PhD (Lakehead)

Barton, Sylvia, Professor Emerita, Nursing—BScN (British Columbia) MSc (N) (Portland) PhD (Alberta)

Batista, Philip, Adjunct Professor, Ecosystem Science and Management—BSc (Concordia) PhD (Alberta)

Beaumont, Sherry, Professor, Psychology—BA Hons (St Thomas) MA PhD (Waterloo)

Beeler, Karin, Professor Emerita, English—BA Hons (British Columbia) MA PhD (Alberta)

Beeler, Stan, Professor Emeritus, English—BA Hons MA (Dalhousie) PhD (Alberta)

Bellefeuille, Gerard, Adjunct Professor, Social Work—BSW MA PhD (Victoria)

Bernier, Jean-Sebastian, Associate Professor, Physics—BEng (École Polytechnique de Montréal) MSc PhD (Toronto)

Benoit, Shendah, Assistant Professor, Education—BA (Simon Fraser) MA (Toronto) MEd EdD (Western)

Beveridge, Erin, Senior Lab Instructor, Mathematics and Statistics—BSc MSc (Northern British Columbia)

Bidgood, Bruce, Associate Professor, Social Work—BA (Brock) MA PhD (Wilfrid Laurier)

Binnema, Theodore, Professor Emeritus, History—BA (Calvin College) MA PhD (Alberta)

Bird, Ranjana, Professor, Health Sciences—BSc (Waterloo) MSc PhD (Guelph)

Blair, Jenia, Senior Lab Instructor, Ecosystem Science and Management—BSc (Victoria) MSc (Northern British Columbia)

Blatchford, Barrie, Assistant Professor, History—BA Hons MA (British Columbia) MPhil PhD (Columbia)

Booth, Annie, Professor, School of Planning and Sustainability—BA (Victoria) MES (York) PhD (Wisconsin) MCIP

Bordun, Troy, Assistant Professor, English—PhD (Trent)

Bouchard, Michel, Professor, Anthropology—BA (Toronto) MA (Laval) PhD (Alberta)

Bowles, Paul, Professor Emeritus, Economics—BSc Hons (Southampton) MA (Sussex) PhD (London School of Economics)

Branscomb, Richard, Senior Instructor, Engineering—PhD (Carnegie Mellon)

Brown, Darren, Assistant Professor, Business—MBA PhD (National Cheng Kung) PhD (Australian National)

Bryan, Heather, Associate Professor, Ecosystem Science and Management, and Ian McTaggart Cowan Muskwa-Kechika Research Professor—PhD (Calgary)

Budde, Robert, Professor, English—BEd BA MA (Manitoba) PhD (Calgary)

Burke, Susan, Associate Professor, Social Work—BA (Trinity) MSW PhD (Northern British Columbia)

Burton, Philip, Professor Emeritus, Ecosystem Science and Management—BSc Hons (Saskatchewan) MS (Hawaii) PhD (Illinois)

Buse, Christopher, Adjunct Professor, Health Sciences—BA (Alberta) MA (British Columbia) PhD (Toronto)

Cale, Jonathan, Assistant Professor, Ecosystem Science and Management—BSc (Paul Smith's College) PhD (State University of New York)

Callaghan, Russell, Professor, Northern Medical Program and Adjunct Professor, Health Sciences—BA MA (British Columbia) PhD (Toronto)

Cameron, Kimberly, Senior Instructor, Nursing—BScN (Thompson Rivers) MEd (Yorkville)

Camp II, Ronald, Professor, Business—BA (Whitworth) MA (Willamette) PhD (British Columbia)

Campana, Christine, Assistant Professor, English—BA MA (Carleton) PhD (Western)

Carter, Deb, Senior Lab Instructor, Nursing—MA PhD (British Columbia)

Casperson, David, Associate Professor, Computer Science—BSc Hons (Simon Fraser) MA PhD (Waterloo)

Chen, Jing, Assistant Professor, Business—BS (Shanghai) MS (Beijing) PhD (Michigan)

Chen, Liang, Professor, Computer Science—BSc (Huazhong) PhD (Institute of Software, Acadamia Sinica)

Cherian, Chinchu, Assistant Professor, Engineering—BTech Mtech PhD (Indian Institute of Technology, Madras)

Cheung, Emily, Adjunct Professor, Engineering—MASc (British Columbia) PEng FEC FCSSE

Chisholm, Colin, Adjunct Professor, Ecosystem Science and Management—BSc MSc (Northern British Columbia)

Chun, Wootae, Associate Professor, Business—BSc (Ohio) MBA (Texas) PhD (Saint Louis)

Clapp, Tara Lynne, Associate Professor, School of Planning and Sustainability—BES (Manitoba) MEDes (Calgary) PhD (Southern California)

Clements, Gerrit, Adjunct Professor, Nursing—BA (Calgary) LLB (Alberta)

Climenhage, James, Adjunct Professor, Psychology—BA MA PhD (Simon Fraser)

Connell, David, Professor, Ecosystem Science and Management—BA (Toronto) BComm Hons MBA (Windsor) PhD (Guelph)

Constantin, Alina, Senior Lab Instructor, Northern Medical Program—MD (Carol Davila) MSc PhD (York)

Costello, Bridget Meghan, Lecturer, Physics—BSc Hons (Victoria) MSc (Calgary)

Coxson, Darwyn, Professor, Ecosystem Science and Management—BSc (Lethbridge) PhD (McMaster)

Crandall, Joanie, Assistant Professor, Education—BA (Ottawa) BEd (Queen's) MA (Toronto) PhD (Saskatchewan)

Crockett, Erin, Assistant Professor, Ecosystem Science and Management—PhD (McGill)

Cronshaw, Steven, Professor Emeritus, Business, Psychology—BA BComm (Saskatchewan) MA PhD (Akron)

Crowley, Shannon, Adjunct Professor, Ecosystem Science and Management—BSc (Alaska Southeast) MSc (Northern British Columbia)

Cuthbertson, Mike, Senior Instructor, Business—BComm (British Columbia) CA

Dale, Mark, Professor, Ecosystem Science and Management—BSc MSc (Toronto) PhD (Dalhousie)

Daoust, Gabrielle, Assistant Professor, Global and International Studies—BA (Guelph) MSW (Calgary) PhD (Sussex)

Dawson, Russell, Professor, Ecosystem Science and Management—BSc PhD (Saskatchewan)

De Feo, Alberto, Adjunct Professor, Political Science—BSc (Liceo Scientifico Battaglina) PhD (Camerino)

de Leeuw, Sarah, Professor, Health Sciences, Northern Medical Program, and Canada Research Chair in Humanities and Health Inequities—BA (Victoria) MA (Northern British Columbia) PhD (Queen's)

De Smit, Amanda, Senior Lab Instructor III, Nursing—BScN (Alberta) MN (Toronto Metropolitan)

Deo, Balbinder, Associate Professor, Business—BSc MSc (Amritsar) MBA (Shimla) PhD (Ludhiana and Manitoba)

Déry, Stephen, Professor, Environmental Science, and Rio Tinto Research Chair in Climate Change and Water Security—BSc MSc (York) PhD (McGill)

DeWiel, Boris, Associate Professor, Political Science—BA (Athabasca) MA PhD (Calgary)

DiFrancesco, Darryn, Assistant Professor, Nursing—BA (Simon Fraser) MA (Ottawa) PhD (British Columbia/Ottawa)

Dobrowolski, Edward, Assistant Professor, Mathematics and Statistics—MS PhD (Wroclaw)

Dodenberg, Heidi, Senior Lab Instructor, Nursing—BSc (Victoria) BScN (Toronto) MScN (Northern British Columbia)

Dovey, Phil, Senior Lab Instructor, Nursing—BSc (Northumbria) RN

Duchesne, Annie, Associate Professor, Psychology—BSc (Québec à Montréal) MSc (Montréal) PhD (McGill)

Dunbar, Heidi, Instructor, Nursing—BScN (Victoria) MN (British Columbia)

Duperron, Brenna, Assistant Professor, English—BA MA (Simon Fraser) PhD (Dalhousie)

Dziedzic, Mauricio, Professor, Engineering—BSc MSc (Universidade Federal do Parana) PhD (Toronto)

Eakins, Darby, Adjunct Professor, Health Sciences—BSc (Dalhousie) MA (Northern British Columbia)

Earley, Sinead, Associate Professor, School of Planning and Sustainability—BA (British Columbia) MA (Galway) PhD (Queen's)

Egger, Keith, Professor Emeritus, Ecosystem Science and Management—BSc (Calgary) PhD (Victoria)

El Smaily, Mohammad, Associate Professor, Mathematics and Statistics—BA MA (Lebanese) PhD (Aix-Marseille)

El-Hakim, Mohab, Associate Professor, Engineering—BASc (Alexandria) MASc PhD (Waterloo) PEng

Elkin, Ché, Professor, Ecosystem Science and Management, and FRBC/Slocan Endowed Chair in Mixedwood Ecology and Management—BSc (Regina) MSc (Toronto) PhD (Calgary)

Enes, Elizabeth, Senior Instructor I, Nursing—MScN (Northern British Columbia) NP

Erasmus, Daniel, Associate Professor, Biochemistry and Molecular Biology—BSc MSc (Stellenbosch) PhD (British Columbia)

Fadock, Kaila, Senior Lab Instructor, Chemistry—BSc Hons PhD (Guelph)

Farhan, Sara, Assistant Professor, History—BA MA (Western Ontario) PhD (York)

Floyd, Bill, Adjunct Professor, Geography—BSc (Northern British Columbia) MSc (Oregon State) PhD (British Columbia)

Fondahl, Gail, Professor Emerita, Geography—BA (Dartmouth College) MA PhD (California, Berkeley)

Fraser, Tina, Professor, Education and Adjunct Professor, First Nations Studies and Nursing—MEd (Simon Fraser) PhD (British Columbia)

Fredeen, Arthur, Professor Emeritus, Ecosystem Science and Management—BSA Hons (Saskatchewan) PhD (California, Berkeley)

Fredj, Karima, Associate Professor, Economics—BA (Tunisia) MSc (Montreal) PhD (McGill)

Freeman, Shannon, Professor, Nursing, Adjunct Professor, Health Sciences—BA Hons (McMaster) MSc (Tohoku University School of Medicine) PhD (Waterloo)

Freylejer, Leandro, Assistant Professor, Economics—BA (Manitoba) MA (Queen's) PhD (Toronto)

Friesen, Madison, Instructor, Nursing—BScN (Northern British Columbia) RN

Fu, Chengbo, Associate Professor, Business—BA (Dongbei) MSc (Clemson) PhD (Manitoba)

Fuller, Bonnie, Senior Instructor, Education—BSc BEd (British Columbia) MA (Gonzaga)

Gai, Chunyi, Assistant Professor, Mathematics and Statistics—MSc PhD (Dalhousie)

Garcia-Becerra, June, Assistant Professor, Engineering—BEng (Universidad Iberoamericana) MBiotech PhD (Toronto)

Garriga, Elisabet, Associate Professor, Business—BA (Barcelona) PhD (Navarra)

Ge, Xin, Associate Professor, Business—BA MA (Nanjing) PhD (Alberta)

Geertsema, Marten, Adjunct Professor, Ecosystem Science and Management—BSc MSc (Alberta) PhD (Utrecht)

Gehloff, Maik, Senior Lab Instructor IV, Engineering—MASc (British Columbia)

George, Anne, Adjunct Professor, Health Sciences—BA (Acadia) MLS PhD (British Columbia)

Gibson, Erin, Adjunct Professor, Anthropology—BA (Simon Fraser) MPhil PhD (Glasgow)

Giesbrecht, Erika, Instructor, Nursing—BScN (Northern British Columbia) RN

Gillingham, Michael, Professor Emeritus, Ecosystem Science and Management—BSc (McGill) PhD (British Columbia)

Gingerich, Andrea, Associate Professor, Northern Medical Program—BSc (Western Ontario) ND (Canadian College of Naturopathic Medicine) MMEd (Dundee) PhD (Maastricht)

Gooya, Farnaz, Senior Lab Instructor, Health Sciences—MEd (Ottawa) MSc (Nottingham) MD (Tabriz)

Gorrell, Andrea, Associate Professor, Chemistry—BSc Hons (Texas A&M) PhD (Iowa State)

Gorrell, Jamie, Associate Professor, Ecosystem Science and Management—BSc Hons (Wilfrid Laurier) MSc (Laurentian) PhD (Alberta)

Graham, Rylan, Assistant Professor, School of Planning and Sustainability—BA (Regina) MA (Waterloo) PhD (Calgary)

Grainger, Susan, Adjunct Professor, Ecosystem Science and Management—BHMED (British Columbia) BSc (Oregon)

Gray, Sarah, Professor, Northern Medical Program, and Canada Research Chair in Integrative Physiology of Diabetes—BSc PhD (Victoria)

Green, Scott, Adjunct Professor, Ecosystem Science and Management—AAS (New York) BA (Moody, Chicago) PhD (Wisconsin)

Greenwood, Margo, Professor, Education, Adjunct Professor, Northern Medical Program, and Academic Leader NCCAH—BEd (Alberta) MA (Victoria) PhD (British Columbia)

Groulx, Mark, Associate Professor, School of Planning and Sustainability—BSc Hons (Lakehead) MA PhD (Waterloo)

Guernsey, Brenda, Adjunct Professor, Anthropology—BA MA (Northern British Columbia)

Guest, Kristen, Professor, English—BA MA (Western) PhD (Toronto)

Gunn, Kelly, Adjunct Professor, Nursing—BSc (Victoria) MBA (Northern British Columbia)

Guta, Dawit, Assistant Professor, Economics—BA MSc (Addis Ababa) PhD (Bonn)

Hagiwara, Ami, Senior Instructor, Global and International Studies—BA Teaching Cert (Nihon) MEd (Northern British Columbia)

Halseth, Greg, Professor, Geography, and Canada Research Chair in Rural and Small Town Studies—BA (British Columbia) MA PhD (Queen's)

Hamieh, Alia, Associate Professor, Mathematics and Statistics—BSc MSc (Beirut) PhD (British Columbia)

Hamon, Max, Assistant Professor, History—BA (Utrecht) MPhil (Trinity College Dublin) MA (Central European University Budapest) PhD (McGill)

Hanlon, Neil, Professor, Geography—BA (Ryerson) MA PhD (Queen's)

Haque, Waqar, Professor, Computer Science and Business—BSc Hons (Pakistan) MSc (Alberta) MSc PhD (Iowa State)

Hardan, Tareq, Assistant Professor, Social Work—MSW PhD (McGill)

Harder, Henry, Professor Emeritus, Health Sciences and Psychology—BEd MA EdD (British Columbia)

Harding, Lauren, Assistant Professor, Ecosystem Science and Management—BA(Alberta) MA (York) PhD (British Columbia)

Harris, Luke, Associate Professor, Health Sciences—BSc Hons (Acadia) PhD (Alberta)

Hartley, Ian, Professor, Ecosystem Science and Management and Physics—BSc MScF (New Brunswick) PhD (British Columbia)

Hawkins, Adam, Assistant Professor, Geography—BSc (Western Washington) PhD (Northern British Columbia)

Healy, Theresa, Assistant Professor, School of Planning and Sustainability—BA MA (Saskatchewan) PhD (Simon Fraser)

Heard, Doug, Adjunct Professor, Ecosystem Science and Management—BSc (Waterloo) MSc (British Columbia)

Helle, Steve, Associate Professor, Engineering—BEng MEng (McGill) PhD (British Columbia)

Hemingway, Dawn, Professor Emerita, Social Work, and Adjunct Professor, Women's Studies—BA (Simon Fraser) MSc MSW (Northern British Columbia)

Henderson, Earl, Adjunct Professor, First Nations Studies—BA MA (Northern British Columbia)

Hirt, Andreas, Assistant Professor, Computer Science—BSc (Northern British Columbia) MSc PhD (Calgary)

Ho Younghusband, Christine, Assistant Professor, Education—BEd BSc (British Columbia) MEd PhD (Simon Fraser)

Hodder, Dexter, Adjunct Professor, Ecosystem Science and Management—BSc (Memorial) MSc (Thompson Rivers)

Hoffman, Ross, Professor Emeritus, First Nations Studies—BA Hons (Trent) BEd (Toronto) MEd (Victoria) PhD (Trent)

Hofsink, Clarence, Senior Lab Instructor, Centre for Teaching, Learning and Technology—BA MA (Northern British Columbia)

Holler, Jacqueline, Professor, History and Women's Studies—BA MA (Simon Fraser) PhD (Emory)

Holyk, Travis, Adjunct Professor, First Nations Studies—BA (Okanagan) MA (Northern British Columbia)

Horne, Dee, Professor Emerita, English—BA (McGill) MA PhD (Toronto)

Hossain, Shahadat, Professor, Computer Science—BSc MSc PhD (Bergen)

Howard, Julie, Senior Lab Instructor IV, Psychology—BSc (Alberta) MSc (Northern British Columbia)

Huber, Dezene, Professor, Ecosystem Science and Management—BSc (Calgary) PhD (Simon Fraser)

Hussein, Ahmed, Professor Emeritus, Physics—BSc (Alexandria) MSc PhD (Alberta)

Hutchings, Kevin, Professor, English—BA (Guelph) MA (McMaster) PhD (Hamilton)

Huynh, Ngoc, Lecturer, Nursing—BA (Simon Fraser) MN (Monash)

Hyndman, Jennifer, Professor, Mathematics and Statistics—BMath (Waterloo) MA PhD (Colorado)

Iorhemen, Oliver, Assistant Professor, Engineering—BEng (Ahmadu Bello) MSc (Leeds) PhD (Calgary)

Iqbal, Asif, Associate Professor, Engineering—BSc MSc (Bangladesh) PhD (Canterbury)

Islam, Siraj Ul, Assistant Professor, Environmental Science—MSc MPhil (Quaid-i-Azam) PhD (Northern British Columbia)

Jackson, Christine, Senior Lab Instructor, Geography—BSc (British Columbia) BEd (Western)

Jackson, Peter, Professor, Environmental Science—BSc Hons PhD (British Columbia)

Jacob, Aerin, Adjunct Professor, Ecosystem Science and Management—BSc (British Columbia) PhD (McGill)

Jago, Charles, Professor Emeritus, History—BA Hons (Western Ontario) PhD (Cambridge)

Jain, Rahul, Assistant Professor, Social Work—BA MA LLB (Rajasthan) MSW (Northern British Columbia) PhD (Rajasthan)

Janes, Jasmine, Associate Professor, Ecosystem Science and Management—BSc PhD (Tasmania)

Jantz, Braylin, Senior Lab Instructor, Nursing—BScN (Alberta)

Jensen, Erik, Professor, Physics—BSc Hons (Victoria) PhD (Cambridge)

Jiang, Fan, Associate Professor, Computer Science—BSc MSc PhD (Manitoba)

Jjumba, Anthony, Adjunct Professor, Geography—BSc (Makerere) MSc PhD (Simon Fraser)

Johnson, Chris, Professor, Ecosystem Science and Management—BSc Hons (Victoria) MSc PhD (Northern British Columbia)

Jokinen, Nancy, Adjunct Professor, Social Work—MSW (Lakehead) PhD (Calgary)

Joly, Tara, Assistant Professor, First Nations Studies—BAS (Guelph) PhD (Aberdeen)

Jones, George, Senior Lab Instructor, Physics—BSc PhD (Windsor)

Josewski, Viviane, Assistant Professor, Nursing—BA (Montana) MSc PhD (Simon Fraser)

Jull, Michael, Adjunct Professor, Ecosystem Science and Management—BSF MSc (British Columbia)

Kabzems, Richard, Adjunct Professor, Ecosystem Science and Management—BSA Hons BSc (Saskatchewan) MSc (British Columbia)

Kamali, Mohammad, Assistant Professor, Engineering—BSc (Sharif University of Technology) MSc (Tarbiat Modares) PhD (British Columbia)

Kaminska, Malgorzata, Assistant Professor, Northern Medical Program—BSc Hons (Ottawa) MD (Toronto) MSC (London)

Karimzada, Muhebullah, Assistant Professor, Economics—PhD (McMaster)

Kazemian, Hossein, Associate Professor, Environmental Science—BSc MSc PhD (State University of Isfahan)

KC, Luna, Assistant Professor, Global and International Studies—MSc PhD (Wageningen)

Keen, Kevin, Professor, Mathematics and Statistics—BSc Hons (Simon Fraser) MSc (Montreal) PhD (Toronto)

Keener, Lee, Professor Emeritus, Mathematics and Statistics—BA (Amherst College) MSc (Oregon) PhD (Rensselaer Polytechnic)

Kelly, Liam, Assistant Professor, Economics—BSc (Victoria) MSc PhD (Guelph)

Kilius, Erica, Assistant Professor, Anthropology—BSc Hons (Toronto) MPH (Simon Fraser) PhD (Toronto)

King, Jessie, Adjunct Professor, First Nations Studies—BSc MA PhD (Northern British Columbia)

Klassen-Ross, Tammy, Senior Instructor, Health Sciences, Adjunct Professor, Psychology—BA (British Columbia) MSc PhD (Northern British Columbia)

Klepetar, Amy, Senior Instructor, Nursing—BA (Dartmouth) BScN (Johns Hopkins) MSc (Utah)

Kong, Xiaoxue (Sonia), Assistant Professor, Psychology—PhD (McMaster)

Koper, Nicola, Professor, Ecosystem Science and Management—BSc MSc (Guelph) PhD (Alberta)

Korkmaz, Elie, Professor Emeritus, Physics—BSc (Lebanese) MSc PhD (Indiana)

Kowalski, Christopher, Assistant Professor, Psychology—PhD (Western Ontario)

Kranz, Allan, Senior Lab Instructor, Computer Science—BSc MSc (Northern British Columbia)

Krehbiel, Richard, Adjunct Professor, Environmental Planning—Juris Doctor (Saskatchewan)

Kumar, Pranesh, Professor, Mathematics and Statistics—MSc PhD (Indian Agricultural Research Institute)

Kuo, Kuo-Hsing, Associate Professor, Northern Medical Program and Adjunct Professor, Health Sciences—MD (National Taiwan) MSc (National Yang-Ming) PhD (British Columbia)

Kyle, Lisa, Assistant Professor, Social Work—BA (Simon Fraser) MA PhD (Northern British Columbia)

Lacharite, Jason, Senior Instructor, Political Science—BA (Victoria) MA (Yonsei) PhD (Monash)

LaTosky, Shauna, Assistant Professor, Anthropology—BA Hons MA (Victoria) PhD (Johannes Gutenberg)

Lautensach, Alexander, Adjunct Professor, Education—BEd (Toronto) MSc (Guelph) MScT (McMaster) PhD (Otago)

Lavallee, Loraine, Assistant Professor, Psychology—BA MA PhD (British Columbia)

Lavoie, Josée, Adjunct Professor, Health Sciences—BSc MA (McGill) PhD (London)

Lazenby, Richard, Professor Emeritus, Anthropology and Adjunct Professor, Northern Medical Program—BA MA (Simon Fraser) PhD (McMaster)

Lee, Chow, Professor, Chemistry—BSc Hons (New South Wales) PhD (Flinders)

Lewis, Kathy, Professor Emerita, Ecosystem Science and Management—BSF (British Columbia) MS (Virginia Polytechnic) PhD (Oregon)

Li, Han, Professor, Psychology—BEd Hons (Hua-Zhong NU) MPH (North Carolina) MA PhD (Victoria)

Li, Jianbing (Jason), Professor, Engineering—BASc MASc (Wuhan) PhD (Regina)

Lindgren, B. Staffan, Professor Emeritus, Ecosystem Science and Management—MPM PhD (Simon Fraser)

Linklater, Natalie, Senior Lab Instructor, Engineering—BEng MASc PhD (Carleton)

Litz, David, Assistant Professor, Education—BA (Dalhousie) BEd (Toronto) MES (Dalhousie) MA (Birmingham) EdD (Calgary)

Lukawitski, Natascha, Lecturer, Business—BComm (Northern British Columbia) MA (Saskatchewan)

Luoma, Michael, Assistant Professor, Political Science—BA Hons (Toronto) MA PhD (Queen's)

MacBlain, Lena, Senior Lab Instructor II, Nursing—BScN (Western Ontario)

MacDonald, Fiona, Associate Professor, Political Science—BA (Brandon) BSW (Calgary) MA (Simon Fraser) PhD (British Columbia)

MacLeod, Martha, Professor Emerita, Health Sciences and Nursing—BA MA (Toronto) PhD (Edinburgh)

MacPhail, Fiona, Professor Emerita, Economics—BA Hons MA (Guelph) MA (Sussex) PhD (Dalhousie)

Madak, Paul, Adjunct Professor, Psychology—BA (St. Bonaventure) MA PhD (Manitoba)

Mandy, Margot, Professor, Chemistry—BSc Hons (Acadia) MSc PhD (Toronto)

Manyanga, Taru, Assistant Professor, Physical Therapy—BMR-PT MSc (Manitoba) PhD (Ottawa)

Margolin, Indrani, Professor, Social Work—BA Hons (Guelph) MSW (Wilfrid Laurier) PhD (Toronto)

Markey, Sean, Adjunct Professor, Geography—BA (British Columbia) MA (York) PhD (Simon Fraser)

Martel, Gordon, Professor Emeritus, History—BA Hons (Simon Fraser) MA (Tufts and Harvard) PhD (Toronto)

Martins, Eduardo, Associate Professor, Ecosystem Science and Management—BSc MSc PhD (Campinas)

Massicotte, Hugues, Professor Emeritus, Ecosystem Science and Management—BScA (Laval) MSc PhD (Guelph)

Mattfeld, Monica, Assistant Professor, English—BA (Cariboo) MA (British Columbia) PhD (Kent)

Maurice, Sean, Senior Lab Instructor, Northern Medical Program—BKin (Calgary) PhD (British Columbia)

McGill, Bill, Professor Emeritus, Ecosystem Science and Management—BSA MSc PhD (Manitoba)

Meletis, Zoë, Associate Professor, Geography—BA (McGill) MScPl (Toronto) PhD (Duke)

Menounos, Brian, Professor, Geography—BA MA (Colorado) PhD (British Columbia)

Messinger, Paul, Adjunct Professor, Business—BA (Carleton) MBA (Harvard) MA PhD (California, Berkeley)

Michalos, Alex, Professor Emeritus, Political Science—BA (Western Reserve) MA BD PhD (Chicago)

Migabo, Saphida, Senior Lab Instructor, Ecosystem Science and Management—BSc (Kenya) MSc (Alberta) PhD (Cornell)

Milburn, Daniel, Adjunct Professor, Environmental Planning—BSc (Northern British Columbia) MCIP RPP

Miller, Brendan, Adjunct Professor, Geography—BSc (British Columbia) MSc (Alberta)

Mills, Antonia, Professor Emerita, First Nations Studies—BA Hons PhD (Harvard)

Milner, Cindy, Adjunct Professor, Nursing—BScN (Douglas) MN (Victoria) RN

Mitchell-Foster, Sheona, Adjunct Professor, Health Sciences—BSc MD (Calgary) MPH (Johns Hopkins) FRCSC (British Columbia)

Monu, Kafui, Associate Professor, Business—BComm Hons (Manitoba) MSc PhD (British Columbia)

Morgan, Kalindi, Assistant Professor, Biochemistry and Molecular Biology and Chemistry—BSc Hons PhD (British Columbia)

Morphett, Taylor, Assistant Professor, English—BA Hons MA PhD (Simon Fraser)

Morris, Jason, Senior Instructor III, Political Science—BA (Simon Fraser) MA (Northern British Columbia)

Morris, Marleen, Adjunct Professor, Geography—BA (British Columbia) MSc (HEC Paris/Oxford)

Morrison, William, Professor Emeritus, History—BA Hons MA (McMaster) PhD (Western)

Mullins, Philip, Associate Professor, Ecosystem Science and Management—BA (Lakehead) MA PhD (Alberta)

Murphy, Michael, Professor, Political Science—BA MA (Western) PhD (McGill)

Murray, Brent, Professor, Ecosystem Science and Management—BSc MSc (Alberta) PhD (McMaster)

Nolin, Catherine, Professor, Geography—BA (Calgary) MA PhD (Queen's)

Nyce, Deanna, Adjunct Professor, First Nations Studies—BEd MEd PhD (British Columbia)

O'Neill, Linda, Professor, Psychology—BA MEd PhD (Victoria)

Oehler, Alex, Adjunct Professor, Anthropology—BA MA (Northern British Columbia) PhD (Aberdeen)

Opio, Chris, Professor Emeritus, Ecosystem Science and Management—BScF (New Brunswick) MEDes (Calgary) PhD (Alberta)

Otter, Ken A., Professor, Ecosystem Science and Management—BSc (British Columbia) MSc PhD (Queen's)

Owens, Philip, Professor, Environmental Science, and FRBC Endowed Chair in Landscape Ecology—BSc (Coventry) MSc (British Columbia) PhD (Exeter)

Parisien, Marc-André, Adjunct Professor, Ecosystem Science and Management—BSc (McGill) MSc (Québec à Rimouski) PhD (California, Berkeley)

Parker, Katherine, Professor Emerita, Ecosystem Science and Management—BA MA PhD (Washington State)

Parkes, Margot, Professor, Health Sciences—MB ChB (Otago) MA (Brussel) PhD (Otago)

Parshotam, Umesh, Senior Lab Instructor, Chemistry and Adjunct Professor, Northern Medical Program—BSc (Texas) PhD (Western)

Patenaude, Crystal, Instructor, Nursing—BScN (Northern British Columbia) RN

Pawlowska-Mainville, Agnieszka, Associate Professor, Global and International Studies—BA (McGill) MA PhD (Manitoba)

Payne, Geoffrey, Professor, Northern Medical Program and Adjunct Professor, Health Sciences—BSc MSc PhD (Memorial)

Pearce, Tristan, Professor, Geography, and Canada Research Chair in Cumulative Impacts of Environmental Change—BA (Northern British Columbia) MA PhD (Guelph)

Pearson, Tammy, Associate Professor, Social Work—BA (Cape Breton) BSW (Victoria) MSW (British Columbia) PhD (Northern British Columbia)

Pelletier, Chelsea, Associate Professor, Health Sciences—BKin Hons (Acadia) MSc PhD (McMaster)

Perrin, Rose, Adjunct Professor, Nursing—LPN RN (New Caledonia) BSc (Northern British Columbia)

Perry, Gretchen, Associate Professor, Social Work—BA Hons (Guelph) MSW (Flinders) PhD (Missouri)

Peters, Heather, Associate Professor, Social Work—BA (Saskatchewan) BSW (British Columbia) MSW (Carleton) PhD (British Columbia)

Petticrew, Ellen, Professor, Geography, and FRBC Endowed Chair in Landscape Ecology—BSc Hons (Queen's) MSc (British Columbia) PhD (McGill)

Portes, Raquel, Senior Research Scientist, Geography—BS MS PhD (Federal University of Viçosa)

Potter, Grant, Senior Lab Instructor IV, Centre for Teaching, Learning and Technology—BA (Acadia) BEd MEd (British Columbia)

Preston, Michael, Assistant Professor, Ecosystem Science and Management—BSc Hons (Liverpool John Moores) MSc (Trent) PhD (Toronto)

Prkachin, Glenda, Adjunct Professor, Psychology—BA Hons MA (Carleton) PhD (British Columbia)

Prkachin, Kenneth, Professor Emeritus, Psychology, Adjunct Professor, Health Sciences—BA MA PhD (British Columbia) R.Psych

Rader, Stephen, Professor, Chemistry—BA (Swarthmore College) PhD (California, San Francisco)

Rahemtulla, Farid, Senior Instructor, Anthropology—BA (Alberta) MA (Toronto) MA PhD (Simon Fraser)

Rahmaty, Zahra, Assistant Professor, Nursing—BSc (Tehran) MScN (Iran) PhD (Maryland, Baltimore)

Raine, Jason, Adjunct Professor, Environmental Science—MSc PhD (Guelph)

Raoufi, Mohammad, Assistant Professor, Engineering—BSc MSc (Sharif University of Technology) PhD (Alberta)

Raymond, Melanie, Senior Instructor, Education—BA BEd (Simon Fraser) MEd (Calgary)

Rea, Roy, Associate Professor, Ecosystem Science and Management—BS (California State) MSc (Northern British Columbia) PhD (Norwegian Life Sciences)

Reid, Matthew, Professor, Physics—BSc (Northern British Columbia) MSc PhD (Alberta)

Reid, Nick, Assistant Professor, Psychology—MSc PhD (Western)

Reimer, Kerry, Professor Emeritus, Chemistry—BSc (British Columbia) MSc PhD (Simon Fraser)

Reiners, Peter, Adjunct Professor, Geography—MS PhD (Washington)

Rennie, Kriston, Professor, History—BA (Lethbridge) MLitt (St. Andrews) PhD (King's)

Rex, John, Adjunct Professor, Geography—BSc (Memorial) MSc PhD (Northern British Columbia)

Robert, Jeanne, Adjunct Professor, Ecosystem Science and Management—BSc MSc (Northern British Columbia) PhD (British Columbia)

Roberts, Deborah, Professor, Engineering—BSc PhD (Alberta)

Robinson, Rheanna, Associate Professor, First Nations Studies—BA MA (Northern British Columbia) PhD (British Columbia)

Rocha, Elizabeth, Adjunct Professor, Psychology—BA (British Columbia) MSc (Northern British Columbia) PhD (Saskatchewan)

Romanets, Maryna, Professor, English and Women's Studies—MA (Chernivtsi) PhD (Ukrainian National Academy of Arts and Sciences) PhD (Saskatchewan)

Russell, Grahame, Adjunct Professor, Geography—BA (Guelph) LLB (Ottawa)

Rutherford, Michael, Professor Emeritus, Environmental Science—BSc Hons (British Columbia) PhD (Alberta)

Ryan, Daniel, Associate Professor, Mathematics and Statistics—BSc MSc PhD (Guelph)

Safaei, Jalil, Professor, Economics and Health Sciences—BA MA (Shiraz, Iran) PhD (Manitoba)

Saha, Sajal, Assistant Professor, Computer Science—MSc (Brock) PhD (Western)

Sanborn, Paul, Professor Emeritus, Ecosystem Science and Management—BA (Western) MSc (Alberta) PhD (British Columbia)

Sanders, Caroline, Professor, Nursing—BSc Hons (Manchester) MSc PhD (Fordham)

Sanderson, Darlene, Associate Professor, Health Sciences, and Donald Rix BC Leadership Chair in Indigenous Environmental Health—BScN (Alberta) MA (Victoria) PhD (Simon Fraser) RN

Sato, Christa, Lecturer, Social Work—BA BSW MSW (Calgary) PhD (Toronto)

Schaan, Brian, Lecturer, Mathematics and Statistics—BSc MSc (Northern British Columbia)

Schiller, Catharine, Associate Professor, Nursing—BScN (Toronto Metropolitan) MSc (Toronto) Juris Doctor (Western Ontario) PhD (Northern British Columbia)

Schiller, Corrine, Adjunct Professor, Environmental Science—BS (Lethbridge) PhD (York)

Schmidt, Glen, Professor Emeritus, Social Work—BA BSW (Manitoba) MSW (British Columbia) PhD (Memorial)

Schorcht, Blanca, Professor Emerita, English—BA MA PhD (British Columbia)

Scott, Charles, Senior Instructor, Business—BA (British Columbia) MA (Waterloo)

Seaton, Cherisse, Adjunct Professor, Psychology—BSc Hons MSc PhD (Northern British Columbia)

Selbie, Daniel, Adjunct Professor, Environmental Science—PhD (Queen's)

Senthanar, Sonja, Assistant Professor, Health Sciences—BSc Hons (Toronto) MSc (Lakehead) PhD (Waterloo)

Shaw, Anita, Adjunct Professor, Psychology—BSc Hons (Victoria) MA PhD (Northern British Columbia)

Shea, Joseph, Associate Professor, Geography—BSc (McMaster) MSc (Calgary) PhD (British Columbia)

Shegelski, Mark, Professor Emeritus, Physics—BSc Hons (Calgary) MSc PhD (British Columbia)

Sherry, John, Associate Professor, Psychology—BA (San Diego) MS PhD (Fordham)

Shrimpton, Mark, Professor, Ecosystem Science and Management—BSc (Victoria) MSc PhD (British Columbia)

Shubair, Mamdouh, Associate Professor, Health Sciences—BSc MSc PhD (Waterloo)

Siakaluk, Paul, Professor, Psychology—BA Hons MSc (Calgary) PhD (Alberta)

Siemens, Breanna, Instructor, Nursing—BScN (Northern British Columbia) RN

Sims, Daniel, Associate Professor, First Nations Studies—BA (Concordia) MA PhD (Alberta)

Sinclair, Finlay, Adjunct Professor, Environmental Planning—BA (Simon Fraser) RPP MCIP

Smith, Angèle, Professor, Anthropology and Adjunct Professor, Health Sciences—BA (Toronto) MA (McMaster) PhD (Massachusetts)

Smith, Heather, Professor, Global and International Studies—BA (Alberta) MA PhD (Queen's)

Sokolowski, Valerie, Senior Lab Instructor, Nursing—BN MN (Athabasca)

Spinola, Diogo, Assistant Professor, Ecosystem Science and Management—BSc MSc (Federal University of Viçosa) PhD (Tübingen)

Sra, Jaspreet, Term Assistant Professor, Business—BComm (Guru Nanak Dev) BEd (Jammu) MComm (Punjabi) MSc PhD (Northern British Columbia)

Stark, Martha, Adjunct Professor, Biochemistry and Chemistry—BA (Swarthmore College) PhD (California)

Stent, Rebecca, Senior Instructor I, Nursing—BScN (Thompson Rivers) MScN (Northern British Columbia)

Stevens, Nancy, Associate Professor, First Nations Studies—BA (Waterloo) PhD (Trent)

Stewart, Ronald, Adjunct Professor, Environmental Science—BSc (Manitoba) MSc PhD (Toronto)

Strong, Willard, Adjunct Professor, Ecosystem Science and Management—BSc (British Columbia) MSc (Simon Fraser) PhD (Oregon)

Sui, Jueyi, Professor, Environmental Engineering—BEng MScE (Hefei) Dr-Ing (Kaiserslautern)

Swainger, Jonathan, Professor Emeritus, History—BA (Lethbridge) MA (Calgary) PhD (Western)

Syme, Ann, Adjunct Professor, Nursing—BSc MSc (British Columbia) PhD (Victoria)

Tamblyn, David, Senior Lab Instructor, Engineering—MEng PEng (Toronto)

Tang, Youmin, Professor, Environmental Science—BSc MSc (Nanjing) PhD (British Columbia)

Tannert, Thomas, Professor, Engineering, and Canada Research Chair in Tall Wood and Hybrid Structures Engineering—Dipl. Ing (Bauhaus) MSc (Bio-Bio) PhD (British Columbia)

Thompson, Mark, Adjunct Professor, Ecosystem Science and Management—BSc (Northern British Columbia) MSc (Calgary)

Thring, Ron, Professor, Environmental Engineering—BSc (Botswana and Swaziland) MASc (Bradford UK) MSc (Saskatchewan) PhD (Sherbrooke)

Tong, Fei, Assistant Professor, Engineering—BSc MSc (Tsinghua) PhD (Toronto)

Transken, Si Chava, Associate Professor, Social Work—BA Hons BSW (Laurentian) MA PhD (Toronto)

Ulrich, Cathy, Adjunct Professor, Nursing—BScN (Alberta) MSc (Northern British Columbia)

Usman, Lantana, Professor, Education—Ed. Cert. BEd MBA MEd (Ahmadu Bello) PhD (Alberta)

Venter, Oscar, Professor, Ecosystem Science and Management, and FRBC/West Fraser Endowed Chair in Conservation Solutions—BSc Hons (Concordia) PhD (Queensland)

Walsh, Jacob, Assistant Professor, Chemistry—BSc (Ottawa) PhD (Western Ontario)

Werner, Jeffery, Adjunct Professor, Ecosystem Science and Management—BSc MSc (British Columbia) PhD (Pennsylvania)

Wessell Lightfoot, Dana, Professor, History—BA MA PhD (Toronto)

Whalen, Catherine, Associate Professor, Education—BEd (New Brunswick) MA (Royal Roads) EdD (Calgary)

Wheate, Roger, Professor, Geography/GIS Coordinator—BSc Hons (St Andrews) MA (Queen's) PhD (St Andrews)

Whitcombe, Todd, Professor, Chemistry—BSc Hons PhD (Victoria)

Wiensczyk, Al, Adjunct Professor, Ecosystem Science and Management—BSc MSc (Lakehead)

Wigglesworth, Jennifer, Assistant Professor, Ecosystem Science and Management—BSc MA (Ottawa) PhD (Queen's)

Wilson, Gary, Professor, Political Science—BA (Carleton) MA PhD (Toronto)

Wimmers-Klick, Julia, Senior Lab Instructor IV, Northern Medical Program—BSc (Vienna) MD (Innsbruck)

Winwood, Paul John, Associate Professor, Northern Medical Program—BSc MB BS Hons (London) DM (Southampton)

Wood, Lisa, Associate Professor, Ecosystem Science and Management—BSc MSc (Northern British Columbia) PhD (Victoria)

Wood-Adams, Paula, Professor, Engineering—BSc (Alberta) MEng PhD (McGill)

Wright, Pamela, Professor Emerita, Ecosystem Science and Management—BSc (Lakehead) MSc PhD (Ohio State)

Xiao, Stanley, Assistant Professor, Mathematics and Statistics—MSc PhD (Waterloo)

Yin, Jun, Adjunct Professor, Chemistry—BS MS (Hohai) PhD (Nevada)

Zhao, Violet, Assistant Professor, Ecosystem Science and Management—PhD (Alberta)

Zheng, Wenbo, Associate Professor, Engineering—MSc (Tongji) PhD (British Columbia)

Zimmer, Lela, Adjunct Professor, Nursing—Dipl. Nurs. (British Columbia Institute of Technology) BScN (Northern British Columbia) PhD (Alberta)

Officers of the University

UNBC Board of Governors

Geoff Payne	President and Vice-Chancellor
Darlene McIntosh	Chancellor
Joel McKay	Order-in-Council Appointment (Chair)
Jim Martin	Order-in-Council Appointment (Vice Chair)
Iboyla Agoston	Order-in-Council Appointment
Amanda Alexander	Order-in-Council Appointment
Allison Beswick	Order-in-Council Appointment (Alumna)
Trevor Morrison	Order-in-Council Appointment
Gregory Stewart	Order-in-Council Appointment
Vacant	Order-in-Council Appointment
Phil Mullins	Elected Faculty Member
Todd Whitcombe	Elected Faculty Member
Emily Roberts	Elected Undergraduate Student Member
Lina Shehata	Elected Graduate Student Member
Joyce Henley	Elected Staff Member

UNBC Representatives (non-voting members)

Rahim Somani	Vice President, Finance and Administration
Bill Owen	Interim Vice President, Academic and Provost
Paula Wood-Adams	Vice President, Research and Innovation
Arleta Lucarelli	Executive Director, Strategy and Staff

Senate

Darlene McIntosh	Chancellor
Geoff Payne	President and Vice-Chancellor (Chair)
Bill Owen	Interim Vice President, Academic and Provost
Paula Wood-Adams	Vice President, Research and Innovation
Ronald Camp II	Dean, Faculty of Business and Economics
Nicola Koper	Dean, Faculty of Environment
Nathan Lachowsky	Dean, Faculty of Human and Health Sciences
Kriston Rennie	Dean, Faculty of Indigenous Studies, Social Sciences and Humanities
Deborah Roberts	Dean, Faculty of Science and Engineering
Trina Fyfe	University Librarian
Nicole Neufeld	Manager, Continuing Studies

Faculty of Business and Economics

Julius Bankole
Karima Fredj

Faculty of Environment

Mark Groulx
Neil Hanlon

Faculty of Human and Health Sciences

Christine Ho Younghusband
David Litz

Faculty of Indigenous Studies, Social Sciences and Humanities

Gary Wilson
Vacant

Faculty of Science and Engineering

Allan Kranz
Fei Tong

Faculty at Large

Darren Brown
David Casperson
Joanie Crandall
Balbinder Deo
Maik Gehloff (Vice Chair)
Clarence Hofsink
Hossein Kazemian
Tammy Klassen-Ross
Margot Mandy
Kim Stathers
Todd Whitcombe
Susie Wilson

Students

Armaan Jamwal	President of NUGSS
Sriparna Dey	Chairperson of NBCGSS
Malay Lolariya	Student Senator for the Faculty of Business and Economics
Maria Tavares	Student Senator for the Faculty of Environment
Lizna Lakhani	Student Senator for the Faculty of Human and Health Sciences
Cheri Brown	Student Senator for the Faculty of Indigenous Studies, Social Sciences and Humanities
Jared Hirt	Student Senator for the Faculty of Science and Engineering
Rehana Ramzan	Undergraduate Student Senator
Ranjodh Singh	Undergraduate Student Senator
Rachel Fonda	Graduate Student Senator
Tina Watters	Graduate Student Senator

Lay Senators

Claudia Barreira
Shannon MacKay
Ray Noonan
Patricia Prince

WWN Representative

Deanna Nyce

Non-Voting

Alexandra Parent	Recording Secretary
Kimberly Read	Secretary of Senate
Paul Siakaluk	President of the Faculty Association
Rahim Somani	Vice President, Finance and Administration

University Administrative Officers

Senior Administration

President and Vice Chancellor—Geoffrey Payne, BSc MSc PhD (Memorial)

Interim Vice President, Academic and Provost—Bill Owen, BSc Hons (Augustana) MA PhD (Saskatchewan)

Vice President, Research and Innovation—Paula Wood-Adams, BSc (Alberta) MEng PhD (McGill)

Vice President, Finance and Administration—Rahim Somani, BComm (Karachi) MA (London) CPA CA

Associate Vice President, Division of Medical Sciences—Paul Winwood, BSc MB BS (London)

Interim Associate Vice President, Indigenous—Penína Sara-Lynn Harding, BA (Northern British Columbia)

Associate Vice President, People, Equity, and Inclusion—Manpreet Dhillon

Interim Associate Vice President, Research Operations—Davina Banner-Lukaris, BN Hons (Wales) PhD (West England)

Interim Associate Vice President, Strategy and Outreach—Mark Barnes, BSc MSc MBA (Northern British Columbia)

Vice-Provost, Graduate and Postdoctoral Studies—Katerina Standish, BA (Simon Fraser) PhD (Manitoba)

Executive Director, Strategy and Staff—Arleta Lucarelli, BSc (British Columbia)

Dean, Faculty of Business and Economics—Ronald Camp II, BA (Whitworth) MBA (Willamette) PhD (British Columbia)

Dean, Faculty of Environment—Nicola Koper, BSc MSc (Guelph) PhD (Alberta)

Dean, Faculty of Human and Health Sciences—Nathan Lachowsky, BSc PhD (Guelph)

Dean, Faculty of Indigenous Studies, Social Sciences and Humanities—Kriston Rennie, BA (Lethbridge) MLitt (St. Andrews) PhD (King's)

Dean, Faculty of Science and Engineering—Deborah Roberts, BSc PhD (Alberta)

Senior Director, Students—Dennis Stark, BComm MEd (Northern British Columbia)

Director, Academic Operations and Quality Assurance—John McNeill, BSc Hons (Edinburgh) PhD (Durham)

Director, Enterprise Risk, Strategy & Transformation—Anne Adeniyi-Faleye, MBA (Northern British Columbia)

Director, Graduate—Jill Mitchell Nielsen, BA MA (British Columbia)

Director, Office of Shared Services—Christie Ray, BComm (Northern British Columbia)

Athletics

Director, Athletics and Recreation—Loralyn Murdoch, BPE (Alberta) MEd (Victoria)

Centre for Teaching, Learning, and Technology

Director, Centre for Teaching, Learning, and Technology—Ben Daniel, BSc (Juba) DiplComp (Khartoum) MSc (Twente) MPhilED (Oslo) PhD (Saskatchewan)

Communications

Director, Communications and Marketing—Vacant

Financial Services

Director, Finance—Kiran Kullar, BComm (Toronto) CPA CA

Human Resources

Director, Human Resources—Jennifer Dawson, BSc (Northern British Columbia)

Information Technology Services

Chief Information Officer—Trevor Fuson, BComm (Northern British Columbia) MScIS (Athabasca)

Office of the Registrar

University Registrar and Secretary to Senate—Kimberly Read, BA (British Columbia)

Deputy Registrar—Marlina Hawes, BA (Northern British Columbia)

Associate Registrar, International—Amy Beyer, BA (Northern British Columbia)

Sustainable Facilities and Ancillary Services

Director, Sustainable Facilities and Ancillary Services—David Claus, BEng (Victoria) PhD (Oxford)

Associate Director, Ancillary Services—Dan Kusz

Associate Director, Capital Planning—Jason McCannon

University Library

University Librarian—Trina Fyfe, BA (Waterloo) MIST (Toronto) PhD (Northern British Columbia)

Head, Archives and Special Collections—Erica Hernández-Read, BA MAS (British Columbia)

Archivist—Kim Stathers, BA MLIS MAS (British Columbia)

Librarian, Access Services—Annelise Dowd, BA (British Columbia) MIST (McGill)

Librarian, Acquisitions—Heather Empey, BA (Augustana) MLIS (Alberta)

Librarian, Data Services—Susie Wilson, BSc (Northern British Columbia) MLIS (Alberta)

Librarian, Division of Medical Services—Kristy Hancock, BA (Simon Fraser) MLIS (Dalhousie)

Librarian, Knowledge Synthesis—Terri McKellar, BA (Toronto) BN (New Brunswick) MLIS (British Columbia)

Librarian, Metadata— Geoffrey Boyd, BA (Victoria) MLIS (Alberta)

Librarian, Research and Learning Services—Kealin McCabe, BA (Wilfrid Laurier) MLIS (Western Ontario) EdD (British Columbia)

Tuition and Fees

Tuition	$203.62 per credit hour
Post-Baccalaureate Diploma	$299.41 per credit hour
Student Services Fee	$5.85 per credit hour (to a maximum of $87.75)
NUGSS Society Fee	$50.58 per semester ($29.42 per semester in regions)
NUGSS Health and Dental Plan	$234.60 per policy year (full time, Prince George students only)
NUGSS Building Fee	$46.80 per semester (Prince George students only)
NUGSS U-Pass	$60.00 per semester (Prince George) $35.00 per semester (Quesnel)
Student ID Card Fee	$2.33 per semester
Intramural Recreation and Fitness Fee	$66.78 per semester (Prince George)
PGPIRG Fee	$5.23 per semester (full-time students) $2.50 per semester (part-time students)
Intervarsity and Junior Varsity Fee	$60.92 per semester (Prince George)
CFUR Student Radio Fee	$13.17 per semester (Prince George)
WUSC Refugee Fee	$5.00 per semester
Over the Edge Newspaper Fee	$11.93 per semester (Fall and Winter only; Prince George)
Course Audit Fee	Part-time students—$101.81 per credit hour; Full-time students—free
Course Challenge Fee	$101.81 per credit hour (50% of regular tuition fee)

Co-op Education Students

Co-op Work Term Fee	$610.88 per work term

Engineering Students

EGBC Membership Fee	$20.00 (Fall semester only)
Engineering Professional Fee	$55.20 (Fall semester only)

International Students

Tuition	$963.10 per credit hour
Medical Insurance Fee	$190.00 per semester
International Student Fee	$125.00 per semester
International Tuition Deposit	$9,000.00 (due by the deadline specified at the time of admission offer. Please refer to UNBC Finance website for refund conditions and to the Office of the Registrar for conditions under which this fee may be waived).

Other Fees

Orientation Fee	$45.05 (one-time fee applicable to all new attendees in September semesters)
Application Fee	$37.13 - Domestic[1] $125.00 - International[1] [1]To accompany each application for admission (non-refundable)
Document Evaluation Fee	$42.43 (for out-of-province or out-of-country post-secondary documents, non-refundable)
Admissions Deferral Fee	$17.85 - Domestic $38.25 - International
Graduation Processing Fee	$44.18 fee per application for all graduating students (non-refundable)
Student ID Card Replacement	$15.00 per lost or damaged card
Course Fees	Certain courses carry additional fees to cover the costs of field trips, lab supplies or readings
International Exchange Application Fee	$25.00 per application (undergraduate and graduate, non-refundable)

International Exchange Placement Fee	$100.00 per application (undergraduate and graduate, non-refundable)
Study Abroad Application Fee	$125.00 USD per application to National Student Exchange Program (undergraduate and graduate, non-refundable)
Certified True Copy Fee	$30.00
Official Transcript Fee	$10.61 per transcript copy
Transcript Delivery Fee	$20.40
Confirmation of Enrollment Fee	$12.00
Letter of Permission Fee	$12.00 per application
NSF Charge	$15.00 per returned cheque

Outstanding accounts are subject to a monthly service charge of 2% on the outstanding principal (26.82% per annum).

Parking Fees

Metered	$3.50 per day including taxes
Monthly Permit	$55.00
Carpool Permit	$35.00 per month plus taxes (for details see Parking Services)

Housing and Residence Life Fees

Application Fee	$30.00 (non-refundable)
Late Application Fee	$150.00 (non-refundable)
Residence Room Deposit	$275.00
Residence Infrastructure Fee	$35.00 per semester
Residence Life Fee	$55.00 per semester
Rent - Four Bedroom Suite Rental	$3,186.50 per semester, per occupant
Residence Meal Plan	$3,342.00 (7 day) $3,213.00 (5 day) per semester, required for residents with fewer than 60 UNBC credit hours
Residence Parking	$240.00 per semester

For further information about the Residence Meal Plan, see Food Services at unbc.ca/food-services.

Additional Information on Fees

BC Residents 65 Years or Older

BC residents who are 65 years of age or older, and who are eligible for admission, may register for courses and receive a waiver of tuition. Please note that in those areas where there is a limited number of spaces available or when programs/courses are deemed to be cost-recovery, students under this category of registration may not receive priority or be eligible for the waiver. Students are responsible for all ancillary fees.

Student Services Fee

The student services fees are collected from full-time and part-time students registered for courses, and are utilized to augment services to students.

NUGSS Health and Dental Plan

All full-time undergraduate students who are registered on the Prince George campus and are members of the Northern Undergraduate Student Society (NUGSS) are automatically enrolled in the NUGSS Health and Dental Plan.

Your student Plan provides you with health and dental coverage for 12 months, from September 1 to August 31 of the following year. If you are already covered by an equivalent extended health and dental plan, you may opt out online during the Change-of-Coverage Period (typically within the first three weeks of classes-for exact deadlines visit www.ihaveaplan.ca). Your Plan also gives you the option to enroll your family (spouse and/or dependents) by paying an additional fee. Most members that are not automatically covered, but who wish to have coverage, are able to enroll themselves for an additional fee. Students starting in January may enroll at a pro-rated rate for eight months of coverage (January 1 to August 31). For more information, contact www.ihaveaplan.ca or 1-866-358-4431.

PGPIRG Fee

The PGPIRG fee is collected by UNBC on behalf of the Prince George Public Interest Research Group. The mandate of this group is to organize its members around topics of public interest such as social justice and environmental issues. Please contact the group at (250) 960-7474 for further information.

Payment Due Date

All student accounts are payable in full by the first day of the semester and refunds will only be available until the

end of the add/drop date. After this time the refunds will be discounted as outlined in the fee reduction schedule. A service charge of 2% per month (annualized rate of 26.82%) will be applied to any outstanding balance when the account reaches 30 days past due and every 30 days subsequent until the account is paid in full.

Financial Hold

Students who fail to pay the outstanding balance of their current account will be placed on financial hold. While on financial hold, no subsequent registration activity will be allowed, no official transcripts of the academic record will be issued, and a student can be denied graduation. The financial hold will be removed when the outstanding balance, including all service charges, is paid in full. Account questions can be addressed to accountsreceivable@unbc.ca.

Failure to Notify

Any student failing to provide written notification to the Office of the Registrar of their complete withdrawal from a course or slate of courses will be assessed full tuition fees for those registered courses and receive grades of F on their transcript.

Payments

For payment options, please visit: unbc.ca/finance/accounts-receivable/payment-options.

Refund Policy

Refunds can be applied for at the Cashier's Office after the add/drop period. Allow two to three weeks for processing. If there is a credit on a student's account and no refund is requested, the credit will be applied to the next semester.

Fee Reduction Schedule*

September Semester (September 3 to December 19)

September 17, 2025	Last day to add/drop without financial penalty
October 23, 2025	Last day to withdraw without academic penalty, 50% tuition refund

January Semester (January 8 to April 25)

January 22, 2026	Last day to add/drop without financial penalty
February 27, 2026	Last day to withdraw without academic penalty, 50% tuition refund

May Semester (May 11 to August 21)

May 26, 2026	Last day to add/drop without financial penalty
June 23, 2026	Last day to withdraw without academic penalty, 50% tuition refund

Spring Intersession (May 11 to June 26)

May 15, 2026	Last day to add/drop without financial penalty
June 2, 2026	Last day to withdraw without academic penalty, 50% tuition refund

Summer Intersession (July 6 to August 21)

July 10, 2026	Last day to add/drop without financial penalty
July 28, 2026	Last day to withdraw without academic penalty, 50% tuition refund

*For condensed courses, the last day to withdraw (50% tuition refund) is indicated in the course specific documentation.

NOTE: Exceptions to the refund may apply, subject to approval by the UNBC Board of Governors.

Medical Insurance Fee for International Students

UNBC has a compulsory medical insurance policy for international students. International students must provide proof of valid medical coverage for each semester that they register at UNBC. A hold will be placed on a student's file if proof of valid medical coverage is not supplied.

A medical insurance fee of $190 will be assessed automatically each semester. If students have valid BC Medical Insurance or comparable private insurance, the fee

can be waived. Students without medical insurance will be asked to enroll in a university-sponsored plan which costs $190 for four months of coverage.

Students must contact the International department to enroll in the private insurance plan or to receive a waiver of the medical insurance fee. Please note that simply paying the $190 fee does not fulfill the policy. The policy requires that international students have valid medical insurance while at UNBC, and that they demonstrate proof of such coverage.

Note: Standards for accounts receivable billing and collection of student accounts receivable are subject to UNBC Policy on Student Accounts. For further information on Student Accounts Receivable, please see the Finance website at unbc.ca/finance.

Academic Dates

Academic Year

The academic year extends from September 1 to August 31. Each 12-month academic year begins in September and is composed of the following semesters:

- September Semester - September to December
- January Semester - January to April
- May Semester - May to August

2025–2026 Semester Dates

2025 September Semester

September		
1	Monday	Labour Day, University closed
2	Tuesday	Orientation Day
3	Wednesday	First day of classes, September Semester All September Semester fees due
17	Wednesday	Last day to add/drop September Semester courses without financial penalty Last day to change September Semester courses from audit to credit and credit to audit
30	Tuesday	National Day for Truth and Reconciliation, University closed
October		
13	Monday	Thanksgiving Day, University closed
23	Thursday	Last day to withdraw from September Semester courses without academic penalty, 50% tuition refund
November		
1	Saturday	Deadline to submit Application for Graduation if completing degree requirements by December (degree conferral in January)
10 -14	Mon. to Fri.	Mid-Semester Break (no classes November 10-14)
11	Tuesday	Remembrance Day, University closed
December		
5	Friday	Last day of classes
9	Tuesday	First day of exam period
19	Friday	Last day of exam period
25	Thursday	Christmas Day, University closed
26	Friday	Boxing Day, University closed
27-31	Sat. to Wed.	University closed

2026 January Semester

January		
1	Thursday	New Year's Day, University closed
7	Wednesday	Orientation Day
8	Thursday	First day of classes, January Semester All January Semester fees due
22	Thursday	Last day to add/drop January Semester courses without financial penalty Last day to change January Semester courses from audit to credit and credit to audit
February		
16	Monday	Family Day, University closed
17-20	Tues. to Fri.	Mid-Semester Break (no classes February 17-20)
27	Friday	Last day to withdraw from January Semester courses without academic penalty, 50% tuition refund
March		
1	Sunday	Deadline to submit Application for Graduation if completing degree requirements by April (degree conferral in May)
April		
1	Wednesday	Deadline to apply for UNBC-administered scholarships and bursaries
3	Friday	Good Friday, University closed
5	Sunday	Easter Sunday, University closed
6	Monday	Easter Monday, University closed
13	Monday	Last day of classes
16	Thursday	First day of exam period
25	Saturday	Last day of exam period

2026 May Semester and 2026 Spring Intersession

May

8	Friday	Orientation Day
11	Monday	First day of classes, May Semester and Spring Intersession All May Semester fees due, including Spring/Summer Intersessions
15	Friday	*Last day to add/drop Spring Intersession courses without financial penalty
18	Monday	Victoria Day, University closed
26	Tuesday	Last day to add/drop May Semester courses without financial penalty Last day to change May Semester courses from audit to credit and credit to audit
29	Friday	Convocation Day (Prince George campus)

June

2	Tuesday	*Last day to withdraw from Spring Intersession courses without academic penalty, 50% tuition refund
19	Friday	Last day of classes, Spring Intersession
20	Saturday	Maintenance shutdown, Prince George campus closed
22	Monday	First day of exam period, Spring Intersession
23	Tuesday	Last day to withdraw from May Semester courses without academic penalty, 50% tuition refund
26	Friday	Last day of exam period, Spring Intersession
29 June-3 July		Mid-Semester Break (no classes June 29-July 3)
30	Tuesday	Recommended deadline to apply for the BC Student Assistance Program (BC Student Loans)

2026 May Semester continued and 2026 Summer Intersession

July

1	Wednesday	Canada Day, University closed
6	Monday	First day of classes, Summer Intersession
10	Friday	*Last day to add/drop Summer Intersession courses without financial penalty
15	Wednesday	Deadline to submit Application for Graduation if completing degree requirements by August (degree conferral in September)
28	Tuesday	Last day to withdraw from Summer Intersession courses without academic penalty, 50% tuition refund

August

3	Monday	BC Day, University closed
14	Friday	Last day of classes, May Semester and Summer Intersession
17	Monday	First day of exam period, May Semester and Summer Intersession
21	Friday	Last day of exam period, May Semester and Summer Intersession

*For condensed courses, the last day to withdraw (50% tuition refund) is indicated in the course-specific documentation.

2025 – 2026 Senate Dates

September 24, 2025
October 22, 2025
November 26, 2025
January 28, 2026
February 25, 2026
March 25, 2026
April 22, 2026
May 27, 2026
June 24, 2026
August 26, 2026

2025 – 2026 Undergraduate Student Deadline Dates

2025 September Semester

Course Registration Deadlines

September 17 Last day to add/drop September Semester courses without financial penalty
Last day to change September Semester courses from audit to credit and credit to audit status

October 23 Last day to withdraw from September Semester courses without academic penalty

Fee and Refund Deadlines

September 3 All September Semester tuition and student fees due

October 23 Deadline for 50% tuition refund for September Semester course withdrawals

Application Deadline

November 1 Deadline to apply for January Semester undergraduate studies

Graduation Deadline

November 1 Deadline to submit Application for Graduation for the January degree conferral (program requirements completed by December)

2026 January Semester

Course Registration Deadlines

January 22 Last day to add/drop January Semester courses without financial penalty
Last day to change January Semester courses from audit to credit and credit to audit status

February 27 Last day to withdraw from January Semester courses without academic penalty

Fee and Refund Deadlines

January 8 All January Semester tuition and student fees due

February 27 Deadline for 50% tuition refund for January Semester course withdrawals

Application Deadlines

February 1 Deadline to apply for the Bachelor of Education Program for the September Semester
Deadline to apply for the Bachelor of Health Science Program for the September Semester
Deadline to apply for the Bachelor of Social Work Program for the September Semester

March 1 Deadline to apply for the May and September Semesters for undergraduate studies
International student deadline to apply for the May and September Semesters
Deadline to apply for the Bachelor of Applied Science for the September Semester

March 31 Deadline to apply to the College of New Caledonia and Coast Mountain College for the Northern Collaborative Baccalaureate Nursing Program for the September Semester

Scholarship and Bursary Deadline

April 1 Deadline to apply for UNBC-administered scholarships and bursaries

Graduation Deadline

March 1 Deadline to submit Application for Graduation for the May degree conferral (program requirements completed by April)

2026 May Semester

Course Registration Deadlines

May 15 Last day to add/drop Spring Intersession courses without financial penalty

May 26 Last day to add/drop May Semester courses without financial penalty
Last day to change May Semester courses from audit to credit and credit to audit status

June 2 Last day to withdraw from Spring Intersession courses without academic penalty

June 23 Last day to withdraw from May Semester courses without academic penalty

July 10 Last day to add/drop Summer Intersession courses without financial penalty

July 28 Last day to withdraw from Summer Intersession courses without academic penalty

Fee and Refund Deadlines

May 11 All May Semester, Spring Intersession, and Summer Intersession tuition and student fees due

June 2 Deadline for 50% tuition refund for Spring Intersession course withdrawals

June 23 Deadline for 50% tuition refund for May Semester course withdrawals

July 28 Deadline for 50% tuition refund for Summer Intersession course withdrawals

Application Deadlines

June 1 International Students deadline to apply for the January Semester

Student Loans Deadline

June 30 Recommended deadline to apply for the BC Student Assistance Program (BC Student Loans)

Graduation Deadline

July 15 Deadline to submit Application for Graduation for the September degree conferral (program requirements completed by August)

*For condensed courses, the add/drop dates and last day to withdraw (50% tuition refund) are indicated in the course-specific documentation.

Admissions

The University of Northern British Columbia is committed to providing the best possible educational experience to its students. While some areas of academic study are available to new students without restriction, to ensure the highest quality learning environment others must be limited in enrollment by the availability of suitable space and instruction. Except for first-entry professional programs, first-year first-entry students are admitted to UNBC by their degree outcome of interest, and must indicate their first choice of degree group (for example Bachelor of Arts or Bachelor of Science) on their application form. Until such time as students declare a major, they will be assigned a faculty Dean based upon their declared degree group. Once admitted, if the major selected would require a transfer between degree groups, approval is required from the faculty Dean for the academic program that includes the desired major. Transfer from a first-entry professional program to one of the degree groups is permitted only by approval of the faculty Dean for the academic program that includes the desired major.

In the spirit of the UN Declaration on the Rights of Indigenous Peoples and the recommendations of the Truth and Reconciliation Commission, UNBC respects and recognizes that the national boundaries imposed by colonization do not represent Indigenous citizenship and territories. Therefore, UNBC recognizes all Indigenous students coming from nations in what became Canada and the United States as domestic for the purposes of application processing, application fee and tuition fees.

Transfer students are considered for admission only in the context of a declaration of major, and will be admitted, on the basis of space availability and eligibility, by established criteria in the major of choice.

How to Apply

To apply for admission to UNBC, please submit an application online through Education Planner BC. Please ensure all additional required documentation is submitted to the Office of the Registrar.

The online application is available by internet at www.unbc.ca/apply.

Application Deadlines

Canadian Students

General Undergraduate Programs

May Semester	March 1
September Semester	March 1
January Semester	November 1

Please note: While the Canadian student application deadline for admission is March 1 for September entry, students are encouraged to apply earlier. Applications received after March 1 will be considered, on the basis of space availability and eligibility, by established criteria in the degree group/major of choice.

International Students

September Semester	March 1
January Semester	June 1
May Semester*	

*Applications are not encouraged for this semester, unless applicants are transferring from a Canadian post-secondary institution.

Please note: Applications received after these dates will be processed on the basis of space availability once on-time applications have been allocated.

Professional and Competitive Entry Programs

(See Program Regulations for Professional Program Admissions)

Education	February 1
Engineering	March 1
Health Sciences	February 1
Nursing	March 31
Social Work	February 1

Admission Requirements for Applicants from BC and Yukon High Schools

Successful completion of an approved grade 12 program leading to graduation with an acceptable BC/Yukon high school average calculated on the basis of the five best grade 12 courses from the listings in the Admission Requirements by Degree Groups table or First Entry Professional Program of your choice (see also "Special Entry").

Special Early Provisional Admission

Students registered in grade 12 at a BC high school who are planning to attend UNBC in the September immediately following graduation are encouraged to apply for Special Early Admission no later than the end of February. A decision will be made based on the student's self-declared Grade 11 and 12 grades and, no later than the end of February, a provisional offer of admission will normally be made to all applicants who meet or exceed the minimum grade point average and course requirements. The conditions associated with special early provisional admission are that the applicant's academic average remains at or above the minimum, that all required courses are successfully completed, and that graduation requirements are satisfied. These conditions will be checked in August upon receipt of the final marks from the Ministry of Education and Child Care.

The University reserves the right to withdraw a provisional offer of admission if the above conditions are not met.

A table illustrating which BC high school curriculum Grade 12 courses are considered as approved academic courses and which are considered as elective courses is available on the UNBC Admissions website: unbc.ca/admissions.

General Entry Programs – Direct Entry

The admission average is calculated using English Studies 12 or English First Peoples 12, and the next three highest academic Grade 12 courses with an additional Grade 12 class (elective or an additional approved academic Grade 12 course - whichever is highest).

Students applying to a general entry (non-competitive) major who do not possess the high school courses required for degree completion but who meet the general admission requirements may still be granted admission to the major. Students can complete missing prerequisites before they commence studies at UNBC, or they can take equivalent prerequisite courses at UNBC as electives.

Bachelor of Arts

General Admission Requirements	Program/Major	Major-Specific Requirements (required for degree completion)*
English Studies 12 or English First Peoples 12 Three (3) approved academic Grade 12 courses One (1) additional Grade 12 course (academic or elective) Minimum 65% average	Anthropology	
	Economics	Pre-Calculus 12 (60%)
	English	
	Environmental and Sustainability Studies	
	First Nations Studies	
	General Arts	
	Geography	
	Global and International Studies	
	History	
	Nature-Based Tourism Management	
	Nisg̲a'a Language Fluency	
	Northern Studies	
	Political Science	
	Public Administration and Community Development	
	Women's Studies	

Bachelor of Commerce

General Admission Requirements	Program/Major	Major-Specific Requirements (required for degree completion)*
English Studies 12 or English First Peoples 12 Three (3) approved academic Grade 12 courses One (1) additional Grade 12 course (academic or elective) Minimum 65% average	Accounting	Pre-Calculus 12 (60%)
	Finance	Pre-Calculus 12 (60%)
	General Business	Pre-Calculus 12 (60%)

Bachelor of Commerce *(continued)*		
General Admission Requirements	**Program/Major**	**Major-Specific Requirements (required for degree completion)***
English Studies 12 or English First Peoples 12 Three (3) approved academic Grade 12 courses One (1) additional Grade 12 course (academic or elective) Minimum 65% average	Human Resources Management	Pre-Calculus 12 (60%)
	International Business	Pre-Calculus 12 (60%)
	Management Information Systems	Pre-Calculus 12 (60%)
	Marketing	Pre-Calculus 12 (60%)

Bachelor of Planning		
General Admission Requirements	**Program/Major**	**Major-Specific Requirements (required for degree completion)***
English Studies 12 or English First Peoples 12 Three (3) approved academic Grade 12 courses One (1) additional Grade 12 course (academic or elective) Minimum 65% average	First Nations Planning	
	Natural Resources Planning	
	Northern and Rural Community Planning	

Bachelor of Science		
General Admission Requirements	**Program/Major**	**Major-Specific Requirements (required for degree completion)***
English Studies 12 or English First Peoples 12 Three (3) approved academic Grade 12 courses One (1) additional Grade 12 course (academic or elective) Minimum 65% average	Biochemistry and Molecular Biology	Life Sciences 11 or Anatomy & Physiology 12, Pre-Calculus 12 (67%), Physics 11
	Biology	Life Sciences 11 or Anatomy & Physiology 12, Pre-Calculus 12 (60%)
	Chemistry	Life Sciences 11 or Anatomy & Physiology 12, Pre-Calculus 12 (67%), Physics 11
	Computer Science	Pre-Calculus 12 (67%)
	Conservation Science and Practice	Life Sciences 11 or Anatomy & Physiology 12, Pre-Calculus 12 (50% for Wildland Conservation & Recreation; 60% for Landscape Conservation & Management)
	Environmental Science	Life Sciences 11 or Anatomy & Physiology 12, Pre-Calculus 12 (67%), Physics 11
	Forest Ecology and Management	Life Sciences 11 or Anatomy & Physiology 12, Pre-Calculus 12 (60%)
	Geography	Life Sciences 11 or Anatomy & Physiology 12, Pre-Calculus 12 (60%), Physics 11
	Integrated Science	Life Sciences 11 or Anatomy & Physiology 12, Pre-Calculus 12 (60%), Physics 11

Bachelor of Science *(continued)*		
General Admission Requirements	**Program/Major**	**Major-Specific Requirements (required for degree completion)***
English Studies 12 or English First Peoples 12 Three (3) approved academic Grade 12 courses One (1) additional Grade 12 course (academic or elective) Minimum 65% average	Mathematics	Pre-Calculus 12 (67%)
	Physics	Physics 12, Pre-Calculus 12 (67%)
	Psychology	
	Wildlife and Fisheries	Life Sciences 11 or Anatomy & Physiology 12, Pre-Calculus 12 (60%)

**Alternative UNBC prerequisites are offered for Life Sciences 11/Anatomy & Physiology 12, Physics 12 and Pre-Calculus 12. Admissible students who are missing any of these prerequisites if required for their intended major may be required to use elective credits to take the missing course(s).*

Competitive Entry Programs – Direct Entry

Competitive Entry programs have limited seats available and higher admission requirements. Meeting the minimum average and course requirements does not guarantee admission. A competitive average is established yearly based on that year's applicant pool. For deadlines, please see unbc.ca/apply/undergraduate/undergraduate-application-deadlines.

Bachelor of Applied Science			
Program and Admission Requirements	**Major**	**High school courses required for recommended degree progression**	**Minimum Average Percentage Requirement**
English Studies 12 or English First Peoples 12 Pre-Calculus 12 (min. 67%) Two academic Science 12 courses** One additional Grade 12 course (academic or elective)	Civil Engineering	Physics 12* Chemistry 12 (recommended due to related first year course content)	75%
	Environmental Engineering 4-year UNBC stream		
	Environmental Engineering 4.5-year UNBC/UBC stream		

Bachelor of Health Sciences

Program and Admission Requirements	Major	High school courses required for recommended degree progression	Minimum Average Percentage Requirement
English Studies 12 or English First Peoples 12 (min. 70%) Anatomy & Physiology 12 (min. 70%) Two other academic Grade 12 courses One additional Grade 12 course (academic or elective) Chemistry 11 or Chemistry 12 (min. 70%) Pre-Calculus 11 or Pre-Calculus 12 (min. 70%)	Biomedical Studies	Pre-Calculus 12*	70%
	Community and Population Health: Aboriginal and Rural Health		
	Community and Population Health: Environmental Health		

Bachelor of Science in Nursing*** *(Direct Entry from high school route)*

Program and Admission Requirements	Major	High school courses required for recommended degree progression	Minimum Average Percentage Requirement
English Studies 12 or English First Peoples 12 (min. 70%), Three academic Grade 12 courses One additional Grade 12 course (non-academic Grade 12 or elective) Anatomy & Physiology 12 (min. 73%, completed within 5 years of semester of admission) Chemistry 11 (min. 70%) Pre-Calculus 11 or Foundations of Math 11 (min. 70%)	Nursing (Northern Collaborative Baccalaureate Nursing Program) Visit unbc.ca/nursing for more information about other Nursing programs		70%

**An alternative UNBC prerequisite is offered.*

***Approved Academic Grade 12 Science courses may be found on the Admissions website.*

****Direct-Entry Nursing: To apply, please contact our partner institutions. Prince George and Quesnel: College of New Caledonia (cnc.bc.ca), Terrace: Coast Mountain College (coastmountaincollege.ca).*

Post-Secondary Required Prior to Entry

University credit for the following programs must be from an accredited institution. All transfer credit and GPA calculations will be assessed upon application to the University.

Bachelor of Education

Program and Admission Requirements	Major	Additional Information	Minimum UNBC GPA Requirement
3- or 4-year degree OR 90 credit hours of university coursework, all including min. 60 credit hours in Arts, Sciences, or BC Schools' teachable fields	Elementary Years (K - 7)	Must provide references and additional non-academic supplementary application Please visit unbc.ca/education	2.33 GPA (C+ Average) from most recent 60 credit hours of transferable study
4-year degree with min. 24 credit hours in a BC Schools' teachable subject area	Secondary Years (8 - 12)		

Bachelor of Science in Nursing *(Year 3 entry)*

Program and Admission Requirements	Major	Additional Information	Minimum UNBC GPA Requirement
60 credits of university-level coursework including 24 credits of required prerequisites (min. B-) and at least 24 credits transferable to UNBC at 200-level or above	Northern Baccalaureate Nursing Program	Must provide Rural/Remote Suitability Index, CASPer score, resume, statement of intent, and two references Please visit unbc.ca/nursing	3.00 GPA (B Average) from most recent 60 credit hours of transferable study

Bachelor of Social Work

Program and Admission Requirements	Major	Additional Information	Minimum UNBC GPA Requirement
60 credit hours of university-transferable coursework including: FNST 100, WMST 100, SOCW 200, SOCW 201 or equivalent	Social Work	Must provide references, statement of intent and other supplementary materials Please visit unbc.ca/social-work	2.67 GPA (B- Average)

Early Provisional Admission from a BC High School

Students registered in grade 12 at a BC high school who are planning to attend UNBC in the September immediately following graduation are advised to apply for early admission (currently before the end of February). All applicants who do this and notify their school counsellor of their application to UNBC will automatically have their interim grade 12 marks submitted to UNBC by the Ministry of Education and Child Care. A provisional decision will be made based on these grades and a provisional offer of admission will be made to applicants who are considered exceptional. The conditions associated with early provisional admission are that the applicant's academic average remain at or above the minimum, that all required courses are successfully completed and that graduation requirements are satisfied. These conditions will be checked in August upon receipt of the final marks from the Ministry of Education and Child Care. Where a student does not satisfy the three conditions, the University reserves the right to withdraw the provisional offer of admission.

BC High School Transcripts

Applicants who are required to submit official BC High School transcripts should contact the BC Ministry of Education and Child Care:

Ministry of Education and Child Care – Transcripts
PO Box 9886 Stn Prov Govt
Victoria, BC V8W 9T6
General Information Phone: (250) 356-7270
Or visit the Ministry of Education and Child Care website:
www.gov.bc.ca/bced

Head Start Entry from a BC High School

Outstanding students who have completed BC grade 11, can demonstrate an exceptional academic record, and can provide evidence of above-average maturity, may apply for admission to UNBC. In many cases this may mean concurrently registering in one or two first-year introductory UNBC courses while completing grade 12. However, in exceptional cases, these applicants may be admitted to study as a full-time first-year student at UNBC.

To apply for Head Start entry, the application must be accompanied by an autobiographical letter indicating the applicant's areas of interest and reasons for wishing to attend UNBC, along with letters of recommendation from the high school principal and at least one teacher or counsellor from the school, and a complete high school transcript. Questions and correspondence should be directed to the Office of the Registrar.

Dual High School/University Credit

High school students in grade 12, who are in good standing, and have the recommendation from their principal or guidance counsellor, may enroll with UNBC in order to earn credits that can be used jointly as elective credits towards high school graduation and as first year university credit towards a degree. This program is designed to allow high school students the opportunity to gain first-hand experience in a university-level course while at the same time earning credits towards their high school diploma. High school students who successfully complete a course(s) can also apply the earned credits towards their future university degree. The courses offered to high school students will be first-year UNBC courses. In order to qualify for dual credit, the British Columbia Ministry of Education and Child Care requires that the course be approved by the student's home high school before the student registers for the course.

High school students wishing to take a UNBC course to obtain dual credit must be in grade 12 and must be in good academic standing at the time of application. In addition, students must obtain the signature of their principal (or guidance counsellor) and a parent or guardian (if under 18 years old) indicating that they are capable of successfully completing a university level course.

While students may take up to three courses from UNBC for dual credit, they may only take one course at a time. Upon completion of the course, a transcript will be mailed to the student and to the high school. It should be noted that successful completion of a dual high school/university credit course does not guarantee future admission to UNBC.

International Baccalaureate

Students who are awarded an International Baccalaureate (IB) diploma may be awarded up to 30 credit hours of transfer credit upon receipt of the official transcript from the IB headquarters. Students who are awarded the diploma must have an overall standing of four, with no course below a three. Diploma students are required to present three higher-level subjects and three subsidiary-level subjects in order to be eligible for transfer credit.

Students who are awarded the IB certificate must have a grade of four in each higher-level subject to be eligible for individual course transfer credit. Subsidiary-level subjects are not eligible for transfer credit on a certificate program.

Students who are completing a partial IB diploma may qualify for admission providing that another recognized secondary school diploma will also be completed.

A list of acceptable IB courses is available in the BC Transfer Guide (available online at bctransferguide.ca).

Advanced Placement

Students who take College Board Advanced Placement courses in high school may be awarded transfer credit upon receipt of the official exam results from the College Board. UNBC's institution code (2023) is required when ordering official transcripts. Courses completed with a grade of four or above will be awarded transfer credit. Students who have completed AP courses with a grade of three may be considered for Advanced Standing. Advanced Standing allows a student to register in a higher level course without the prerequisite. However, as credit is not awarded, advanced standing will not reduce the number of credits that a student must accumulate to obtain a UNBC degree. As a result, a student must make up this credit by completing another course to

be used towards their degree requirements. A listing of acceptable AP courses for transfer credit is available on the BC Transfer Guide's website at www.bctransferguide.ca/learn-more-about/advanced-placement.

British Columbia Adult Graduation Diploma

Applicants must be at least 19 years of age and have successfully completed the BC Adult Graduation Diploma and the appropriate entrance requirements for their desired degree group at the grade 12 level with an overall average of 65% or better. Applicants in this category are not required to complete a fifth grade 12 course as noted in the Admission Requirements by Degree Groups table.

Admission from Secondary Schools and CEGEP in Other Canadian Provinces

Please visit: www.unbc.ca/calendar/undergraduate/high-school-admissions for up-to-date information.

Post-Secondary Admissions

University Transfer

Acceptable Transfer includes:
- University degree courses;
- College courses (including Associate of Arts or Science);
- Certificate and Diploma Programs (including Institutes of Technology and Colleges of Applied Arts Technology).

Unacceptable Transfer includes:
- University Preparation;
- Vocational course programs.

To be considered a transfer student, a minimum of 15 credit hours of acceptable university-level coursework from a recognized post-secondary institution must be presented.

For admission, a minimum grade point average (GPA) equivalent of UNBC 2.00 or C (63%) calculated on the most recent 30 credit hours of university-level coursework is required. GPA is calculated on the coursework completed for students with less than 30 credit hours but equal to or more than 15 credit hours.

Students with in-progress coursework at the time of admission are required to maintain an acceptable GPA (as above) on the in-progress coursework to retain their offer of admission.

Applicants must be in good academic standing at the transferring institution(s). Applicants who have been required to withdraw or have been placed on academic probation by the transferring institution(s) must wait for three full semesters before being admissible to UNBC and outline any work completed or experience gained which would better qualify them to successfully complete coursework at UNBC.

Failure to declare attendance at any post-secondary institution could result in disciplinary action by the University and transfer credit will not be considered for transcripts provided in this manner. Information on falsifications may be shared with the Member Institutions of the Association of Registrars of Universities and Colleges of Canada.

2 + 2 Programs

Okanagan College Diploma in Environmental Studies (Environmental Management and Interdisciplinary Environmental Arts Options)

Students who have successfully completed the Diploma in Environmental Studies (Environmental Management or Interdisciplinary Environmental Arts Option) from Okanagan College, with a minimum grade point average (GPA) equivalent of UNBC 2.0 or C (63%) calculated on the most recent 30 credit hours of university-level coursework are eligible for admission into the BA Environmental and Sustainability Studies (Okanagan Completion) program.

Coast Mountain College Associate of Science Degree – Environmental Geosciences Specialization

Students who have successfully completed the Associate of Science Degree – Environmental Geosciences Specialization from Coast Mountain College with a minimum grade point average (GPA) equivalent of UNBC 2.00 or C (63%) calculated on the most recent 30 credit hours of university-level coursework are eligible for admission in the BSc (Integrated) (Coast Mountain College Completion) program.

Nature-Based Tourism Management

Students who have successfully completed a Tourism Management Diploma from a recognized post-secondary institution in BC with a minimum grade point average (GPA) equivalent of UNBC 2.00 or C (63%) calculated on the most recent 30 credit hours of university-level coursework are eligible for admission in the BA Nature-Based Tourism Management (Diploma Completion) program.

Diploma Programs in Environmental Studies, Natural Resources, Tourism, Sport or Recreation Studies, Commerce, Geography, or related.

Students who have successfully completed a 2-year diploma in Environmental Studies, Natural Resources, Tourism, Sport or Recreation Studies, Commerce, Geography, or equivalent, with a minimum grade point average (GPA) equivalent of UNBC 2.00 or C (63%) calculated on the most recent 30 credit hours of university-level coursework are eligible for admission into the BA Nature-Based Tourism (Diploma Completion) program.

CEGEP

Applicants must have a two-year Diplome D'Etude Collegial (DEC), with a minimum grade point average (GPA) equivalent of UNBC 2.00 or C (63%) calculated on the most recent 30 credit hours of university-level coursework.

Letter of Permission – Visiting Students

Applicants may present a Letter of Permission from another post-secondary institution for access to coursework at UNBC. The Letter of Permission indicates that the applicants are in good academic standing and will be using coursework towards a degree program at the home institution. Course prerequisites are still required and it is the responsibility of the students to ensure that the course prerequisites are met.

If the language of instruction at the home institution is not English, applicants need to include supporting documentation from the institution indicating the applicants' ability to function sufficiently in an undergraduate academic environment. If, upon arrival, it is determined that the applicants do not have the necessary language skills to succeed in the program, they will be required to take the necessary English Language program to upgrade their skills or will be asked to withdraw.

Definition of Recognized Institution

An institution, authorized by the recognized government authority for university- or college-level Higher Education in that Jurisdiction to be able to award credentials, including Certificates, Diplomas, and (Associate, Bachelor, Master and Doctoral) degrees, that could be considered equivalent to a Canadian credential.

Other Admission Categories

Audit Only

Students wishing to participate in university courses, but not for credit, may apply for audit status. Audit Only students must submit an application for admission and pay the application fee. Audit Only students must also obtain approval from the course instructor, using the "Undergraduate Registration and Drop/Withdraw" forms available from the Office of the Registrar. Audit Only students are not required to meet regular admission requirements.

Priority for spaces in courses is always given to students taking the course for credit. Approval from the instructor in no way guarantees that an audit student will be able to attend an oversubscribed course.

The degree of participation in a course for an audit student is at the discretion of the instructor. Audit Only students are not entitled to write the final exam or be granted credit for the course.

Audited courses do not meet prerequisites or course/program requirements.

Dependent on available space, students wishing to change from audit to credit status must obtain approval from the instructor prior to the last day to add courses in the given semester.

Interest Only

Applicants who want to take a few courses for credit but not earn a degree or certificate, should apply through the regular admissions route but specify their faculty and program as "Undeclared – no program."

Continuing Studies Credit

Certain courses offered through Continuing Studies may earn UNBC credit without the student having to be admitted formally. Find more information online at www.unbc.ca/continuing-studies.

Admission to a Second Undergraduate Degree

Students having a first undergraduate degree from a recognized institution may be eligible to take a second degree at the Bachelor's level. UNBC reserves the right to deny admission under this category where the program completed and the program sought are too similar. A minimum of 60 credit hours will be required to complete a second degree. Students may be required to complete any unmet first- and second-year requirements.

International Admissions

UNBC welcomes applications for admission from qualified students from other countries. International secondary and post-secondary credentials are considered. International students must meet the equivalent of the criteria outlined for high school admission and university transfer in British Columbia. Admission is based on the comparison of standards for credentials and grading in the country of origin. Applicants whose first language is not English must be able to demonstrate an acceptable level of proficiency in English. Refer to the English Language Requirements below.

English Language Requirements

English is the primary language of instruction and communication at UNBC. Consequently, it is expected that an applicant be able to demonstrate an acceptable level of proficiency in the use of English in order to receive and participate in classroom instruction and discussion as well as to complete written assignments. Applicants whose first language is not English, regardless of citizenship or country of origin, must submit evidence of English language proficiency prior to admission. French-speaking Canadians and Canadian First Nations language speakers are exempted from this requirement. Students who have completed five consecutive years of instruction and examination entirely in the English language immediately before admission (i.e., within two years of application) are exempted from this requirement. Students who have completed secondary education taught entirely in the English language at a recognized institution may be exempted from this requirement. An up-to-date list of countries where students are exempt from the English Language Requirements can be found on the Admission pages of the UNBC website.

Acceptable evidence of English language proficiency may be any one of the following tests (or its online equivalence, as determined by the Office of the Registrar):

- TOEFL (Test of English as a Foreign Language) score of 90 or higher in the internet-based test, with not less than 20 in each of the Reading, Listening, Writing or Speaking components;

score of at least 230 in the computer-based test or at least 570 in the paper-based test. UNBC's institutional TOEFL code is 0320;
- IELTS (International English Language Testing System) Academic score of at least 6.5 overall, with not less than 6.0 in any of the four modules;
- Duolingo English Test score of 105 or higher;
- A final grade of 2.00 (C) or better in the UNBC English Language Studies 50 and English Language Studies 170;
- A final grade of 2.00 (C) or better in an articulated BCCAT EAP (BC Council on Admissions and Transfer English for Academic Purposes) 4 program;
- A final grade of 50% or better in English Studies 12 from the British Columbia high school system;
- A final grade of 75% (B) or better in a University-transferable English course;
- A final grade of 75% or better in CBSE (Central Board of Secondary Education) / CISCE (Council for The Indian School Certificate Examinations) Class XII English Core;
- Completion of two full years of full time degree level studies or equivalent at a recognized institution where English is the language of instruction;
- A final grade of 2 or better in AP (Advanced Placement) English Literature and Composition or AP Literature and Composition;
- A final grade of 3 or better in IB (International Baccalaureate) English A1 or A2 (higher or subsidiary level);
- MELAB (Michigan English Language Assessment Battery) score of at least 80, with a minimum of 3 on the Speaking Rating Scale;
- CAEL (Canadian Academic English Language) or the CAEL CE (Computer Edition) Assessment score of at least 70, with no subtest below 60;
- A grade of B or better on Cambridge English Qualification C1 Advanced;
- PTE (Pearson Test of English - Academic): overall score of 65, with not less than 60 in each of reading, writing, listening, and speaking.

For the Northern Collaborative Baccalaureate Nursing Program (NCBNP), the following are required for admission:
- fulfillment of the BC high school English Studies 12 requirement (70%); and
- either an IELTS (International English Language Testing System) Academic, or a CELBAN (Canadian English Language Assessment for Nurses) with current, valid results and scores as set by BCCNM for the year of admission.

In order to be considered valid, results must be sent directly from the testing agency/institution to the Office of the Registrar. Scores are valid for a period of two years.

If, when applicants arrive, it is determined that they do not have the necessary language skills to succeed in the program, they will be required to take the necessary English language courses to upgrade their skills or will be required to withdraw.

Admission with a General Certificate of Education (GCE) or Equivalent

For admission from a GCE system (or equivalent) a minimum of two Advanced (A) level subjects and three Ordinary (O) level subjects must be completed with an overall GPA of C or higher in order to be considered for admission. All A level subjects presented for admission must have a grade of at least C. Students may substitute two Advanced Subsidiary (AS) level subjects for one A level.

Transfer Credit

Transfer credit is awarded according to agreements articulated in the BC Transfer Guide (available online at www.bctransferguide.ca).

All University-level coursework completed at a recognized institution is eligible for transfer credit. If the content of the course matches a significant amount of UNBC course content, it will receive "specific credit". If specific credit is not awarded, it may receive discipline credit or non-specific credit. Not all transfer credit may be able to be used to meet UNBC degree requirements. No transfer credit will be awarded for any course with a grade of less than equivalent to UNBC 0.67 or D- (50-52.9%).

Courses more than 10 years old are normally assigned unspecified credit. Programs may specify a shorter time period at their discretion. Students who wish to have such credit recognized should apply in writing through the Office of the Registrar to the appropriate program Chair(s).

Up to 90 credit hours of transfer credit from a recognized sending institution may be eligible to be applied to completion of a four-year degree program at UNBC.

Up to 30 credit hours of transfer credit from a recognized sending institution may be eligible to be applied to completion of a 60 credit hour diploma program at UNBC.

Up to 15 credit hours of transfer credit from a recognized sending institution may be eligible to be applied to completion of a 30 credit hour certificate program at UNBC.

Students who change programs or who are re-admitted to their program after a stop out may have their transfer credits reassessed.

Associate Degree

Holders of an Associate of Arts or Science degree are awarded a minimum of 60 credit hours of transfer credit.

IT, CAAT, Diplomas and Block Credit

Holders of two-year diploma programs may be eligible for block credit to a maximum of 30 credit hours of transfer credit. Students who hold specific diplomas, including Business Administration, Natural Resource Management, Environmental Studies, Nursing, or Social Work, may be eligible for additional transfer credit.
Certain program areas may require a higher minimum grade to award transfer credit.

CEGEP

Holders of a two-year Diplome D'Etude Collegial (DEC) may be eligible for a maximum of 30 credit hours of transfer credit (normally from the second year of studies). Holders of a three-year DEC applicable to specific UNBC programs may be eligible for additional transfer credit.

Advanced Placement (AP) and International Baccalaureate (IB)

Advanced Placement courses are eligible for transfer credit if you complete the course with a grade of 4 or higher.

International Baccalaureate coursework completed at the Higher Level is eligible for transfer credit with a grade of 4 or higher. If you complete the IB Diploma, you may be eligible for block credit for Subsidiary Level coursework.

See the BCCAT website to review the credit assigned: www.bctransferguide.ca/learn-more-about/international-baccalaureate

GCE

Each A level subject course with a grade of at least C may be awarded up to 6 credit hours of transfer credit.

Letter of Permission

A Letter of Permission ensures that courses successfully completed at another institution will be transferred to UNBC for consideration as credit toward the student's degree program. Before taking courses from other post-secondary institutions for credit on a Letter of Permission towards a UNBC credential, a student must

a. complete at least 9 credit hours of study at UNBC and not be in their first semester of admission (or re-admission);
b. be in good academic standing;
c. not have any outstanding obligation to the University, which may include, but is not limited, to the following:
    - tuition fees owing;
    - library or other fines owing;
    - outstanding library loans;
    - outstanding equipment or other loans.

Coursework taken on a Letter of Permission is considered to be transfer credit, and therefore subject to all policies and practices related to transfer credit. Letters of Permission are only valid for the semester in which they are issued. Extensions will require the submission of a new Letter of Permission request. Letters of Permission will not be processed for the current semester after the withdrawal date of that semester.

Students who complete courses without having first obtained a Letter of Permission risk not having those courses accepted for transfer credit.

Advanced Standing

In cases where course challenge is not possible, or appropriate transfer credit is unable to be granted, the program Chair(s) or instructor, as appropriate, upon review of the student's background, may grant a student permission to undertake advanced coursework without the normal prerequisites. Such advanced standing will not reduce the number of credits that the student must accumulate to obtain a UNBC degree.

Diverse Qualifications

UNBC recognizes the diversity of experience that students can bring to the university environment. This admissions route takes into account applicants who demonstrate life experience, excellence in other endeavours, and/or who have succeeded despite difficult circumstances. UNBC welcomes applications from anyone who can demonstrate academic potential but does not meet the requirements of the regular admissions routes.

Through this admissions route, applicants are assessed on an individual basis and may be asked to provide any of the following:

- Proof of English language requirements;
- All academic transcripts;
- An Academic Intent Declaration; and
- An Employment History Form.

Students admitted under this category may be offered clear, conditional, or probationary admission. Students may also have credit hour restrictions in their first semester of studies.

Note that, if probationary admission is offered, students must achieve a minimum 2.0 GPA in their first semester; otherwise, they may not be permitted to continue for up to one calendar year.

Permission for Undergraduates to Take Graduate Coursework

Students in their final year of a Bachelor's degree program at UNBC who have a GPA of at least 3.33 (B+) in the last 30 credit hours of coursework attempted may be permitted to register in a maximum of 6 credit hours of graduate courses on the recommendation of the program concerned, the course instructor(s) and with the consent of the faculty Dean. If a student is subsequently admitted to a graduate program, graduate courses used for credit toward the undergraduate program cannot be used for credit toward the graduate program.

This policy gives academically-strong undergraduate students the opportunity to experience graduate-level instruction without commitments being made by either the student or the University about admission into graduate programs, or academic credit being awarded for the courses if a student is subsequently admitted to a graduate program. Please note that preclusions stated in the graduate academic calendar will apply. Students are responsible for being aware of preclusions in the graduate academic calendar for cross-listed undergraduate/graduate courses.

Simultaneous enrollment in a graduate program and an undergraduate program, a diploma program, or a certificate program is not permitted.

Admission to Graduate Studies

Please refer to the graduate academic calendar or visit the Office of Graduate Administration website online at: www.unbc.ca/graduate-administration for admission information.

Simultaneous enrollment in a graduate program and an undergraduate program, a diploma program, or a certificate program is not permitted.

Undergraduate Regulations and Policies

I. Formal Relationship Between the University and Students

Upon registering and while registered in a for-credit course, program of study, or audited course offered by or through the University of Northern British Columbia (UNBC), a Student enters a formal relationship with the University by which they

- acknowledge the right of the University to set acceptable standards of Academic Integrity and of Academic and Non-Academic Conduct;
- accept and agree to be subject to the University's Policies, Rules and Procedures; and
- accept the right of the University to investigate, impose discipline and determine consequences for Academic or Non-Academic Conduct found to have violated the University's Standards, Policies, Rules or Procedures.

By registering to become a student at UNBC, a Student agrees to enter the formal relationship outlined above.

Students are required to inform themselves of UNBC's policies, procedures, rules and regulations, and any subsequent amendments in place at the University. Please refer to the following website to access UNBC's Policies and Procedures: www.unbc.ca/policy.

II. UNBC's Core Values and Statement of Principles

1. UNBC is a place of research, teaching, and learning, where members of the university community value inclusiveness and diversity, community, integrity, and academic excellence. These values are supported through an unwavering commitment to free expression and debate in an atmosphere of respectful interactions, safety and good conduct.
2. The University is committed to reconciliation and recognizing Aboriginal Ways of Knowing within the Academy. UNBC's motto, '*En Cha Huná*, meaning "they also live," sets a foundation of respect, and reflects a shared commitment to responsibility, reciprocity and relationship in the interactions between students and the University community as a whole.
3. All members of the University community share the responsibility for the academic standards and reputation of the University. Academic integrity is founded on values of respect for knowledge, truth, scholarship and acting with honesty. Upholding academic integrity is a condition of continued membership in the University community.
4. The University strives, whenever possible, to take an educational and developmental approach to Academic and Non-Academic Misconduct, informed by knowledge and respect for mental health, well-being, cultural differences, and principles of reconciliation.
5. The University adheres to the principles of procedural fairness and natural justice in working to ensure that students, faculty and staff are aware of their applicable rights and responsibilities with respect to Academic and Non-Academic Conduct, in investigating alleged misconduct, and when taking steps to establish or impose consequences.

III. Academic Conduct and Non-Academic Conduct

UNBC is committed to creating a scholarly community characterized by free expression, open debate, critical and free inquiry, and diversity of thought and perspective; the orderly and safe enjoyment of University facilities by all members of the University community; and the proper functioning of the University and protection of University property.

The *Academic and Non-Academic Conduct Student Policy* defines students' responsibilities as academic community members, defines inappropriate student conduct, and provides procedures and outcomes to be invoked if students engage in such behaviour. Each student is responsible for their conduct that affects the University community.

A student may appeal a decision made or disciplinary measure imposed in response to a finding of Academic Misconduct. A student may appeal a suspension imposed in response to a finding of Non-Academic Misconduct. In accordance with the *University Act*, the appeal is to the Senate Committee on Student Appeals.

For more information on academic conduct and non-academic conduct and the appeals processes at UNBC, visit www.unbc.ca/policy.

IV. Harassment, Discrimination and Diversity Initiatives

UNBC is committed to providing a working and learning environment in which all students, staff and faculty are treated with respect and dignity. UNBC acknowledges the right of all individuals in the University community to work or learn without discrimination or harassment. An approved policy, available at www.unbc.ca/policy, applies to all members of the UNBC community.

V. Notification of Disclosure of Personal Information to Statistics Canada

Statistics Canada is the national statistical agency. As such, Statistics Canada carries out hundreds of surveys each year on a wide range of matters, including education.

It is essential to be able to follow students across time and institutions to understand, for example, the factors affecting enrollment demand at postsecondary institutions. The increased emphasis on accountability for public investment means that it is also important to understand 'outcomes'. In order to conduct such studies, Statistics Canada asks all colleges and universities to provide data on students and graduates. Institutions collect and provide to Statistics Canada student identification information (student's name, student ID number, Social Insurance Number), student contact information (address and telephone number), student demographic characteristics, and enrollment information.

The federal Statistics Act provides the legal authority for Statistics Canada to obtain access to personal information held by educational institutions. The information may be used for statistical purposes only, and the confidentiality provisions of the Statistics Act prevent the information from being released in any way that would identify a student.

Students may contact Statistics Canada via e-mail if they have any questions: statcan.PSIS-SIEP.statcan@canada.ca.

VI. BC Freedom of Information and Protection of Privacy Act

UNBC gathers and maintains information used for the purposes of admission, registration and other fundamental activities related to membership in the UNBC community and attendance at a public post-secondary institution in the province of British Columbia. Information provided to the University by students, and any other information placed into the student record, is protected and used in compliance with the BC Freedom of Information and Protection of Privacy Act (2014).

VII. General Academic Regulations

1. Purpose of Academic Regulations

UNBC is committed to high academic standards as well as to assisting students to achieve their educational goals.

The Academic Regulations provide the framework within which academic programs are completed, and offer academic guidance along the program path.

The University reserves the right to add to, alter, or amend these regulations at any time.

2. E-mail Communication

E-mail is one of the official means of communication between UNBC and its students. All students are assigned a UNBC e-mail address upon admission. The e-mail address assigned to a student by the University will be the only e-mail address used by UNBC for communication with students for academic and administrative purposes. Students are responsible for checking their UNBC e-mail account regularly so as to remain current with administrative and academic notifications. It is the student's responsibility to ensure that time-critical e-mail is accessed, read, and acted upon in a timely fashion. If a student chooses to forward University e-mail to another e-mail address, it is the student's responsibility to ensure that the alternate account is active.

3. General Requirements for a Degree With a Major

First-entry undergraduate degree programs require a minimum of 120 credit hours with (except for the BA General and BSc Integrated degrees, and professional programs) a major subject. A major is a set of academic credit hours that, taken together, offers a strong concentration in a particular subject area or discipline as defined by the University Senate. Special regulations apply to individual degree programs and to honours degrees, the requirements for which should be consulted as well.

4. Continuing/Returning Students

A continuing student is one who has registered in one of the last three semesters. Unless such a student has been required to withdraw, or is suspended, the continuing student can return to the University without reapplying. A returning student is one who has not registered in any of the last three semesters. The student must reapply to the University and, if readmitted, will be governed by the general and program regulations in effect at the time of readmission.

5. Course Load

A full course load for a student is considered to be five courses (15 credit hours) in any one semester. Not more than 21 credit hours may be attempted in a semester except by permission of the Dean of the Faculty in which the student is majoring or has indicated an intention to complete a degree.

6. Full-Time Studies

In any given semester, a full-time student is one who is registered in 9 credit hours or more in that semester.

7. Part-Time Studies

Any student who registers in fewer than 9 credit hours per semester is considered a part-time UNBC student in that semester. Students applying to UNBC to study part-time are subject to the regular admission requirements.

8. Classification of Students

For purposes of classification and reporting, all undergraduate students in first-entry programs will be designated as First Year, Second Year, Third Year, or Fourth Year students.

To be considered a Second Year student, one must have obtained a minimum of 30 semester hours of credit towards a degree, or at least 21 semester hours of credit and be registered for sufficient

additional semester hours of credit in the current or next semester to total 30.

To be considered a Third Year student, one must have obtained a minimum of 60 semester hours of credit towards a degree, or at least 51 semester hours of credit and be registered for sufficient additional semester hours of credit in the current or next semester to total 60.

To be considered a Fourth Year student, one must have obtained a minimum of 90 semester hours of credit towards a degree, or at least 81 semester hours of credit and be registered for sufficient semester hours of credit in the current or next semester to total 90.

9. Auditing Courses

To audit a course is to attend lectures without being responsible for doing assignments or writing examinations.

No credit is given for a course taken in this manner, but courses audited will be recorded on a student's transcript.

To audit a course, a student needs the permission of the instructor, and in some cases must pay an auditing fee.

Except by the express permission of the instructor, an auditing student does not participate in class discussion.

10. Class Attendance

Students are expected to attend classes on a regular basis. Instructors may establish attendance requirements for each class. These expectations must be defined in the course syllabus.

11. Challenge for Credit by Examination

Under the conditions set out below, students may challenge for credit in a course by writing an examination during an examination period or at a time designated by the course instructor. To be eligible to challenge for credit, a student must be currently registered at UNBC, or have been admitted to study at UNBC other than on a Letter of Permission. Each Dean, on the advice of the program Chair, will decide which courses are eligible for challenge exams. Students who have earned credit for the course at UNBC or for the equivalent course at another institution, or who have audited the course at UNBC or another institution, or who are currently registered in the course at UNBC, are not eligible to challenge for credit in the course.

Students may not challenge a prerequisite course after successfully completing the advanced course. Students may not challenge a course which they have previously failed. Grades for course challenges are recorded on the transcript and the grade is included in the calculation of the GPA.

Application for Course Challenge forms are available at the Office of the Registrar. Students must submit the completed and approved form and payment for the course challenge to the Office of the Registrar not later than the last day of classes in the applicable semester. The fee for course challenge is one-half the regular tuition fee for the course and is non-refundable.

Arrangements for a challenge examination may be cancelled up until the last day of classes in the applicable semester. A student who pays for a challenge exam and does not cancel the arrangement by the deadline or does not write the exam will receive a grade of F.

12. Advanced Standing

In cases in which course challenge is not possible or appropriate transfer credit is unable to be granted, the program Chair or instructor, as appropriate, upon review of the student's background, may grant a student permission to undertake advanced coursework without the normal prerequisites. Such advanced standing will not reduce the number of credit hours that the student must accumulate to obtain a UNBC degree.

13. Lower-Division and Upper-Division Courses

All 100 and 200 level coursework is designated as "lower-division". Coursework done at the 300, 400, and 500 levels is designated as "upper-division".

14. Residency Requirement for Graduation

Students must complete a minimum of 30 credit hours of upper-division UNBC coursework to receive a UNBC degree.

15. Academic Breadth

Students pursuing the degrees of BA, BComm, BHSc, and BSc are required to meet the University's Academic Breadth requirement as a condition of graduation. Each graduate is required to have completed successfully at least 3 credit hours from each of the following four areas, or to have transferred to UNBC from another institution acceptable credit hours such that the requirement is met:

Arts and Humanities: At least 3 credit hours of courses with the prefix ENGL, HIST, PHIL, WMST.

Social Science: At least 3 credit hours of courses with the prefix ANTH, COMM, ECON, EDUC, ENPL, FNST, INTS, NORS, ORTM, POLS, PSYC.

Natural Science: At least 3 credit hours of courses with the prefix BIOL, ENSC, ENVS, FSTY, GEOG, HHSC, NREM.

Physical Science: At least 3 credit hours of courses with the prefix ASTR, CHEM, CPSC, MATH, PHYS, STAT.

This requirement applies to all students admitted or readmitted to UNBC for studies beginning in the September 2010 semester or later.

Students pursuing the degrees of BA Nature Based Tourism Management, BA Nisg̲a'a Language Fluency, BSc Biology, BSc Conservation Science and Practice, BSc Forest Ecology and Management, and BSc Wildlife and Fisheries are exempt from this regulation because academic breadth has been incorporated within the curricula.

16. Official and Unofficial Transcripts

Official transcripts are confidential and are only released on authority of the student. Transcripts issued to an institution, company, or agency are mailed directly to their address, or held for pick-up at the Office of the Registrar in confidential envelopes marked 'Official Transcript'. In extenuating circumstances, official transcripts may be issued to a student. Third-party requests must be accompanied by a signed authorization from the student.

Each transcript will include the student's complete record at the University. Since credit earned is determined on the results of final examinations, a transcript will not include results of mid-term examinations.

Transcripts will not be released without payment of the required transcript fee, and/or if there is an outstanding financial obligation to the University.

Requests for transcripts can be made online by using the myUNBC login link at www.unbc.ca or by completing a Transcript Request Form available online at www.unbc.ca/registrar/transcripts. There is a three business day turnaround for transcript requests.

Unofficial transcripts are available to students directly through their myUNBC Student Account.

17. Evaluation of Transcripts

The evaluation of transcripts is the responsibility of the Office of the Registrar. Questions relating to transfer credit should be dealt with at the beginning of a student's program. Except for courses taken during that semester on a Letter of Permission, under no circumstances will consideration be given to transfer credit requested during the final semester (15 credit hours) of a student's program.

18. Time Limit for Transfer Credit

Transfer credit is not normally awarded for courses completed in excess of 10 years prior to the date of first UNBC registration. Courses more than 10 years old are normally assigned unspecified credit. Once transfer credit has been granted, a student must maintain their continuing student status (see *Continuing/Returning Students* in Regulations and Policies) in order for transfer credit to be retained.

19. Letters of Permission

A Letter of Permission ensures that courses successfully completed at another institution will be transferred to UNBC for consideration as credit toward the student's degree program. Before taking courses from other post-secondary institutions for credit on a Letter of Permission towards a UNBC credential, a student must

a. complete at least 9 credit hours of study at UNBC and not be in their first semester of admission (or re-admission);
b. be in good academic standing;
c. not have any outstanding obligation to the University, which may include, but is not limited to the following:
    - tuition fees owing;
    - library or other fines owing;
    - outstanding library loans;
    - outstanding equipment or other loans.

Coursework taken on a Letter of Permission is considered to be transfer credit, and therefore subject to all policies and practices related to transfer credit. Letters of Permission are only valid for the semester in which they are issued. Extensions will require the submission of a new Letter of Permission request. Letters of Permission will not be processed for the current semester after the withdrawal date of that semester.

Students who complete courses without having first obtained a Letter of Permission risk not having those courses accepted for transfer credit.

20. Criminal Records Review

Under the requirements of the Criminal Records Review Act (2014), UNBC requires, as part of the application process, criminal record reviews for applicants to program areas that involve working with children or other vulnerable persons. The cost of this search is the responsibility of the student. Results which identify relevant criminal convictions may disqualify an applicant from admission into a program. Submission of a Criminal Records Search at the point of admission does not preclude either the program or provincial certification bodies from requesting a subsequent Criminal Records Search prior to field placement or professional registration.

Criminal Records Searches are requirements for the following undergraduate programs:

- Bachelor of Education (BEd)
- Bachelor of Science in Nursing (BScN)
- Bachelor of Social Work (BSW)

21. Student Access to Official University Record

Students have the right to inspect their official university record, including the student file, under the supervision of a staff member and as maintained by the Office of the Registrar. Students have the right to have access to their financial assistance file, as maintained by Awards and Financial Aid under the supervision of a staff member. Assessment reports and letters of reference submitted by third parties in support of students applying to professional programs will not be available for inspection. Students may inspect their official university record during normal office hours, and upon

advance request in writing. When students inspect their original records, examination will be permitted only under conditions that will prevent alteration or mutilation. In the event of a dispute as to the accuracy of the information maintained in their official university record, a student may appeal to the Registrar.

22. Declaring a Major

All undergraduate students other than students enrolled in programs leading to the degrees of BEd, BScN, BSW or General/ Integrated degrees (for which majors do not apply), are required to declare a major before the end of the semester in which they will complete 30 credit hours (See *General Requirements for a Degree With a Major* in Regulations and Policies). Students intending to pursue a General or Integrated degree program must declare this intent before the end of the semester in which they will complete 30 credit hours. A student who transfers into the University must declare a major at the time of application unless the transfer is to any of the degree programs indicated above. Declaration forms are available online at www.unbc.ca/registrar/forms.

23. Double Majors

Double majors are permitted in the BA, BComm, and BSc degree programs. Within the Faculty of Environment, students pursuing the BPl degree are permitted to double major only within the degree program. Completion of the double major entails completion of the requirements for each major. Any courses that are included in the requirements for both majors may be counted for both. Note: If double majors fall between two degrees, students must select only one degree: BA, BComm or BSc. They do not qualify for more than one.

24. Minors, Areas of Specialization, and Areas of Focus

UNBC offers minors in a number of subject areas, as outlined in the undergraduate calendar. A minor requires a minimum of 18 credit hours and, in most cases, a maximum of 27 credit hours. At least 12 credit hours of any minor must be completed at the upper-division level. A maximum of two courses (6 to 8 credit hours) used to fulfill the requirements for a major (or another minor) may also be used to fulfill the requirements for a minor, except when specified in program regulations for individual minors. Students are not permitted to include more than two minors in the same degree program. Some degree programs require the mandatory completion of a minor in order to meet degree completion requirements. Please refer to the undergraduate programs pages for specific details. Minors are recorded on a student's official transcript.

An Area of Specialization is a set of courses required or expected to be completed within the context of a major. Areas of specialization require at least 12 credit hours.

An Area of Focus is a set of courses recommended to students who may wish to concentrate their studies within their major. Areas of focus are not required for the major, and are not recorded on the transcript.

25. Co-operative Education

Except by permission of the Co-operative Education program:

1. no student may be registered for more than one course in addition to a "Co-op Work Semester" during a work term, with the exception of an approved parallel work term;
2. Co-operative Education students must finish their academic programs on an academic term, not a work term;
3. no student may drop or withdraw from a "Co-op Work Semester" once registered in it.

26. Time to Complete an Undergraduate Degree

Except by permission of the Dean, students must complete their undergraduate degree program within 15 years of their first semester of registration.

27. Second Undergraduate Degrees

Students who have earned a Bachelor's-level degree at UNBC or at any other accredited university may obtain a second Bachelor's degree (or the same Bachelor's degree in the case of the BA or BSc) from UNBC under the following conditions:

1. not more than sixty (60) of the credit hours counted towards the second degree may be taken from the first degree; and
2. the major subject in the second degree must be clearly distinct from the major subject in the first degree. Where there is any doubt on this point, the decision of the relevant Dean will be final. Students contemplating second degrees are encouraged to consult the relevant Dean in advance.

28. Application of Certain Professional Courses to Earn an Undergraduate Degree

With the approval of both the program Chair and faculty Dean, certain credits in the Northern Medical Program at UNBC/UBC and in accredited programs in the health professions at other universities may be accepted towards the Bachelor of Science degree. Applications for degrees under this regulation will be considered on a case-by-case basis, and in no case subsequent to the conferral of the professional degree in question. Not more than thirty (30) semester hours of professional credits may be counted.

29. Registration After the Published Add/Drop Date

No student is permitted to register for any course after the last date to add courses as published in the academic calendar except on the express written permission of the Dean, on the advice of the instructor and of the program Chair under whose authority the course is offered, as appropriate.

30. Change of Grade After Submission of Final Grades

Except for grade changes resulting from formal Academic Appeal, any changes in final grade after the initial grade submission must be transmitted to the Office of the Registrar through the appropriate Chair, except in cases where a Chair's grades must be approved by the appropriate faculty Dean.

31. Repeating Courses

Except by permission of the Chair, students are allowed to repeat a course only once. Both grades are recorded on a student's transcript, and only the higher grade will be calculated into a student's GPA and be used for credit towards a credential. In the case of more than one failed attempt, only the result of the most recent attempt will be calculated into the GPA. In cases where the repeated course is a required course for a specific degree, two failed attempts may result in the student being required to withdraw from that degree program.

Note: Repeating a course to achieve a higher passing grade may have implications for student loan purposes. Consult with the Awards and Financial Aid Coordinator for more information.

32. Course Exemptions

At the direction of the program Chair, specific course exemptions from course requirements may be granted. Nevertheless, the total number of credit hours for the degree still must be earned.

33. Conferral of Degrees

All students who expect to receive a credential must apply to graduate. Students are eligible to graduate at the end of each semester. All applications for graduation must be received by the Office of the Registrar before each deadline, accompanied by the appropriate (non-refundable) graduation fee.

34. Graduation Constraints

1. Normally, the program regulations that apply to a student's graduation are those that applied in the academic year in which the student was most recently admitted for continuous registration.
2. Application for graduation must be received by the Office of the Registrar no later than November 1, March 1, and July 1 to graduate in the September, January, and May semesters, respectively.
3. Students are not permitted to graduate while on Academic Probation (i.e., CGPA less than 2.00) or while any Academic Appeals are pending.
4. Students are not permitted to graduate with deferred grades (DEF) remaining on their transcript.
5. Students who have any outstanding obligation to the University will not be issued an official transcript. Outstanding obligations include, but are not limited to, the following:
    - tuition fees owing;
    - library or other fines;
    - outstanding library loans;
    - outstanding equipment or other loans.

35. Grounds for Withholding Official Transcripts

In instances of non-payment of any portion of tuition, prescribed fees or University library fines and/or bills, or of delinquency in the return or replacement of University property on loan, or non repayment of cash advances or loans, or violation of a residence contract, the University shall not permit a student to register for further courses, and shall not issue an official transcript. The above prohibitions shall be in force until such time as indebtedness to the University has been cleared to the satisfaction of the University.

36. Grading

Each course taken for academic credit is assigned a final grade at the end of the semester. The final grade for each course will be indicated by a letter grade and a grade point on the student's transcript.

All graded undergraduate courses require some form of assessment, summative or formative, sufficient to allow students to make a decision about completing a course prior to the date for Academic Withdrawal.

Grade Point Average: Grade Point Average (GPA) is a method of expressing a student's academic performance as a numerical value. Each letter grade is assigned a numerical equivalent, which is then multiplied by the credit hour value assigned to the course to produce the grade point.

Semester Grade Point Average: Semester Grade Point Average (SGPA) is computed by dividing the total number of grade points earned by the total number of credit hours taken in a semester. See *Repeating Courses* in Regulations and Policies for the treatment of repeated courses in GPA calculations.

Cumulative Grade Point Average: The UNBC Cumulative Grade Point Average (CGPA) expresses performance as a numerical average for all UNBC courses for all semesters completed. The CGPA is calculated by dividing the total number of grade points earned to date by the total number of credit hours undertaken to date. (Letter grades of P or W are not assigned a numerical value and are not used in calculating the grade point average.) See *Repeating Courses* for the treatment of repeated courses in GPA calculations. The CGPA provides the numerical value used to determine good academic standing or academic probation.

37. International Exchange

In order to be eligible to participate in an international exchange program, UNBC students must have either a UNBC cumulative GPA higher than 2.67, or a GPA in the previous two semesters of at least 18 credit hours higher than 3.00.

Calculation of Grade Point Average

The following is an example of how a student's GPA is calculated at the end of a semester:

1.	ENGL 201-3	B	3.0	3 credit hours x 3.0	=	9.00
2.	ENGL 212-3	B-	2.67	3 credit hours x 2.67	=	8.01
3.	PHYS 115-4	C+	2.33	4 credit hours x 2.33	=	9.32
4.	HIST 302-3	A+	4.33	3 credit hours x 4.33	=	12.99
5.	PSYC 303-3	W	—			—
		Total		13 credit hours		39.32

Semester GPA: 39.32/13 = 3.02

Undergraduate Grading System

UNBC Grade Point	Letter	Percentage	Definition/Standing
4.33	A+	90 -100%	
4.00	A	85-89.9%	Excellent
3.67	A-	80-84.9%	
3.33	B+	77-79.9%	
3.00	B	73-76.9%	Good
2.67	B-	70-72.9%	
2.33	C+	67-69.9%	Satisfactory
2.00	C	63-66.9%	
1.67	C-	60-62.9%	Marginal
1.33	D+	57-59.9%	
1.00	D	53-56.9%	
0.67	D-	50-52.9%	
0.00	F	0 -49.9%	Failure

The following are not included in academic average:

P	Passing grade	credit awarded
AEG	Aegrotat standing	credit awarded
DEF	Deferred grade	no credit awarded
W	Withdrawn	no credit awarded
WE	Withdrawn under extenuating circumstances	no credit awarded
AUD	Audit of course	no credit awarded
INP	Course or Thesis work in progress	
NGR	No grade reported	

38. International Exchange Grading

In the case of a formal exchange, the grades from an exchange university are reported using a PASS/FAIL grading system and are not counted towards a student's UNBC SGPA or CGPA.

39. Honours and Distinction

1. UNBC recognizes the outstanding achievement of undergraduate students who earn superior grades in either the Fall or Winter semester as Dean's List students. These students are sent a letter of recognition and "Dean's List" is noted on their transcript. For the purpose of the Dean's List, eligible students are defined as students with a minimum required GPA, as defined by the program, who are in the top 10% of their program and have enrolled in and completed at least 9 credit hours of graded coursework in either the Fall and/or Winter semester.

2. Candidates for undergraduate degrees whose CGPA at graduation is 3.00 or better will graduate:

> 4.00	With Distinction
> 3.67 to < 4.00	First Class Honours
> 3.50 to < 3.67	Upper Second Class Honours
> 3.00 to < 3.50	Second Class Honours

3. Candidates for the joint (with UBC) Bachelor of Applied Science in Environmental Engineering will be granted a degree With Distinction if they achieve an overall GPA of at least 3.67 on all 200-level and higher courses while registered in the BASc program.

40. Examinations

a. No final examinations may count for more than 50% (fifty per cent) of the total course marks.
b. With the exception of laboratory, clinical or practicum-based final examinations, tests worth, in aggregate, more than 10% of the final grade must not be administered during the final week of classes. Major papers or projects must not be newly assigned during the last two weeks of classes.
c. Program Chairs may make exceptions to parts a) or b) of this policy in extraordinary cases. Such exception must be made before the first day of scheduled classes and have the approval of the Dean.
d. Students are required to write no more than two final exams in any one 24-hour period. When a course has a final

examination, it must be administered during the scheduled examination period.

e. Final exams are no longer than three hours in duration. Exceptions must be approved by the program Chair.

41. Conduct in Examinations

Students must present appropriate identification upon entering the examination room. Appropriate identification is defined as a UNBC student card and/or some other form of photo identification acceptable to the proctor. The following regulations apply to the conduct of examinations:

a. Books, papers, or other materials or devices must not be in the possession of the student during an exam except by the express permission of the examiner and/or proctor. Specifically, without such permission, no laptop computers, mobile phone sets, handheld electronic devices or the like may be in possession of the student in the examination room (see *Academic Offenses* in Regulations and Policies).
b. No candidate is permitted to enter the examination room more than 30 minutes after the beginning of the examination, or permitted to leave within 30 minutes after the examination has started.
c. Candidates must not communicate in any way with other candidates in the examination room.
d. Candidates must not leave their seats, except when granted permission by the proctor.
e. Candidates must turn in all materials, including rough work, upon leaving the examination room.
f. Food and beverages other than water are not permitted in the examination room.

42. Student Access to Final Examinations

The instructor will, on request by a student, informally review the final examination with the student after the semester grade has been released.

Final examinations will be retained by the instructor for a period of one year after the examination period, after which time they may be shredded or destroyed by other acceptable means.

43. Religious Holidays/Examination Schedule

In some instances, students may find themselves, for religious reasons, unable to write a final examination on a scheduled day. If the final examination cannot be rescheduled to avoid the conflict, the student concerned shall be evaluated by other means, which may include another examination scheduled at a different time. Students must complete the appropriate form and notify the instructor(s) of a conflict at least two weeks prior to the examination period.

44. Final Examinations Missed

Satisfactory explanation, with supporting documentation as appropriate, for any final examination missed must be made by the student or designate to the Office of the Registrar within 48 hours from the time the examination was written.

Within 48 hours of receiving a submission, the Registrar (or designate) may direct the program under which the course is offered to arrange the writing of a special examination in the case of an examination which was missed.

Normally, for explanations of sickness, a doctor's certification is required.

45. Deferred Examinations and Grades

a. Students may request a deferred examination or deferred status to complete required term work if medical or compassionate reasons prevent attendance at an examination or completion of assignments. Submission of a deferred (DEF) grade by the instructor and program Chair, should be received by the Office of the Registrar without exception before the date of the final examination. After that date, the Academic Regulation on *Final Examinations Missed* applies. Forms for deferred status are available to faculty from the Office of the Registrar. If a student is granted a deferral, the exam must be written or the assignment(s) completed and graded before the last day of classes in the following semester, unless prior arrangements have been made with the instructor and notification has been submitted to the Office of the Registrar. If a student is granted a deferral but does not complete the required work, or does not appear for the examination, a grade of F will be assigned. If a student's request for deferred status is refused, the instructor will submit a final grade.
b. Students are not permitted to graduate with deferred grades (DEF) remaining on their transcript (See *Graduation Constraints* in Regulations and Policies).

46. Academic Offenses

Any academic conduct that violates the standards of the *Academic and Non-Academic Conduct – Student Policy* is a serious offense. The formal processes set out in following three documents: *Academic and Non-Academic Conduct – Student Policy, Academic and Non Academic Misconduct Procedures,* and *Appeals Procedures* are to be followed. For more information on student academic conduct at UNBC, visit www.unbc.ca/policy.

47. Academic Standing - Definition

Students are expected to meet the necessary minimum standards for performance while attending UNBC. Those who fail to meet the minimum standard are placed on academic probation. The minimum standard is defined as an academic average on 9 or more credit hours of UNBC coursework that produces a cumulative grade point average (CGPA) of at least 2.00.

48. Conditions of Academic Standing

a. **Academic Probation**: "Academic Probation" constitutes a warning to a student that the student's academic performance has been at a level which, if continued, could disqualify the student from graduation, and further, that continued performance below the required standard could lead to a Requirement to Withdraw from the University on academic grounds.

   Students may be placed on Academic Probation under the following conditions:

   i. Admission to the University on the basis of an unproven, falsified or unsuccessful previous university record;
   ii. A UNBC Cumulative GPA of less than 2.00 after attempting 9 credit hours of coursework.

Letters of permission are not given to students on Academic Probation.

Students who have been placed on Academic Probation who achieve a Semester GPA (SGPA) of 2.00 or greater in subsequent semesters are allowed to continue their studies at UNBC while on Academic Probation. Students are considered to have returned to good academic standing once their Cumulative GPA is 2.00 or greater. Students are not permitted to graduate while on Academic Probation (see *Graduation Constraints* in Regulations and Policies).

b. **Requirement to Withdraw**: The following circumstances may result in a Requirement to Withdraw from UNBC
   i. Discovery that required documentation for admission was withheld from the University or falsified;
   ii. Failure to pay for tuition or University services;
   iii. Failure to achieve a Semester GPA of 2.00 or higher after the completion of 30 credit hours while on Academic Probation. Normally, in this case, a Requirement to Withdraw from the University is for three semesters (one full calendar year);
   iv. A decision by the President of the University that the suspension of a student, for reasons of unsatisfactory conduct, unsatisfactory academic performance, or otherwise, clearly indicates that withdrawal from UNBC is in the best interest of the University.

Academic credit earned at another post-secondary institution during the Requirement to Withdraw period is considered for transfer to UNBC, provided that

   i. Courses meet the University's policy on transfer credit; and
   ii. Courses do not duplicate successful or unsuccessful coursework previously completed at UNBC.

It is recommended that students who are required to withdraw and who plan to return to UNBC at a later date meet with a student advisor to discuss their academic standing and course plan prior to enrolling in courses at another post-secondary institution.

In order to apply for re-admission to the University, students must submit an Application for Admission/Re-admission to the Office of the Registrar. Students must provide, with the application, a letter to the Registrar, stating their rationale for wishing to return to studies at UNBC and documenting any work completed or experience gained which would better qualify them to complete studies at UNBC successfully. Students who are permitted to return to studies at UNBC return on Academic Probation, and are subject to the University's regulations on academic standing and continuance found in the current calendar.

c. **Second Requirement to Withdraw**: Students Required to Withdraw from the University a second time normally are not considered for re-admission for at least two (2) full calendar years following the Requirement to Withdraw. Re-admission is only on presentation of compelling evidence that the student is both able and prepared to succeed in University studies.

d. **Academic Renewal:** A student that has been away for a minimum of five calendar years with a Cumulative GPA of less than a 2.0 may apply for academic renewal, providing the request is done so within their first semester of re-admission.

   Requests for academic renewal will be reviewed by the Office of the Registrar on a case-by-case basis. If approved for academic renewal, all previous courses and grades will remain on the student's permanent academic record; however, all courses taken prior to the student's return will be excluded from their renewed Cumulative GPA and cannot be used in the student's degree.

49. Appeals Process

All students have the natural and reasonable right to appeal grades given during the term, the final grade of a course, Requirement to Withdraw, decisions the University makes regarding academic misconduct and suspension resulting from non-academic misconduct. The Senate Committee on Student Appeals is the final adjudicator in such matters. For more information on student appeals, please visit www.unbc.ca/policy.

50. University Closure/Weather

On rare occasions, the President (or designate) may elect to close the University due to inclement weather or other human or natural circumstances. In such circumstances, classes and examinations are formally cancelled and rescheduled. Assignments due on the date of the closure must be submitted on the next day that the University is open.

Programs

Co-operative Education

UNBC's Co-operative Education (Co-op) program is a work-integrated learning model that integrates students' academic programs with practical work experiences. To receive a Co-operative Education designation on their transcript, students usually alternate academic and co-op work terms and are required to:

- complete the required pre-employment training as outlined by the Co-op office;
- pass the number of co-op work terms equal to at least 30% of a student's time spent in academic study (minimum three co-op work terms for a four-year program);
- end the Co-op program on an academic term prior to graduation.

UNBC's Co-op office is not obligated to guarantee work term placements.

Admission to the Program

Intake into the Co-op program occurs at the beginning of the academic semester. To qualify for and continue in the Co-op program, students must:

- have completed a minimum of 24 credit hours before participating in their first co-op work term;
- Engineering students must have completed a minimum of 30 credit hours of required coursework before participating in their first co-op work term;
- be enrolled full-time;
- have a minimum Cumulative GPA of 2.50.

Upon application, students must have a Cumulative GPA of 2.50 or higher, with the last semester GPA no less than 2.50. Maintenance of this CGPA of 2.50 in subsequent semesters is required to remain in the Co-op program.

Students are selected based on academic performance, written and oral communication skills, and general suitability for the work environment. Students required to withdraw from the Co-op program due to their academic standing may re-apply for admission based upon re-qualification.

Co-op Work Terms

A co-op work term mirrors an academic term (approximately 4 months in length), with a minimum requirement of 12 weeks. A co-op work term consists of full-time work relevant to students' declared academic majors or minors (approximately 420-520 hours of work experience, dependent on employer needs).

Some co-op work terms are equal in length to two academic terms (8 months) and are considered two separate work terms. A two-work-term placement must consist of full-time work relevant to students' declared academic majors or minors (approximately 840-1,040 hours of work experience, dependent on employer needs). If students wish to be enrolled in an academic course while on a co-op work term, they must receive the approval of the Co-op office before registering.

Notes:

- International students must ensure that they have the proper immigration documents in place before starting their co-op work term.
- Students with a full-time co-op placement are considered full-time equivalent for reporting purposes to various agencies.

Parallel Co-op Work Terms

A parallel co-op work term is normally equal in length to two academic terms (approximately 8 months in length) and consists of part-time work relevant to a student's declared academic major or minor (approximately 17.5-20 hours per week, for a total of 420-520 hours of work experience, dependent on employer needs). A parallel co-op work term is considered as a single co-op work term where students are expected to be enrolled in two academic courses (minimum 6 credit hours) per academic semester. If students wish to be enrolled in more than two academic courses in an academic semester, they must receive the approval of the Co-op office before registering.

Co-operative Education Transferable Work Terms

Co-op work terms successfully completed at a Canadian post-secondary institution may be eligible for transfer work term credit, as determined on an individual basis, if they meet the following requirements:

- the program in which the work term(s) was undertaken is approved under the criteria of the Accountability Council of Co-operative Education and Work-Integrated Learning of BC or Co-operative Education and Work-Integrated Learning Canada;
- the work term(s) is officially recognized (i.e. noted on the transcript) by the institution where the work term originated;
- the credit for a transfer work term was granted for work experience typical of the discipline into which the student is transferring;
- the student is accepted into the UNBC Co-op program and applies for assessment of a transfer of work terms.

Students who transfer a co-op work term must complete pre-employment training outlined by the Co-op office before participating in their first co-op work term as a UNBC student.

Co-operative Education Work Term Credit Challenge

The UNBC Co-op program allows students to challenge their first work term based on prior relevant and satisfactory work experience. Students should discuss any potential work term course challenge with the Co-op office. Work term course challenges are

eligible for work term credit, as determined on an individual basis, upon verification of the following:

- an aggregate of approximately 420-520 hours of relevant work experience, dependent on employer needs, and not previously counted toward work term credit, practicum, internship, and similar options;
- employment verification and performance evaluation by the employer;
- a job description providing evidence that the student acquired professional and personal knowledge and skills appropriate to the declared academic major or minor; and
- completion of assignments set by the Co-op office.

If the work term course challenge is approved, the result is entered on the student's transcript on a PASS/FAIL basis.

For additional information, please visit the Co-op office or the program website at www.unbc.ca/co-op.

Internship Courses

Internship courses are for those students who wish to have a more limited practical work experience and are unable to pursue the requirements of the Co-op program.

These courses differ from the Co-op program in that they are for one semester only. Specifically, the internship courses will be one semester in length (four months) and will be for course credit rather than a paid employment experience. The employer, student and faculty supervisor will together agree on a term assignment. The student will be responsible for completing this assignment and defending it at the end of the term to the employer and faculty member.

Please note: the internship courses are completely separate from the practica found in such programs as Nursing, Social Work and Education.

International Exchange Program

Exchange programs between UNBC and other institutions are defined by the terms of formal exchange agreements.

Students participating in exchange programs generally pay their tuition fees to UNBC, but select their courses at the university they will be visiting (this policy may vary with each exchange agreement). Grades are recorded at the receiving institution and forwarded to UNBC at the end of the semester or academic year. In the case of a formal exchange, grades will be reported by UNBC using a PASS/FAIL grading system and will not be counted towards a student's cumulative GPA.

Students are permitted to spend a maximum of one academic year on a formal exchange. To participate in an international exchange, students must be nominated by UNBC and then wait for written approval from the receiving university. Students are required to register and pay their fees to UNBC before leaving on exchange. For more information on exchange opportunities and application procedures, contact the International office.

Study abroad where a formal agreement does not exist must be conducted by means of a letter of permission. In such cases tuition fees are paid to the receiving institution.

Selection Criteria for International Exchange Participants

The International office has developed the following criteria to select UNBC students to participate in formal international exchanges. Criteria are outlined in descending order of importance.

Grade Point Average

- a minimum cumulative GPA of 2.67 is required;
- in exceptional circumstances, a minimum of 2.67 over the last 30 credit hours may be considered;
- in some cases a higher CGPA is required by the receiving institution.

Statement of Interest

- students are asked to submit a one- to two-page essay outlining the potential impact of participation in the exchange on their academic program and the expected contribution to their career plans;
- the quality of writing used in the statement of interest will also be considered.

Academic Study Plan

- the study plan should demonstrate that exchange participation will contribute to a student's degree program and/or elective requirements;
- students will complete a study plan for both their first and second choice of destinations, but they will only be required to obtain advisor/faculty signatures for their first choice at the initial stage of the application process.

Letters of Academic Reference

- applicants are asked to present two academic references and one personal reference;
- academic referees are asked to comment on the student's ability to succeed academically in an exchange;
- letters of reference should be from UNBC faculty members or the applicant must provide an explanation as to why another academic reference is valid.

Curriculum Vitae/Résumé

- the committee will look for community and/or campus participation;
- a résumé may also include information on cross-cultural interest and experience;
- relevant experience in the workforce or as a volunteer will also be taken into consideration.

Academic Year

- senior students will have had more time to develop academic maturity, and less opportunity to participate in exchanges in

preceding years, and thus may be given priority over more junior students;
- students are permitted to submit application materials for exchange upon completion of at least one semester of study at UNBC. However, students must complete a minimum of 30 credit hours of academic study at UNBC before departing on an international exchange.

Special Criteria

- students should meet specific criteria for particular exchanges;
- applicants must meet language requirements for some exchanges.

Other UNBC Exchanges

- students may participate in a maximum of one academic year of exchange;
- all other things being equal, the committee will give priority to students who have not previously participated in a UNBC exchange program.

Additional Considerations

- only complete applications will be considered;
- an interview may be required for final selection;
- recent UNBC alumni may be considered as exchange participants if there are no qualified applicants among current UNBC students.

Budget Worksheet

- to assist students in planning their exchange, this form must be completed.

Northern Transitions Program (NTP)

Please note the Northern Transitions Program is not currently accepting applications. Please contact futurestudents@unbc.ca for alternatives.

Introduction

UNBC's Northern Transitions Program (NTP) is a holistic and supportive program that helps students prepare for and successfully navigate the transition to university studies. By offering courses that bridge gaps in student knowledge and experience, the NTP is a program for anyone who would benefit from a supportive transition into the role of a post-secondary student.

The NTP provides skills and knowledge in the first year of studies that subsequently allow students to complete degree programs. Throughout their critical first year, students will receive credit for courses in which they develop library skills, text reading skills, communication, exam-taking strategies and quantitative skills. This program has three main principles:

- To enhance learning, writing, communication, computer and other skills, which will improve success in a post-secondary institution;
- To enable students to explore various career options available through their educational achievements;
- To provide a supportive network and learning environment which will enhance personal development and academic success.

Courses and Semester Layout

The Northern Transitions Program was developed with existing UNBC courses to support students continuing into degrees of their choice. This program is cohort-based so only others in the NTP will be in the courses in order to build relationships and supports with fellow students. The courses will be enhanced by a bi-weekly talking circle with their Academic Learning Coach (ALC) to ensure that all aspects of student life are nurtured. The foci of these talking circles is on a wide range of topics from academics and support services to cultural support and wellness. This is not a standalone program, so students are expected to apply to a UNBC program of choice in their first year of studies with the Northern Transitions Program. The program is designed to facilitate 20 students per year in each cohort.

Academic Learning Coach

The NTP provides support networks for personal growth that help students deal with issues that can impede their academic success. The Academic Learning Coach (ALC) is the students' key support. The ALC facilitates student engagement as students transition to university to ensure that their higher learning experience is a success. By providing personalized support, the coach guides students through coursework in an advisory and supportive capacity. They assist students in their transition to a self-motivated and independent approach university-level learning by being responsive to the particular needs that students may require for their future success in UNBC programs.

Admission Requirements

Students will be required to complete a regular UNBC admission application and indicate the Northern Transitions Program as their academic intention.

Students are required to have completed Math 10 and preference will be given to students who have completed English Studies 12 or English First Peoples 12.

Students who do not successfully meet the cumulative GPA of 2.0 (C average) for this program are required to meet with their student advisor and Academic Learning Coach to help assess goals and steps needed to move forward. Such students may be asked to take a short break from the University; however, this is not considered a penalty, as we want to provide students with options to ensure they are successful in their future educational endeavours.

Application Process

Students are encouraged to begin admission inquiries as soon as possible in the new calendar year. The deadline for submission of applications, complete with all required documentation, for September registration is May 31. Complete application files are given first preference for acceptance into the program. Not all students who are eligible are admitted as space in the program is limited.

To be considered for the Northern Transitions Program, students must also submit the following with their application form:

- one official transcript from high school and all post-secondary institutions attended (photocopies or facsimiles are not accepted as official);
- a letter of intent outlining their career goals and the importance of the Northern Transitions Program in achieving those goals;
- a letter of support from a high school teacher and/or band administrator, education coordinator or sponsoring organization.

Students who have submitted the above mentioned documents and have met all entrance requirements are then scheduled for a personal interview to ensure suitability and preparedness for the Northern Transitions Program.

Curriculum:

Northern Transitions Program students are required to complete 18 credit hours in their first and second semesters.

Student Success Initiative

UNIV 101-3 (Introduction to Higher Education) is a three-credit, multidisciplinary elective that is an appropriate foundation course for most university degree programs. It offers an introduction to the university and its many services, an explanation of the methods of academic inquiry employed in the various disciplines, and an opportunity to learn and practice the study skills and learning strategies that are required for academic success. Students are given opportunities to use the information from this course to improve their academic performance in the other courses they are studying.

UNIV 101-3 is most appropriate for students who are in their first year of study at a university, including those who have transferred from regional colleges. It is also appropriate for mature students who have been away from academic study for a period of time.

For additional information, see the description of the course that is located in the course description section of the calendar under the title, UNIV 101-3.

Academic Structure

Faculty of Business and Economics
School of Business
School of Economics

Faculty of Environment
Department of Ecosystem Science and Management
- Biology
- Conservation Science and Practice
- Forest Ecology and Management
- Outdoor Recreation and Tourism Management
- Nature-based Tourism Management
- Wildlife and Fisheries

Department of Geography, Earth and Environmental Sciences
- Environmental Science
- Geography

School of Planning and Sustainability
- Environmental Planning
- Environmental and Sustainability Studies

Faculty of Human and Health Sciences
Department of Psychology
School of Education
School of Health Sciences
School of Nursing
School of Social Work
UBC Division of Medical Sciences

Faculty of Indigenous Studies, Social Sciences and Humanities
Department of Anthropology
Department of English
Department of First Nations Studies
Department of History
Department of Global and International Studies
Department of Political Science
Interdisciplinary Studies
Northern Studies
Women's and Gender Studies

Faculty of Science and Engineering
Department of Chemistry and Biochemistry
Department of Computer Science
School of Engineering (Civil, Environmental, Integrated)
Department of Mathematics and Statistics
Department of Physics

Academic Breadth Requirement

The University of Northern British Columbia encourages all of its students to embrace Academic Breadth in both knowledge and skills. The ideal graduate has demonstrated literacy and numeracy in study, has acquired breadth of knowledge outside the chosen discipline(s) of study, and has developed the habit of analytical and critical thought. Certain degree programs lend themselves to a formal requirement for Academic Breadth in study.

Students pursuing the degrees of BA, BComm, BHSc, and BSc* are required to meet the University's Breadth requirement, as set out below, as a condition of graduation. Each graduate is required to have completed successfully at least 3 credit hours from each of the four Quadrants, or to have transferred to UNBC from another institution acceptable course(s) such that the requirement is met.

At least 3 credit hours from:
Arts and Humanities

English (ENGL)
History (HIST)
Philosophy (PHIL)
Women's Studies (WMST)

At least 3 credit hours from:
Physical Science

Astronomy (ASTR)
Chemistry (CHEM)
Computer Science (CPSC)
Mathematics (MATH)
Physics (PHYS)
Statistics (STAT)

At least 3 credit hours from:
Natural Science

Biology (BIOL)
Geography (GEOG)
Environmental Science (ENSC)
Environmental and Sustainability Studies (ENVS)
Forestry (FSTY)
Health Sciences (HHSC)
Natural Resources Ecosystem Management (NREM)

At least 3 credit hours from:
Social Science

Anthropology (ANTH)
Commerce (COMM)
Economics (ECON)
Education (EDUC)
Environmental Planning (ENPL)
First Nations Studies (FNST)
Global and International Studies (INTS)
Northern Studies (NORS)
Outdoor Recreation and Tourism Management (ORTM)
Political Science (POLS)
Psychology (PSYC)

This requirement applies to all students admitted or readmitted to UNBC for studies beginning with the September 2010 Semester or later.

*Students pursuing the degrees of BA Nature Based Tourism, BA Nisg̲a'a Language Fluency, BSc Biology, BSc Conservation Science and Practice, BSc Forest Ecology and Management, and BSc Wildlife and Fisheries are exempt from this regulation because academic breadth has been incorporated within the curricula.

University Learning Outcomes

Graduates from the University of Northern British Columbia demonstrate knowledge, skills and abilities appropriate for their degree in the following areas:

- Academic breadth and depth
- Analytical, critical, and creative thought
- Liberality, inclusiveness and an appreciation of diversity
- Personal growth, leadership skills and effective communication
- Engaged citizenship from the local to the global level
- Lifelong learning and intellectual development

Each academic degree program, individually, is structured so as to address these outcomes.

BA (General)

The Bachelor of Arts (General) degree provides a broad education in the arts. Students are required to complete 120 credit hours including a minimum of 60 credit hours of upper-division coursework. Ninety credit hours (including 30 credit hours at the upper level) must consist of Humanities and Social Science courses. For the purpose of the Bachelor of Arts (General) all courses from the following areas are considered Humanities or Social Science:

- Anthropology
- Arts
- Economics
- Education
- English
- Environmental Planning
- Environmental and Sustainability Studies
- First Nations Studies
- Global and International Studies
- History
- Northern Studies
- Philosophy
- Political Science
- Social Work
- Women's Studies

Coursework from Commerce, Geography, Health Sciences, Natural Resources Management, Outdoor Recreation and Tourism Management and Psychology has been approved on a case by case basis depending on its content. Please contact your student advisor for a list of approved courses in these areas.

The minimum requirement for completion of the Bachelor of Arts (General) is 120 credit hours.

Program Requirements

Lower-Division Requirement

Students must complete 54 credit hours of lower-division (100- and 200-level) coursework.

Upper-Division Requirement

Students must complete a minimum of 60 credit hours of upper-division (300- and 400-level) coursework.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Minor Recommendation

Majors are not a component of the BA (General); however, students are strongly urged to include in their degree a completed minor from any of those programs within Arts or Social Sciences which offers a BA, or from the Philosophy minor: i.e., from the following list:

- Anthropology (BA program)
- Economics (BA program)
- English (BA program)
- Environmental and Sustainability Studies (BA program)
- First Nations Studies (BA program)
- Geography (BA program)
- Global and International Studies (BA program)
- History (BA program)
- Northern Studies (BA program)
- Outdoor Recreation and Tourism Management (BA program)
- Philosophy (Minor program)
- Political Science (BA program)
- Women's Studies (BA program)

Alternatively, students may complete a minimum of 18 credit hours from any of these programs.

BSc (Integrated)

Program Contact: Erik Jensen

Website: www.unbc.ca/integrated-science

The Bachelor of Science (Integrated) provides a broad science base and integrates more than one area of study. Students must complete two Areas of Specialization listed below. The program is built upon a foundation of Biology, Chemistry, Mathematics and Physics. The program allows students to transfer into single-discipline science majors built on a foundation of Biology, Chemistry, Mathematics and Physics or, alternatively, to switch from those majors to the BSc (Integrated). This program may be useful to students planning to pursue studies in various post-baccalaureate professional areas. In order to be eligible for entry into a professional program, students should consult with the appropriate professional school(s) to ensure they have met all requirements. Prior to starting the first year of study, students are strongly encouraged to consult with an appropriate Student Advisor for their anticipated Areas of Specialization.

Areas of Specialization are:

- Biology, Ecology, and Biochemistry and Molecular Biology
- Chemistry, Biochemistry and Molecular Biology
- Computer Science
- Environmental and Earth Sciences
- Geography (Science) and GIS
- Mathematics and Statistics
- Natural Resources and Forestry
- Physics

Students enrolled in the Bachelor of Science (Integrated) must successfully complete a total of 120 credit hours including a minimum of 45 credit hours from upper-division (300- or 400- level) courses, and not less than 15 credit hours, at any level, of Humanities and Social Sciences courses. Humanities and Social Sciences courses may be selected from among the areas that are considered Humanities and Social Sciences for purposes of the BA (General). Students must ensure completion of course prerequisites before registering in any course.

Program Requirements

Lower-Division Requirement

BIOL 103-3 Introductory Biology I
BIOL 104-3 Introductory Biology II
BIOL 123-1 Introductory Biology I Laboratory
BIOL 124-1 Introductory Biology II Laboratory
CHEM 100-3 General Chemistry I
CHEM 101-3 General Chemistry II
CHEM 120-1 General Chemistry Lab I
CHEM 121-1 General Chemistry Lab II
MATH 100-3 Calculus I
and MATH 101-3 Calculus II
or
MATH 152-3 Calculus for Non-majors
and STAT 240-3 Basic Statistics
PHYS 100-4 Physics for Life Sciences I
or PHYS 110-4 Introductory Physics I: Mechanics
PHYS 101-4 Physics for Life Sciences II
or PHYS 111-4 Introductory Physics II: Waves and Electricity

Upper-Division Requirement

Students must complete 18 upper-division credit hours within each of two Areas of Specialization for a minimum of 36 credit hours.

Note that if a course falls into more than one Area of Specialization, it may be counted in only one Area of Specialization.

Eligible courses for the Biology, Ecology, and Biochemistry and Molecular Biology Area of Specialization

BCMB 306-3 Intermediary Metabolism
BCMB 340-3 Physical Biochemistry
BCMB 405-3 Topics in Biochemistry and Molecular Biology
All upper-division BIOL courses

Eligible courses for the Chemistry, Biochemistry and Molecular Biology Area of Specialization

BIOL 312-3 Molecular Cell Physiology
BIOL 423-3 Molecular Evolution and Ecology
BIOL 425-3 Applied Genetics and Biotechnology
All upper-division BCMB and CHEM courses

Eligible courses for the Computer Science Area of Specialization

Students considering this Area of Specialization should include in the first year:
CPSC 100-4 Computer Programming I
CPSC 101-4 Computer Programming II
CPSC 141-3 Discrete Computational Mathematics
All upper-division CPSC courses

Eligible courses for the Environmental and Earth Sciences Area of Specialization

ENPL 305-3 Environmental Impact Assessment
ENSC 402-3 Watershed Science and Management
FSTY 415-3 Forest Soils
FSTY 425-3 Soil Formation and Classification
GEOG 310-3 Hydrology
GEOG 311-3 Watershed Geomorphology
GEOG 405-3 Fluvial Geomorphology

GEOG 411-3 Glacial Geology
GEOG 416-3 Mountains
All upper-division ENSC courses

Eligible courses for the Geography (Science) and GIS Area of Specialization

GEOG 300-3 Intermediate GIS
GEOG 310-3 Hydrology
GEOG 311-3 Watershed Geomorphology
GEOG 357-3 Introduction to Remote Sensing
GEOG 405-3 Fluvial Geomorphology
GEOG 411-3 Glacial Geology
GEOG 413-3 Advanced GIS
GEOG 416-3 Mountains
GEOG 450-3 Advanced Geospatial Analysis
GEOG 457-3 Advanced Remote Sensing

Eligible courses for the Mathematics and Statistics Area of Specialization

All upper-division MATH and STAT courses

Eligible courses for the Natural Resources and Forestry Area of Specialization

All upper-division FSTY courses except FSTY 310-3 Forest Economics
All upper-division NREM courses except NREM 306-3 Society, Policy and Administration
All upper-division NRES courses

Eligible courses for the Physics Area of Specialization

All upper-division PHYS courses

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

BSc (Integrated) Coast Mountain College Degree Completion Program

This 60 credit-hour program of study is available only to students who have completed an Associate of Science Degree – Environmental Geosciences Specialization from Coast Mountain College.

Degree Requirements

1. Coast Mountain College Associate of Science Degree – Environmental Geosciences Specialization (minimum Cumulative GPA of 2.0)
2. Nine credit hours of required courses, as follows:
   ENSC 402-3 Watershed Science and Management
   ENVS 414-3 Environmental and Professional Ethics
   NRES 421-1 Professional Writing
   NRES 422-2 Undergraduate Report
3. Three credit hours of any level of Humanities and Social Sciences
4. Eighteen credit hours in each of two Areas of Specialization (the specialization in Biology, Ecology, and Biochemistry and Molecular Biology and the specialization in Environmental and Earth Sciences):

Required courses for the Biology, Ecology and Biochemistry and Molecular Biology Area of Specialization

Select 18 credit hours from the following courses:

BIOL 301-3 Systematic Botany
BIOL 302-3 Limnology
BIOL 307-3 Ichthyology and Herpetology
BIOL 308-3 Ornithology and Mammalogy
BIOL 318-3 Fungi and Lichens
BIOL 325-3 Ecological Analyses
BIOL 333-3 Field School
BIOL 350-3 Ethnobotany
BIOL 402-3 Aquatic Plants
BIOL 406-3 Fish Ecology
BIOL 409-3 Conservation of Aquatic Ecosystems
BIOL 411-3 Conservation Biology
BIOL 414-3 Fisheries Management

Required courses for the Environmental and Earth Sciences Area of Specialization

Select 18 credit hours from the following courses:

ENPL 305-3 Environmental Impact Assessment
ENSC 308-3 Northern Contaminated Environments
ENSC 404-3 Waste Management
ENSC 452-3 Reclamation and Remediation of Disturbed Environments
FSTY 425-3 Soil Formation and Classification
FSTY 435-3 Soil Biological Processes
GEOG 311-3 Watershed Geomorphology
GEOG 333-3 Geography Field School
GEOG 405-3 Fluvial Geomorphology
GEOG 411-3 Glacial Geology
GEOG 416-3 Mountains

5. Elective credit hours in any subject as necessary to ensure completion of a minimum of 60 credit hours.

Anthropology (BA Program)

Richard Lazenby, Professor Emeritus

Angèle Smith, Professor and Chair
Michel Bouchard, Professor
Erica Kilius, Assistant Professor
Shauna LaTosky, Assistant Professor
Erin Gibson, Adjunct Professor
Brenda Guernsey, Adjunct Professor
Tara Joly, Adjunct Professor
Alex Oehler, Adjunct Professor
Ayesha Rogers, Adjunct Professor
Rudy Reimer Yumks, Adjunct Professor
Farid Rahemtulla, Senior Instructor

Website: www.unbc.ca/anthropology

Anthropology is the integrated biological and sociocultural investigation of humankind, from the time of our pre-human ancestors to the present, including the study of both small- and large-scale societies. The program includes courses in archaeological, biological, linguistic and sociocultural anthropology. While a small number of mandatory courses will ensure that all students in the program share basic understanding of the range of anthropological approaches, students are able to select courses within the program and from other parts of the curriculum to focus on specific interests. The following suggestions illustrate the range of possibilities: a student with an interest in language could select courses within the programs in First Nations Studies, International Studies, English and Psychology; a student intending to enter a graduate program in archaeology might select courses from First Nations Studies, Geology, Geography, History and Environmental Studies programs; a student planning to work in the subfield of sociocultural anthropology could select courses from First Nations Studies, International Studies, Northern Studies, Women's Studies and Social Work; a student interested in biological (or medical) anthropology would include courses in Biology, Environmental Studies and Statistics; and a career in museology or cultural property management might benefit from a background in Resource Recreation and Tourism or administration as well as First Nations Studies, International Studies, History and Northern Studies.

Anthropology prepares students for entrance to a number of graduate programs (Archaeology, Biological and Sociocultural Anthropology, Museology); several types of professional programs (Law, Library and Information Science, Communicative Disorders, Social Work, Education, etc.) or employment in government or the private sector. Students aiming towards specific career goals should discuss their interests with advisors in the program at an early stage.

Major in Anthropology

Students majoring in Anthropology must take 54 credit hours in Anthropology courses (18 courses). Students may not take more than 60 credit hours of Anthropology without written permission of the Department Chair.

The minimum requirement for completion of a Bachelor of Arts with a major in Anthropology is 120 credit hours.

Program Requirements

Lower-Division Requirement

ANTH 102-3	Anthropology: A World of Discovery
ANTH 200-3	Biological Anthropology
ANTH 205-3	Introduction to Archaeology
ANTH 213-3	Peoples and Cultures
ANTH 217-3	Language and Culture

Upper-Division Requirement

ANTH 460-3 Anthropology Capstone

One of the following:

ANTH 300-3	Qualitative Research Methods for Social and Medical Anthropology
ANTH 301-3	Archaeological Lab Methods
ANTH 310-3	Practicing Anthropology
ANTH 312-3	Human Adaptability and Environmental Stress

One of the following:

ANTH 315-3	Anthropological Theory
ANTH 325-3	Archaeological Theory

Ten additional 3 credit hour courses in Anthropology of which six courses must be upper-level.

Subject Requirement

Students wishing to pursue graduate degrees in anthropology or in anthropology-related careers are encouraged to take field school courses and internships.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in Anthropology and English (BA)

The Anthropology and English joint major equips students with knowledge of anthropological issues and societal concerns as well as literary, critical reading and communication skills. The joint major offers complementary courses in areas such as theory, popular culture, film studies, place studies, gender studies as well as courses that focus on various cultural contexts.

Students fulfilling a Joint Anthropology/English major must take 75 credit hours or 25 courses (36 credit hours or 12 courses in Anthropology and 39 credit hours or 13 courses in English). The minimum requirement for completion of a Bachelor of Arts with a Joint Major in Anthropology and English is 120 credit hours.

Program Requirements

Lower-Division Requirement

ANTH 102-3 Anthropology: A World of Discovery
ENGL 211-3 Survey of English Literature I
ENGL 212-3 Survey of English Literature II

One of the following:
- ENGL 100-3 Introduction to Literary Structures
- ENGL 104-3 Introduction to Film

Two of the following:
- ANTH 200-3 Biological Anthropology
- ANTH 205-3 Introduction to Archaeology
- ANTH 213-3 Peoples and Cultures
- ANTH 217-3 Language and Culture

One of the following theory courses:
- ENGL 200-3 Gender and Literary Theory
- ENGL 300-3 The History of Literary Criticism and Theory
- ENGL 400-3 Contemporary Theory

Two additional courses (6 credit hours) of Anthropology at the 200 level

Two additional courses (6 credit hours) of English at the 200 level

Upper-Division Requirement

One of the following:
- ANTH 300-3 Qualitative Research Methods for Social and Medical Anthropology
- ANTH 301-3 Archaeological Lab Methods
- ANTH 310-3 Practicing Anthropology
- ANTH 312-3 Human Adaptability and Environmental Stress

One of the following:
- ANTH 315-3 Anthropological Theory
- ANTH 325-3 Archaeological Theory

ANTH 460-3 Anthropology Capstone

Four additional courses (12 credit hours) in Anthropology at the 300 or 400 level

Two of the following English courses (6 credit hours) at the 400 level:
- ENGL 410-3 Special Topics in Contemporary Women's Literature
- ENGL 420-3 Special Topics in Indigenous Literatures
- ENGL 430-3 Special Topics in Canadian Literature
- ENGL 431-3 Special Topics in Northern BC Literature
- ENGL 440-3 Special Topics in International Literatures in English
- ENGL 450-3 Special Topics in Comparative Literary Studies
- ENGL 483-3 Special Topics in Romantic Literature
- ENGL 493-3 Special Topics in Cultural Studies

Five additional upper-division English courses (15 credit hours) ensure fulfillment of the upper-division requirement. Two courses may be chosen from the following list of English ancillary courses:

- WMST 306-3 Indigenous Women: Perspectives
- WMST 311-3 History of Feminist Theories
- WMST 312-3 An Introduction to the History of Gender
- WMST 411-3 Contemporary Feminist Theories

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in Anthropology and First Nations Studies (BA)

The Anthropology and First Nations Studies joint major equips students with knowledge of anthropological issues and societal concerns as well as engages students to critically assess underlying everyday assumptions by taking a First Nations perspective. The joint major offers complementary courses in areas such as community-based research theory and methods, gender, environment and place studies, traditional use wear, and heritage.

Students fulfilling a Joint Anthropology/First Nations Studies major must take 69 credit hours or 23 courses (36 credit hours or 12 courses in Anthropology and 33 credit hours or 11 courses in First Nations Studies). The minimum requirement for completion of a Bachelor of Arts with a

Joint Major in Anthropology and First Nations Studies is 120 credit hours.

Lower-Division Requirements

ANTH 102-3 Anthropology: A World of Discovery
FNST 100-3 The Aboriginal Peoples of Canada
FNST 200-3 Perspectives in First Nations Studies

Two of the following:
- ANTH 200-3 Biological Anthropology
- ANTH 205-3 Introduction to Archaeology
- ANTH 213-3 Peoples and Cultures
- ANTH 217-3 Language and Culture

One of the following:
- FNST 131-3 A First Nations Language: Level 1
- FNST 132-3 A First Nations Language: Level 2
- FNST 133-3 Dakelh / Carrier Language: Level 1
- FNST 134-3 Dakelh / Carrier Language: Level 2
- FNST 135-3 Haisla Language (X-a'islak'ala): Level 1
- FNST 136-3 Haisla Language (X-a'islak'ala): Level 2
- FNST 137-3 Tsimshian Language (Sm'algyax): Level 1
- FNST 138-3 Tsimshian Language (Sm'algyax): Level 2
- FNST 139-3 Nisg̲a'a Language: Level 1
- FNST 140-3 Nisg̲a'a Language: Level 2
- FNST 161-3 A First Nations Culture: Level 1
- FNST 162-3 A First Nations Culture: Level 2
- FNST 163-3 Dakelh / Carrier Culture: Level 1
- FNST 164-3 Dakelh / Carrier Culture: Level 2
- FNST 167-3 Tsimshian Culture: Level 1
- FNST 168-3 Tsimshian Culture: Level 2
- FNST 169-3 Nisg̲a'a Culture: Level 1
- FNST 170-3 Nisg̲a'a Culture: Level 2
- FNST 171-3 Métis Studies: Level 1
- FNST 172-3 Métis Studies: Level 2

Two additional courses (6 credit hours) of Anthropology at the 200 level.

Upper-Division Requirements

One of the following:
- ANTH 300-3 Qualitative Research Methods for Social and Medical Anthropology
- ANTH 301-3 Archaeological Lab Methods
- ANTH 310-3 Practicing Anthropology
- ANTH 312-3 Human Adaptability and Environmental Stress

One of the following:
- ANTH 315-3 Anthropological Theory
- ANTH 325-3 Archaeological Theory

ANTH 460-3 Anthropology Capstone
FNST 300-3 Research Methods in First Nations Studies
FNST 440-3 Internship in First Nations Studies

Four additional courses (12 credit hours) in Anthropology at the 300 or 400 level

Six additional courses (18 credit hours) in First Nations Studies at the 300 or 400 level or approved ancillary courses for the major in First Nations Studies

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in Anthropology and Geography (BA)

The minimum requirement for completion of a Bachelor of Arts with a Joint Major in Anthropology and Geography is 120 credit hours.

Lower-Division Requirements

ANTH 102-3 Anthropology: A World of Discovery
ANTH 200-3 Biological Anthropology
ANTH 205-3 Introduction to Archaeology
ANTH 213-3 Peoples and Cultures
ANTH 217-3 Language and Culture
GEOG 101-3 Planet Earth
or GEOG 102-3 Earth from Above

Four of the following:
- GEOG 200-3 British Columbia: People and Places
- GEOG 202-3 Resources, Economies, and Sustainability
- GEOG 203-3 Canada: Places, Cultures, and Identities
- GEOG 204-3 Introduction to GIS
- GEOG 206-3 Social Geography
- GEOG 209-3 Migration and Development
- GEOG 211-3 Natural Hazards
- GEOG 220-3 World Regions: Latin America and the Caribbean
- GEOG 224-3 World Regions: Inuit Nunangat
- GEOG 225-3 Global Environmental Change
- GEOG 298-3 Special Topics

Upper-Division Requirements

ANTH 315-3 Anthropological Theory
or ANTH 325-3 Archaeological Theory
ANTH 460-3 Anthropology Capstone

One of the following:
- ANTH 300-3 Qualitative Research Methods for Social and Medical Anthropology
- ANTH 301-3 Archaeological Lab Methods
- ANTH 310-3 Practicing Anthropology

ANTH 312-3 Human Adaptability and Environmental Stress

Three upper-division Anthropology courses (9 credit hours) excluding ANTH 499-(3, 6) Independent Study

Four of the following:
- GEOG 305-3 Political Ecology: Environmental Knowledge and Decision-Making
- GEOG 306-3 Critical Development Geographies
- GEOG 307-3 Changing Arctic: Human and Environmental Systems
- GEOG 308-3 Health Geography
- GEOG 324-3 Community-Based Research
- GEOG 332-3 Community Development
- GEOG 333-3 Geography Field School

Two of the following:
- GEOG 401-3 Tenure, Conflict, and Resource Geography
- GEOG 403-3 Indigenous Geographies of Climate Resilience
- GEOG 416-3 Mountains
- GEOG 420-3 Environmental Justice
- GEOG 424-3 Northern Communities
- GEOG 426-3 Geographies of Culture, Rights and Power

Twenty-one additional credit hours of upper-division courses in any subject.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Students wishing to pursue graduate degrees in Anthropology or Geography are encouraged to choose electives in Anthropology or Geography.

Joint Major in Anthropology and Political Science (BA)

The minimum requirement for completion of a Bachelor of Arts with a Joint Major in Anthropology and Political Science is 120 credit hours.

Lower-Division Requirements

- ANTH 102-3 Anthropology: A World of Discovery
- POLS 100-3 Contemporary Political Issues
- POLS 200-3 Canadian Government and Politics
- POLS 202-3 Canada in Comparative Perspective
- POLS 230-3 International Relations
- POLS 270-3 Political Philosophy: Antiquity to Early Modernity

Two of the following:
- ANTH 200-3 Biological Anthropology
- ANTH 205-3 Introduction to Archaeology
- ANTH 213-3 Peoples and Cultures
- ANTH 217-3 Language and Culture

Two additional courses (6 credit hours) of Anthropology at the 200 level.

Upper-Division Requirements

One of the following:
- ANTH 300-3 Qualitative Research Methods for Social and Medical Anthropology
- ANTH 301-3 Archaeological Lab Methods
- ANTH 310-3 Practicing Anthropology
- ANTH 312-3 Human Adaptability and Environmental Stress

One of the following:
- ANTH 315-3 Anthropological Theory
- ANTH 325-3 Archaeological Theory
- ANTH 460-3 Anthropology Capstone
- POLS 303-3 Democracy and Democratization
- POLS 370-3 Political Philosophy: Early Modernity to Post-Modernity

Three additional courses (9 credit hours) in Anthropology at the 300 or 400 level.
Three additional courses (9 credit hours) in POLS at the 400 level.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Minor in Anthropology: Anthropological Archaeology

The minor in Anthropological Archaeology requires completion of a minimum of seven courses (21 credit hours), consisting of three lower-division courses (9 credit hours) and four upper-division courses (12 credit hours). A minor in Anthropology cannot be taken in addition to a major in Anthropology.

Requirements

ANTH 102-3 Anthropology: A World of Discovery

Two of the following:
- ANTH 203-3 Archaeology of the Americas
- ANTH 205-3 Introduction to Archaeology
- ANTH 212-3 Archaeology of the Old World
- ANTH 250-3 The Ancient Egyptians

Twelve credit hours of the following:

ANTH 301-3	Archaeological Lab Methods
ANTH 325-3	Archaeological Theory
ANTH 335-3	Archaeological Heritage Management
ANTH 409-3	British Columbia Archaeology
ANTH 416-(3-6)	Archaeological Survey and Mapping
ANTH 417-(3-6)	Excavation and Field Interpretation in Archaeology
ANTH 418-3	Archaeology and Indigenous Communities
ANTH 430-3	Stone Tools in Archaeology
ANTH 460-3	Anthropology Capstone
ANTH 499-(3, 6)	Independent Study

Minor in Anthropology: Biological Anthropology

The minor in Biological Anthropology requires completion of a minimum of seven courses (21 credit hours), consisting of three lower-division courses (9 credit hours) and four upper-division courses (12 credit hours). A minor in Anthropology cannot be taken in addition to a major in Anthropology.

Requirements

ANTH 102-3 Anthropology: A World of Discovery

Two of the following:

ANTH 200-3	Biological Anthropology
ANTH 201-3	Medical Anthropology
ANTH 312-3	Human Adaptability and Environmental Stress

Twelve credit hours of the following:

ANTH 216-3	Anthropology of Food, Drink and Health
ANTH 313-3	Plagues and Peoples
ANTH 411-(3, 6)	Topics in Biological Anthropology
ANTH 460-3	Anthropology Capstone
ANTH 499-(3, 6)	Independent Study

Minor in Anthropology: General Anthropology

The minor in General Anthropology requires completion of a minimum of seven courses (21 credit hours), consisting of three lower-division courses (9 credit hours) and four upper-division Anthropology courses (12 credit hours) no more than two of which may be chosen from any single existing Anthropology Minor (Anthropological Archaeology, Biological Anthropology, General Anthropology, Sociocultural Anthropology). A minor in Anthropology cannot be taken in addition to a major in Anthropology.

Requirements

ANTH 102-3 Anthropology: A World of Discovery

Two of the following:

ANTH 200-3	Biological Anthropology
ANTH 205-3	Introduction to Archaeology
ANTH 213-3	Peoples and Cultures
ANTH 217-3	Language and Culture

Four additional upper-division ANTH courses.

Minor in Anthropology: Sociocultural Anthropology

The minor in Sociocultural Anthropology requires completion of a minimum of seven courses (21 credit hours), consisting of three lower-division courses (9 credit hours) and four upper-division courses (12 credit hours). A minor in Anthropology cannot be taken in addition to a major in Anthropology.

Requirements

ANTH 102-3 Anthropology: A World of Discovery

Two of the following:

ANTH 207-3	Popular Culture
ANTH 211-3	Anthropology Through Film
ANTH 213-3	Peoples and Cultures
ANTH 214-3	Anthropology of Europe
ANTH 215-3	Anthropology of Canada
ANTH 217-3	Language and Culture

Twelve credit hours of the following:

ANTH 300-3	Qualitative Research Methods for Social and Medical Anthropology
ANTH 303-3	Museums, Galleries, Archives
ANTH 305-3	Circumpolar Ethnography
ANTH 310-3	Practicing Anthropology
ANTH 315-3	Anthropological Theory
ANTH 400-3	Thinking Through Anthropology: Ideas for a Better World
ANTH 401-3	Anthropological Perspectives on Inequality
ANTH 404-3	Comparative Study of Indigenous Peoples of the World
ANTH 405-3	Landscapes, Place and Culture
ANTH 406-3	Feminist Perspectives in Anthropology
ANTH 410-3	Theory of Nation and State
ANTH 413-3	Environmental Anthropology
ANTH 414-3	Religion, Ideology, and Belief Systems
ANTH 421-(3-6)	Ethnographic Field Methods
ANTH 422-(3-6)	Ethnographic Research Project
ANTH 423-3	Urban Anthropology
ANTH 460-3	Anthropology Capstone

Biochemistry and Molecular Biology (BSc Program)

Kerry Reimer, Professor Emeritus

Ken Otter, Professor and Co-Chair
Todd Whitcombe, Professor and Co-Chair
Dezene Huber, Professor
Chow Lee, Professor
Brent Murray, Professor
Geoffrey Payne, Professor
Stephen Rader, Professor
Mark Shrimpton, Professor
Daniel Erasmus, Associate Professor
Andrea Gorrell, Associate Professor
Jamie Gorrell, Associate Professor
Jasmine Janes, Associate Professor
Kalindi Morgan, Assistant Professor
Michael Preston, Assistant Professor

Website: www.unbc.ca/biochemistry

Biochemistry and Molecular Biology (BCMB) investigates how molecules work in living systems. There is no clear line dividing living from non-living systems; rather, there is a gradual increase in complexity from clearly inanimate molecules up to obviously complex organisms. The goal of biochemistry and molecular biology is to understand how simple, inanimate molecular interactions support life and how living systems are shaped by their molecular foundation.

The BCMB degree has two main components: learning about molecules, and learning about the scientific method. The former involves acquiring expertise in the foundations of biochemistry, such as organic and physical chemistry, and then exploring biological molecules and how they operate in living systems. The latter involves exploring how science asks questions to understand the workings of nature, while developing competence in laboratory skills and analysis. These two aspects are linked in that understanding how information is acquired is as important as the information itself, since different experimental systems can yield different insights into complex biological problems.

BCMB majors continue on to successful careers in a diverse range of fields, notably medicine, teaching, pharmacy, the biotechnology industry, science policy, and law. BCMB majors acquire strong skills in laboratory techniques, and are therefore qualified for many kinds of research positions, including graduate programs such as immunology, molecular genetics, and developmental biology. For students with interests in human health but not necessarily its molecular basis, UNBC also offers a degree in Health Science (the BHSc degree), which focuses on the social determinants of health and how health care is delivered. BCMB majors are encouraged to pursue their interests by combining the BCMB degree with minors in other fields, such as computer science, physics, business, or education.

Major in Biochemistry and Molecular Biology

The major in Biochemistry and Molecular Biology requires students to take at least 74 credit hours of Biochemistry and Molecular Biology-oriented courses, of which 33 credit hours must be upper division (i.e., 300 or 400 level). The minimum requirement for completion of a Bachelor of Science with a major in Biochemistry and Molecular Biology is 127 credit hours.

Program Requirements

Lower-Division Requirements

100 Level

BIOL 103-3	Introductory Biology I
BIOL 104-3	Introductory Biology II
BIOL 123-1	Introductory Biology I Laboratory
BIOL 124-1	Introductory Biology II Laboratory
CHEM 100-3	General Chemistry I
CHEM 101-3	General Chemistry II
CHEM 120-1	General Chemistry Lab I
CHEM 121-1	General Chemistry Lab II
MATH 100-3	Calculus I
MATH 101-3	Calculus II
PHYS 100-4	Physics for Life Sciences I
or PHYS 110-4	Introductory Physics I: Mechanics
PHYS 101-4	Physics for Life Sciences II
or PHYS 111-4	Introductory Physics II: Waves and Electricity

200 Level

BCMB 255-2	Introduction to Biochemical Methods
BIOL 203-3	Microbiology
BIOL 210-3	Genetics
CHEM 201-3	Organic Chemistry I
CHEM 203-3	Organic Chemistry II
CHEM 204-3	Introductory Biochemistry
CHEM 250-1	Organic Chemistry Lab I
CHEM 251-1	Organic Chemistry Lab II
STAT 240-3	Basic Statistics
or STAT 371-3	Probability and Statistics for Scientists and Engineers

Upper-Division Requirements

300 Level

BCMB 306-3	Intermediary Metabolism
BCMB 310-3	Molecular Biology Methods
BCMB 320-3	Biochemical Methods
BCMB 340-3	Physical Biochemistry
BIOL 311-3	Cell and Molecular Biology

400 Level

BCMB 404-3	Proteins and Enzymology

Four of the following:

BCMB 401-3	Basic Science of Oncology
BCMB 402-3	Macromolecular Structure
BCMB 403-3	Advanced Nucleic Acids
BCMB 405-3	Topics in Biochemistry and Molecular Biology
BIOL 312-3	Molecular Cell Physiology
BIOL 323-3	Evolutionary Biology
BIOL 423-3	Molecular Evolution and Ecology
BIOL 425-3	Applied Genetics and Biotechnology

Subject Requirements

Nine additional credit hours chosen from the following, of which at least 6 credit hours must be at the 300 or 400 level:

Any 200-level or above BCMB, BIOL or CHEM courses

CPSC 450-3	Bioinformatics
HHSC 305-3	Human Physiology I
HHSC 306-3	Human Physiology II
PSYC 318-3	Sensation and Perception
PSYC 421-3	Advanced Biopsychology

Note: NRES 430-6 can count towards this requirement with permission of the Program Chair.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 127 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Note: no more than 3 credit hours of continuing education courses may be used towards the BCMB major.

BSc Honours – Biochemistry and Molecular Biology

The BSc Honours in Biochemistry and Molecular Biology offers students a higher level of specialization and research experience, especially for students planning to pursue postgraduate work.

Honours students must complete the degree requirements for the BSc – Biochemistry and Molecular Biology Major. In addition to the total number of credit hours required for the Biochemistry and Molecular Biology Major, each student must complete 6 credit hours of undergraduate thesis coursework, normally BCMB 430-6, under the supervision of a faculty member. Another undergraduate thesis course can be substituted with approval of the BCMB Curriculum Chair.

Students may apply to the BCMB Honours Program after completion of 60 credit hours in the Biochemistry and Molecular Biology major with a Cumulative GPA of not less than 3.33. Meeting these minimum requirements does not guarantee entry to the Honours Program. Entrance to the Honours Program in Biochemistry and Molecular Biology is at the discretion of the BCMB Program, and is contingent on the availability of a faculty member willing to supervise the undergraduate research thesis. Maintenance of a Cumulative GPA of 3.33 is required to remain in the Honours Program.

The minimum requirement for completion of a BSc Honours – Biochemistry and Molecular Biology is 133 credit hours.

Minor in Biochemistry and Molecular Biology

The minor in Biochemistry and Molecular Biology is designed to provide students with a core of study in the field of Biochemistry and Molecular Biology. The program of study includes a grounding in chemistry and biology since these are the disciplines from which modern biochemistry and molecular biology arose. The minimum requirement for completion of the minor in Biochemistry and Molecular Biology is 42 credit hours, of which at least 12 credit hours must be at the upper-division level.

100 Level

BIOL 103-3	Introductory Biology I
BIOL 104-3	Introductory Biology II
BIOL 123-1	Introductory Biology I Laboratory
BIOL 124-1	Introductory Biology II Laboratory
CHEM 100-3	General Chemistry I
CHEM 101-3	General Chemistry II
CHEM 120-1	General Chemistry Lab I
CHEM 121-1	General Chemistry Lab II

200 Level

BCMB 255-2	Introduction to Biochemical Methods
BIOL 210-3	Genetics
CHEM 201-3	Organic Chemistry I
CHEM 203-3	Organic Chemistry II
CHEM 204-3	Introductory Biochemistry

Note: Students are allowed to double-count all applicable first- and second-year courses; however, they must take upper-division courses for the minor that are not included in their major requirements or upper-division subject

requirements to ensure completion of 12 upper-division credit hours outside of their major. Students must ensure that all prerequisites are fulfilled prior to taking a course at the 300 and 400 level.

300 and 400 Level

Twelve credit hours must be chosen from the following:

BCMB 306-3 Intermediary Metabolism
BCMB 310-3 Molecular Biology Methods
or BCMB 320-3 Biochemical Methods
BCMB 340-3 Physical Biochemistry
BCMB 401-3 Basic Science of Oncology
BCMB 402-3 Macromolecular Structure
BCMB 403-3 Advanced Nucleic Acids
BCMB 404-3 Proteins and Enzymology
BCMB 405-3 Topics in Biochemistry and Molecular Biology
BIOL 311-3 Cell and Molecular Biology
BIOL 312-3 Molecular Cell Physiology
BIOL 323-3 Evolutionary Biology
BIOL 423-3 Molecular Evolution and Ecology
BIOL 425-3 Applied Genetics and Biotechnology

Biology (BSc Program)

Philip Burton, Professor Emeritus
Keith Egger, Professor Emeritus
Art Fredeen, Professor Emeritus
Michael Gillingham, Professor Emeritus
Kathy Lewis, Professor Emerita
Staffan Lindgren, Professor Emeritus
Hugues Massicotte, Professor Emeritus
Katherine Parker, Professor Emerita

Ken Otter, Professor and Chair
Darwyn Coxson, Professor
Russell Dawson, Professor
Dezene Huber, Professor
Chris Johnson, Professor
Nicola Koper, Professor
Brent Murray, Professor
Mark Shrimpton, Professor
Erin Baerwald, Associate Professor
Heather Bryan, Associate Professor, and Ian McTaggart Cowan Muskwa-Kechika Research Professor
Jamie Gorrell, Associate Professor
Jasmine Janes, Associate Professor
Eduardo Martins, Associate Professor
Roy Rea, Associate Professor
Lisa Wood, Associate Professor
Erin Crockett, Assistant Professor
Michael Preston, Assistant Professor
Violet Zhao, Assistant Professor
Jenia Blair, Senior Lab Instructor
Saphida Migabo, Senior Lab Instructor

Website: www.unbc.ca/biology

The Bachelor of Science in Biology is a broadly-based undergraduate program in biology that is designed to present the major concepts of contemporary biology at the molecular, cellular, organismal, population and community levels. The degree is designed to have sufficient flexibility for students to follow interests ranging from microbial to plant to fish or wildlife biology. Capitalizing on the northern setting of the University, there is an emphasis on northern flora and fauna, morphological, biochemical, physiological and behavioural modifications to temperate and arctic conditions, and the dynamics of microbial, plant and animal populations in northern ecosystems. The Bachelor of Science in Biology prepares students for application to medical, dental, veterinary, or other professional schools, and for a wide range of other biology-related careers. Students who complete the degree are automatically eligible to apply to the College of Applied Biology as a Biologist in Training or a Registered Professional Biologist.

Major in Biology

The major in Biology requires students to take at least 65 credit hours of biology-oriented courses, of which 42 credit hours must be at the 300- or 400- level. **Note:** NRES 430-6 can count as up to 6 credit hours toward this requirement (with permission of the Ecosystem Science and Management Program Chair).

The minimum requirement for the completion of a Bachelor of Science with a major in Biology is 125 credit hours.

In order to increase the breadth and utility of their degree, and to demonstrate an interest in a particular biological sub-discipline, students have the option of choosing to complete a maximum of one Area of Specialization during their degree, chosen from the following list:

1. Applied Ecology
2. Botany and Mycology
3. Cell Biology and Genetics
4. Ecology and Evolution
5. Field Biology and Natural History
6. Zoology

Program Requirements

Lower-Division Requirement

100 Level

BIOL 103-3 Introductory Biology I
BIOL 104-3 Introductory Biology II
BIOL 123-1 Introductory Biology I Laboratory
BIOL 124-1 Introductory Biology II Laboratory
CHEM 100-3 General Chemistry I
CHEM 101-3 General Chemistry II
CHEM 120-1 General Chemistry Lab I
CHEM 121-1 General Chemistry Lab II
MATH 152-3 Calculus for Non-majors
or MATH 100-3 Calculus I
NRES 100-3 Communications in Natural Resources and Environmental Studies
or ENGL 170-3 Writing and Communication Skills
PHYS 115-4 General Introduction to Physics
or PHYS 100-4 Physics for Life Sciences I
or PHYS 110-4 Introductory Physics: Mechanics
Any other 100-level or higher, 3 credit-hour course

Note: Students who have completed Physics 12 should take PHYS 100-4 or PHYS 110-4 instead of PHYS 115-4.

*Recommended: MATH 101-3 Calculus II

Students who intend to pursue professional programs - such as medicine, dentistry, or veterinary medicine - should contact the program advisor regarding the correct course sequences required for individual programs, particularly with respect to PHYS or MATH requirements.

200 Level

BIOL 201-3	Ecology
BIOL 202-3	Invertebrate Zoology
BIOL 203-3	Microbiology
BIOL 204-3	Plant Biology
BIOL 210-3	Genetics
CHEM 201-3	Organic Chemistry I
CHEM 203-3	Organic Chemistry II
CHEM 204-3	Introductory Biochemistry
STAT 240-3	Basic Statistics

Students must also take 6 additional credit hours of courses at the 200 level or above. Students are encouraged to explore a diversity of courses during their undergraduate biology education. While biology content is not specifically required, biology students may find relevant courses among the following prefixes: ANTH, BCMB, CHEM, ENPL, ENSC, ENVS, FNST, FSTY, GEOG, HHSC, INTS, NREM, NORS, ORTM, PHIL, PHYS, POLS, PSYC, and STAT.

It is recommended that students consult with a Student Advisor regarding their interests and the content of various courses.

Upper-Division Requirement

300 Level

BIOL 311-3	Cell and Molecular Biology
BIOL 323-3	Evolutionary Biology
BIOL 325-3	Ecological Analyses

One of the following:

BIOL 304-3	Plants, Society and the Environment
BIOL 321-3	Animal Physiology

Two of the following:

BIOL 301-3	Systematic Botany
BIOL 307-3	Ichthyology and Herpetology
BIOL 308-3	Ornithology and Mammalogy
BIOL 318-3	Fungi and Lichens

400 Level

BIOL 411-3	Conservation Biology

One of the following:

BIOL 404-3	Plant Ecology
BIOL 406-3	Fish Ecology
BIOL 412-3	Wildlife Ecology

Subject Requirements

A minimum of 18 additional credit hours chosen from the following, of which at least 9 credit hours must be at the 400 level:

Any 300 or 400 level BIOL, FSTY, NREM, NRES, or ORTM courses

Additional Requirements

At least one course with Social Sciences content must be taken from the following list:

BIOL 304, BIOL 350, BIOL 420, or BIOL 421 (these may also count as Subject Requirements);

or any course with one of the following prefixes:

ANTH, COMM, ECON, EDUC, ENPL, ENVS, FNST, INTS, NORS, ORTM, POLS, PSYC.

Elective Requirement

Elective credit hours must be taken as necessary to ensure completion of a minimum of 125 credit hours.

Biology BSc Areas of Specialization

Biology BSc students have the option to complete one Area of Specialization. Students must take five courses in an Area of Specialization. There is no limit to the number of courses taken within a specialization that may be used to fulfill both common biology requirements and specialization requirements. Students who are considering an Area of Specialization are strongly encouraged to talk to an advisor early in their second year in order to ensure that the prerequisites are met for upper-division courses.

Applied Ecology

BIOL 304-3	Plants, Society and the Environment
BIOL 410-3	Population and Community Ecology
NREM 400-4	Natural Resources Planning

One of the following:

BIOL 404-3	Plant Ecology
BIOL 406-3	Fish Ecology
BIOL 412-3	Wildlife Ecology

One of the following:

BIOL 350-3	Ethnobotany
BIOL 409-3	Conservation of Aquatic Ecosystems
BIOL 413-3	Wildlife Management
BIOL 414-3	Fisheries Management
BIOL 421-3	Insects, Fungi and Society
ENSC 406-3	Environmental Modelling
FSTY 405-3	Forest Ecosystem Modelling
NREM 303-3	Aboriginal Perspectives on Land and Resource Management
NREM 306-3	Society, Policy and Administration
NREM 409-3	Conservation Planning
ORTM 300-3	Recreation and Tourism Impacts

Botany and Mycology

BIOL 301-3	Systematic Botany
BIOL 318-3	Fungi and Lichens
BIOL 404-3	Plant Ecology

Two of the following:

BIOL 304-3	Plants, Society and the Environment
BIOL 350-3	Ethnobotany
BIOL 402-3	Aquatic Plants
BIOL 410-3	Population and Community Ecology
BIOL 421-3	Insects, Fungi and Society
FSTY 307-3	Disturbance Ecology and Forest Health

Cell Biology and Genetics

BCMB 306-3	Intermediary Metabolism
BIOL 312-3	Molecular Cell Physiology
BIOL 425-3	Applied Genetics and Biotechnology

Two of the following:

BCMB 340-3	Physical Biochemistry
BCMB 401-3	Basic Science of Oncology
BCMB 402-3	Macromolecular Structure
BCMB 403-3	Advanced Nucleic Acids
BCMB 404-3	Proteins and Enzymology
BIOL 321-3	Animal Physiology
BIOL 423-3	Molecular Evolution and Ecology

Ecology and Evolution

BIOL 423-3 Molecular Evolution and Ecology

Two of the following:

BIOL 404-3	Plant Ecology
BIOL 406-3	Fish Ecology
BIOL 412-3	Wildlife Ecology

Two of the following:

BIOL 302-3	Limnology
BIOL 410-3	Population and Community Ecology
BIOL 420-3	Animal Behaviour
BIOL 425-3	Applied Genetics and Biotechnology
ENSC 406-3	Environmental Modelling
FSTY 307-3	Disturbance Ecology and Forest Health

Field Biology and Natural History

BIOL 301-3	Systematic Botany
BIOL 318-3	Fungi and Lichens
BIOL 333-3	Field School

(Students may substitute another biology-oriented field experience course for BIOL 333 at the discretion of the Chair)

Two of the following:

BIOL 302-3	Limnology
BIOL 304-3	Plants, Society and the Environment
BIOL 315-3	Animal Diseases and Parasites
BIOL 322-3	Entomology
BIOL 350-3	Ethnobotany
BIOL 402-3	Aquatic Plants
BIOL 420-3	Animal Behaviour
BIOL 421-3	Insects, Fungi and Society
ORTM 332-3	Outdoor, Environmental, and Experiential Education

Zoology

BIOL 307-3	Ichthyology and Herpetology
BIOL 308-3	Ornithology and Mammalogy
BIOL 321-3	Animal Physiology

Two of the following:

BIOL 409-3	Conservation of Aquatic Ecosystems
BIOL 410-3	Population and Community Ecology
BIOL 413-3	Wildlife Management
BIOL 414-3	Fisheries Management
BIOL 420-3	Animal Behaviour
BIOL 421-3	Insects, Fungi and Society

BSc Honours – Biology

The Honours in Biology recognizes undergraduate students who both excel at their studies and who complete the Undergraduate Thesis (normally NRES 430-6).

To enter the Honours Program, students must have completed 60 credit hours and obtained a minimum Cumulative GPA of 3.33. Attaining the minimum Cumulative GPA requirement does not guarantee entry into the Honours Program, which is at the discretion of the Ecosystem Science and Management Program. Maintenance of a Cumulative GPA of 3.33 is required to remain in the Honours program.

Honours students are required to complete the degree requirements for the BSc in Biology. In addition, each student must also complete an additional 6 credit hours in the form of an undergraduate thesis chosen from NRES 430-6, ENSC 430-6, or BCMB 430-6 under the supervision of a faculty member.

Note: Students are responsible for finding their own undergraduate thesis research supervisor. Faculty members are under no obligation to supervise honours students.

Minor in Biology

The minor in Biology offers students in other disciplines the opportunity to gain a solid foundation in the diversity of life and biological processes.

The minor in Biology requires the completion of 29 credit hours, of which 12 credit hours must be at the upper-division (i.e., 300 or 400) level.

A maximum of 14 credit hours which are used to fulfill requirements for a major or another minor may also be used to fulfill program requirements for a minor in Biology. These 14 credit hours consist of 8 credit hours at the 100 level plus 6 credit hours at the 200 level or above.

Requirements

BIOL 103-3 Introductory Biology I
BIOL 104-3 Introductory Biology II
BIOL 123-1 Introductory Biology I Laboratory
BIOL 124-1 Introductory Biology II Laboratory
BIOL 201-3 Ecology
BIOL 210-3 Genetics
BIOL 323-3 Evolutionary Biology

One of the following:
- BIOL 202-3 Invertebrate Zoology
- BIOL 203-3 Microbiology
- BIOL 204-3 Plant Biology

One of the following:
- BIOL 301-3 Systematic Botany
- BIOL 307-3 Ichthyology and Herpetology
- BIOL 308-3 Ornithology and Mammalogy
- BIOL 318-3 Fungi and Lichens

One of the following:
- BIOL 304-3 Plants, Society and the Environment
- BIOL 311-3 Cell and Molecular Biology
- BIOL 321-3 Animal Physiology

Three additional credit hours in Biology at the 300 or 400 level.

Minor in Biology and Conservation

The minor in Biology and Conservation provides students with a background in ecological principles and techniques associated with the management and conservation of animal and plant populations and communities associated with a range of ecosystems. Upon completion of the minor, students will have a broad background in genetics and evolution, population and community dynamics, ecological analysis, and the key problems and approaches for conserving biological diversity.

The minor in Biology and Conservation requires the completion of a minimum of 27 credit hours of study (plus associated prerequisites). A maximum of two courses (6 credit hours) used to fulfill the requirements for a major, or another minor, may also be used to fulfill requirements for this minor. Forest Ecology and Management majors will have the following prerequisites as part of the major core requirements. Students from other majors will need to fulfill the prerequisite requirements for this minor.

BIOL 103-3 Introductory Biology I
BIOL 104-3 Introductory Biology II
BIOL 123-1 Introductory Biology I Laboratory
BIOL 124-1 Introductory Biology II Laboratory
BIOL 201-3 Ecology
STAT 240-3 Basic Statistics

Required Courses

BIOL 210-3 Genetics
BIOL 323-3 Evolutionary Biology
BIOL 325-3 Ecological Analyses
BIOL 411-3 Conservation Biology

Five of the following courses, three of which must be Biology courses:
- BIOL 304-3 Plants, Society and the Environment
- BIOL 307-3 Ichthyology and Herpetology
- BIOL 308-3 Ornithology and Mammalogy
- BIOL 318-3 Fungi and Lichens
- BIOL 321-3 Animal Physiology
- BIOL 333-3 Field School
- BIOL 350-3 Ethnobotany
- BIOL 402-3 Aquatic Plants
- BIOL 404-3 Plant Ecology
- BIOL 406-3 Fish Ecology
- BIOL 410-3 Population and Community Ecology
- BIOL 412-3 Wildlife Ecology
- BIOL 440-3 Internship
- ENPL 305-3 Environmental Impact Assessment
- NREM 204-3 Introduction to Wildlife and Fisheries
- NREM 409-3 Conservation Planning
- NREM 413-3 Agroforestry
- ORTM 305-3 Protected Area Planning and Management

School of Business (BComm Program)

Steven Cronshaw, Professor Emeritus

Kafui Monu, Associate Professor and Chair
Waqar Haque, Professor
Wootae Chun, Associate Professor
Balbinder Deo, Associate Professor
Chengbo Fu, Associate Professor
Elisabet Garriga, Associate Professor
Xin Ge, Associate Professor
Darren Brown, Assistant Professor
Jing Chen, Assistant Professor
Jaspreet Sra, Term Assistant Professor
Paul Messinger, Adjunct Professor
Julius Bankole, Senior Instructor
Mike Cuthbertson, Senior Instructor
Charles Scott, Senior Instructor
Natascha Lukawitski, Lecturer

Website: www.unbc.ca/commerce

The School of Business offers a program leading to the degree of Bachelor of Commerce. This program provides education in business as well as exposure to the liberal arts, social sciences, and natural sciences. The program offers students the ability to major in the areas of Accounting, Finance, General Business, Human Resources Management, International Business, Management Information Systems, or Marketing. Although all students must follow the program of study of at least one of the specified majors, the Bachelor of Commerce degree program has been designed to provide students with an exposure to all aspects of the contemporary business world. The objective of the program is to adequately prepare students to deal with the increasingly complex and dynamic environment in which business and labour must operate. While the program focuses on a wide range of business activities and types of organizations, special emphasis is placed on industries and firms of relevance to the region of northern British Columbia including small business/entrepreneurship, tourism and forestry. Exposure to these industries will occur within individual courses as part of course content, as well as through the use of relevant case studies and practica. In addition, individual courses relating to the industries emphasized are available either within the Commerce program, or through other relevant programs.

The minimum requirement for completion of a Bachelor of Commerce is 120 credit hours.

Students not having the appropriate prerequisites for any courses must consult with the Business Advisor.

Common Requirements for all Business Students

Students enrolling in any course required for a major in the Bachelor of Commerce degree must have completed all prerequisite courses with a minimum of C- or better. BComm students can only register in upper-division COMM courses when MATH 150-3 and MATH 152-3 are completed with a minimum grade of C- or better. In exceptional circumstances, the Chair of the School of Business may waive the minimum grade requirement.

Lower-Division Requirements

100 Level

COMM 100-3* Introduction to Canadian Business
ECON 100-3 Microeconomics
ECON 101-3 Macroeconomics
FNST 100-3 The Aboriginal Peoples of Canada
MATH 150-3** Finite Mathematics for Business and Economics
or MATH 220-3 Linear Algebra
MATH 152-3** Calculus for Non-majors
or MATH 100-3 Calculus I

*Students transferring with 30 or more credit hours of courses required for the Commerce degree are exempt from this requirement.

**Students wishing to pursue additional Math courses as electives are advised to choose MATH 100-3 (Calculus I) and MATH 220-3 (Linear Algebra).

200 Level

COMM 200-3 Business Communication
COMM 204-3 Entrepreneurship
COMM 210-3 Financial Accounting
COMM 211-3 Managerial Accounting
COMM 220-3 Financial Management I
COMM 230-3 Organizational Behaviour
COMM 240-3 Introduction to Marketing
COMM 251-3 Introduction to Management Science
CPSC 250-3 Applied Business Computing
ECON 205-3 Statistics for Business and the Social Sciences
or STAT 240-3 Basic Statistics

Upper-Division Requirement

300 and 400 Level

COMM 300-3 Introduction to Business Law
COMM 320-3 Financial Management II

COMM 330-3	Human Resource Management
COMM 332-3	Business and Professional Ethics
COMM 343-3	Behavioural Marketing
COMM 350-3	Production and Operations Management
COMM 351-3	Management Information Systems
COMM 400-3	Strategic Management
ECON 350-3	Managerial Economics

Bachelor of Commerce Honours (BComm Honours)

Students in the BComm Honours Program must complete all requirements for the BComm in their major(s) of choice. In addition, the students must successfully complete 6 credit hours of COMM 497-(3, 6) Honours Thesis. The Honours Thesis must be conducted under the supervision of a faculty member with PhD qualifications. Entry to the Honours Program takes place after the end of the second year of BComm studies (I.e., upon completion of at least 60 credit hours) and requires a minimum GPA of 3.33 calculated on the last 60 credit hours completed at the time of declaration to the Honours Program. Prospective BComm Honours Students must have successfully completed MATH 150-3, MATH 152-3, CPSC 250-3, and ECON 205-3, or their equivalents, before they will be considered for entry to the BComm Honours Program. Attaining a minimum GPA of 3.33 in the first two years of the BComm does not guarantee entry to the Honours Program, which is at the discretion of the Department. To remain in the Honours Program students must maintain a minimum Semester GPA of 3.33 to be calculated at the end of each semester and receive no grade lower than a C+ in any course after entry to the Honours Program.

Major in Accounting

Every organization needs to keep track of its financial operations and financial position. Accounting is concerned with the measurement, provision, interpretation, and application of financial and economic information for the efficiency and evaluation of an organization's operations. The information provided by the accounting function is employed for effective planning, control, and decision making by management, and to report on the organization's financial operations to shareholders, debtholders, government, and other stakeholders of the firm. Graduates with an Accounting major are in demand by all sectors of the economy, including government, business, and public accounting firms. An Accounting major is recommended for students who wish to become a Chartered Professional Accountant (CPA). Students are encouraged to check with the professional designating body for any additional requirements that may be needed.

The minimum requirement for a Bachelor of Commerce with a major in Accounting is 120 credit hours.

Program Requirements

Students enrolling in any course required for a major in the Bachelor of Commerce degree must have completed all prerequisite courses with a minimum of C- or better. In exceptional circumstances, the Program Chair may waive this requirement on a case-by-case basis.

Lower-Division Requirements

100 Level

COMM 100-3*	Introduction to Canadian Business
ECON 100-3	Microeconomics
ECON 101-3	Macroeconomics
FNST 100-3	The Aboriginal Peoples of Canada
MATH 150-3**	Finite Mathematics for Business and Economics
or MATH 220-3	Linear Algebra
MATH 152-3**	Calculus for Non-majors
or MATH 100-3	Calculus I

*Students transferring with 30 or more credit hours of courses required for the Bachelor of Commerce degree are exempt from this requirement.

**Students wishing to pursue additional math courses as electives are advised to choose MATH 100-3 (Calculus I) and MATH 220-3 (Linear Algebra).

200 Level

COMM 200-3	Business Communication
COMM 204-3	Entrepreneurship
COMM 210-3	Financial Accounting
COMM 211-3	Managerial Accounting
COMM 220-3	Financial Management I
COMM 230-3	Organizational Behaviour
COMM 240-3	Introduction to Marketing
COMM 251-3	Introduction to Management Science
CPSC 250-3	Applied Business Computing
ECON 205-3	Statistics for Business and the Social Sciences
or STAT 240-3	Basic Statistics

Upper-Division Requirements

300 and 400 Level

COMM 300-3	Introduction to Business Law
COMM 310-3	Intermediate Financial Accounting I
COMM 311-3	Intermediate Financial Accounting II
COMM 312-3	Intermediate Managerial Accounting
COMM 320-3	Financial Management II
COMM 330-3	Human Resource Management
COMM 332-3	Business and Professional Ethics
COMM 343-3	Behavioural Marketing
COMM 350-3	Production and Operations Management
COMM 351-3	Management Information Systems
COMM 400-3	Strategic Management
COMM 411-3	Advanced Management Accounting
COMM 414-3	Advanced Financial Accounting
ECON 350-3	Managerial Economics

One of the following ECON courses as best suits the student's BComm major:

ECON 300-3	Labour Economics
ECON 301-3	Women and the Economy
ECON 308-3	International Economic Relations
ECON 311-3	Intermediate Macroeconomic Theory
ECON 312-3	Introduction to Econometrics
ECON 317-3	Money, Banking and Financial Institutions
ECON 321-3	Economics of Developing Countries
ECON 401-3	Global Economy and Development
ECON 425-3	Trade and the Environment
ECON 435-3	Financial Economics and Quantitative Methods

Two of the following:

COMM 313-3	Personal Taxation
COMM 314-3	Corporate Taxation
COMM 412-3	Auditing

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Major in Finance

Finance involves evaluating profitability and valuing real investments such as capital projects, as well as financial securities such as stocks, bonds, options, and futures. In addition to the study of sources of capital and financing decisions of the firm and individual investors, the Finance major also studies the management of financial institutions such as banks and trust companies. The tools of finance are used by small and large firms, government, and individual investors. Instruction in finance provides valuable information regarding financing and evaluating investment opportunities to students planning to enter into business for themselves. Government and firms employ Finance majors as financial analysts as well as in general management positions. Individuals interested in positions in the financial sector, or pursuing either the Chartered Financial Planner (CFP) or Chartered Financial Analyst (CFA) designations, or completing the Canadian Securities Course (CSC), should consider majoring in Finance.

The minimum requirement for a Bachelor of Commerce with a major in Finance is 120 credit hours.

Program Requirements

Students enrolling in any course required for a major in the Bachelor of Commerce degree must have completed all prerequisite courses with a minimum of C- or better. In exceptional circumstances, the Program Chair may waive this requirement on a case-by-case basis.

Lower-Division Requirements

100 Level

COMM 100-3*	Introduction to Canadian Business
ECON 100-3	Microeconomics
ECON 101-3	Macroeconomics
FNST 100-3	The Aboriginal Peoples of Canada
MATH 150-3**	Finite Mathematics for Business and Economics
or MATH 220-3	Linear Algebra
MATH 152-3**	Calculus for Non-majors
or MATH 100-3	Calculus I

*Students transferring with 30 or more credit hours of courses required for the Bachelor of Commerce degree are exempt from this requirement.

**Students wishing to pursue additional math courses as electives are advised to choose MATH 100-3 (Calculus I) and MATH 220-3 (Linear Algebra).

200 Level

COMM 200-3	Business Communication
COMM 204-3	Entrepreneurship
COMM 210-3	Financial Accounting
COMM 211-3	Managerial Accounting
COMM 220-3	Financial Management I
COMM 230-3	Organizational Behaviour
COMM 240-3	Introduction to Marketing
COMM 251-3	Introduction to Management Science
CPSC 250-3	Applied Business Computing
ECON 205-3	Statistics for Business and the Social Sciences
or STAT 240-3	Basic Statistics

Upper-Division Requirements

300 and 400 Level

COMM 300-3	Introduction to Business Law
COMM 320-3	Financial Management II
COMM 321-3	Investments and Security Analysis
COMM 330-3	Human Resource Management
COMM 332-3	Business and Professional Ethics
COMM 343-3	Behavioural Marketing
COMM 350-3	Production and Operations Management
COMM 351-3	Management Information Systems
COMM 400-3	Strategic Management
COMM 420-3	Advanced Financial Management
COMM 422-3	Management of Financial Institutions
ECON 350-3	Managerial Economics

One of the following ECON courses as best suits the student's BComm major:

ECON 300-3	Labour Economics
ECON 301-3	Women and the Economy
ECON 308-3	International Economic Relations
ECON 311-3	Intermediate Macroeconomic Theory
ECON 312-3	Introduction to Econometrics
ECON 317-3	Money, Banking and Financial Institutions

ECON 321-3 Economics of Developing Countries
ECON 401-3 Global Economy and Development
ECON 425-3 Trade and the Environment
ECON 435-3 Financial Economics and Quantitative Methods

Two of the following:
COMM 322-3 International Financial Management
COMM 323-3 Risk, Insurance and Financial Planning
COMM 421-3 Portfolio Theory and Management
COMM 423-3 Financial Engineering

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Major in General Business

The General Business major allows students to obtain a reasonable depth of knowledge in all the functional areas of business while maintaining a broad-based education in business management. This combination provides the integrative management skills to operate both within and across functional responsibility areas, an ability valued highly by employers. Therefore, General Business majors are in demand by many firms and government organizations. Students intending to start their own business endeavours would also be well-served by the General Business major.

The minimum requirement for a Bachelor of Commerce with a major in General Business is 120 credit hours.

Program Requirements

Students enrolling in any course required for a major in the Bachelor of Commerce degree must have completed all prerequisite courses with a minimum of C- or better. In exceptional circumstances, the Program Chair may waive this requirement on a case-by-case basis.

Lower-Division Requirements

100 Level
COMM 100-3* Introduction to Canadian Business
ECON 100-3 Microeconomics
ECON 101-3 Macroeconomics
FNST 100-3 The Aboriginal Peoples of Canada
MATH 150-3** Finite Mathematics for Business and Economics
or MATH 220-3 Linear Algebra
MATH 152-3** Calculus for Non-majors
or MATH 100-3 Calculus I

*Students transferring with 30 or more credit hours of courses required for the Bachelor of Commerce degree are exempt from this requirement.

**Students wishing to pursue additional math courses as electives are advised to choose MATH 100-3 (Calculus I) and MATH 220-3 (Linear Algebra).

200 Level
COMM 200-3 Business Communication
COMM 204-3 Entrepreneurship
COMM 210-3 Financial Accounting
COMM 211-3 Managerial Accounting
COMM 220-3 Financial Management I
COMM 230-3 Organizational Behaviour
COMM 240-3 Introduction to Marketing
COMM 251-3 Introduction to Management Science
CPSC 250-3 Applied Business Computing
ECON 205-3 Statistics for Business and the Social Sciences
or STAT 240-3 Basic Statistics

Upper-Division Requirements

300 and 400 Level
COMM 300-3 Introduction to Business Law
COMM 320-3 Financial Management II
COMM 330-3 Human Resource Management
COMM 332-3 Business and Professional Ethics
COMM 343-3 Behavioural Marketing
COMM 350-3 Production and Operations Management
COMM 351-3 Management Information Systems
COMM 400-3 Strategic Management
ECON 350-3 Managerial Economics

One of the following ECON courses as best suits the student's BComm major:
ECON 300-3 Labour Economics
ECON 301-3 Women and the Economy
ECON 308-3 International Economic Relations
ECON 311-3 Intermediate Macroeconomic Theory
ECON 312-3 Introduction to Econometrics
ECON 317-3 Money, Banking and Financial Institutions
ECON 321-3 Economics of Developing Countries
ECON 401-3 Global Economy and Development
ECON 425-3 Trade and the Environment
ECON 435-3 Financial Economics and Quantitative Methods

Twelve credit hours selected from any Commerce major or from the following (with no more than 6 credit hours in any one major area):

COMM 431-3 Industrial Relations
COMM 432-3 Cross-cultural Workplace Practices
COMM 498-(3-6) Special Topics in Business Administration
ECON 301-3 Women and the Economy

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Major in Human Resources Management

The success of any company or organization rests on the commitment and imagination of the people who are its members. Effective human resources management enables an organization to build success through people. By attracting qualified employees, developing their talents through training, fairly compensating them for their efforts, and protecting their health and safety, we create organizations that are productive, innovative, and satisfying to employees. We provide our students with the knowledge and skills to effectively manage the people in an organization.

The minimum requirement for completion of a Bachelor of Commerce with a major in Human Resources Management is 120 credit hours.

Program Requirements

Students enrolling in any course required for a major in the Bachelor of Commerce degree must have completed all prerequisite courses with a minimum of C- or better. In exceptional circumstances, the Program Chair may waive this requirement on a case-by-case basis.

Lower-Division Requirements

100 Level

COMM 100-3* Introduction to Canadian Business
ECON 100-3 Microeconomics
ECON 101-3 Macroeconomics
FNST 100-3 The Aboriginal Peoples of Canada
MATH 150-3** Finite Mathematics for Business and Economics
or MATH 220-3 Linear Algebra
MATH 152-3** Calculus for Non-majors
or MATH 100-3 Calculus I

*Students transferring with 30 or more credit hours of courses required for the Bachelor of Commerce degree are exempt from this requirement.

**Students wishing to pursue additional math courses as electives are advised to choose MATH 100-3 (Calculus I) and MATH 220-3 (Linear Algebra).

200 Level

COMM 200-3 Business Communication
COMM 204-3 Entrepreneurship
COMM 210-3 Financial Accounting
COMM 211-3 Managerial Accounting
COMM 220-3 Financial Management I
COMM 230-3 Organizational Behaviour
COMM 240-3 Introduction to Marketing
COMM 251-3 Introduction to Management Science
CPSC 250-3 Applied Business Computing
ECON 205-3 Statistics for Business and the Social Sciences
or STAT 240-3 Basic Statistics

Upper-Division Requirements

300 and 400 Level

COMM 300-3 Introduction to Business Law
COMM 304-3 Employment Law in Canada
COMM 320-3 Financial Management II
COMM 330-3 Human Resource Management
COMM 332-3 Business and Professional Ethics
COMM 334-3 Strategic Human Resource Planning
COMM 335-3 Organizational Effectiveness
COMM 343-3 Behavioural Marketing
COMM 350-3 Production and Operations Management
COMM 351-3 Management Information Systems
COMM 400-3 Strategic Management
COMM 431-3 Industrial Relations
COMM 433-3 Recruitment, Selection and Retention
COMM 434-3 Compensation
COMM 435-3 Organizational Learning, Development and Training
COMM 436-3 Workplace Health and Safety
ECON 350-3 Managerial Economics

One of the following ECON courses as best suits the student's BComm major:

ECON 300-3 Labour Economics
ECON 301-3 Women and the Economy
ECON 308-3 International Economic Relations
ECON 311-3 Intermediate Macroeconomic Theory
ECON 312-3 Introduction to Econometrics
ECON 317-3 Money, Banking and Financial Institutions
ECON 321-3 Economics of Developing Countries
ECON 401-3 Global Economy and Development
ECON 425-3 Trade and the Environment
ECON 435-3 Financial Economics and Quantitative Methods

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Major in International Business

Globalization of the economy has emphasized the importance of an international perspective for Business students. The International Business major exposes students to the impact of the international environment on business management. In conjunction with courses in the International Studies program, the major in International Business allows students to focus on a country or region of the world, providing education in language, culture, and business practice.

In order to gain practical international exposure, Bachelor of Commerce students, particularly those majoring in International Business, are encouraged to take courses in International Business at institutions or universities abroad that have been approved by the UNBC International Office. For more information on exchange opportunities refer to www.unbc.ca/international.

Graduates are suited to work in firms or government agencies involved in international operations.

The minimum requirement for a Bachelor of Commerce with a major in International Business is 120 credit hours.

Program Requirements

Students enrolling in any course required for a major in the Bachelor of Commerce degree must have completed all prerequisite courses with a minimum of C- or better. In exceptional circumstances, the Program Chair may waive this requirement on a case-by-case basis.

Lower-Division Requirements

100 Level

COMM 100-3* Introduction to Canadian Business
ECON 100-3 Microeconomics
ECON 101-3 Macroeconomics
FNST 100-3 The Aboriginal Peoples of Canada
INTS 100-3 Introduction to Global Studies
or INTS 210-3 Globalizations
or ECON 220-3 Global Economic Shifts
MATH 150-3** Finite Mathematics for Business and Economics
or MATH 220-3 Linear Algebra
MATH 152-3** Calculus for Non-majors
or MATH 100-3 Calculus I

*Students transferring with 30 or more credit hours of courses required for the Bachelor of Commerce degree are exempt from this requirement.

**Students wishing to pursue additional math courses as electives are advised to choose MATH 100-3 (Calculus I) and MATH 220-3 (Linear Algebra).

200 Level

COMM 200-3 Business Communication
COMM 204-3 Entrepreneurship
COMM 210-3 Financial Accounting
COMM 211-3 Managerial Accounting
COMM 220-3 Financial Management I
COMM 230-3 Organizational Behaviour
COMM 240-3 Introduction to Marketing
COMM 251-3 Introduction to Management Science
CPSC 250-3 Applied Business Computing
ECON 205-3 Statistics for Business and the Social Sciences
or STAT 240-3 Basic Statistics

Upper-Division Requirements

300 and 400 Level

COMM 300-3 Introduction to Business Law
COMM 303-3 Introduction to International Business
COMM 320-3 Financial Management II
COMM 322-3 International Financial Management
COMM 330-3 Human Resource Management
COMM 332-3 Business and Professional Ethics
COMM 343-3 Behavioural Marketing
COMM 350-3 Production and Operations Management
COMM 351-3 Management Information Systems
COMM 400-3 Strategic Management
COMM 432-3 Cross-cultural Workplace Practices
COMM 441-3 International Marketing
ECON 350-3 Managerial Economics

One of the following ECON courses as best suits the student's BComm major:

ECON 300-3 Labour Economics
ECON 301-3 Women and the Economy
ECON 308-3 International Economic Relations
ECON 311-3 Intermediate Macroeconomic Theory
ECON 312-3 Introduction to Econometrics
ECON 317-3 Money, Banking and Financial Institutions
ECON 321-3 Economics of Developing Countries
ECON 401-3 Global Economy and Development
ECON 425-3 Trade and the Environment
ECON 435-3 Financial Economics and Quantitative Methods

International Studies Requirement

A minimum of 6 credit hours of INTS courses at any level

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Major in Management Information Systems

Management Information Systems is about using information systems to provide value to organizations. Students in this field have the opportunity to acquire the skills to use, analyze, and manage information systems to succeed in the business world. A major in Management Information Systems provides skills that include designing information systems for businesses, using data to find lucrative opportunities for firms, and determining users' computing needs. People with these skills find opportunities in a diverse set of organizations from large government organizations to local companies. Concepts in management information systems are particularly important for those who have a passion for using technology to help organizations reach their goals.

The minimum requirement for a Bachelor of Commerce with a major in Management Information Systems is 120 credit hours.

Program Requirements

Students enrolling in any course required for a major in the Bachelor of Commerce degree must have completed all prerequisite courses with a minimum of C- or better. In exceptional circumstances, the Program Chair may waive this requirement on a case-by-case basis.

Lower-Division Requirements

100 Level

COMM 100-3* Introduction to Canadian Business
ECON 100-3 Microeconomics
ECON 101-3 Macroeconomics
FNST 100-3 The Aboriginal Peoples of Canada
MATH 150-3** Finite Mathematics for Business and Economics
or MATH 220-3 Linear Algebra
MATH 152-3** Calculus for Non-majors
or MATH 100-3 Calculus I

*Students transferring with 30 or more credit hours of courses required for the Bachelor of Commerce degree are exempt from this requirement.

**Students wishing to pursue additional math courses as electives are advised to choose MATH 100-3 (Calculus I) and MATH 220-3 (Linear Algebra).

Students must ensure that all prerequisites are fulfilled prior to registering in any course.

200 Level

COMM 200-3 Business Communication
COMM 204-3 Entrepreneurship
COMM 210-3 Financial Accounting
COMM 211-3 Managerial Accounting
COMM 220-3 Financial Management I
COMM 230-3 Organizational Behaviour
COMM 240-3 Introduction to Marketing
COMM 251-3 Introduction to Management Science
CPSC 250-3 Applied Business Computing
ECON 205-3 Statistics for Business and the Social Sciences
or STAT 240-3 Basic Statistics

Upper-Division Requirements

300 and 400 Level

COMM 300-3 Introduction to Business Law
COMM 320-3 Financial Management II
COMM 330-3 Human Resource Management
COMM 332-3 Business and Professional Ethics
COMM 343-3 Behavioural Marketing
COMM 350-3 Production and Operations Management
COMM 351-3 Management Information Systems
COMM 352-3 e-Business
COMM 353-3 Business Data Communications and Networking
COMM 354-3 Introduction to Business Intelligence
COMM 360-3 Business Process Management
COMM 400-3 Strategic Management
COMM 461-3 Information System Analysis
ECON 350-3 Managerial Economics

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Major in Marketing

Marketing refers to the set of activities needed to find, build, and serve markets for products and services. Students of marketing acquire analytical tools from economics, mathematics, statistics, and the social and behavioural sciences. A major in Marketing is useful for such positions as account representatives, brand managers, advertising executives, and market researchers. Marketing majors may find employment in the private sector, in non-profit organizations, and in government. Marketing concepts and principles are of particular importance to small businesses and new business ventures.

The minimum requirement for a Bachelor of Commerce with a major in Marketing is 120 credit hours.

Program Requirements

Students enrolling in any course required for a major in

the Bachelor of Commerce degree must have completed all prerequisite courses with a minimum of C- or better. In exceptional circumstances, the Program Chair may waive this requirement on a case-by-case basis.

Lower-Division Requirements

100 Level

COMM 100-3* Introduction to Canadian Business
ECON 100-3 Microeconomics
ECON 101-3 Macroeconomics
FNST 100-3 The Aboriginal Peoples of Canada
MATH 150-3** Finite Mathematics for Business and Economics
or MATH 220-3 Linear Algebra
MATH 152-3** Calculus for Non-majors
or MATH 100-3 Calculus I

*Students transferring with 30 or more credit hours of courses required for the Bachelor of Commerce degree are exempt from this requirement.

**Students wishing to pursue additional math courses as electives are advised to choose MATH 100-3 (Calculus I) and MATH 220-3 (Linear Algebra).

200 Level

COMM 200-3 Business Communication
COMM 204-3 Entrepreneurship
COMM 210-3 Financial Accounting
COMM 211-3 Managerial Accounting
COMM 220-3 Financial Management I
COMM 230-3 Organizational Behaviour
COMM 240-3 Introduction to Marketing
COMM 251-3 Introduction to Management Science
CPSC 250-3 Applied Business Computing
ECON 205-3 Statistics for Business and the Social Sciences
or STAT 240-3 Basic Statistics

Upper-Division Requirements

300 and 400 Level

COMM 300-3 Introduction to Business Law
COMM 320-3 Financial Management II
COMM 330-3 Human Resource Management
COMM 332-3 Business and Professional Ethics
COMM 343-3 Behavioural Marketing
COMM 350-3 Production and Operations Management
COMM 351-3 Management Information Systems
COMM 400-3 Strategic Management
COMM 442-3 Marketing Strategy
COMM 443-3 Marketing Research
ECON 350-3 Managerial Economics

Two of the following:

COMM 340-3 Marketing Communication
COMM 341-3 Sales Management
COMM 342-3 Services Marketing
COMM 346-3 Internet Marketing
COMM 347-3 Marketing Channels and Retail Management
COMM 441-3 International Marketing

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Minor in General Business

The Minor in General Business is designed for students from outside the School of Business who are interested in obtaining skills and knowledge of business management. It will appeal to students who anticipate becoming involved in the supervision or management of work units or organizations in their careers. Students can obtain a minor in General Business within their degree program by completing 24 credit hours.

The minor consists of 12 credit hours at the lower-division level (4 courses) and 12 credit hours (4 courses) at the upper-division level.

Requirements

COMM 100-3 Introduction to Canadian Business

Three of the following:

COMM 204-3 Entrepreneurship
COMM 210-3 Financial Accounting
COMM 211-3 Managerial Accounting
COMM 220-3 Financial Management I
COMM 230-3 Organizational Behaviour
COMM 240-3 Introduction to Marketing
COMM 251-3 Introduction to Management Science

Four of the following:

COMM 300-3 Introduction to Business Law
COMM 303-3 Introduction to International Business
COMM 320-3 Financial Management II
COMM 330-3 Human Resource Management
COMM 332-3 Business and Professional Ethics
COMM 343-3 Behavioural Marketing
COMM 350-3 Production and Operations Management
COMM 351-3 Management Information Systems
COMM 431-3 Industrial Relations
COMM 432-3 Cross-cultural Workplace Practices

A maximum of 4 courses (12 credit hours) used to fulfill program requirements for a major or another minor may also be used to fulfill requirements for a minor in General Business.

Minor in Management Information Systems

The Minor in Management Information Systems requires 27 credit hours of courses:

Requirements

COMM 100-3 Introduction to Canadian Business
COMM 251-3 Introduction to Management Science
COMM 350-3 Production and Operations Management
COMM 351-3 Management Information Systems
or CPSC 351-3 Management Information Systems
COMM 352-3 e-Business
or COMM 346-3 Internet Marketing
COMM 353-3 Business Data Communications and Networking
or CPSC 344-3 Data Communications and Networking
COMM 354-3 Introduction to Business Intelligence

At least two of the following courses:
CPSC 324-3 Introduction to Database Systems
COMM 440-(3-6) Internship
COMM 451-3 Project Management
GEOG 204-3 Introduction to GIS

In addition, CPSC 110-3 is highly recommended.

A maximum of 4 courses (12 credit hours) used to fulfill program requirements for a major or another minor may also be used to fulfill requirements for a minor in Management Information Systems.

Alternative courses may be substituted for the above with written permission of the department Chair and Dean.

Certificate in Business Administration Fundamentals

This certificate provides students with the basic information on how to run a business and administer parts of an organization, and is ideal for students from outside of the business program who are interested in understanding the fundamentals of business administration. To create solutions for our changing world, students from various backgrounds need to start organizations, businesses, and firms that use their expertise and skills. This is important for areas such as engineering, nursing, environmental planning, and computer science. Students in this program are taught how Canadian businesses function, the basic accounting and financial concerns of a business, how organizations work, how to design their product/service offerings, and how to market their product/service. Students enrolled in the UNBC Bachelor of Commerce or an equivalent business degree or business minor from any institution (as per the discretion of the School of Business program Chair) are not eligible for this certificate.

Requirements

COMM 100-3 Introduction to Canadian Business
COMM 202-3 Basic Financial Management and Analysis
COMM 203-3 Service Design
COMM 240-3 Introduction to Marketing
COMM 330-3 Human Resource Management

Chemistry (BSc Program)

Kerry Reimer, Professor Emeritus

Todd Whitcombe, Professor and Chair
Chow Lee, Professor
Margot Mandy, Professor
Stephen Rader, Professor
Daniel Erasmus, Associate Professor
Andrea Gorrell, Associate Professor
Kalindi Morgan, Assistant Professor
Jacob Walsh, Assistant Professor
Jeffrey Northrop, Adjunct Professor
Martha Stark, Adjunct Professor
Jun Yin, Adjunct Professor
Kaila Fadock, Senior Lab Instructor
Umesh Parshotam, Senior Lab Instructor

Website: www.unbc.ca/chemistry

Chemistry is the fundamental science that deals with the nature of substances and the changes occurring in them. Chemical reactions are the basis of all life. Everything we are or do depends in one way or another on chemistry. A major or minor in chemistry or minor in biochemistry prepares you for a variety of careers in industry, education, ecology, and public service, or for graduate study and research in chemistry and many related fields.

Major in Chemistry

The major in Chemistry requires students to take at least 64 credit hours of Chemistry, 36 credit hours of which must be upper-division (i.e., 300 or 400) level.

The minimum requirement for completion of a Bachelor of Science with a major in Chemistry is 128 credit hours.

Program Requirements

Lower-Division Requirement

100 Level

BIOL 103-3 Introductory Biology I
BIOL 104-3 Introductory Biology II
BIOL 123-1 Introductory Biology I Laboratory
BIOL 124-1 Introductory Biology II Laboratory
CHEM 100-3 General Chemistry I
CHEM 101-3 General Chemistry II
CHEM 120-1 General Chemistry Lab I
CHEM 121-1 General Chemistry Lab II
CPSC 100-4 Computer Programming I
or CPSC 110-3 Introduction to Computer Systems and Programming
MATH 100-3 Calculus I
MATH 101-3 Calculus II
PHYS 100-4 Physics for Life Sciences I
or PHYS 110-4 Introductory Physics I: Mechanics
PHYS 101-4 Physics for Life Sciences II
or PHYS 111-4 Introductory Physics II: Waves and Electricity

PHYS 110-4 and PHYS 111-4 are strongly recommended.

200 Level

CHEM 200-3 Physical Chemistry I
CHEM 201-3 Organic Chemistry I
CHEM 202-3 Inorganic Chemistry I
CHEM 203-3 Organic Chemistry II
CHEM 204-3 Introductory Biochemistry
CHEM 210-3 Analytical Chemistry I
CHEM 250-1 Organic Chemistry Lab I
CHEM 251-1 Organic Chemistry Lab II
MATH 220-3 Linear Algebra

One of the following:
MATH 200-3 Calculus III
STAT 371-3 Probability and Statistics for Scientists and Engineers

Upper-Division Requirement

300 Level

CHEM 300-3 Physical Chemistry II
or CHEM 305-3 Physical Chemistry III
CHEM 310-3 Analytical Chemistry II
CHEM 315-3 Physical Chemistry Lab
CHEM 320-3 Inorganic Chemistry II
or CHEM 321-3 Inorganic Chemistry III
CHEM 322-3 Inorganic Chemistry Lab

400 Level

CHEM 401-3 Chemistry Seminar
CHEM 406-3 Advanced Laboratory I
CHEM 407-3 Advanced Laboratory II

Nine credit hours of 300 or 400 level Chemistry*
Three credit hours of 400 level Chemistry*

*Up to 6 credit hours from BCMB 306-3, BCMB 340-3, BCMB 401-3, BCMB 402-3, BCMB 403-3, or BCMB 405-3 may be used to satisfy these requirements.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 128 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*). A maximum of 3 credit hours from Continuing Studies may be used towards the elective credits. A total of 54 credit hours of upper-division study (300- and 400-level courses) must be successfully completed to meet degree requirements.

Course Selection

Students interested in the Chemistry program of study should select courses in their first four semesters according to the schedule below. For availability of courses at the 300 and 400 level, students should consult with the Chair of the Curriculum Committee in the Chemistry program.

Semester One (September)

BIOL 103-3	Introductory Biology I
BIOL 123-1	Introductory Biology I Laboratory
CHEM 100-3	General Chemistry I
CHEM 120-1	General Chemistry Lab I
CPSC 100-4	Computer Programming I
or CPSC 110-3	Introduction to Computer Systems and Programming
MATH 100-3	Calculus I
PHYS 100-4	Physics for Life Sciences I
or PHYS 110-4	Introductory Physics I: Mechanics

Semester Two (January)

BIOL 104-3	Introductory Biology II
BIOL 124-1	Introductory Biology II Laboratory
CHEM 101-3	General Chemistry II
CHEM 121-1	General Chemistry Lab II
MATH 101-3	Calculus II
PHYS 101-4	Physics for Life Sciences II
or PHYS 111-4	Introductory Physics II: Waves and Electricity

Semester Three (September)

CHEM 200-3	Physical Chemistry I
CHEM 201-3	Organic Chemistry I
CHEM 210-3	Analytical Chemistry I
CHEM 250-1	Organic Chemistry Lab I

Three (3) Math or elective credit hours

Semester Four (January)

CHEM 202-3	Inorganic Chemistry I
CHEM 203-3	Organic Chemistry II
CHEM 204-3	Introductory Biochemistry
CHEM 251-1	Organic Chemistry Lab II
MATH 220-3	Linear Algebra

Three (3) Math or elective credit hours

BSc Honours – Chemistry

The BSc Honours in Chemistry offers students a higher level of education and research experience. It is particularly suitable for students intending to proceed to postgraduate studies.

Admission to the Honours program takes place after the completion of 60 credit hours and requires a minimum Cumulative GPA of 3.33. Attaining the minimum requirement does not guarantee admission to the Honours program which is at the discretion of the Chemistry Program and contingent upon the availability of a faculty member to supervise the undergraduate thesis. To remain in the Honours program, students must maintain a minimum Cumulative GPA of 3.33. All Honours students must complete an undergraduate thesis under the direct supervision of a faculty member.

Students are required to complete 134 credit hours, six of which are the undergraduate thesis, and to satisfy the requirements of the major in Chemistry.

Joint Major in Chemistry and Computer Science (BSc)

The minimum requirement for completion of a Bachelor of Science with a Joint Major in Chemistry and Computer Science is 126 credit hours.

MATH 150-3 (Finite Mathematics for Business and Economics) may not be used for credit towards any Mathematics or Computer Science major or joint major.

Program Requirements

Literacy Requirement

One of the following:

ENGL 170-3	Writing and Communication Skills
ENGL 270-3	Expository Writing

Lower-Division Requirement

CHEM 100-3	General Chemistry I
CHEM 101-3	General Chemistry II
CHEM 120-1	General Chemistry Lab I
CHEM 121-1	General Chemistry Lab II
CHEM 200-3	Physical Chemistry I
CHEM 201-3	Organic Chemistry I
CHEM 202-3	Inorganic Chemistry I
CHEM 203-3	Organic Chemistry II
CHEM 210-3	Analytical Chemistry I
CPSC 100-4	Computer Programming I
CPSC 101-4	Computer Programming II
CPSC 141-3	Discrete Computational Mathematics
CPSC 224-3	Introduction to Database Systems
CPSC 230-4	Introduction to Logic Design
CPSC 231-4	Computer Organization and Architecture
CPSC 281-3	Data Structures I
MATH 100-3	Calculus I
MATH 101-3	Calculus II
MATH 220-3	Linear Algebra

An additional 3 credit hours of Computer Science at the 200 level or higher

Upper-Division Requirement

Chemistry

CHEM 300-3 Physical Chemistry II
or CHEM 305-3 Physical Chemistry III
CHEM 310-3 Analytical Chemistry II
CHEM 320-3 Inorganic Chemistry II
or CHEM 321-3 Inorganic Chemistry III

A minimum of 15 credit hours of 300- or 400-level Chemistry*
*Up to 6 credit hours from BCMB 306-3, BCMB 340-3, BCMB 401-3, BCMB 402-3, BCMB 403-3, or BCMB 405-3 may be used to satisfy these requirements.

Computer Science

Two of the following:

CPSC 300-3 Software Engineering
CPSC 320-3 Programming Languages
CPSC 321-3 Operating Systems
CPSC 340-3 Theory of Computation

A minimum of 9 credit hours of 300- or 400-level Computer Science*; and
6 credit hours of 400-level Computer Science (excluding the seminar, project, and special topics courses)

*Between the two disciplines, a minimum of 15 credit hours at the 400 level must be completed.

One of the following:

MATH 335-3 Introduction to Numerical Methods
STAT 371-3 Probability and Statistics for Scientists and Engineers

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 126 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in Chemistry and Mathematics (BSc)

The minimum requirement for completion of a Bachelor of Science with a Joint Major in Chemistry and Mathematics is 125 credit hours.

MATH 150-3 (Finite Mathematics for Business and Economics) may not be used for credit towards any Mathematics major or joint major.

Program Requirements

Lower-Division Requirement

CHEM 100-3 General Chemistry I
CHEM 101-3 General Chemistry II
CHEM 120-1 General Chemistry Lab I
CHEM 121-1 General Chemistry Lab II
CHEM 200-3 Physical Chemistry I
CHEM 201-3 Organic Chemistry I
CHEM 202-3 Inorganic Chemistry I
CHEM 203-3 Organic Chemistry II
CHEM 210-3 Analytical Chemistry I
CPSC 100-4 Computer Programming I
CPSC 141-3 Discrete Computational Mathematics
or MATH 224-3 Foundations of Modern Mathematics
MATH 100-3 Calculus I
MATH 101-3 Calculus II
MATH 202-3 Multivariable Calculus I
MATH 204-3 Multivariable Calculus II
MATH 220-3 Linear Algebra
MATH 230-3 Ordinary Differential Equations and Boundary Value Problems
PHYS 110-4 Introductory Physics I: Mechanics
PHYS 111-4 Introductory Physics II: Waves and Electricity

Upper-Division Requirement

Chemistry

CHEM 300-3 Physical Chemistry II
or CHEM 305-3 Physical Chemistry III
CHEM 310-3 Analytical Chemistry II
CHEM 320-3 Inorganic Chemistry II
or CHEM 321-3 Inorganic Chemistry III

Nine credit hours of 300- or 400-level Chemistry*
Six credit hours of 400-level Chemistry**

*Up to 6 credit hours from BCMB 306-3, BCMB 340-3, BCMB 401-3, BCMB 402-3, BCMB 403-2, or BCMB 405-3 may be used to satisfy these requirements.

Mathematics

MATH 301-3 Introduction to Complex Analysis
MATH 320-3 Survey of Algebra
MATH 326-3 Advanced Linear Algebra
MATH 335-3 Introduction to Numerical Methods
STAT 371-3 Probability and Statistics for Scientists and Engineers

Six credit hours of 300- or 400-level Mathematics**; and
Six credit hours of 400-level Mathematics

**Between the two disciplines, a minimum of 15 credit hours at the 400 level must be completed.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 125 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in Chemistry and Physics (BSc)

The minimum requirement for completion of a Bachelor of Science with a Joint Major in Chemistry and Physics is 126 credit hours.

Program Requirements

Lower-Division Requirement

CHEM 100-3	General Chemistry I
CHEM 101-3	General Chemistry II
CHEM 120-1	General Chemistry Lab I
CHEM 121-1	General Chemistry Lab II
CHEM 200-3	Physical Chemistry I
CHEM 201-3	Organic Chemistry I
CHEM 202-3	Inorganic Chemistry I
CHEM 210-3	Analytical Chemistry I
CPSC 100-4	Computer Programming I
MATH 100-3	Calculus I
MATH 101-3	Calculus II
MATH 202-3	Multivariable Calculus I
MATH 204-3	Multivariable Calculus II
MATH 220-3	Linear Algebra
MATH 230-3	Ordinary Differential Equations and Boundary Value Problems
PHYS 110-4	Introductory Physics I: Mechanics
PHYS 111-4	Introductory Physics II: Waves and Electricity
PHYS 200-3	Thermal Physics
PHYS 202-4	Electromagnetism and Optics
PHYS 205-3	Modern Physics I
PHYS 206-4	Modern Physics II

Upper-Division Requirement

CHEM 300-3	Physical Chemistry II
or CHEM 305-3	Physical Chemistry III
CHEM 310-3	Analytical Chemistry II
CHEM 315-3	Physical Chemistry Lab
CHEM 320-3	Inorganic Chemistry II
or CHEM 321-3	Inorganic Chemistry III

Six credit hours of 300- or 400-level Chemistry* and
Six credit hours of 400-level Chemistry*

*Up to 6 credit hours from BCMB 306-3, BCMB 340-3, BCMB 401-3, BCMB 402-3, BCMB 403-3, or BCMB 405-3 may be used to satisfy these upper-division Chemistry requirements.

MATH 336-3	Intermediate Differential Equations
PHYS 300-3	Classical Mechanics
PHYS 302-3	Quantum Mechanics I
PHYS 351-3	Optics and Photonics I
PHYS 404-3	Solid State Physics

Three credit hours of 300- or 400-level Physics and 6 credit hours of 400-level Physics.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 126 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Minor in Chemistry

The minor in Chemistry is designed to provide students with a solid grounding and a core of study in one or more of the subdisciplines of Chemistry. Thus, some flexibility is permitted in satisfying the requirements for a minor. Students have the option to study a range of subdisciplines at the 300 level while counting the 200-level prerequisites toward the minor or to focus on particular subdisciplines through to the 400 level. A maximum of six courses (14 credit hours) of the 100- and 200-level courses used to fulfill requirements for a major (or another minor) may also be used toward a minor in Chemistry.

The minimum requirement for completion of the minor in Chemistry is 29 credit hours.

100 Level

CHEM 100-3	General Chemistry I
CHEM 101-3	General Chemistry II
CHEM 120-1	General Chemistry Lab I
CHEM 121-1	General Chemistry Lab II

200 Level

At least 9 credit hours from the following:

CHEM 200-3	Physical Chemistry I
CHEM 201-3*	Organic Chemistry I
CHEM 202-3	Inorganic Chemistry I
CHEM 203-3*	Organic Chemistry II
CHEM 204-3*	Introductory Biochemistry
CHEM 210-3	Analytical Chemistry I
CHEM 250-1	Organic Chemistry Lab I
CHEM 251-1	Organic Chemistry Lab II

***Note:** Selections made should incorporate prerequisites for intended upper-division courses.

300 and 400 Level

At least 12 credit hours from the following:

BCMB 306-3*	Intermediary Metabolism
BCMB 401-3*	Basic Science of Oncology
BCMB 402-3*	Macromolecular Structure

BCMB 403-3*	Advanced Nucleic Acids
BCMB 405-3*	Topics in Biochemistry and Molecular Biology
CHEM 300-3	Physical Chemistry II
CHEM 301-3	Advanced Organic Chemistry I
CHEM 303-3	Quantum Chemistry
CHEM 304-3	Advanced Organic Chemistry II
CHEM 305-3	Physical Chemistry III
CHEM 310-3	Analytical Chemistry II
CHEM 315-3	Physical Chemistry Lab
CHEM 320-3	Inorganic Chemistry II
CHEM 321-3	Inorganic Chemistry III
CHEM 322-3	Inorganic Chemistry Lab
CHEM 402-3	Topics in Organic Chemistry
CHEM 404-3	Topics in Physical Chemistry

*Up to 6 credit hours from BCMB 306-3, BCMB 340-3, BCMB 401-3, BCMB 402-3, BCMB 403-3, or BCMB 405-3 may be used toward a minor in Chemistry.

Computer Science (BSc Program)

Shahadat Hossain, Professor and Chair
Liang Chen, Professor
Waqar Haque, Professor
David Casperson, Associate Professor
Fan Jiang, Associate Professor
Andreas Hirt, Assistant Professor
Shruti Chandra, Assistant Professor
Sajal Saha, Assistant Professor
Allan Kranz, Senior Lab Instructor

Website: www.unbc.ca/computer-science

The Computer Science program gives students a thorough exposure to basic areas like computer architecture, programming languages and methodology, algorithms and data structures, systems programming, operating systems and networking, knowledge-based and database systems, software engineering, and theory. Students develop the advanced practical computing and problem-solving skills required for professional work in modern industry, based on a strong conceptual foundation and on insights into the nature of this rapidly changing field. Each student uses advanced development tools, and are encouraged to approach problem-solving from a multidisciplinary point of view. The program emphasizes direct co-operation with industry.

Major in Computer Science

A major in Computer Science requires at least 20 Computer Science courses and at least 61 credit hours in Computer Science, at least 27 credit hours of which must be upper-division courses, and of those upper-division credit hours, at least 12 must be taken at the 400 level. MATH 335-3 and STAT 371-3 can count towards this requirement.

The following course may not be used for credit towards a Computer Science major or joint major:

MATH 150-3	Finite Mathematics for Business and Economics

The minimum requirement for completion of a Bachelor of Science with a major in Computer Science is 120 credit hours.

Program Requirements

Unless otherwise specified, students enrolling in any Computer Science or Mathematics course with prerequisites are required to have completed all prerequisite courses for that course with a C- or better, or have permission to enroll from the Program Chair.

Lower-Division Requirement

100 Level

CPSC 100-4	Computer Programming I
CPSC 101-4	Computer Programming II
CPSC 141-3	Discrete Computational Mathematics
ENGL 170-3	Writing and Communication Skills
or ENGL 270-3	Expository Writing
MATH 100-3	Calculus I

MATH 101-3 Calculus II is strongly recommended.

200 Level

CPSC 224-3	Introduction to Database Systems
CPSC 230-4	Introduction to Logic Design
CPSC 231-4	Computer Organization and Architecture
CPSC 260-3	Ethics in Computing Science
CPSC 281-3	Data Structures I
MATH 220-3	Linear Algebra

General Science Requirement

Students must take two courses from the following list of science courses. It is recommended that computer science majors take PHYS 110-4 and PHYS 111-4. However, students may take any two courses from the following list, according to their interests, to fulfill the general science requirement:

BIOL 103-3	Introductory Biology I
BIOL 104-3	Introductory Biology II
CHEM 100-3	General Chemistry I
CHEM 101-3	General Chemistry II
ENVS 101-3	Introduction to Environmental Citizenship
GEOG 204-3	Introduction to GIS
GEOG 205-3	Cartography and Geomatics
GEOG 210-3	Introduction to Earth Science
PHYS 100-4	Physics for Life Sciences I
PHYS 101-4	Physics for Life Sciences II
PHYS 110-4	Introductory Physics I: Mechanics
PHYS 111-4	Introductory Physics II: Waves and Electricity
PSYC 101-3	Introduction to Psychology I

In some special cases other science courses approved by the Chair of Computer Science may be used to satisfy this requirement.

Upper-Division Requirement

Computer Science Breadth

CPSC 300-3	Software Engineering I

CPSC 320-3 Programming Languages
CPSC 321-3 Operating Systems
CPSC 340-3 Theory of Computation
CPSC 344-3 Data Communications and Networking
or CPSC 444-3 Computer Networks

STAT 371-3 Probability and Statistics for Scientists and Engineers is strongly recommended.

400 Level
At least 12 credit hours of Computer Science courses must be taken at the 400 level, and of these, at least 9 credit hours must be outside the seminar course, project course (other than CPSC 400-3), research course, or special topics course category.

Alternate courses may be substituted for the above with the written permission of the Program Chair.

Subject Requirement

An additional 9 credit hours chosen from the following:
Computer Science at any level
MATH 335-3 Introduction to Numerical Methods
STAT 371-3 Probability and Statistics for Scientists and Engineers

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*). A total of 45 credit hours in upper-division (300 and 400 level) courses from any discipline are required for graduation.

BSc Honours – Computer Science

The Honours Program in Computer Science offers students additional undergraduate research experience and helps to prepare them for post-graduate studies in Computer Science and related fields.

Candidates are normally expected to apply for entry prior to completion of 90 credit hours. Candidates are required to consult with their Student Advisor prior to entry to the Program. Entry to the Computer Science Honours Program takes place after completion of 60 credit hours, 30 credit hours of which must be from the Computer Science Program Requirements (excluding Elective and Academic Breadth), and requires a minimum Cumulative GPA of 3.33 over the previous 30 credit hours of Computer Science Program Requirements, and permission of the Department Chair. Attaining the minimum requirement does not guarantee entry to the Honours Program, which is at the discretion of the Department. Maintenance of a Cumulative GPA of 3.33 is required to remain in the Honours Program. Students are responsible to find their own undergraduate thesis research supervisor. Faculty members are under no obligation to supervise Honours students.

To be awarded the BSc Honours degree students will
- complete 120 credit hours required for a BSc in Computer Science
- complete an additional 6 credit hours of CPSC 430 including the successful completion of an undergraduate thesis under the supervision of a faculty member
- complete STAT 371-3

Joint Major in Chemistry and Computer Science (BSc)

See Calendar entry under Chemistry.

Joint Major in Computer Science and Mathematics (BSc)

The minimum requirement for completion of a Bachelor of Science with a Joint Major in Computer Science and Mathematics is 124 credit hours.

MATH 150-3 (Finite Mathematics for Business and Economics) may not be used for credit towards any Mathematics or Computer Science major or joint major.

Program Requirements

Literacy Requirement

One of the following:
ENGL 170-3 Writing and Communication Skills
ENGL 270-3 Expository Writing

Lower-Division Requirement

CPSC 100-4 Computer Programming I
CPSC 101-4 Computer Programming II
CPSC 141-3 Discrete Computational Mathematics
CPSC 224-3 Introduction to Database Systems
CPSC 230-4 Introduction to Logic Design
CPSC 231-4 Computer Organization and Architecture
CPSC 281-3 Data Structures I
MATH 100-3 Calculus I
MATH 101-3 Calculus II
MATH 202-3 Multivariable Calculus I
MATH 204-3 Multivariable Calculus II
MATH 220-3 Linear Algebra
MATH 224-3 Foundations of Modern Mathematics
MATH 230-3 Ordinary Differential Equations and Boundary Value Problems

General Science Requirement

Two of the following:

BIOL 103-3 Introductory Biology I
and BIOL 123-1 Introductory Biology I Laboratory

BIOL 104-3 Introductory Biology II
and BIOL 124-1 Introductory Biology II Laboratory

CHEM 100-3 General Chemistry I
and CHEM 120-1 General Chemistry Lab I

CHEM 101-3 General Chemistry II
and CHEM 121-1 General Chemistry Lab II

PHYS 100-4 Physics for Life Sciences I
or PHYS 110-4* Introductory Physics I: Mechanics

PHYS 111-4* Introductory Physics II: Waves and Electricity

PHYS 110-4 (Introductory Physics I: Mechanics) and PHYS 111-4 (Introductory Physics II: Waves and Electricity) are strongly recommended for all majors.

Upper-Division Requirement

CPSC 320-3 Programming Languages
CPSC 321-3 Operating Systems
CPSC 340-3 Theory of Computation

A minimum of 6 credit hours of 300- or 400-level Computer Science; and a minimum of 6 credit hours of 400-level Computer Science (excluding seminar, project, and special topics courses)

MATH 320-3 Survey of Algebra
MATH 326-3 Advanced Linear Algebra
MATH 335-3 Introduction to Numerical Methods
STAT 371-3 Probability and Statistics for Scientists and Engineers

A minimum of 3 credit hours of 300 -or 400-level Mathematics; and a minimum of 6 credit hours of 400-level Mathematics. Between the two disciplines, a minimum of 15 credit hours at the 400 level must be completed.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 124 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in Computer Science and Physics (BSc)

The minimum requirement for completion of a Bachelor of Science with a Joint Major in Computer Science and Physics is 127 credit hours.

MATH 150-3 (Finite Mathematics for Business and Economics) may not be used for credit towards any Mathematics or Computer Science major or joint major.

Program Requirements

Lower-Division Requirement

CPSC 100-4 Computer Programming I
CPSC 101-4 Computer Programming II
CPSC 141-3 Discrete Computational Mathematics
CPSC 224-3 Introduction to Database Systems
CPSC 231-4 Computer Organization and Architecture
CPSC 281-3 Data Structures I
ENGL 170-3 Writing and Communication Skills
or ENGL 270-3 Expository Writing
MATH 100-3 Calculus I
MATH 101-3 Calculus II
MATH 202-3 Multivariable Calculus I
MATH 204-3 Multivariable Calculus II
MATH 220-3 Linear Algebra
MATH 230-3 Ordinary Differential Equations and Boundary Value Problems
PHYS 110-4 Introductory Physics I: Mechanics
PHYS 111-4 Introductory Physics II: Waves and Electricity
PHYS 200-3 Thermal Physics
PHYS 202-4 Electromagnetism and Optics
PHYS 205-3 Modern Physics I
PHYS 206-4 Modern Physics II

Upper-Division Requirement

Two of the following:
CPSC 300-3 Software Engineering
CPSC 320-3 Programming Languages
CPSC 321-3 Operating Systems
CPSC 340-3 Theory of Computation

An additional 15 credit hours of upper-level Computer Science, of which at least 6 must be at the 400 level (excluding seminar, project, and special topics courses).

MATH 335-3 Introduction to Numerical Methods
MATH 336-3 Intermediate Differential Equations
PHYS 300-3 Classical Mechanics
PHYS 302-3 Quantum Mechanics I
PHYS 305-4 Electronics
PHYS 404-3 Solid State Physics

An additional 9 credit hours of upper-level Physics, of which at least 6 must be at the 400 level (excluding project and special topics courses).

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 127 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Minor in Computing

The Minor in Computing requires the following 29 credit hours of courses:

Requirements

CPSC 100-4 Computer Programming I
CPSC 101-4 Computer Programming II
CPSC 141-3 Discrete Computational Mathematics
CPSC 224-3 Introduction to Database Systems
CPSC 281-3 Data Structures I
CPSC 300-3 Software Engineering I
CPSC 344-3 Data Communications and Networking
or CPSC 444-3 Computer Networks

Two additional Computer Science courses, one of which must be upper-division

MATH 335-3 (Introduction to Numerical Methods) may be used to meet this requirement.

Conservation Science and Practice (BSc Program)

Philip Burton, Professor Emeritus
Art Fredeen, Professor Emeritus
Pamela Wright, Professor Emerita

Ken Otter, Professor and Chair
Darwyn Coxson, Professor
Ché Elkin, Professor, and FRBC/Slocan Endowed Chair in Mixedwood Ecology and Management
Dezene Huber, Professor
Chris Johnson, Professor
Nicola Koper, Professor
Brent Murray, Professor
Mark Shrimpton, Professor
Oscar Venter, Professor, and FRBC/West Fraser Endowed Chair in Conservation Solutions
Erin Baerwald, Associate Professor
Eduardo Martins, Associate Professor
Phil Mullins, Associate Professor
Roy Rea, Associate Professor
Lauren Harding, Assistant Professor
Jennifer Wigglesworth, Assistant Professor

Website: www.unbc.ca/conservation-science-practice

Ecological systems underpin human well-being in many ways from art and culture to food security. Conservation professionals work to ensure that ecosystems continue to provide these values for future generations. However, we are facing an increasingly complex set of challenges as human populations and resource development increase and the global climate changes. Meeting these challenges requires an integration of human and ecological values across a broad range of ecosystems at increasingly larger spatial and temporal scales.

Students pursuing a BSc in Conservation Science and Practice focus on understanding and addressing the contemporary challenges facing the sustainable use and conservation of our environment. Navigating these challenges requires a strong scientific foundation, including the necessary appreciation for both the natural and human dimensions of conservation and management. This degree equips students with the knowledge to enter a solutions-based career that actively contributes to solving today's conservation and management problems. Our goal is to provide students with the philosophical foundation, scientific theory, and technical skills to address the challenge of maintaining the functioning of ecosystems across developed, developing and still-wild landscapes.

The BSc in Conservation Science and Practice allows students to pursue one of two majors:

1. Wildland Conservation and Recreation
2. Landscape Conservation and Management

The major in Wildland Conservation and Recreation focuses on portions of the landscape where conservation values, including recreation and aesthetic values, are the priority land-use activities, and where these activities intersect with other values, priorities, and uses. Topics of study include: the promotion of and advocacy for conservation; integrated management of legally designated parks and protected areas; conservation area design; and human activities across these areas, including recreation, ecotourism and the associated positive and negative impacts on ecological integrity. Students develop the skills necessary to identify, plan, monitor, and manage conservation values within the parks, recreation and tourism sectors.

The major in Landscape Conservation and Management focuses on natural and human-modified systems across broad spatial scales. The emphasis in this major is on integrated landscapes that support a wide variety of values and activities, including the maintenance of biodiversity, the rights and practices of Indigenous Peoples, ecosystem services, and resource extraction. Courses in this major consider human activities across a range of ecological scales but with an emphasis on landscape and ecosystem-level processes. Graduates from the major develop the skills to work with cutting-edge tools and data that are necessary for the planning and management of multiple values across space and time.

Both majors are premised on an interdisciplinary and multi-value perspective. The degree is focused on the natural sciences, and draws on ideas, theory and practice from the social sciences. This broad perspective recognizes that humans are part of socio-ecological systems; thus, the human dimensions of conservation, management and natural sciences are integral components of the curriculum.

Major in Wildland Conservation and Recreation

Program Requirements

Lower-Division Requirement

100 Level

BIOL 103-3	Introductory Biology I
BIOL 104-3	Introductory Biology II
BIOL 123-1	Introductory Biology I Laboratory
BIOL 124-1	Introductory Biology II Laboratory

CHEM 100-3 General Chemistry I
ENVS 101-3 Introduction to Environmental Citizenship
FNST 100-3 The Aboriginal Peoples of Canada
ORTM 100-3 Foundations of Outdoor Recreation and Tourism

200 Level
BIOL 201-3 Ecology
FSTY 201-3 Forest Plant Systems
or BIOL 301-3 Systematic Botany
GEOG 204-3 Introduction to GIS
NREM 204-3 Introduction to Wildlife and Fisheries
NREM 209-3 The Practice of Conservation
ORTM 200-3 Sustainable Outdoor Recreation and Tourism
ORTM 205-3 Outdoor Skills and Leadership
STAT 240-3 Basic Statistics

Upper-Division Requirement

300 Level
ENPL 304-4 Community Engagement and Inclusion Studio
or ENVS 326-3 Public Engagement for Sustainability
GEOG 300-3 Intermediate GIS
NREM 303-3 Aboriginal Perspectives on Land and Resource Management
or ENPL 208-3 First Nations Community and Environmental Planning
or FNST 249-4 Land and Indigenous Reconciliation Studio
ORTM 300-3 Recreation and Tourism Impacts
ORTM 305-3 Protected Area Planning and Management
ORTM 332-3 Outdoor, Environmental, and Experiential Education
ORTM 333-3 Field School

Two of the following:
BIOL 302-3 Limnology
BIOL 304-3 Plants, Society and the Environment
BIOL 307-3 Ichthyology and Herpetology
BIOL 308-3 Ornithology and Mammalogy
BIOL 318-3 Fungi and Lichens
BIOL 322-3 Entomology
BIOL 325-3 Ecological Analysis
BIOL 333-3 Field School
BIOL 350-3 Ethnobotany
NREM 333-3 Field Applications in Resource Management

400 Level
BIOL 411-3 Conservation Biology
NREM 400-4 Natural Resources Planning
NREM 409-3 Conservation Planning
ORTM 415-3 Conservation, Culture, and Society

Two of the following:
ORTM 307-3* Land Relations and Communities in Recreation and Tourism
ORTM 401-3* The Culture of Adventure
ORTM 405-3* Leadership Praxis
ORTM 409-3* Critical Approaches to Outdoor Recreation Activities
ORTM 433-(1-6) Field School II
ORTM 440-(2-6) Internship
ORTM 498-(1-3) Special Topics
ORTM 499-(1-6) Independent Study

Two of the following:
BIOL 404-3 Plant Ecology
BIOL 406-3** Fish Ecology
BIOL 410-3** Population and Community Ecology
BIOL 412-3** Wildlife Ecology
BIOL 420-3** Animal Behaviour
BIOL 421-3 Insects, Fungi and Society

One of the following:
BIOL 409-3 Conservation of Aquatic Ecosystems
BIOL 413-3** Wildlife Management
BIOL 414-3** Fisheries Management
NREM 413-3 Agroforestry

***Note:** Some senior-level ORTM classes are offered in alternating years.
****Note:** Prerequisites for these courses may be met by appropriate selection of courses in options listed in "Two of the following" and "One of the following" lists above.

Elective Requirements

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours.

BSc Honours – Conservation Science and Practice (Wildland Conservation and Recreation)

The Honours in Conservation Science and Practice (Wildland Conservation and Recreation) offers students a higher level of education and substantial research experience for proceeding to post graduate studies.

To enter the Honours Program, students must have completed 60 credit hours and obtained a minimum Cumulative GPA of 3.33. Attaining the minimum requirement does not guarantee entry into the Honours Program, which is at the discretion of the Conservation Science and Practice Curriculum Committee. Maintenance of a Cumulative GPA of 3.33 is required to remain in the Honours Program.

Honours students are required to complete the degree requirements for the BSc Conservation Science and Practice (Wildland Conservation and Recreation). In addition, each

student must also complete an additional 6 credit hours in the form of an undergraduate thesis (normally NRES 430-6) under the supervision of a faculty member. Students are responsible to find their own undergraduate thesis research supervisor. Faculty members are under no obligation to supervise Honours students.

Major in Landscape Conservation and Management

Program Requirements

Lower-Division Requirement

100 Level

BIOL 103-3 Introductory Biology I
BIOL 104-3 Introductory Biology II
BIOL 123-1 Introductory Biology I Laboratory
BIOL 124-1 Introductory Biology II Laboratory
CHEM 100-3 General Chemistry I
ECON 100-3 Microeconomics
FNST 100-3 The Aboriginal Peoples of Canada
MATH 152-3 Calculus for Non-majors
NREM 100-3 Field Skills
NREM 101-3 Introduction to Natural Resources Management and Conservation
NRES 100-3 Communications in Natural Resources and Environmental Studies

200 Level

BIOL 201-3 Ecology
ENSC 201-3 Weather and Climate
INTS 225-3 Global Environmental Change
or NREM 225-3 Global Environmental Change: Sustainability
FNST 249-4 Land and Indigenous Reconciliation Studio
GEOG 204-3 Introduction to GIS
NREM 204-3 Introduction to Wildlife and Fisheries
NREM 209-3 The Practice of Conservation
STAT 240-3 Basic Statistics

300 Level

BIOL 325-3 Ecological Analyses
ECON 305-3 Environmental Economics and Policy
or FSTY 310-3 Forest Economics
or NREM 306-3 Society, Policy and Administration
ENPL 304-4 Community Engagement and Inclusion Studio
or ENVS 326-3 Public Engagement for Sustainability
GEOG 300-3 Intermediate GIS
NREM 303-3 Aboriginal Perspectives on Land and Resource Management
or ENPL 409-4 Indigenous Planning Studio

Two of the following:

BIOL 301-3 Systematic Botany
BIOL 307-3 Ichthyology and Herpetology
BIOL 308-3 Ornithology and Mammalogy
BIOL 318-3 Fungi and Lichens
BIOL 322-3 Entomology
BIOL 350-3 Ethnobotany
FSTY 201-3 Forest Plant Systems

400 Level

BIOL 409-3 Conservation of Aquatic Ecosystems
or ENSC 425-3 Climate Change and Global Warming
BIOL 411-3 Conservation Biology
ENPL 401-3 Environmental Law
ENVS 414-3 Environmental and Professional Ethics
FSTY 405-3 Forest Ecosystem Modelling
or ENSC 406-3 Environmental Modelling
NREM 400-4 Natural Resources Planning
NREM 409-3 Conservation Planning
ORTM 415-3 Conservation, Culture, and Society

Elective Requirements

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours.

BSc Honours – Conservation Science and Practice (Landscape Conservation and Management)

The Honours in Conservation Science and Practice (Landscape Conservation and Management) offers students a higher level of education and substantial research experience for proceeding to post graduate studies.

To enter the Honours Program, students must have completed 60 credit hours and obtained a minimum Cumulative GPA of 3.33. Attaining the minimum requirement does not guarantee entry into the Honours Program, which is at the discretion of the Conservation Science and Practice Curriculum Committee. Maintenance of a Cumulative GPA of 3.33 is required to remain in the Honours Program.

Honours students are required to complete the degree requirements for the BSc Conservation Science and Practice (Landscape Conservation and Management). In addition, each student must also complete an additional 6 credit hours in the form of an undergraduate thesis (normally NRES 430-6) under the supervision of a faculty member. Students are responsible to find their own undergraduate thesis research supervisor. Faculty members are under no obligation to supervise Honours students.

School of Economics (BA and BSc Programs)

Paul Bowles, Professor Emeritus
Fiona MacPhail, Professor Emerita

Karima Fredj, Associate Professor and Chair
Jalil Safaei, Professor
Komla Avoumatsodo, Assistant Professor
Leandro Freylejer, Assistant Professor
Dawit Guta, Assistant Professor
Muhebullah Karimzada, Assistant Professor
Liam Kelly, Assistant Professor

Website: www.unbc.ca/economics

Economics as a discipline is constructed around the need to identify agents in the economy and analyze their interactions. As such it is based upon deriving generalizations by identifying behavioural rules and examining causal relationships between economic variables. The emphasis on examining causal relationships is a distinguishing feature of economics and forms an important part of its claim to be a social science. As well as addressing these central concerns, the Economics Program recognizes the interaction between the economy and other broader social, political, cultural and technological forces. The Program therefore places special emphasis on courses that analyze institutions, facilitate comparative studies, encourage a historical approach, and recognize the pervasiveness of technological change.

Major in Economics

Undergraduate students are required to take 15 Economics courses (45 credit hours). Of these, 10 courses (30 credit hours) are at the upper-division level.

The minimum requirement for completion of a Bachelor of Arts with a major in Economics is 120 credit hours.

Program Requirements

Lower-Division Requirement

100 Level

ECON 100-3 Microeconomics
ECON 101-3 Macroeconomics
MATH 150-3 Finite Mathematics for Business and Economics
or MATH 220-3 Linear Algebra
MATH 100-3 Calculus I
or MATH 152-3 Calculus for Non-majors

One of the following:

COMM 100-3 Introduction to Canadian Business
CPSC 110-3 Introduction to Computer Systems and Programming
ENPL 104-3 Planning for Transformation
FNST 100-3 The Aboriginal Peoples of Canada
INTS 100-3 Introduction to Global Studies
POLS 100-3 Contemporary Political Issues

200 Level

ECON 205-3 Statistics for Business and the Social Sciences

Two of the following:

ECON 204-3 Contemporary Economic Issues
ECON 206-3 Methods of Economic Evaluation
ECON 210-3 Introduction to Health Economics and Policy
ECON 220-3 Global Economic Shifts

One of the following:

COMM 210-3 Financial Accounting
COMM 220-3 Financial Management I
COMM 230-3 Organizational Behaviour
COMM 240-3 Introduction to Marketing
CPSC 250-3 Applied Business Computing
ENPL 206-3 How to Shape the Future
FNST 249-4 Land and Indigenous Reconciliation Studio
INTS 210-3 Globalizations
INTS 225-3 Global Environmental Change
POLS 200-3 Canadian Government and Politics
POLS 202-3 Canada in Comparative Perspective
POLS 255-3 Introduction to Law in Canada

Upper-Division Requirement

300 and 400 Level

ECON 310-3 Intermediate Microeconomic Theory
ECON 311-3 Intermediate Macroeconomic Theory
ECON 312-3 Introduction to Econometrics
ECON 412-3 Applying Economics in the Community
or ECON 440-3 Internship

Eighteen credit hours of upper-division Economics and 6 credit hours of upper-level applied and/or policy-oriented courses from any discipline (including Economics) and approval by the Chair.

***Note:** Students wishing to pursue graduate studies in Economics are strongly advised to take ECON 320-3 (Introduction to Mathematical Economics) and ECON 451-3 (Advanced Microeconomic Theory).

Electives and Academic Breadth

Elective credit hours must be taken s necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in Economics and Global and International Studies (BA)

Joint majors are designed for students interested in a combination of two related fields of study. A Joint Major normally involves a specific set of course requirements selected to provide a solid specialization in each of the two fields. The graduation requirements for a joint major can normally be met in four years of study. The minimum requirement for completion of a Bachelor of Arts with a joint major in Economics and Global and International Studies is 120 credit hours.

Program Requirements

Lower-Division Requirement

ECON 100-3 Microeconomics
ECON 101-3 Macroeconomics
ECON 204-3 Contemporary Economic Issues
or ECON 206-3 Methods of Economic Evaluation
or ECON 210-3 Introduction to Health Economics and Policy
ECON 205-3 Statistics for Business and the Social Sciences
ECON 220-3 Global Economic Shifts
INTS 100-3 Introduction to Global Studies
INTS 210-3 Globalizations

Upper-Division Requirement*

ECON 308-3 International Economic Relations
ECON 310-3 Intermediate Microeconomic Theory
or ECON 350-3 Managerial Economics
ECON 311-3 Intermediate Macroeconomic Theory
ECON 321-3 Economics of Developing Countries
INTS 320-3 The Global and the Everyday
INTS 490-3 Global Capstone

An additional 12 credit hours of 300- or 400-level Global and International Studies courses.

An additional 6 credit hours of 300- or 400-level Economics courses.

*Students must ensure that all prerequisites are fulfilled prior to registering in any courses. Note that MATH 152-3 is a prerequisite for ECON 310-3.

Language and Regional Studies Requirement

One of the following:
GEOG 220-3 World Regions: Latin America and the Caribbean
HIST 281-3 Republican Latin America
INTS 208-3 Japanese Culture and Society
INTS 240-3 Contemporary Circumpolar North
INTS 328-3 African Politics and Society

A minimum of 6 credit hours of Global and International Studies language courses.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in Economics and Political Science (BA)

The minimum requirement for completion of a Bachelor of Arts with a Joint Major in Economics and Political Science is 120 credit hours.

Program Requirements

Lower-Division Requirement

ECON 100-3 Microeconomics
ECON 101-3 Macroeconomics
ECON 205-3 Statistics for Business and the Social Sciences

Two of the following:
ECON 204-3 Contemporary Economic Issues
ECON 206-3 Methods of Economic Evaluation
ECON 210-3 Introduction to Health Economics and Policy
ECON 220-3 Global Economic Shifts

POLS 100-3 Contemporary Political Issues
POLS 200-3 Canadian Government and Politics
POLS 202-3 Canada in Comparative Perspective
POLS 230-3 International Relations
POLS 270-3 Political Philosophy: Antiquity to Early Modernity

Upper-Division Requirement

ECON 310-3 Intermediate Microeconomic Theory
or ECON 350-3 Managerial Economics
ECON 311-3 Intermediate Macroeconomic Theory
POLS 303-3 Democracy and Democratization

POLS 320-3 Canadian Politics and Policy
POLS 370-3 Political Philosophy: Early Modernity to Post-Modernity
Nine credit hours in Political Science at the 400 level.
Eighteen credit hours in Economics at the 300 or 400 level.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in Economics and Mathematics (BSc)

The minimum requirement for completion of a Bachelor of Science with a Joint Major in Economics and Mathematics is 121 credit hours.

MATH 150-3 (Finite Mathematics for Business and Economics) may not be used for credit towards any Mathematics major or joint major.

Note: Students enrolling in any Mathematics courses are required to have completed all prerequisite courses for that course with a C- or better, or have permission to enroll from the Chair of Mathematics.

Program Requirements

Literacy Requirement

One of the following:
- ENGL 170-3 Writing and Communication Skills
- ENGL 270-3 Expository Writing

Economics Requirements

ECON 100-3 Microeconomics
ECON 101-3 Macroeconomics

Two of the following:
- ECON 204-3 Contemporary Economic Issues
- ECON 206-3 Methods of Economic Evaluation
- ECON 210-3 Introduction to Health Economics and Policy
- ECON 220-3 Global Economic Shifts

And:
- ECON 205-3 Statistics for Business and the Social Sciences
- ECON 310-3 Intermediate Microeconomic Theory
- ECON 311-3 Intermediate Macroeconomic Theory
- ECON 312-3 Introduction to Econometrics
- ECON 320-3 Introduction to Mathematical Economics
- ECON 451-3 Advanced Microeconomic Theory

Twelve additional credit hours of 300- or 400-level Economics.

Mathematics Requirements

MATH 100-3 Calculus I
MATH 101-3 Calculus II
MATH 202-3 Multivariable Calculus I
MATH 204-3 Multivariable Calculus II
MATH 220-3 Linear Algebra
MATH 224-3 Foundations of Modern Mathematics
MATH 230-3 Ordinary Differential Equations and Boundary Value Problems
MATH 301-3 Introduction to Complex Analysis
MATH 320-3 Survey of Algebra
or MATH 302-3 Introductory Mathematical Analysis
STAT 371-3 Probability and Statistics for Scientists and Engineers

Six additional credit hours of 300- or 400-level Mathematics (STAT 372-3 is strongly recommended).
Six additional credit hours of 400-level Mathematics.

Program Requirements

CPSC 100-4 Computer Programming I

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 121 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Minor in Economics

The minor in Economics requires the completion of 24 credit hours. Students must complete:

ECON 100-3 Microeconomics
ECON 101-3 Macroeconomics

Two of the following:
- ECON 204-3 Contemporary Economic Issues
- ECON 205-3 Statistics for Business and the Social Sciences
- ECON 206-3 Methods of Economic Evaluation
- ECON 210-3 Introduction to Health Economics and Policy
- ECON 220-3 Global Economic Shifts

Twelve credit hours of 300- or 400- level Economics courses.

A maximum of 4 courses (12 credit hours) used to fulfill program requirements for a major or another minor may also be used to fulfill requirements for a minor in Economics. Alternative courses may be substituted for the above with written permission of the Chair of Economics and Dean.

Minor in International Development Studies

The International Development Studies minor provides students with the opportunity to learn about the lives of the majority of the world's population. Students have the opportunity to explore the diversity of cultures, political systems, histories, and economic strategies that shape the contemporary context for development. By combining courses from several subject areas and analyzing development as a concept and as a practice at the local, national and international levels, the program provides students with the knowledge and perspectives needed to gain a better understanding of the world in which we all live.

The Minor requires 27 credit hours. 12 credit hours are required in the lower-division and at least 12 credit hours must be from the upper division. In the upper division, courses must be chosen from at least three subject areas.

Lower-Division Required Courses

ECON 220-3	Global Economic Shifts
GEOG 101-3	Planet Earth
HIST 191-3	World History since 1550

In addition, students must take 15 credit hours of elective courses from at least three subject areas of which at least 12 credit hours must be from the upper division.

Students must take two or more of the following:

ECON 321-3	Economics of Developing Countries
ECON 401-3	Global Economy and Development
ECON 404-3	Poverty, Inequality and Development
GEOG 306-3	Critical Development Geographies
INTS 304-3	International Development

Other approved courses are:

ANTH 401-3	Anthropological Perspectives on Inequality
ANTH 404-3	Comparative Study of Indigenous Peoples of the World
ENGL 340-3	International Literatures in English
ENGL 350-3	Comparative Literary Studies
ENGL 440-3	Special Topics in International Literatures in English
ENGL 450-3	Special Topics in Comparative Literary Studies
FNST 416-3	Indigenous Issues in International Perspective
GEOG 305-3	Political Ecology: Environmental Knowledge and Decision-Making
GEOG 308-3	Health Geography
GEOG 401-3	Tenure, Conflict, and Resource Geography
GEOG 426-3	Geographies of Culture, Rights and Power
HIST 240-3	The Global Age of Expansion
HIST 241-3	The Age of Empire
HIST 280-3	Colonial Latin America
HIST 281-3	Republican Latin America
INTS 100-3	Introduction to Global Studies
INTS 306-3	Human Rights
INTS 308-3	Gender and International Studies
INTS 402-3	Pacific Affairs
POLS 303-3	Democracy and Democratization
POLS 309-3	Chinese Politics and Society

Students may count up to 12 credit hours in their Major towards their Minor.

School of Education (BEd Program)

Tina Fraser, Professor and Chair
Margo Greenwood, Professor
Lantana Usman, Professor
Hartley Banack, Associate Professor
Catherine Whalen, Associate Professor
Shendah Benoit, Assistant Professor
Joanie Crandall, Assistant Professor
Christine Ho Younghusband, Assistant Professor
David Litz, Assistant Professor
Alexander Lautensach, Adjunct Professor
Bonnie Fuller, Senior Instructor
Melanie Raymond, Senior Instructor
Glen Thielmann, Lecturer
Gretchen Vogelsang, Lecturer

Website: www.unbc.ca/education

The School of Education (SoE) recognizes its unique position in the province and attends to the needs of educators in BC's northern rural and remote schools. The design of the program reflects the region's cultural diversity, especially with regard to Aboriginal and Indigenous populations.

The Bachelor of Education (BEd) program is based on a signature pedagogy focused on People, Place and Land. Philosophically, constructivist principles underpin the BEd program. The BEd program model reflects current professional thinking and research that optimizes the mapping between educational theory and classroom practices. The program emphasizes such learner-centered strategies as inquiry-based learning, inclusion of diverse learners' perspectives, the development of caring and respectful learning communities, and reflective practices. Particular emphasis is placed on the integration of literacy and numeracy skills across the K-12 curricula.

Throughout the BEd program, teacher candidates have opportunities to develop an understanding of disciplinary areas focused on children's levels of cognitive and social development. As a cohort, they question, explore, focus, and reflect on how and why topics like Aboriginal and Indigenous education or Truth and Reconciliation have an impact on teaching and learning practices and approaches. Teacher candidates plan and practice ways of integrating pedagogical excellence and practice in one of two streams: the Elementary Years or the Secondary Years. Individually, they have opportunities to develop their professional voices as educators and leaders. They experience authentic engagement through continuous in-situ inquiry with Aboriginal and Indigenous ways of knowing and doing.

The BEd program provides teacher candidates with the coursework and classroom experience to prepare them to be qualified teachers. Upon successful completion of the program, graduates are recommended to the Ministry of Education and Child Care for professional certification required for employment in the British Columbia (BC) public school system.

Admission to the BEd program is a competitive process. Satisfying the minimum admission requirements does not guarantee admission. For further information concerning the admissions and the application process, please contact the FHHS Student Advisor in Enrolment Services.

Academic Regulations

Teacher candidates must receive a PASS in all courses within a Block in order to continue to the next Block. Teacher candidates are not able to progress in their program until they successfully repeat a course for which they received a FAIL.

Teacher candidates are required to withdraw from their BEd program if they have two instances of not meeting the minimum passing grade requirement.

EDUC 405 and EDUC 446 are interwoven, multi-semester courses that are aligned with courses taken across the entire Bachelor of Education program and cannot be repeated. Teacher candidates who receive a FAIL in one of the interwoven course(s) EDUC 405 and/or EDUC 446 are required to withdraw from the program. Grades are assigned in these courses in either Block 5 or Block 6 of the program.

Teacher candidates must successfully complete all course requirements for the BEd program prior to beginning the summative practicum for EDUC 491 with the exception of EDUC 405 in which students may continue to add experiences and ongoing reflective practice from EDUC 491; any required coursework for EDUC 405 is not due until at least a week after the practicum concludes. No coursework or assignments, other than the practicum, are expected to be completed during the practicum components of EDUC 391, EDUC 490, or EDUC 491.

Regular attendance is expected of all teacher candidates in all courses. An instructor can initiate procedures to debar a teacher candidate from attending classes and from final examinations where unexcused absences exceed three hours of scheduled classes in one term, which may result in a FAIL in the course.

Students who plan to do coursework at other institutions are required to seek prior approval from the Office of the Registrar and the Chair of the School of Education if they

wish such courses to be credit toward a BEd degree at UNBC.

Notice of Concern

The School of Education works closely with the teacher candidate, Coaching Teachers, Practice Evaluators, and placement partners (school districts and independent schools) when concerns arise during practicum. If a teacher candidate is not meeting expectations during a practicum placement, they may receive a Notice of Concern from the Chair, or designate, of the School of Education. A Notice of Concern outlines the area(s) of concern in relation to how a teacher candidate is not currently meeting the Professional Standards for BC Educators and what action on the part of the teacher candidate is necessary to meet those concerns within a given timeline.

Leave of Absence

Teacher candidates wanting to take a Leave of Absence must apply, in writing, to the Chair of the School of Education. Upon approval, students are eligible for up to a one-year Leave of Absence, during which they remain active UNBC students. If a Leave of Absence extends past one-year, teacher candidates may lose standing as UNBC students and may have to re-apply to the university. When teacher candidates intend to return to the program, they must indicate their intention in writing to the Chair who advises on next steps to facilitate their return.

Withdrawal from the Program

The School of Education reserves the right to require any teacher candidate to withdraw from the program based on criteria such as academic performance, professional fitness, or professional conduct.

Teacher candidates who voluntarily withdraw from the School of Education must notify the Chair of the School of Education in writing. Failure to notify the Chair may impact consideration for re-admission.

Request for Re-Admission

Teacher candidates who have withdrawn for any reason and wish to re-enter the program must submit a written request for re-admission to the Chair of the School of Education. Re-admission is not guaranteed. Teacher candidates are not allowed to use graduate-level (500 or higher) courses from the Education Program, or any other program, to meet degree requirements.

If re-admission is approved following required or voluntary withdrawal from a practicum and/or program, the teacher candidate is normally re-admitted with probationary status.

A teacher candidate may appeal if not satisfied with the outcome of that process (see *Appeals Process* in Regulations and Policies in this Calendar).

Part-Time Students in the BEd Program

The Bachelor of Education program at UNBC is a full-time study program. However, under exceptional circumstances (i.e., family, personal, or health reasons), teacher candidates may request to continue the program on a part-time basis. The request must be submitted in writing to the Chair of the School of Education and approved by the Dean of the Faculty of Human and Health Sciences. A change to part-time status is not guaranteed.

Teaching Practicum Regulations

Placements

All arrangements for school placements are made through the School of Education.

Through our signature pedagogy of People, Place and Land, the School of Education is focused on northern, rural, and Indigenous experiences and opportunities within northern British Columbia. Practicum placements are arranged within northern British Columbia.

The School of Education reserves the right to approve or disapprove any school placement for teacher candidates, to place teacher candidates in schools, and to change any placement assigned to a teacher candidate. The teacher candidate must be informed in writing of the reasons for any required change in placement. UNBC bears no responsibility for the costs associated with a change in placement.

The School of Education is responsible for seeking a sufficient number of school placements to serve the needs of all enrolled teacher candidates. A teacher candidate may be required to withdraw from a practicum course if none of the available schools accepts that particular teacher candidate.

The dates of the practica are made known to the teacher candidates at the beginning of each term. Placement locations are made available as soon as possible after classes have begun.

Expenses

Teacher candidates taking practicum courses must be prepared to travel to any regional school district or independent school. In order to do such travel, teacher candidates should budget for transportation and/or accommodation costs, as well as other expenses that may be incurred during practica.

Teacher candidates in the Regional BEd Program are

expected to travel for two one-week intensive sessions, one in each of Block 3 and Block 4 of their program. Teacher candidates should budget for transportation and accommodation costs for these sessions.

Disclosure

The School of Education works closely with school districts and independent schools (placement partners) in determining placement opportunities for teacher candidates and in supporting teacher candidates during their practicum placements. The School of Education is in constant communication with placement partner representatives before, during, and after practicum placements to ensure that teacher candidates are supported.

As part of this work, the School of Education may share the following details about the teacher candidate with placement partners: strengths and weaknesses, any support needed to achieve the Professional Standards for BC Educators, failed courses or withdrawal from program or practicum, and any Notice(s) of Concern from practicum.

As part of the partnership between the School of Education and placement partners during practicum, the School of Education reserves the right to provide information to a school principal of a teacher candidate's progress in the program or any Notice of Concern. If there are any concerns with a teacher candidate's progress while placed at a school, the school principal will inform the Coaching Teacher, teacher candidate, and the School of Education of these concerns. This communication protocol is to support the teacher candidate and K-12 students whom the teacher candidate is working with during the practicum experience.

Expectations

The expectations of teacher candidates during practica are published and distributed to all teacher candidates, Practice Evaluators, and Coaching Teachers at the start of each term. Regular attendance during practica is required. Teacher candidates are required to notify the school, the Practice Evaluator, the Coaching Teacher, and the Practicum Placement Coordinator whenever classroom experience appointments cannot be kept. Teacher candidates are debarred from the practicum course if they have more than three unexcused absences.

Professional Ethics

All teacher candidates in the program placed in schools for classroom experience are subject to the provisions of the Schools Act, the Professional Standards for BC Educators, School Regulations, the British Columbia Teachers' Federation (BCTF) Code of Ethics, and any school regulation and/or code of behaviour applicable to teachers and staff.

Denial and Withdrawal of Practica

Teacher candidates are denied practica placement if their preparatory coursework is considered to be unsatisfactory (e.g., Fail or incomplete work) by the Chair or designate for the School of Education. Teacher candidates may be required to withdraw from a practicum experience if their performance in their school placement is considered to be unsatisfactory by the Chair or designate based on written assessments by the Practice Evaluators and the Coaching Teachers. Teacher candidates who are required to withdraw from a practicum placement meet with the Chair or designate.

Teacher candidates seeking voluntary withdrawal from a practicum placement, whether permanent or temporary, must notify the Chair or designate in writing at least one week in advance of the commencement of the classroom school placement. Failure to give appropriate notice of withdrawal during a practicum placement, without consultation and approval of the Chair or designate, results in a requirement to withdraw from UNBC's School of Education Program.

Any teacher candidate may be required to withdraw from a practicum placement for violation of any part of the School Act, the Professional Standards for BC Educators, School Regulations, or the BCTF Code of Ethics upon written notice from the school principal or the superintendent in the district where the teacher candidate is placed.

Request for Re-admission to Practica

Teacher candidates who have withdrawn for any reason from a practicum course, or who wish to re-enter, or re-take, the course must submit a written request for re-admission to the Chair for the School of Education. Re-admission is not guaranteed.

A teacher candidate may request and be granted re-admission to practicum courses only once except in cases where there are dire circumstances beyond the teacher candidate's control as set out in the UNBC Conditions of Academic Standing (see Academic Regulation on *Conditions of Academic Standing*).

Teacher candidates may be re-admitted to a practicum course when, in the opinion of those responsible for the supervision of the previous attempt, there is evidence of significant progress toward meeting the outcomes for the practicum placement.

BEd Degree Elementary Years (Grades K-7) Stream

The Elementary Years stream prepares teacher candidates to work with the unique learning needs of children who are beginning their school years. Successful applicants to the

Elementary Years stream join a cohort of teacher candidates that normally begin and finish their program together.

To be eligible for a Bachelor of Education degree the teacher candidate must earn a Pass (B+) in all Education courses. Upon successful completion of all academic coursework for the Bachelor of Education, teacher candidates are recommended by the Chair of the School of Education to the Ministry of Education and Child Care for professional certification. Graduates choosing to work in a BC public school must apply to the BC Ministry of Education and Child Care and provide required documentation and payment of fees.

Admission Requirements

Applicants to the BEd degree Elementary Years stream must have completed one of the following with a minimum GPA of 2.33 (C+) on the most recent 60 university credit hours:

(a) an acceptable three- or four-year Bachelor's degree of which 60 credit hours must be in Arts, Science, or other teachable fields relevant to the BC school system and must include 30 senior level credit hours, or
(b) a minimum of 90 credit hours of undergraduate coursework of which 60 credit hours must be in Arts, Science, or other teachable fields relevant to the BC school system and must include 30 senior level credit hours, of which 12 credit hours must be at the 300 or 400 level.

Transfer credit for coursework relating to the 90 credit hours that have been completed prior to UNBC registration shall not be subject to the 10-year provision in the University Calendar regulation regarding *Time Limit for Transfer Credit* but shall be determined by the School of Education.

In addition to the admission requirements described above, the following requirements must be met (see note following).

1. Successful completion, with a C+ average, of 6 credit hours of acceptable English literature and composition at any level (one of the following: (a) 3 credit hours of English literature and 3 credit hours of English composition or (b) 6 credit hours of acceptable English literature). Courses in linguistics, language study, grammar, technical or business writing, communication, or English as a Second Language are not acceptable to meet the English requirement.
2. Three credit hours in mathematics (not including statistics) with a minimum final grade of C.
3. Three credit hours in a laboratory science. Laboratory science credit hours are normally selected from biology, chemistry, physical geography, physics, environmental science, geology/earth science, ocean science, or astronomy.
4. Three credit hours of Canadian studies (this course must contain significant Canadian Indigenous content), plus 3 credit hours of Canadian history or 3 credit hours of Canadian geography. Credit hours are normally selected from anthropology, First Nations studies, geography, history, northern studies, or political science courses that contain significant Canadian content (upon review, credit hours from other disciplines may be recognized as meeting the Canadian content requirement).
5. Submission of the completed application forms including the Experience with Children and Youth Statement (résumé format), three Confidential Reference Forms, and the Personal Statement.

Note: Applicants who do not meet the requirements in items 1-4 above but who otherwise meet the admission requirements may be admitted conditionally to the BEd program with the approval of the Chair if they have completed a minimum of 12 credit hours of the required coursework. Applicants admitted conditionally to the program under this section must complete the requirements prior to commencement of their BEd program. The UNBC School of Education is dedicated to improving educational opportunities in northern and rural areas of BC. To support this initiative, applicants living in northern and rural regions of BC (given all other application criteria are met) will be prioritized for admittance to the program.

Access Initiative

The UNBC School of Education has initiated a program designed to give access to individuals who are members of groups in our society which have historically been under-represented in the teaching profession in British Columbia. In order to achieve this objective, we encourage applicants who have confronted identifiable barriers to post-secondary education to apply under the Access Initiative. All applicants for the UNBC Bachelor of Education Program must submit a Personal Statement. Applicants who wish to apply under the Access Initiative may identify themselves in their Personal Statement Form to be considered under the Access Initiative.

Criminal Records Review

In addition to the admission application requirements outlined above, applicants are required to undergo a criminal record review and provide evidence of this as part of their admission requirements. Refer to Undergraduate Regulations and Policies (*Criminal Records Review*) in this Calendar.

Program Requirements

The Bachelor of Education degree is a 60-credit program offered in five continuous blocks over four semesters (Prince George Campus) or in six continuous blocks over five semesters (Northwest Campus and South-Central Campus).

The third semester consists of two blocks. For further information on the program structure and schedule, please contact the School of Education.

Elementary Years Stream (K-7) (Prince George Campus)

Year 1 Courses

EDUC 336-3	Inclusion and Exceptionalities
EDUC 346-3	Aboriginal and Indigenous Education
EDUC 351-3	Curriculum and Instruction: Second Language
EDUC 358-3	Literacy Foundations in the Elementary Years
EDUC 376-3	Numeracy Foundations in the Elementary Years
EDUC 388-3	Applied Design, Skills, and Technologies in the Elementary Years
EDUC 390-3	Observational Practicum
EDUC 391-3	Experiential Practicum
EDUC 393-3	Foundations of Education
EDUC 394-3	Pedagogy, Curriculum and Teaching - Theory in Context
EDUC 402-3	Diverse Classrooms
EDUC 403-3	Mental Health and Wellness
EDUC 405-3	Reflective Practice Through Inquiry[1]
EDUC 406-3	Fine Arts in the Elementary Years
EDUC 421-3	Assessment and Motivation
EDUC 446-3	Aboriginal and Indigenous Education: Epistemology[1]
EDUC 489-3	Physical and Health Education in the Elementary Years
EDUC 490-3	Formative Practicum

Year 2 Courses

EDUC 405-3	Reflective Practice Through Inquiry[1]
EDUC 446-3	Aboriginal and Indigenous Education: Epistemology[1]
EDUC 491-6	Summative Practicum

Note:

1. EDUC 405-3 Reflective Practice Through Inquiry and EDUC 446-3 Aboriginal and Indigenous Education: Epistemology span all four continuous semesters. The student enrolls in EDUC 405-3 and EDUC 446-3 in the First Semester Block One and the grade is determined in Fourth Semester Block Five.

Elementary Years Stream (K-7) (Northwest Campus and South-Central Campus)

The Regional BEd Program is offered as a shared cohort across Northwest Campus and South-Central Campus. Please check with the School of Education for the next intake date of the Regional BEd Program at a particular campus.

Year 1 Courses

EDUC 336-3	Inclusion and Exceptionalities
EDUC 346-3	Aboriginal and Indigenous Education
EDUC 358-3	Literacy Foundations in the Elementary Years
EDUC 376-3	Numeracy Foundations in the Elementary Years
EDUC 388-3	Applied Design, Skills, and Technologies in the Elementary Years
EDUC 390-3	Observational Practicum
EDUC 391-3	Experiential Practicum
EDUC 393-3	Foundations of Education
EDUC 394-3	Pedagogy, Curriculum and Teaching - Theory in Context
EDUC 405-3	Reflective Practice Through Inquiry[1]
EDUC 406-3	Fine Arts in the Elementary Years
EDUC 421-3	Assessment and Motivation
EDUC 446-3	Aboriginal and Indigenous Education: Epistemology[1]
EDUC 489-3	Physical and Health Education in the Elementary Years

Year 2 Courses

EDUC 351-3	Curriculum and Instruction: Second Language
EDUC 402-3	Diverse Classrooms
EDUC 403-3	Mental Health and Wellness
EDUC 405-3	Reflective Practice Through Inquiry[1]
EDUC 446-3	Aboriginal and Indigenous Education: Epistemology[1]
EDUC 490-3	Formative Practicum
EDUC 491-6	Summative Practicum

Note:

1. EDUC 405-3 Reflective Practice Through Inquiry and EDUC 446-3 Aboriginal and Indigenous Education: Epistemology span all four or five continuous semesters. The student enrolls in EDUC 405-3 and EDUC 446-3 in the First Semester Block One; the grade for EDUC 446-3 is determined in Fourth Semester Block Five, and the grade for EDUC 405-3 is determined in Fifth Semester Block Six.

BEd Degree Completion Program (Elementary Years)

The BEd degree completion program is an entry route to the BEd program. Applicants to the BEd degree completion program must have completed a UNBC Education Diploma in a First Nations Language and Culture (minimum 92 credit hours).

Students entering via this route must complete sufficient additional elective credit hours in a teachable field to attain a minimum 150 credit hours before the SoE recommends professional certification to the Ministry of Education and Child Care. The calculation of the minimum 150 credit hours combines the successfully completed general academic courses, the Education Diploma in a First Nations Language

and Culture, and the BEd Degree Elementary Years (Grades K-7).

Year 1: First Semester

EDUC 336-(3, 4)	Inclusion and Exceptionalities
EDUC 340-2	Curriculum Development Models
EDUC 376-(2, 3)	Numeracy Foundations in the Elementary Years
ELECTIVE 1-3	Academic course in a teachable area
ELECTIVE 2-3	Academic course in a teachable area

Year 1: Second Semester

EDUC 357-4	Language and Literacy: Reading and Writing (EY)
EDUC 366-2	Curriculum and Instruction: Social Studies (EY)
EDUC 377-2	Numeracy: Instructional Strategies (EY)
EDUC 387-2	Curriculum and Instruction: Science (EY)
EDUC 391-3	Experiential Practicum
ELECTIVE 3-3	Academic course in a teachable area

Note: The EDUC 391-3 practicum is required only if it has not been taken previously as a component of the Education Diploma in a First Nations Language and Culture. If the School of Education determines EDUC 391-3 is not required, they will designate 3 credit hours of coursework to maintain the required credit hours.

Year 2: First Semester

EDUC 407-4	Curriculum and Instruction: Fine Arts/ Physical and Health Education (EY)
EDUC 413-2	Counselling Skills (EY and SY)
EDUC 421-3	Assessment and Motivation
EDUC 431-3	Educational Technology
EDUC 446-(2, 3)	Aboriginal and Indigenous Education: Epistemology
EDUC 456-2	Language and Literacy: Across the Curriculum (EY)
EDUC 490-(3, 4)	Formative Practicum

Year 2: Second Semester

EDUC 491-6	Summative Practicum

BEd Degree Secondary Years (Grades 8-12) Stream

The Secondary Years stream prepares individuals to teach in grades 8 through 12 in specialty areas. Successful applicants to the Secondary Years stream join a cohort group of teacher candidates that normally begin and finish their program together.

Admission Requirements

Applicants to the BEd Secondary Years stream must have completed a four-year (minimum 120 credit hours) Bachelor's degree or equivalent at an accredited post-secondary institution. The following requirements must also be met:

1. A minimum GPA of 2.33 (C+) in the most recent 60 credit hours of transferable post-secondary coursework;
2. Six credit hours of English Literature with a C+ average, or 3 credit hours of English Literature and 3 credit hours of English Composition with a C+ average (courses in creative, business, or technical writing or communication are not acceptable);
3. Three credit hours of Mathematics (not including Statistics);
4. Three credit hours of a Laboratory Science. A lab component is not required, but is recommended. Laboratory Science credit hours are normally selected from Astronomy, Biology, Chemistry, Earth and Environmental Science, Physical Geography, or Physics. Upon review, credit hours from other disciplines may be recognized as meeting the Laboratory Science requirement;
5. Three credit hours of Canadian Studies. Canadian Studies credit hours are normally selected from Anthropology, English Literature, First Nations Studies, Geography, History, Northern Studies, or Political Science courses containing significant Canadian content. Upon review, credit hours from other disciplines may be recognized as meeting the Canadian Studies requirement;
6. Twenty-four credit hours of academic coursework (inclusive of the credit hour requirements above) in any one of the teachable subjects taught in British Columbia public schools listed below:
    - Biology
    - Chemistry
    - Computer Science
    - Earth Science
    - English
    - First Nations Studies
    - General Science[1]
    - Geography
    - History
    - Mathematics
    - Physics
    - Social Studies[2];
7. Submission of the completed application forms including the Experience with Children and Youth statement, three Confidential Reference Forms, and the Personal Statement.

Notes:

[1]General Sciences. Applicants with a teachable area in General Science must have completed the 24 credit hours of academic coursework in any combination of Biology, Chemistry, and/or Physics courses. Applicants who wish to substitute other science courses to be included in the 24 credit hours must submit course syllabi for approval.

[2]Social Studies. Applicants with a teachable area in Social Studies must have completed:

- Three credit hours of Canadian Studies
- Three credit hours of Geography
- Three credit hours of History
- Fifteen credit hours of one or a combination of the following:
  - Anthropology
  - Economics
  - Geography
  - History
  - Political Science
  - Sociology
- Applicants who wish to make substitutions to the above list may submit course syllabi in the areas of Canadian Studies, Cultural Studies, Asian Studies, Gender and Women's Studies, Indigenous Studies, Religious Studies (of a non-doctrinal nature), Classical Studies, Urban Studies, or Environmental Sciences.

Approval of teachable areas is required from both the British Columbia Ministry of Education and Child Care—Teacher Regulation Branch, and the UNBC School of Education. Applicants to the BEd Secondary Years stream should recognize that the credit levels for teachable subjects meet the British Columbia Ministry of Education and Child Care—Teacher Regulation Branch accreditation requirements, and may not be equivalent to the formal requirements for a UNBC major or minor. Applicants should refer to the appropriate section of the UNBC Undergraduate Calendar in order to ensure that they are meeting all of the coursework required to successfully complete UNBC degree requirements.

Applicants who do not meet the requirements in items 2-6 above but who otherwise meet the admission requirements may be admitted conditionally to the BEd program with the approval of the Chair if they have completed a minimum of 12 credit hours of the required coursework. Applicants admitted conditionally to the program under this section must complete the requirements prior to commencement of their BEd program.

Access Initiative

The UNBC School of Education has initiated a program designed to give access to individuals who are members of groups in our society which have historically been under-represented in the teaching profession in British Columbia. In order to achieve this objective, we encourage applicants who have confronted identifiable barriers to post-secondary education to apply under the Access Initiative. All applicants for the UNBC Bachelor of Education Program must submit a Personal Statement. Applicants who wish to apply under the Access Initiative may identify themselves in their Personal Statement Form to be considered under the Access Initiative.

Criminal Records Review

In addition to the admission application requirements outlined above, applicants are required to undergo a criminal record review and provide evidence of this as part of their admission requirements. Refer to Undergraduate Regulations and Policies (see Academic Regulation on *Criminal Records Review*) in this Calendar.

Program Requirements

The Bachelor of Education degree is a 60-credit program offered in five continuous blocks over four semesters. The third semester consists of two blocks. For further information on the program structure and schedule, please contact the School of Education.

To be eligible for a Bachelor of Education degree the teacher candidate must earn a Pass (B+) in all Education courses.

Upon successful completion of all academic coursework for the Bachelor of Education, teacher candidates are recommended by the Chair of the School of Education to the Ministry of Education and Child Care for professional certification. Graduates choosing to work in a BC public school must apply to the BC Ministry of Education and Child Care and provide required documentation and payment of fees.

Secondary Years Stream (Grades 8-12)

Year 1 Courses

EDUC 336-3	Inclusion and Exceptionalities
EDUC 346-3	Aboriginal and Indigenous Education
EDUC 361-3	Curriculum and Instruction: Secondary Humanities Part 1[2]
or EDUC 372-3	Curriculum and Instruction: Mathematics and Science Part 1[2]
EDUC 361-6	Curriculum and Instruction: Secondary Humanities Part 2[2]
or EDUC 372-6	Curriculum and Instruction: Mathematics and Science Part 2[2]
EDUC 390-3	Observational Practicum
EDUC 391-3	Experiential Practicum
EDUC 393-3	Foundations of Education
EDUC 394-3	Pedagogy, Curriculum and Teaching - Theory in Context
EDUC 399-3	Integrating ADST as a Pedagogical Stance
EDUC 401-3	Career-Life Education
EDUC 402-3	Diverse Classrooms
EDUC 403-3	Mental Health and Wellness
EDUC 405-3	Reflective Practice Through Inquiry[1]
EDUC 421-3	Assessment and Motivation
EDUC 441-3	Innovative Community-Based Approaches to Responsive Education (SY)
EDUC 446-3	Aboriginal and Indigenous Education: Epistemology[1]
EDUC 490-3	Formative Practicum

Year 2 Courses

EDUC 405-3	Reflective Practice Through Inquiry[1]
EDUC 446-3	Aboriginal and Indigenous Education: Epistemology[1]
EDUC 491-6	Summative Practicum

Notes:

1. EDUC 405-3 Reflective Practice Through Inquiry and EDUC 446-3 Aboriginal and Indigenous Education: Epistemology span all four continuous semesters. The student enrolls in EDUC 405-3 and EDUC 446-3 in the First Semester Block One and the grade is determined in Fourth Semester Block Five.
2. A total of 9 credit hours are taken of either EDUC 361-(3, 6) Curriculum and Instruction: Secondary Humanities or EDUC 372-(3, 6) Curriculum and Instruction: Mathematics and Science.

Education Diploma in a First Nations Language and Culture (Elementary Years)

The Education Diploma in a First Nations Language and Culture is a minimum 92 credit-hour teacher education program based on the design and the principles of the BEd program model. The program prepares individuals to teach an approved First Nations language and culture at the Elementary Years level. The School of Education and the UNBC First Nations Studies Certificate and Diploma programs partner with the Language and Cultural Authority for each First Nation.

Upon successful completion of the program, graduates are recommended to the Ministry of Education and Child Care for a Developmental Standard Term Certificate (DSTC) in a First Nations Language and Culture. A DSTC is required for employment in the British Columbia (BC) public school system.

Current programs of study leading to recommendation for this teaching credential include:

- Dakelh / Carrier Language and Culture in partnership with the College of New Caledonia and with the Dakelh / Carrier Linguistic Society (Fort St. James) and the Lake Babine Education Authority (Burns Lake);
- Gitxsan Language and Culture in partnership with the Siwiixo'osxwim Wilnatahl Gitxsanimx̲ Society;
- Nisg̲a'a Language and Culture in partnership with the Nisg̲a'a Language Authority of Wilp Wilx̲o'oskwhl Nisg̲a'a (WWN);
- Skidegate Haida Language and Culture in partnership with the Skidegate Education Committee; and
- Ts'msyen Language and Culture in partnership with the Ts'msyen Sm'algyax Language Authority.

Admission Requirements

Students are admitted according to the Undergraduate Admissions categories, criteria, and processes established by UNBC and specified in this Undergraduate Calendar. Additionally, applicants are encouraged to identify their fluency in the specific language and their knowledge of their specific culture and history. Advanced placement in language courses may be considered for speakers who are able to demonstrate their fluency in the language. Students must be admitted to this program of study prior to beginning their professional education courses.
There are two points of entry to this program of study:

- following the completion of the Diploma in First Nations Language described in the First Nations Studies section of the Undergraduate Calendar, or
- concurrently completing the required First Nations Studies, general academic coursework, and BEd courses.

Criminal Records Review

In addition to the admission application requirements outlined for admission to UNBC, applicants are required to undergo a criminal record review and provide evidence of this prior to being considered for admission to the Education Diploma in a First Nations Language and Culture (Elementary Years). Refer to Undergraduate Regulations and Policies (see Academic Regulation on *Criminal Records Review*) in this Calendar.

Program Requirements

First Nations Studies Credit Hours

The required First Nations Studies credit hours can be met by completing a Diploma in First Nations Language. Students will need to include the following First Nations Studies language, linguistics and culture courses in their program of study:

Language (33 credit hours):
A First Nations Language: Levels 1-4:

FNST 131-3	A First Nations Language: Level 1
FNST 132-3	A First Nations Language: Level 2
FNST 231-3	A First Nations Language: Level 3
FNST 232-3	A First Nations Language: Level 4

or Gitxsanimx̲: Levels 1-4:

FNST 143-3	Gitxsanimx̲: Level 1
FNST 144-3	Gitxsanimx̲: Level 2
FNST 243-3	Gitxsanimx̲: Level 3
FNST 244-3	Gitxsanimx̲: Level 4

or Nisg̲a'a: Levels 1-4:

FNST 139-3	Nisg̲a'a Language: Level 1
FNST 140-3	Nisg̲a'a Language: Level 2
FNST 239-3	Nisg̲a'a Language: Level 3
FNST 240-3	Nisg̲a'a Language: Level 4

or Sm'algyax: Levels 1-4:

FNST 137-3	Ts'msyen Language (Sm'algyax): Level 1
FNST 138-3	Ts'msyen Language (Sm'algyax): Level 2
FNST 237-3	Ts'msyen Language (Sm'algyax): Level 3

FNST 238-3 Ts'msyen Language (Sm'algyax): Level 4
or Dakelh / Carrier: Levels 1-4:
FNST 133-3 Dakelh / Carrier Language: Level 1
FNST 134-3 Dakelh / Carrier Language: Level 2
FNST 233-3 Dakelh / Carrier Language: Level 3
FNST 234-3 Dakelh / Carrier Language: Level 4 (Advanced Intermediate)

and
FNST 223-3 First Nations Language Immersion
FNST 321-3 First Nations Advanced Composition and Conversation: Level 1
FNST 322-3 First Nations Advanced Composition and Conversation: Level 2
FNST 324-3 Advanced First Nations Language Immersion
FNST 325-3 First Nations Language Mentoring
FNST 421-3 First Nations Songs and Poetry
FNST 422-3 First Nations Speeches and Stories

Linguistics (9 credit hours):
FNST 220-3 Introduction to Linguistics
FNST 320-3 The Structure of a First Nations Language
FNST 420-3 Developing Language Materials

Culture Studies (9 credit hours):
One of the following:
FNST 161-3 A First Nations Culture: Level 1
or FNST 163-3 Dakelh / Carrier Culture: Level 1
or FNST 169-3 Nisg̲a'a Culture: Level 1
or FNST 173-3 Gitxsan Culture: Level 1

One of the following:
FNST 162-3 A First Nations Culture: Level 2
or FNST 170-3 Nisg̲a'a Culture: Level 2
or FNST 174-3 Gitxsan Culture: Level 2

And
FNST 217-3 Contemporary Challenges Facing Aboriginal Communities

General Academic Coursework

The required general academic coursework of 18 credit hours can be met with the following courses (some of these credit hours may be completed as part of the Diploma in First Nations Language):

-Three credit hours of English Composition (Suggested: ENGL 170-3 or equivalent)
-Three credit hours of English Literature (Suggested: ENGL 210-3, ENGL 260-3 or equivalent)
-Three credit hours of Mathematics (Suggested: MATH 190-4 or equivalent)
-Three credit hours of Lab Sciences (Suggested: BIOL 103-3 and BIOL 123-1, or BIOL 110-3, or equivalent)
-Six credit hours of Canadian Studies, including 3 credit hours of Canadian History or Canadian Geography, plus 3 credit hours of Canadian Studies (Suggested: FNST 100-3, GEOG 200-3, GEOG 203-3, HIST 210-3, HIST 211-3 or equivalent)

Professional Education Coursework (Gitxsanimx̲ and Nisg̲a'a)

EDUC 333-2 Learning, Development and Motivation
EDUC 336-(3, 4) Inclusion and Exceptionalities
EDUC 341-2 Principles of Inquiry-Based Instruction
EDUC 342-2 Social Dynamics of Classrooms
EDUC 351-(2, 3) Curriculum and Instruction: Second Language
EDUC 356-2 Language and Literacy: Development (EY)
EDUC 380-3 Foundations of Education
EDUC 390-3 Observational Practicum
EDUC 392-3 Classroom Practice and Seminar: First Nations Language and Culture
EDUC 446-(2, 3) Aboriginal and Indigenous Education: Epistemology

Professional Education Coursework (Skidegate Haida)

EDUC 333-2 Learning, Development and Motivation
EDUC 341-2 Principles of Inquiry-Based Instruction
EDUC 342-2 Social Dynamics of Classrooms
EDUC 351-(2, 3) Curriculum and Instruction: Second Language
EDUC 356-2 Language and Literacy: Development (EY)
EDUC 380-3 Foundations of Education
EDUC 390-3 Observational Practicum
EDUC 392-3 Classroom Practice and Seminar: First Nations Language and Culture
EDUC 435-2 Learning and Diversity: Inclusive Classrooms
EDUC 446-(2, 3) Aboriginal and Indigenous Education: Epistemology

Professional Education Coursework (Ts'msyen, Sm'algyax and Nak'azdli Dakelh / Carrier)

EDUC 333-2 Learning, Development and Motivation
EDUC 336-(3, 4) Inclusion and Exceptionalities
EDUC 341-2 Principles of Inquiry-Based Instruction
EDUC 342-2 Social Dynamics of Classrooms
EDUC 351-(2, 3) Curriculum and Instruction: Second Language
EDUC 356-2 Language and Literacy: Development (EY)
EDUC 390-3 Observational Practicum
EDUC 392-3 Classroom Practice and Seminar: First Nations Language and Culture
EDUC 446-(2, 3) Aboriginal and Indigenous Education: Epistemology

School of Engineering (BASc Program)

- **Civil Engineering**
- **Environmental Engineering**
- **Joint Environmental Engineering with UBC**

Mauricio Dziedzic, P. Eng., Professor and Chair
Jianbing Li, P. Eng., Professor
Jueyi Sui, P. Eng., Professor
Thomas Tannert, P. Eng., Professor and Canada Research Chair in Tall Wood and Hybrid Structures Engineering
Ron Thring, P. Eng., Professor
Mohab El-Hakim, P. Eng., Associate Professor
Steve Helle, P. Eng., Associate Professor
Asif Iqbal, P. Eng., Associate Professor
Wenbo Zheng, P. Eng., Associate Professor
Jianhui Zhou, P. Eng., Associate Professor
Chinchu Cherian, Assistant Professor
June Garcia-Becerra, P. Eng., Assistant Professor
Oliver Iorhemen, P. Eng., Assistant Professor
Mohammad Kamali, Assistant Professor
Mohammad Raoufi, P. Eng., Assistant Professor
Fei Tong, Assistant Professor
Emily Cheung, P. Eng., Lecturer and Adjunct Professor
Maik Gehloff, Senior Laboratory Instructor IV
Natalie Linklater, EIT, Senior Laboratory Instructor
Richard Branscomb, Senior Instructor

Website: www.unbc.ca/engineering

Engineers serve society across a wide range of economic sectors in a number of capacities. Engineers require a solid technical and academic background, good communication skills, and the ability to work across a number of disciplines. Engineers design structures; bridges; mines; dams; transit systems; pollution control systems for air, water and soil; and much more.

UNBC offers three engineering degrees at the undergraduate level – a Civil Engineering degree, an Environmental Engineering degree and a joint Environmental Engineering degree with UBC. (UNBC also offers graduate degrees in engineering. See the Graduate Calendar.) These degrees prepare graduates for a wide range of employment opportunities where their technical expertise and problem-solving skills are required. The programs provide graduates with a strong awareness and understanding of environmental issues and problems. Our graduates are prepared for employment with engineering firms of all sizes in consulting, construction and resource industries (e.g. forestry, fisheries, mining, oil and gas, pulp and paper, and the agri-food industry), as well as government ministries and research organizations. Our graduates help shape the new environmental and civil engineering economy.

The Civil and Environmental Engineering degrees start with a similar first year in which the basic sciences and mathematics are emphasized along with an introduction to the engineering discipline. In second year, a number of courses are common in all of the engineering degrees but program requirements start to differentiate between the Civil and Environmental Engineering degrees. In the remaining years, some of the courses are common to both programs while each degree develops the in-depth knowledge to allow students to qualify within their discipline upon graduation. The final years expose students to practical engineering problems.

UNBC offers an integrated approach to Civil Engineering which is in keeping with the themes of design, lifecycle assessment, sustainable materials, and low-impact development throughout. Today's civil engineer not only designs the infrastructure essential to modern society (buildings, bridges, highways, transit systems, water and waste treatment facilities, foundations, tunnels, dams, etc.) but also analyzes the effects of deterioration on infrastructure elements while considering system interdependencies and life-cycle impacts. Civil engineers must consider environmental impact and economic sustainability in the development of modern infrastructure.

UNBC offers an Environmental Engineering degree that integrates basic science with modern engineering practices. Environmental and ecological problems are an increasing concern for all Canadians, including in the northern portion of British Columbia due to a primarily resource-based economy. Our graduates are prepared to take on challenges facing modern society, including water, air, and soil pollution control; solid waste management; contaminated site remediation; the protection of society from adverse environmental factors; and the protection of environments from potentially detrimental effects of natural and human activities.

Admission Requirements

Admission to the program is limited and based on academic qualifications and available space. Priority admission is given to students who meet the admission criteria and apply by the deadline of March 1.

Applicants from BC and Yukon secondary schools must

• meet UNBC admission requirements, and
• have an average of at least 75% based on the following five courses or equivalent: Pre-calculus 12 (min. 67%), English Studies 12 (or English First Peoples 12), two approved academic Science 12 courses, and a fifth grade 12 course (elective or additional approved academic course).

Physics 12 or an equivalent is strongly recommended as it is a prerequisite for first-year physics courses in the program. Students who are admitted without the Physics 12 prerequisite may be delayed in their studies as they may not be able to complete the first four semesters of the program in the normal two-year time period. Meeting the minimum GPA does not guarantee admission. Under exceptional circumstances the prerequisites may be waived.

Other applicants must demonstrate that they possess qualifications at least equivalent to the BC and Yukon requirement.

UNBC is part of the Common First-Year Engineering Curriculum agreement. Students who complete the Common First-Year Engineering Curriculum at sending institutions in British Columbia may be admitted into second-year. Students who complete the Common First-Year Engineering Curriculum at sending institutions and who meet the minimum acceptance requirements at UNBC are guaranteed admission.

Transfers

Transfer into the program is allowed provided the prerequisite courses or articulated courses are completed and space is available in the program. Acceptance of transfers into the program is based on GPA with priority given to those with the highest GPA. The admission GPA for transfer students into the Engineering programs is assessed on the following four courses or their university transferrable equivalents: Math 12 or Pre-calculus 12, English 12, and two provincially-examinable Science 12 courses. In order to be considered for admission into the program, transfer students must have at least a 75% average based on these four courses or their equivalents.

In addition, the following requirements for the four courses apply:

- UNBC Civil and Environmental Engineering degree programs: Where both high school and university transfer coursework are provided for each of these four courses, the most recent GPA for each course is used. Transfer students must also have an overall Cumulative transfer GPA of at least 2.00, which is based on all their university transferrable coursework. Regardless of the articulated courses transferred, students must satisfy the residency requirement of a minimum of 90 credit hours.

- UNBC/UBC Joint Environmental Engineering degree program: Where both high school and university transfer coursework are provided for each of these four courses the highest GPA for each course is used. Transfer students must also have an overall Cumulative transfer GPA of at least 2.00, which is based on all their university transferrable coursework. Regardless of the articulated courses transferred, students must satisfy the residency requirement of a minimum of 90 credit hours. These may be fulfilled through a combination of courses taken at UNBC and UBC, provided that at least 30 credit hours are completed at each of the two institutions.

Qualification for Degree

It is the responsibility of the student to ensure that the degree requirements are met. General graduation requirements are found in the Regulations and Policy section of the UNBC Calendar.

Course Challenges

Engineering courses are not challengeable by examination. Engineering courses rely on multiple forms of assessment. A single examination is not sufficient to assess learning, and would not be aligned with current accreditation criteria, which rely on multiple assessments of graduate attributes.

UNBC Civil and Environmental Engineering degree programs:

Students must

- have a Cumulative GPA of at least 2.00 (C) on courses for credit towards an Engineering degree;
- obtain a minimum passing grade of 1.67 (C-) in ENGR 400-6
- complete all requirements of the BASc program within eight years counted from admission into the program or from the first Engineering course used for credit towards the degree.

UNBC/UBC Joint Environmental Engineering degree program:

Students must have

- a good academic standing at both institutions to graduate;
- a Cumulative GPA of at least 2.00 (63%) over all courses taken at UNBC;
- an average of at least 55%, and passing grades in at least 65% of the credit hours taken at UBC.

The degree parchment will carry crests from both granting institutions (UNBC and UBC).

Letter of Permission

Once admitted to Engineering at UNBC, students who want to take coursework at another institution for credit must obtain a Letter of Permission prior to registration in the course.

Students who complete courses without first having obtained a Letter of Permission risk not having those courses accepted for transfer credit. A student who

has committed an academic offense or is on academic probation may be denied a Letter of Permission for subsequent coursework. Students should consult the Engineering Academic Advisor before considering coursework for transfer credit (refer to Academic Regulation on *Letters of Permission*).

Co-operative Education

Co-operative education is an optional but strongly recommended element of the Engineering programs.

For students in the UNBC Civil and Environmental Engineering degree programs, contact the UNBC Co-operative Education program for opportunities.

For students in the UNBC/UBC Environmental Engineering degree program, contact UBC Engineering Co-op for opportunities.

Civil Engineering Degree Program Requirements

The minimum requirement for completion of a Bachelor of Applied Science degree with a major in Civil Engineering is 154 credit hours.

Standards of Professional Conduct

In addition to fulfilling all University and program regulations and expectations, all Civil Engineering students are expected to abide by professional standards as set forth by Engineers and Geoscientists British Columbia. Violation of professional standards may result in suspension or dismissal from the program and/or the University.

Academic Performance

Students must adhere to the policies and regulations as specified in the UNBC calendar. This requirement includes, but is not limited to, matters related to academic offenses and progression through the program. Progression is covered by the guidelines on academic standing and continuance. Offenses are governed by the regulations in the UNBC calendar.

Students must obtain the minimum passing grade for all courses. Failure to do so may result in a requirement to withdraw from the program.

Program Requirements

First Year (Semesters 1 and 2)

CHEM 100-3	General Chemistry I
CHEM 120-1	General Chemistry Lab I
CPSC 110-3	Introduction to Computer Systems and Programming
ENGR 110-3	Technical Writing
ENGR 117-3	Engineering Design I
ENGR 130-4	Engineering Mechanics Statics
ENGR 151-1	Engineering Tools I
ENGR 152-1	Engineering Tools II
ENGR 270-3	Surveying
MATH 100-3	Calculus I
MATH 101-3	Calculus II
MATH 220-3	Linear Algebra
PHYS 110-4	Introductory Physics I: Mechanics
PHYS 111-4	Introductory Physics II: Waves and Electricity

Second Year (Semesters 3 and 4)

CIVE 241-4	Civil Engineering Materials
CIVE 260-4	Soil Mechanics
CIVE 320-3	Structural Analysis I
ENGR 211-3	Engineering Communication
ENGR 217-4	Engineering Design II
ENGR 221-3	Thermodynamics and Heat Transfer
ENGR 240-4	Mechanics of Materials
ENGR 254-4	Fluid Mechanics I
MATH 200-3	Calculus III
MATH 230-3	Ordinary Differential Equations and Boundary Value Problems
STAT 271-3	Statistical Reasoning for Engineers

Choose 3 credit hours from the lists of electives

Third Year (Semesters 5 and 6)

CIVE 321-3	Structural Analysis II
CIVE 340-3	Structural Design I
CIVE 341-3	Structural Design II
CIVE 360-4	Geotechnical Engineering
CIVE 370-3	Transportation Systems
CIVE 372-3	Construction Management
ENGR 300-3	Sustainable Principles of Engineering
ENGR 353-3	Open Channel Flow
ENGR 354-3	Fluid Mechanics II
ENGR 358-4	Water and Wastewater Systems
ENGR 380-3	Engineering Economics
MATH 335-3	Introduction to Numerical Methods

Fourth Year (Semesters 7 and 8)

ENGR 400-6	Engineering Capstone Design Project
ENGR 410-3	Professional Practice and Law
ENVE 455-3	Engineering Hydrology

One of the following:

ENGR 411-3	Project Management
ENGR 412-3	Engineering Business and Project Management

Choose 21 credit hours from the lists of electives

Electives

Electives must be chosen from the following lists.

12 credit hours must be chosen from the Civil and Environmental Engineering elective lists.

Choose 6 or 9 credit hours from the Civil Engineering technical electives:

CIVE 438-4	Rock Mechanics and Rock Engineering
CIVE 439-3	Introduction to Structural Fire Engineering
CIVE 441-3	Bridge Engineering
CIVE 451-3	Building Physics
CIVE 461-3	Foundation Design
CIVE 471-3	Cold Climate Construction Engineering
CIVE 481-3	Urban and Regional Planning
CIVE 491-3	Introduction to Wood as a Building Material
ENGR 450-3	CAD/BIM in the Construction Industry

Choose 3 or 6 credit hours from the Environmental Engineering electives:

ENGR 406-3	Environmental Modelling
ENGR 421-3	Ecological Engineering and Design
ENVE 317-3	Engineering Design III: Municipal Engineering
ENVE 462-3	Geoenvironmental Engineering

Choose 6 credit hours from the Science electives:

ENSC 201-3	Weather and Climate
ENSC 308-3	Northern Contaminated Environments
ENSC 325-3	Soil Physical Processes and the Environment
ENSC 404-3	Waste Management
ENSC 408-3	Storms
ENSC 412-3	Air Pollution
ENSC 425-3	Climate Change and Global Warming
ENSC 450-3	Environmental and Geophysical Data Analysis
FSTY 205-3	Introduction to Soil Science
FSTY 425-3	Soil Formation and Classification
GEOG 205-3	Cartography and Geomatics
GEOG 210-3	Introduction to Earth Science
GEOG 250-3	Environmental and Geospatial Data Analysis
GEOG 311-3	Drainage Basin Geomorphology

Choose 6 credit hours from the Complementary Studies electives:

ENGR 411-3	Project Management
ENGR 412-3	Engineering Business and Project Management
ENPL 208-4	Land and Indigenous Reconciliation Studio
ENPL 301-3	Sustainable Communities
ENPL 304-4	Community Engagement and Inclusion Studio
ENPL 305-3	Environmental Impact Assessment
ENPL 313-3	Rural Community Economic Development (CED)
ENPL 319-3	Social Research Methods
ENPL 401-3	Environmental Law
ENVS 230-3	Introduction to Environmental Policy
ENVS 309-3	Gender, Environment and Sustainability
ENVS 326-3	Public Engagement for Sustainability
ENVS 339-3	Low-Carbon Transitions: Theory and Practice
ENVS 414-3	Environmental and Professional Ethics
FNST 304-3	Indigenous Environmental Philosophy
GEOG 202-3	Resources, Economies, and Sustainability
NREM 303-3	Aboriginal Perspectives on Land and Resource Management
NREM 306-3	Society, Policy and Administration
POLS 100-3	Contemporary Political Issues
PSYC 207-3	Social Psychology
PSYC 306-3	Theories of Personality
PSYC 314-3	Emotion and Motivation
PSYC 322-3	Positive Psychology
SOCW 201-3	Introduction to Social Welfare

Environmental Engineering Degree Program Requirements (UNBC Program)

The minimum requirement for completion of a Bachelor of Applied Science degree with a major in Environmental Engineering is 152 credit hours.

Standards of Professional Conduct

In addition to fulfilling all University and program regulations and expectations, all Environmental Engineering students are expected to abide by professional standards as set forth by Engineers and Geoscientists British Columbia. Violation of professional standards may result in suspension or dismissal from the program and/or the University.

Academic Performance

Students must adhere to the policies and regulations as specified in the UNBC calendar. This requirement includes, but is not limited to, matters related to academic offenses and progression through the program.

Students must obtain the minimum passing grade for all courses. Failure to do so may result in a requirement to withdraw from the program.

Program Requirements

First Year (Semesters 1 and 2)

CHEM 100-3 General Chemistry I
and CHEM 120-1 General Chemistry Lab I
CHEM 101-3 General Chemistry II
and CHEM 121-1 General Chemistry Lab II
CPSC 110-3 Introduction to Computer Systems and Programming
ENGR 110-3 Technical Writing
ENGR 117-3 Engineering Design I
ENGR 130-4 Engineering Mechanics Statics
ENGR 151-1 Engineering Tools I
ENGR 152-1 Engineering Tools II
ENGR 270-3 Surveying
MATH 100-3 Calculus I
MATH 101-3 Calculus II
MATH 220-3 Linear Algebra
PHYS 110-4 Introductory Physics I: Mechanics

Second Year (Semesters 3 and 4)

ENGR 210-3 Material and Energy Balances
ENGR 211-3 Engineering Communication
ENGR 217-4 Engineering Design II
ENGR 220-3 Engineering Chemistry
ENGR 221-3 Thermodynamics and Heat Transfer
ENGR 254-4 Fluid Mechanics I
ENSC 201-3 Weather and Climate
ENVE 222-3 Engineering Biology
FSTY 205-3 Introduction to Soil Science
or GEOG 210-3 Introduction to Earth Science
MATH 200-3 Calculus III
MATH 230-3 Ordinary Differential Equations and Boundary Value Problems
STAT 271-3 Statistical Reasoning for Engineers

Third Year (Semesters 5 and 6)

CIVE 260-4 Soil Mechanics
ENGR 300-3 Sustainable Principles of Engineering
ENGR 353-3 Open Channel Flow
ENGR 354-3 Fluid Mechanics II
ENGR 358-4 Water and Wastewater Systems
ENGR 380-3 Engineering Economics
ENVE 310-3 Environmental Engineering Processes
ENVE 317-3 Engineering Design III: Municipal Engineering
ENVE 318-3 Environmental Engineering Measurement Lab
ENVE 351-4 Groundwater Flow and Contaminant Transport
MATH 335-3 Introduction to Numerical Methods
Choose 3 credit hours from the lists of electives

Fourth Year (Semesters 7 and 8)

ENGR 400-6 Engineering Capstone Design Project
ENGR 406-3 Environmental Modelling
ENGR 410-3 Professional Practice and Law
ENVE 430-3 Energy Systems
ENVE 455-3 Engineering Hydrology

One of the following:
ENGR 411-3 Project Management
ENGR 412-3 Engineering Business and Project Management
Choose 18 credit hours from the lists of electives

Electives

Electives must be chosen from the following lists.

Choose 9 credit hours from the following Engineering electives list:
CIVE 360-4 Geotechnical Engineering
CIVE 370-3 Transportation Systems
CIVE 438-4 Rock Mechanics and Rock Engineering
CIVE 451-3 Building Physics
CIVE 481-3 Urban and Regional Planning
ENGR 421-3 Ecological Engineering and Design
ENGR 450-3 CAD/BIM in the Construction Industry
ENVE 462-3 Geoenvironmental Engineering

Choose 3 credit hours from the following Science electives list:
ENSC 307-3 Introduction to Geochemistry
ENSC 308-3 Northern Contaminated Environments
ENSC 325-3 Soil Physical Processes and the Environment
ENSC 404-3 Waste Management
ENSC 408-3 Storms
ENSC 412-3 Air Pollution
ENSC 425-3 Climate Change and Global Warming
ENSC 450-3 Environmental and Geophysical Data Analysis
ENSC 452-3 Reclamation and Remediation of Disturbed Environments
FSTY 205-3 Introduction to Soil Science
FSTY 425-3 Soil Formation and Classification
GEOG 205-3 Cartography and Geomatics
GEOG 210-3 Introduction to Earth Science
GEOG 311-3 Drainage Basin Geomorphology

Choose 6 credit hours from the following Complementary Studies electives list:
ENGR 411-3 Project Management
ENGR 412-3 Engineering Business and Project Management
ENPL 208-4 Land and Indigenous Reconciliation Studio
ENPL 301-3 Sustainable Communities
ENPL 304-4 Community Engagement and Inclusion Studio
ENPL 305-3 Environmental Impact Assessment
ENPL 313-3 Rural Community Economic Development (CED)

ENPL 319-3	Social Research Methods
ENPL 401-3	Environmental Law
ENPL 410-3	Applied Land Use Planning in British Columbia
ENVS 230-3	Introduction to Environmental Policy
ENVS 309-3	Gender, Environment and Sustainability
ENVS 326-3	Public Engagement for Sustainability
ENVS 339-3	Low-Carbon Transitions: Theory and Practice
ENVS 414-3	Environmental and Professional Ethics
FNST 304-3	Indigenous Environmental Philosophy
GEOG 202-3	Resources, Economies, and Sustainability
GEOG 401-3	Tenure, Conflict, and Resource Geography
GEOG 403-3	Indigenous Geographies of Climate Resilience
NREM 303-3	Aboriginal Perspectives on Land and Resource Management
NREM 306-3	Society, Policy and Administration
POLS 100-3	Contemporary Political Issues
PSYC 207-3	Social Psychology
PSYC 306-3	Theories of Personality
PSYC 314-3	Emotion and Motivation
PSYC 322-3	Positive Psychology
SOCW 201-3	Introduction to Social Work

Environmental Engineering Degree Program Requirements (UNBC/UBC Joint Program)

The Environmental Engineering Bachelor of Applied Science program is a 4.5 year (nine semester) joint degree between the University of British Columbia and the University of Northern British Columbia. The program is based on a unique collaboration between UNBC and UBC that capitalizes on the strength of UNBC in Environmental Science and the breadth and depth of engineering at UBC. It incorporates complementary elements and expertise from each institution while exposing students to the distinctive character of both institutions. The program starts with a two-year foundation in mathematics and basic and environmental sciences from UNBC. In the third and fourth years, the program provides a thorough education and training in engineering fundamentals, engineering analysis and engineering design, largely through courses in Civil Engineering and Chemical and Biological Engineering at UBC. The final term at UNBC exposes students to practical environmental engineering problems.

The joint UNBC/UBC Environmental Engineering program is accredited by the Canadian Engineering Accreditation Board.

Regulations

Unless otherwise specified, the rules and regulations are those applicable at the institution (UBC or UNBC) which the students are attending at the time the rules/regulations need to be applied. In the case where the rules and regulations are needed to cover the program as a whole, or where the institution of attendance is not relevant, then the more stringent rules/regulations are applied. Academic appeals are handled using the procedures at the institution where the rules/regulations need to be applied.

Leave of Absence

Students wanting to take a Leave of Absence must apply to the Environmental Engineering Advisor at the institution that the student is currently attending. Upon approval, students are eligible for up to a one-year Leave of Absence. Students who do not apply for a Leave of Absence are withdrawn from the Environmental Engineering program.

Transit Between Institutions

Transit between years and institutions requires good academic standing in the program at the most recent institution of residence (UNBC or UBC).

At UNBC, good academic standing means a student must have a Cumulative GPA of 2.00 or greater in required 1st and 2nd year courses (including 3 credit hours of Humanities or Social Sciences), and must have successfully completed all ENGR, ENVE, MATH and STAT courses. For transit to UBC, all transit requirements must be met by April 30th of the year of transfer.

At UBC, good academic standing means an average of at least 55%, and passing grades in at least 65% of the credit hours taken. Refer to the UBC Environmental Engineering website (enve.ubc.ca) for more details on UBC to UNBC transit requirements.

Program Requirements

UNBC degree requirements:	92 credit hours
UBC degree requirements:	72 credit hours
Total degree requirements:	164 credit hours

Semester 1 and 2 completed at UNBC

CHEM 100-3	General Chemistry I
	and CHEM 120-1 General Chemistry Lab I
CHEM 101-3	General Chemistry II
	and CHEM 121-1 General Chemistry Lab II
CPSC 110-3	Introduction to Computer Systems and Programming
ENGR 110-3	Technical Writing
ENGR 117-3	Engineering Design I
ENGR 130-4	Engineering Mechanics Statics
ENGR 151-1	Engineering Tools I
ENGR 152-1	Engineering Tools II
ENGR 270-3	Surveying
MATH 100-3	Calculus I

MATH 101-3 Calculus II
MATH 220-3 Linear Algebra
PHYS 110-4 Introductory Physics I: Mechanics

Semester 3 and 4 completed at UNBC
ENGR 210-3 Material and Energy Balances
ENGR 211-3 Engineering Communication
ENGR 217-4 Engineering Design II
ENGR 220-3 Engineering Chemistry
ENGR 221-3 Thermodynamics and Heat Transfer
ENGR 254-4 Fluid Mechanics I
ENSC 201-3 Weather and Climate
ENVE 222-3 Engineering Biology
FSTY 205-3 Introduction to Soil Science
or GEOG 210-3 Introduction to Earth Science
MATH 200-3 Calculus III
MATH 230-3 Ordinary Differential Equations and Boundary Value Problems
STAT 271-3 Statistical Reasoning for Engineers

Note: Lists for courses completed at UBC for semesters 5 through 8 are provided for information only. Please refer to the UBC calendar for official requirements.

CHBE 230-3 Computational Methods
CHBE 352-4 Transport Phenomena II
CHBE 364-2 Environmental Engineering Laboratory
CHBE 370-3 Fundamentals of Sustainable Engineering
CHBE 373-3 Water Pollution Control
CHBE 483-3 Energy Engineering
CHBE 485-3 Air Pollution Prevention and Control
CHBE 486-3 Waste Management for Resource Recovery
CIVL 210-4 Soil Mechanics I
CIVL 315-4 Fluid Mechanics II
CIVL 316-4 Hydrology and Open Channel Flow
CIVL 402-3 Professionalism and Law in Civil Engineering
CIVL 409-3 Municipal Engineering
CIVL 416-3 Environmental Hydraulics
CIVL 418-3 Engineering Hydrology
ENVE 203-4 Environmental Engineering and Sustainability
ENVE 301-3 Environmental Engineering Integrated Design Project
EOSC 329-3 Groundwater Hydrology
MINE 486-3 Mining and the Environment

One of the following:
CHBE 459-3 Chemical and Biological Engineering Economics
CIVL 403-3 Engineering Economic Analysis

Social Science electives – 3 credit hours
Technical electives – 6 credit hours

Nine credit hours of technical electives chosen from a constrained list available at UBC.

Semester 9 completed at UNBC
ENGR 417-6 Engineering Design V
ENPL 401-3 Environmental Law
ENSC 418-3 Environmental Measurement and Analysis
Three credit hours of Humanities or Social Science electives

Technical electives available at UNBC for the UBC portion of the curriculum in the UBC/UNBC Joint Environmental Engineering Program

The following UNBC courses may be used to meet a Technical Elective requirement in the UBC portion of the Joint UBC/UNBC Environmental Engineering BASc program. Normally, no more than one course from the list may be used. To qualify towards UBC technical elective requirements, the technical elective must be taken prior to transition to UBC.

ENGR 406-3 Environmental Modelling
ENSC 402-3 Watershed Science and Management
ENSC 404-3 Waste Management
ENSC 408-3 Storms
ENSC 425-3 Climate Change and Global Warming
ENSC 450-3 Environmental and Geophysical Data Analysis
ENSC 452-3 Reclamation and Remediation of Disturbed Environments

English (BA Program)

Karin Beeler, Professor Emerita
Stan Beeler, Professor Emeritus
Dee Horne, Professor Emerita
Blanca Schorcht, Professor Emerita

Kevin Hutchings, Professor and Chair
Robert Budde, Professor
Kristen Guest, Professor
Maryna Romanets, Professor
Troy Bordun, Assistant Professor
Christine Campana, Assistant Professor
Brenna Duperron, Assistant Professor
Monica Mattfeld, Assistant Professor
Taylor Morphett, Assistant Professor

Website: www.unbc.ca/english

UNBC's English program includes course offerings in Canadian, British, American and International English literatures as well as world literature in English translation, and literary theory. Key areas include First Nations Literature, Canadian Literature, Comparative Literature, Women's Literature, Feminist Criticism and Theory, literature and media technology, and the relationship between literature and other disciplines. Creative writing and other kinds of writing courses are also available. The program encourages interdisciplinarity between literature, cultural studies, and science or technology. Computer literacy is a priority, as is the delivery of courses on the World Wide Web. The interdisciplinary perspective prepares students for a number of graduate or professional programs (e.g. English, Journalism, Creative Writing, Law, Education, Business) or employment in the public or private sectors.

Major in English

The major in English requires students to take 18 English courses (54 credit hours) at least 30 credit hours of which must be upper-division courses (300 and 400 level) with at least 9 credit hours of these at the 400 level. Students wishing to take more than 66 credit hours in English must obtain written permission from the Department Chair.

The minimum requirement for completion of a Bachelor of Arts with a major in English is 120 credit hours.

Program Requirements

Subject Requirement

The major in English requires students to take 18 courses (54 credit hours) of English or approved ancillary courses and must include:

Introductory

One of the following:

ENGL 100-3	Introduction to Literary Structures
ENGL 104-3	Introduction to Film

Foundational Surveys

Both of the following:

ENGL 211-3	Survey of English Literature I
ENGL 212-3	Survey of English Literature II

Theory

One of the following:

ENGL 200-3	Gender and Literary Theory
ENGL 300-3	The History of Literary Criticism and Theory
ENGL 400-3	Contemporary Theory

Lower-Division Requirements

Two of the following:

ENGL 209-3	Introduction to Television Studies
ENGL 210-3	Women and Literature: A Survey
ENGL 280-3	Shakespeare
ENGL 281-3	Introduction to Early Modern Literature in English
ENGL 282-3	Introduction to Restoration and 18th Century Literature
ENGL 283-3	Introduction to Romantic Literature
ENGL 284-3	Introduction to Victorian Literature
ENGL 285-3	Modern British Literature

Upper-Division Requirements

Two of the following:

ENGL 309-3	Intermediate Studies in Film or Television
ENGL 320-3	Indigenous Literatures in Canada and the United States
ENGL 331-3	Genres in Canadian Literature
ENGL 340-3	International Literatures in English
ENGL 350-3	Comparative Literary Studies
ENGL 381-3	Early Modern Literature in English
ENGL 382-3	Restoration and 18th Century Literature
ENGL 383-3	Romantic Literature
ENGL 384-3	Victorian Literature
ENGL 386-3	19th Century Literature in the United States
ENGL 410-3	Special Topics in Contemporary Women's Literature
ENGL 420-3	Special Topics in Indigenous Literatures
ENGL 430-3	Special Topics in Canadian Literature
ENGL 440-3	Special Topics in International Literatures in English

ENGL 450-3	Special Topics in Comparative Literary Studies
ENGL 483-3	Special Topics in Romantic Literature
ENGL 484-3	Special Topics in Victorian Literature
ENGL 485-3	Special Topics in Modern and Contemporary Literature in the United States
ENGL 491-3	Special Topics in Early Modern Literature in English

PLUS

Upper-Division Requirement

Seven upper-division ENGL courses (21 credit hours) at the 300 or 400 level

Three upper-division ENGL courses (9 credit hours) at the 400 level

Approved Ancillary Courses for a Major in English

A maximum of three ancillary courses (9 credit hours) may be counted towards the English major requirements, but none may be counted towards an English minor.

WMST 306-3	Indigenous Women: Perspectives
WMST 311-3	History of Feminism
WMST 411-3	Contemporary Feminist Theories

Students planning to continue on to a graduate degree in English should consult with English faculty and/or the receiving institution to assist them in determining which courses are most appropriate in fulfilling the additional 10 courses (30 credit hours) of English subject requirements.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in Anthropology and English (BA)

See Calendar entry under Anthropology.

Joint Major in English and Environmental and Sustainability Studies (BA)

The English and Environmental and Sustainability Studies joint major equips students with communication skills and knowledge of environmental issues, regulations and policies. The joint major prepares students to have a positive influence on the environment through written and other forms of expression. This joint major is of particular interest to students who wish to pursue a career in environmental writing, creative non-fiction, science writing and/or journalism.

Program Requirements

Lower-Division Requirement

BIOL 110-3	Introductory Ecology
ENGL 104-3	Introduction to Film
ENGL 209-3	Introduction to Television Studies
ENGL 283-3	Introduction to Romantic Literature
ENVS 101-3	Introduction to Environmental Citizenship
ENVS 210-3	Environmental Perspectives
ENVS 230-3	Introduction to Environmental Policy
FNST 100-3	The Aboriginal Peoples of Canada
GEOG 101-3	Planet Earth
GEOG 202-3	Resources, Economies, and Sustainability
or ORTM 200-3	Sustainable Outdoor Recreation and Tourism

Note: CPSC 150-3 (Computer Applications) is recommended for students without computing experience.

Two of the following:

ENGL 100-3	Introduction to Literary Structures
ENGL 270-3	Expository Writing
ENGL 271-3	Introduction to Creative Writing

One of the following:

ENGL 211-3	Survey of English Literature I
ENGL 284-3	Introduction to Victorian Literature

One of the following:

GEOG 206-3	Social Geography
INTS 100-3	Introduction to Global Studies
NREM 101-3	Introduction to Natural Resources Management and Conservation

Upper-Division Requirement

The following nine courses (27 credit hours) at the 300 or 400 level:

ENVS 309-3	Gender, Environment and Sustainability
ENVS 326-3	Public Engagement for Sustainability
ENVS 414-3	Environmental and Professional Ethics
ENVS 431-3	Global Environmental Policy: Energy and Climate
ENVS 480-3	Environmental and Sustainability Studies Senior Seminar
GEOG 420-3	Environmental Justice
or GEOG 305-3	Political Ecology: Environmental Knowledge and Decision-Making
HIST 360-3	An Introduction to Environmental History
NREM 303-3	Aboriginal Perspectives on Land and Resource Management
or FNST 304-3	Indigenous Environmental Philosophy

PSYC 408-3 Environmental Problems and Human Behaviour
or ANTH 312-3 Human Adaptability and Environmental Stress
or ANTH 405-3 Landscapes, Place and Culture
or ANTH 413-3 Environmental Anthropology

Eight English courses (24 credit hours) at the 300 or 400 level:

One of the following:
- ENGL 309-3 Intermediate Studies in Film or Television
- ENGL 331-3 Genres in Canadian Literature
- ENGL 350-3 Comparative Literary Studies
- ENGL 383-3 Romantic Literature
- ENGL 384-3 Victorian Literature

Two of the following:
- ENGL 430-3 Special Topics in Canadian Literature
- ENGL 431-3 Special Topics in Northern BC Literature
- ENGL 480-3 Special Topics in Science Fiction
- ENGL 483-3 Special Topics in Romantic Literature
- ENGL 486-3 Special Topics in Literature of the Fantastic
- ENGL 493-3 Special Topics in Cultural Studies

Five additional English courses (15 credit hours) are required to ensure the fulfillment of the 24 credit hour upper-division requirement in English. Two courses may be chosen from the following list of English ancillary courses:

- WMST 306-3 Indigenous Women: Perspectives
- WMST 411-3 Contemporary Feminist Theories

One of the following theory courses:
- ENGL 200-3 Gender and Literary Theory
- ENGL 300-3 The History of Literary Criticism and Theory
- ENGL 400-3 Contemporary Theory

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in English and History (BA)

The minimum requirement for completion of a Bachelor of Arts with a Joint Major in English and History is 120 credit hours.

Program Requirements

One of the following theory courses:
- ENGL 200-3 Gender and Literary Theory
- ENGL 300-3 The History of Literary Criticism and Theory
- ENGL 400-3 Contemporary Theory

AND

Lower-Division Requirement

ENGL 211-3 Survey of English Literature I
ENGL 212-3 Survey of English Literature II
HIST 190-3 World History to 1550
HIST 191-3 World History since 1550
HIST 200-3 Historical Methodology

One of the following:
- ENGL 100-3 Introduction to Literary Structures
- ENGL 104-3 Introduction to Film

Two of the following:
- ENGL 210-3 Women and Literature: A Survey
- ENGL 280-3 Shakespeare
- ENGL 281-3 Introduction to Early Modern Literature in English
- ENGL 282-3 Introduction to Restoration and 18th Century Literature
- ENGL 283-3 Introduction to Romantic Literature
- ENGL 284-3 Introduction to Victorian Literature
- ENGL 285-3 Modern British Literature

Two additional courses (6 credit hours) of History at the 100 or 200 level.

Upper-Division Requirement

Of the 13 English courses (39 credit hours) required for this degree, at least seven courses (21 credit hours) must be at the 300 and 400 level, with at least two of those seven courses (6 of those 21 credit hours) at the 400 level.

HIST 300-3 Historiography: The Nature of the Historical Discipline

Two of the following:
- ENGL 320-3 Indigenous Literatures in Canada and the United States
- ENGL 331-3 Genres in Canadian Literature
- ENGL 340-3 International Literatures in English
- ENGL 350-3 Comparative Literary Studies
- ENGL 381-3 Early Modern Literature in English
- ENGL 382-3 Restoration and 18th Century Literature
- ENGL 383-3 Romantic Literature
- ENGL 384-3 Victorian Literature
- ENGL 386-3 19th Century Literature in the United States
- ENGL 410-3 Special Topics in Contemporary Women's Literature

ENGL 420-3	Special Topics in Indigenous Literatures
ENGL 430-3	Special Topics in Canadian Literature
ENGL 440-3	Special Topics in International Literatures in English
ENGL 450-3	Special Topics in Comparative Literary Studies

Six History courses (18 credit hours) at the 300 or 400 level.

Five additional English courses (15 credit hours) ensuring fulfillment of the upper-division requirement.

Two courses may be chosen from the following list of English ancillary courses:

WMST 306-3	Indigenous Women: Perspectives
WMST 311-3	History of Feminism
WMST 411-3	Contemporary Feminist Theories

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in English and Political Science (BA)

The minimum requirement for completion of a Bachelor of Arts with a Joint Major in English and Political Science is 120 credit hours.

Program Requirements

Lower-Division Requirement

ECON 205-3	Statistics for Business and the Social Sciences
or STAT 240-3	Basic Statistics
ENGL 211-3	Survey of English Literature I
ENGL 212-3	Survey of English Literature II
POLS 100-3	Contemporary Political Issues
POLS 200-3	Canadian Government and Politics
POLS 202-3	Canada in Comparative Perspective
POLS 230-3	International Relations
POLS 270-3	Political Philosophy: Antiquity to Early Modernity

One of the following:

ENGL 100-3	Introduction to Literary Structures
ENGL 104-3	Introduction to Film

Two of the following:

ENGL 210-3	Women and Literature: A Survey
ENGL 280-3	Shakespeare
ENGL 281-3	Introduction to Early Modern Literature in English
ENGL 282-3	Introduction to Restoration and 18th Century Literature
ENGL 283-3	Introduction to Romantic Literature
ENGL 284-3	Introduction to Victorian Literature
ENGL 285-3	Modern British Literature

Upper-Division Requirement

Of the 13 English courses (39 credit hours) required for this joint major, seven courses (21 credit hours) must be at the 300 and 400 level, with at least two of those seven courses (6 of those 21 credit hours) at the 400 level.

POLS 303-3	Democracy and Democratization
POLS 370-3	Political Philosophy: Early Modernity to Post-Modernity

Two of the following:

ENGL 320-3	Indigenous Literatures in Canada and the United States
ENGL 331-3	Genres in Canadian Literature
ENGL 340-3	International Literatures in English
ENGL 350-3	Comparative Literary Studies
ENGL 381-3	Early Modern Literature in English
ENGL 382-3	Restoration and 18th Century Literature
ENGL 383-3	Romantic Literature
ENGL 384-3	Victorian Literature
ENGL 386-3	19th Century Literature in the United States
ENGL 410-3	Special Topics in Contemporary Women's Literature
ENGL 420-3	Special Topics in Indigenous Literatures
ENGL 430-3	Special Topics in Canadian Literature
ENGL 440-3	Special Topics in International Literatures in English
ENGL 450-3	Special Topics in Comparative Literary Studies

Five additional English courses (15 credit hours). Up to two of the following ancillary courses (up to 6 credit hours) may be counted among those five additional courses:

WMST 306-3	Indigenous Women: Perspectives
WMST 311-3	History of Feminism
WMST 411-3	Contemporary Feminist Theories

Three additional courses (9 credit hours) of Political Science at the 400 level.

Two additional courses (6 credit hours) of Political Science at the upper division.

One of the following theory courses:

ENGL 200-3	Gender and Literary Theory
ENGL 300-3	The History of Literary Criticism and Theory
ENGL 400-3	Contemporary Theory

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in English and Women's Studies (BA)

The minimum requirement for completion of a Bachelor of Arts with a Joint Major in English and Women's Studies is 120 credit hours.

Program Requirements

Lower-Division Requirement

ENGL 211-3	Survey of English Literature I
ENGL 212-3	Survey of English Literature II
WMST 100-3	Introduction to Women's Studies

One of the following:

ENGL 200-3/ WMST 220-3	Gender and Literary Theory
ENGL 210-3/ WMST 221-3	Women and Literature: A Survey

One of the following:

ENGL 100-3	Introduction to Literary Structures
ENGL 104-3	Introduction to Film

Six credit hours of Women's Studies at the 100 or 200 level.

Upper-Division Requirement

ENGL 410-3	Special Topics in Contemporary Women's Literature
or WMST 420-3	Contemporary Women's Literature
HIST 311-3	History of Feminism
or WMST 311-3	History of Feminism
WMST 302-3	Women and the Contemporary World
WMST 307-3	Qualitative Research Methods

One of the following:

ENGL 300-3	The History of Literary Criticism and Theory
ENGL 400-3	Contemporary Theory

One of the following:

ENGL 320-3	Indigenous Literatures in Canada and the United States
ENGL 331-3	Genres in Canadian Literature
ENGL 350-3	Comparative Literary Studies
ENGL 410-3	Special Topics in Contemporary Women's Literature
ENGL 420-3	Special Topics in Indigenous Literatures
ENGL 430-3	Special Topics in Canadian Literature
ENGL 440-3	Special Topics in International Literatures in English
ENGL 450-3	Special Topics in Comparative Literary Studies

Additional Requirements

Two of the following:

ENGL 280-3	Shakespeare
ENGL 281-3	Introduction to Early Modern Literature in English
ENGL 282-3	Introduction to Restoration and 18th Century Literature
ENGL 283-3	Introduction to Romantic Literature
ENGL 284-3	Introduction to Victorian Literature
ENGL 285-3	Modern British Literature
ENGL 381-3	Early Modern Literature in English
ENGL 382-3	Restoration and 18th Century Literature
ENGL 383-3	Romantic Literature
ENGL 384-3	Victorian Literature

Nine credit hours of English courses at the 300 or 400 level.

At least 15 credit hours selected from the following:

ANTH 401-3	Anthropological Perspectives on Inequality
ANTH 406-3	Feminist Perspectives in Anthropology
ECON 301-3	Women and the Economy
ENVS 309-3	Gender, Environment and Sustainability
FNST 407-3	First Nations Perspectives on Race, Class, Gender and Power
HIST 309-3	Women in Canada
HIST 453-(3-6)	Topics in the History of Gender
HIST 454-(3-6)	Topics in Women's History
INTS 308-3	Gender and International Studies
NURS 412-3	Women and Health
POLS 403-3	Social and Health Policy and Administration
POLS 434-3	Resource Communities in Transition
WMST 303-3	Lesbian and Bisexual Lives
WMST 306-3/ FNST 306-3	Indigenous Women: Perspectives
WMST 312-3/ HIST 312-3	An Introduction to the History of Gender
WMST 411-3	Contemporary Feminist Theories
WMST 413-(3-6)	Topics in Aboriginal Women's Studies
WMST 498-(3-6)	Selected Topics in Women's Studies

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Minor in English

The minor in English requires that students take at least six English courses (18 credit hours), at least four (12 credit hours) of which must be upper-division. A maximum of two courses (6 credit hours) used to fulfill program requirements for a major or another minor may also be used to fulfill requirements for a minor in English. The minor must include:

One of the following:

ENGL 200-3	Gender and Literary Theory
ENGL 300-3	The History of Literary Criticism and Theory
ENGL 400-3	Contemporary Theory

Five English courses selected to ensure a minimum of four courses are completed at the 300 or 400 level.

Environmental Planning (BPl)

Tara Lynne Clapp, Associate Professor and Chair
Mark Groulx, Associate Professor
Rylan Graham, Assistant Professor
Theresa Healy, Assistant Professor
Ray Chipeniuk, Adjunct Professor
Daniela Fisher, Adjunct Professor
Richard Krehbiel, Adjunct Professor
Finlay Sinclair, Adjunct Professor

Website: www.unbc.ca/environmental-planning

The degree provides a broad education in environmental planning. The focus is on understanding the relationship between people and the environment, reducing the environmental impact of human activities, and responding and adapting to environmental change.

The study of planning examines public processes that improve the quality of decisions affecting the environment. Responsible planning integrates various private and public interests and identifies viable, workable options. Planners play a vital role in decision-making processes concerning the future of human settlements, resource management, environmental protection, human health and well-being, economic development, and many other areas. Ultimately, the work of planners becomes part of, or a catalyst to, public policy.

Environmental Planning offers a comprehensive program of courses, such as environmental assessment, sustainable and inclusive design, housing, First Nations planning, land use planning, and sustainable communities. Each course provides a creative and challenging learning environment for students to tackle today's most contentious issues such as sustainability, climate change, biodiversity, environmental stewardship, and urban sprawl. Environmental Planning offers unique perspectives on a rapidly evolving field of study and solutions for an increasingly complex world. Environmental Planning is dedicated to upholding professional standards of practice and is accredited by the Professional Standards Board (PSB) which is recognized by the Canadian Institute of Planners (CIP) and the Planning Institute of British Columbia (PIBC). Accreditation is a system for promoting national standards of education in planning and for recognizing educational institutions for a level of performance, integrity, and quality.

Accreditation benefits students in Environmental Planning in three ways:

- Current students can apply for Student Membership in PIBC.
- Graduates are eligible for Full Membership in PIBC and CIP after two years of professional planning experience.
- Employers in the planning field look for students graduating from an accredited planning program, thus significantly improving graduates' job prospects.

Three majors are available to students completing the Bachelor of Planning:

- Northern and Rural Community Planning
- First Nations Planning
- Natural Resources Planning

Planning students complete a set of program requirements totaling 78 credit hours in addition to completing the specialized course requirements for each major.

Note: Some upper-division courses may be taught in alternate years; students should consider this when planning their course sequences.

Program Requirements for all Majors in Planning

Lower-Division General Environmental Planning Requirement

100 Level

ECON 100-3	Microeconomics
ENPL 104-3	Planning for Transformation
ENPL 105-3	Dynamics of Community Planning
FNST 100-3	The Aboriginal Peoples of Canada

One of the following:

ENGL 170-3	Writing and Communication Skills
NRES 100-3	Communications in Natural Resources and Environmental Studies

200 Level

ENPL 206-3	How to Shape the Future
ENPL 208-4	Land and Indigenous Reconciliation Studio
GEOG 204-3	Introduction to GIS
GEOG 210-3	Introduction to Earth Science
POLS 200-3	Canadian Government and Politics

One of the following:

ECON 205-3	Statistics for Business and the Social Sciences
STAT 240-3	Basic Statistics
STAT 371-3	Probability and Statistics for Scientists and Engineers

Upper-Division General Environmental Planning Requirement

300 Level

ENPL 301-3	Sustainable Communities
ENPL 304-4	Community Engagement and Inclusion Studio
ENPL 305-3	Environmental Impact Assessment

ENPL 318-3 Professional Planning Practice
ENPL 320-4 Land Use and Development Studio
FNST 300-3 Research Methods in First Nations
or GEOG 324-3 Community-Based Research
GEOG 300-3 Intermediate GIS
POLS 380-3 Law and Indigenous People

400 Level
ENPL 401-3 Environmental Law
ENPL 404-3 Housing: From Concept to Construction
ENPL 410-3 Applied Land Use Planning in British Columbia
ENPL 411-3 Philosophy of Community Change
ENVS 414-3 Environmental and Professional Ethics
GEOG 424-3 Northern Communities
or ORTM 307-3 Land Relations and Communities in Recreation and Tourism

Major Requirement

Students must choose to specialize in one major. All course requirements in the major must be completed.

Major in Northern and Rural Community Planning

The focus of this major is to promote an understanding of the complexity and diversity of environmental problems, to develop an appreciation of community change processes, and to provide planners with knowledge which will improve the quality of the built environment and reduce the impact of human activities on the natural world. The unique planning requirements of smaller communities and rural regions demand a grounding in both physical and social science methods and an understanding of the relationship between northern communities and surrounding rural resource regions. Environmental planning necessitates strategic thought and action combined with knowledge grounded in professional practice. The Northern and Rural Community Planning major combines concepts such as bioregionalism, sustainability, and inclusion within the context of physical land-use planning, social planning, and community engagement.

Northern and Rural Community Planning is the application of environmental planning principles and practices to the often unique social, economic, and ecological issues confronting northern and circumpolar communities in Canada and elsewhere in the northern hemisphere. Successfully addressing these issues requires an appreciation of how and why communities change, an appreciation of the place and function of northern communities and rural regions in the global environment, and a grounding in both physical and social science methods of research and analysis.

Program requirement for all majors in planning: 78 credit hours
Major requirement: 13 credit hours
Major elective requirement: 19 credit hours
General elective requirement: elective credit hours as necessary to ensure the completion of 120 credit hours.

The minimum requirement for a Bachelor of Planning with a major in Northern and Rural Community Planning is 120 credit hours.

Lower-Division Requirements

BIOL 110-3 Introductory Ecology
ENVS 101-3 Introduction to Environmental Citizenship
or GEOG 206-3 Social Geography

A minimum of 9 credit hours from the following:
ANTH 213-3 Peoples and Cultures
ECON 206-3 Methods of Economic Evaluation
GEOG 101-3 Planet Earth
GEOG 200-3 British Columbia: People and Places
GEOG 202-3 Resources, Economies, and Sustainability
GEOG 206-3 Social Geography
INTS 100-3 Introduction to Global Studies
INTS 210-3 Globalizations
MATH 115-3 Precalculus
NREM 110-3 Food, Agriculture, and Society
ORTM 206-3 Recreation and Leisure Programming
POLS 100-3 Contemporary Political Issues
SOCW 201-3 Introduction to Social Welfare

Upper-Division Requirements

ENPL 415-4 Sustainable and Inclusive Design Studio
POLS 350-3 Law and Municipal Government

One of the following:
ENPL 409-4 Indigenous Planning Studio
ENPL 417-4 Local Climate Action Studio
ENPL 497-4 Special Topics Studio

One of the following:
NREM 306-3 Society, Policy and Administration
POLS 316-3 Municipal Government and Politics
POLS 320-3 Canadian Politics and Policy

A minimum of 3 credit hours from the following:
ANTH 405-3 Landscapes, Place and Culture
ANTH 413-3 Environmental Anthropology
ANTH 423-3 Urban Anthropology
ECON 411-3 Cost-Benefit Analysis
ENPL 333-3 Field School in Planning
ENPL 430-6 Undergraduate Thesis
ENPL 431-3 Professional Report
ENPL 440-(2-6) Internship
ENSC 404-3 Waste Management
FNST 303-3 First Nations Religion and Philosophy
GEOG 305-3 Political Ecology: Environmental Knowledge and Decision-Making
GEOG 332-3 Community Development

GEOG 403-3 Indigenous Geographies of Climate Resilience
GEOG 424-3 Northern Communities
HIST 360-3 An Introduction to Environmental History
INTS 304-3 International Development
or GEOG 306-3 Critical Development Geographies
NREM 306-3 Society, Policy and Administration
POLS 316-3 Municipal Government and Politics
POLS 320-3 Canadian Politics and Policy
POLS 351-3 Local Services and Public Policy
POLS 360-3 Local Government Finance
POLS 415-3 Comparative Northern Development
POLS 434-3 Resource Communities in Transition

Students must ensure that all prerequisites are fulfilled prior to registering in any course.

Students are encouraged to use the general electives to take a minor offered in Geography, Political Science, First Nations Studies, or other fields associated with community development.

Major in First Nations Planning

First Nations communities have significant and growing demands for qualified planners. The opportunities for skilled planners increase as many First Nations move to define land claims in Canada, potentially giving First Nations significant responsibilities for land and community planning. However, planning by and with First Nations requires specific skills and abilities in the planners, whether or not they themselves are First Nation.

For most First Nations communities, few distinctions are made between ecological/environmental planning and planning for social and cultural needs which are developed from within, and are grounded in, the ecosystem. First Nations planning must necessarily integrate all of these domains. Many First Nations wish to remain grounded in tradition and seek to move into the future through sound community economic development and skilled land management. Most face significant community development needs, including infrastructure development, housing, and health planning. Students need not only a sound grasp of planning principles, but also an understanding of the protocols, history, social structure, and ecology of Canadian First Nations. Cross-cultural translation skills, community participation techniques, and a solid grounding in ethics are required.

Program requirement for all majors in planning: 78 credit hours
Major requirement: 13 credit hours
Major elective requirement: 19 credit hours
General elective requirement: elective credit hours as necessary to ensure the completion of 120 credit hours.

The minimum requirement for a Bachelor of Planning with a major in First Nations Planning is 120 credit hours.

Lower-Division Requirements

BIOL 110-3 Introductory Ecology
FNST 131-3 A First Nations Language: Level 1

A minimum of 9 credit hours from the following:
ANTH 205-3 Introduction to Archaeology
ANTH 213-3 Peoples and Cultures
ENVS 101-3 Introduction to Environmental Citizenship
ENVS 230-3 Introduction to Environmental Policy
FNST 161-3 A First Nations Culture: Level 1
FNST 200-3 Perspectives in First Nations Studies
FNST 203-3 Introduction to Traditional Ecological Knowledge
HHSC 102-3 Introduction to Health Sciences II: Rural and Aboriginal Issues
MATH 115-3 Precalculus
NREM 110-3 Food, Agriculture, and Society

Upper-Division Requirements

ENPL 409-4 Indigenous Planning Studio
FNST 303-3 First Nations Religion and Philosophy
or FNST 304-3 Indigenous Environmental Philosophy

One of the following:
ENPL 415-4 Sustainable and Inclusive Design Studio
ENPL 417-4 Local Climate Action Studio
ENPL 497-4 Special Topics Studio

A minimum of 6 credit hours from the following:
ANTH 404-3 Comparative Study of Indigenous Peoples of the World
BIOL 350-3 Ethnobotany
ENPL 333-3 Field School in Planning
ENPL 430-6 Undergraduate Thesis
ENPL 431-3 Professional Report
ENPL 440-(2-6) Internship
ENVS 326-3 Public Engagement for Sustainability
FNST 303-3 First Nations Religion and Philosophy
FNST 304-3 Indigenous Environmental Philosophy
FNST 305-3 Seminar in First Nations Studies
FNST 407-3 First Nations Perspectives on Race, Class, Gender and Power
GEOG 403-3 Indigenous Geographies of Climate Resilience
GEOG 420-3 Environmental Justice
HIST 390-3 History of Indigenous People of Canada
NREM 303-3 Aboriginal Perspectives on Land and Resource Management
ORTM 307-3 Land Relations and Communities in Recreation and Tourism

POLS 350-3	Law and Municipal Government
SOCW 455-3	Indigenous Governance and Social Policy
SOCW 457-3	Individual and Community Wellness for Indigenous Peoples

In addition to FNST 131-3 and FNST 303-3 or 304-3, students must select a minimum of three FNST courses (9 credit hours) from the upper- and lower-division lists.

Students must ensure that all prerequisites are fulfilled prior to registering in any courses.

Students are encouraged to use the general electives to take a minor offered in First Nations Studies or other courses associated with aboriginal and First Nations issues.

Major in Natural Resources Planning

The major in Natural Resources Planning is designed to provide students with an understanding of the complexities of including the natural and cultural environment in planning decision-making. The major is intended to address both project-level and large-scale environmental planning issues that occur in developments that have an impact on the natural environment.

The objective of this major is to familiarize students with planning and decision-making in a variety of sectors that include provincial land use planning, environmental assessment, watershed planning, and integrated resource and environmental management. These areas of planning are characterized by complex and intricate questions about how to use our natural resources and who should decide. The multidimensional aspects of environmental management include natural and cultural complexity, different desired futures, value differences, assessment and monitoring tools, and integration methods. This major emphasizes an understanding of planning in both the substantive realm (natural and social sciences) and the procedural realm (the process of including people in the decision-making process).

Students enrolled in the Natural Resources Planning major must successfully complete 120 credit hours. Students interested in working with biological and environmental aspects of natural resource planning should take BIOL 103/ BIOL 123 and BIOL 104/124 as elective courses and BIOL 201 as the ecology elective to satisfy prerequisites for many of the other biological and environmental courses. Those students interested in the environmental sciences should take first- and second-year Chemistry courses as part of the general electives. Students interested in integrated natural resource planning should take BIOL 104/124 and a mix of courses in areas of Political Science, First Nations Studies (FNST or ENPL), Environmental Science (ENSC), Geography, Outdoor Recreation and Tourism Management, International Studies, and Economics.

Program requirement for all majors in planning:	78 credit hours
Major requirement:	18 credit hours
Major elective requirement:	16 credit hours

General elective requirement: elective credit hours as necessary to ensure the completion of 120 credit hours.

The minimum requirement for a Bachelor of Planning with a major in Natural Resources Planning is 120 credit hours.

Lower-Division Requirements

BIOL 110-3 Introductory Ecology
or BIOL 201-3 Ecology
GEOG 205-3 Cartography and Geomatics

A minimum of 9 credit hours from the following:

BIOL 103-3 Introductory Biology I
and BIOL 123-1 Introductory Biology I Laboratory
BIOL 104-3 Introductory Biology II
and BIOL 124-1 Introductory Biology II Laboratory
CHEM 100-3 General Chemistry I
and CHEM 120-1 General Chemistry Lab I
ENSC 201-3 Weather and Climate
ENSC 202-3 Introduction to Aquatic Systems
FNST 100-3 The Aboriginal Peoples of Canada
FNST 203-3 Introduction to Traditional Ecological Knowledge
FSTY 205-3 Introduction to Soil Science
INTS 100-3 Introduction to Global Studies
MATH 115-3 Precalculus
NREM 101-3 Introduction to Natural Resources Management and Conservation
NREM 110-3 Food, Agriculture, and Society
NREM 203-3 Resource Inventories and Measurements
NREM 204-3 Introduction to Wildlife and Fisheries
ORTM 200-3 Sustainable Outdoor Recreation and Tourism

Upper-Division Requirements

ENPL 409-4 Indigenous Planning Studio
NREM 400-4 Natural Resources Planning

One of the following:

ENPL 415-4 Sustainable and Inclusive Design Studio
ENPL 417-4 Local Climate Action Studio
ENPL 497-4 Special Topics Studio

A minimum of 3 credit hours from the following:

BIOL 302-3 Limnology
BIOL 411-3 Conservation Biology
ECON 305-3 Environmental Economics and Policy
ECON 331-3 Forestry Economics
ECON 411-3 Cost-Benefit Analysis
ENPL 333-3 Field School in Planning
ENPL 430-6 Undergraduate Thesis

ENPL 431-3 Professional Report
ENPL 440-(2-6) Internship
ENSC 308-3 Northern Contaminated Environments
ENSC 312-3 Biometeorology
ENSC 404-3 Waste Management
ENSC 412-3 Air Pollution
ENSC 425-3 Climate Change and Global Warming
ENVS 326-3 Public Engagement for Sustainability
FNST 451-3 Traditional Use Studies
GEOG 401-3 Tenure, Conflict, and Resource Geography
NREM 303-3 Aboriginal Perspectives on Land and Resource Management
NREM 413-3 Agroforestry
ORTM 300-3 Recreation and Tourism Impacts
ORTM 305-3 Protected Area Planning and Management
POLS 344-3 Society, Policy and Administration of Natural Resources
or NREM 306-3 Society, Policy and Administration
POLS 350-3 Law and Municipal Government

Students must ensure that all prerequisites are fulfilled prior to registering in any course.

Students are encouraged to use the general electives to take a minor offered in areas of Geography, Political Science, First Nations Studies, or other fields associated with community development.

Minor in Planning

The minor in Planning is designed to provide students with an opportunity to acquire a basic knowledge of planning theory and methods. The minor consists of 12 required credit hours (four designated courses) and 6 credit hours of upper-division elective courses listed below. A maximum of 6 credit hours (two courses) used to fulfill program requirements for a major or another minor may also be used to fulfill requirements for a minor in Planning.

Requirements

ENPL 104-3 Planning for Transformation
ENPL 105-3 Dynamics of Community Planning
ENPL 301-3 Sustainable Communities
ENPL 411-3 Philosophy of Community Change

Electives

Two of the following:
ENPL 305-3 Environmental Impact Assessment
ENPL 318-3 Professional Planning Practice
ENPL 404-3 Housing: From Concept to Construction
ENPL 410-3 Applied Land Use Planning in British Columbia
ENPL 415-4 Sustainable and Inclusive Design Studio

Environmental Science (BSc Program)

Michael Rutherford, Professor Emeritus

Catherine Nolin, Professor and Chair
Stephen Déry, Professor and Rio Tinto Research Chair in Climate Change and Water Security
Peter Jackson, Professor
Philip Owens, Professor and FRBC Endowed Chair in Landscape Ecology
Youmin Tang, Professor
Hossein Kazemian, Associate Professor
Theresa Adesanya, Assistant Professor
Siraj Ul Islam, Assistant Professor
Jason Raine, Adjunct Professor
Corinne Schiller, Adjunct Professor
Daniel Selbie, Adjunct Professor
Ronald Stewart, Adjunct Professor
Nikhil Aravindakshan, Senior Lab Instructor II

Website: www.unbc.ca/environmental-science

Major in Environmental Science

The Environmental Science Bachelor of Science is an interdisciplinary degree in which students take a core curriculum along with a minor. The core curriculum is designed to provide students with knowledge of the fundamental biological, chemical, physical, and applied aspects integral to the field of environmental science. In addition, students are exposed to many of the human dimensions that underlie environmental issues. This approach ensures a uniform preparation among students and allows for the development of a diversity of expertise necessary to address the complexity of present environmental problems and future unanticipated ones.

The degree has been designed in part to address educational components of the National Occupational Standards (NOS) for Environmental Employment set out by Environmental Careers Organization of Canada (ECO Canada). The NOS forms the basis of the Canadian Certified Environmental Practitioner (CCEP) accreditation process of the Canadian Environmental Certification Approvals Board (CECAB). In addition, it may be possible to use some courses toward professional designations (i.e. P.Ag., P.Geo.). Students interested in this option are responsible for making themselves aware of the required courses for the professional designations and for planning to take the courses at the appropriate points in their program. Undergraduate students are required to take a total of 94 credit hours of program core requirements in addition to a minor as indicated below. Students take foundational science courses in year 1 (e.g. biology, chemistry, physics, and calculus) as well as ENSC 111-1 which introduces students to environmental systems and provides information on courses and options available in years 2 to 4 of the Environmental Science major. The minor requirement allows students to develop expertise within an area of their interest. There is also an option to take a BSc Honours in the Environmental Science program, which is described below. The major requires elective credit hours as necessary to ensure completion of a minimum of 127 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Undergraduate Academic Regulation on *Academic Breadth*). Students needing to improve their communication skills should take ENGL 170-3 or NRES 100-3 as an elective. Note that ENGL 170-3 also fulfills the Academic Breadth requirement for Arts and Humanities. Other areas of Academic Breadth are covered in the major.

Program Core Requirements

Lower-Division Requirement

BIOL 103-3 Introductory Biology I
BIOL 104-3 Introductory Biology II
BIOL 123-1 Introductory Biology I Laboratory
BIOL 124-1 Introductory Biology II Laboratory
BIOL 201-3 Ecology
BIOL 203-3 Microbiology
CHEM 100-3 General Chemistry I
CHEM 101-3 General Chemistry II
CHEM 120-1 General Chemistry Lab I
CHEM 121-1 General Chemistry Lab II
CHEM 210-3 Analytical Chemistry I
ENSC 111-1 Earth and Environment
ENSC 201-3 Weather and Climate
ENSC 202-3 Introduction to Aquatic Systems
ENSC 250-3 Environmental and Geospatial Data Analysis
FSTY 205-3 Introduction to Soil Science
GEOG 204-3 Introduction to GIS
GEOG 210-3 Introduction to Earth Science
MATH 100-3 Calculus I
MATH 101-3 Calculus II
PHYS 100-4 Physics for Life Sciences I
and PHYS 101-4 Physics for Life Sciences II
or
PHYS 110-4 Introductory Physics I: Mechanics
and PHYS 111-4 Introductory Physics II: Waves and Electricity
STAT 240-3 Basic Statistics
or STAT 371-3 Probability and Statistics for Scientists and Engineers

Students who are interested in pursuing professional designations should contact the program advisor regarding the correct course sequences required for individual programs as well as the appropriate choice of electives.

Upper-Division Requirements

ENPL 305-3 Environmental Impact Assessment
ENPL 401-3 Environmental Law
ENSC 308-3 Northern Contaminated Environments
ENSC 406-3 Environmental Modelling
ENSC 418-3 Environmental Measurement and Analysis
ENSC 440-(2-6) Internship*
or ENSC 499-(1-6) Independent Study
or an approved 3-credit field course
ENSC 450-3 Environmental and Geophysical Data Analysis
ENVS 414-3 Environmental and Professional Ethics
NREM 306-3 Society, Policy and Administration
or ORTM 415-3 Conservation, Culture and Society

Two of the following:
ENSC 400-3 Environmental Instrumental Analysis
ENSC 402-3 Watershed Science and Management
ENSC 404-3 Waste Management
ENSC 412-3 Air Pollution
ENSC 452-3 Reclamation and Remediation of Disturbed Environments
ENVE 351-4 Groundwater Flow and Contaminant Transport

*Students with extensive experience related to the environment or who have completed a co-op work term may be waived from this degree requirement with approval from the Program Chair. Co-op students may receive credit for ENSC 440-(2-6) at the same time as they are completing a co-op work term with the following conditions: students must register in ENSC 440-(2-6) before the co-op work term starts, and meet both the co-op and the ENSC 440-(2-6) requirements.

Minor Requirement Associated with the Environmental Science Degree

Environmental Science students are required to complete any available minor at UNBC as part of their degree. A minor allows students to specialize in a subject area relevant to the advancement, utilization and dissemination of environmental knowledge. Some minors may result in students taking more than the required 127 credit hours in order to obtain the Environmental Science major. Many minors allow 100-level prerequisite courses and an additional 6 credit hours of other courses to be used to meet the requirements of both the major and minor. Consult the current Undergraduate Calendar for the requirements of minors available at UNBC.

BSc Honours – Environmental Science

The BSc Honours-Environmental Science provides a higher level of specialization and research experience, especially for students planning to proceed to postgraduate work. Honours students are required to complete the degree requirements for the BSc Environmental Science major, with the exception that Honours students must complete an undergraduate thesis chosen from ENSC 430-6 (Undergraduate Thesis), or NRES 430-6 (Undergraduate Thesis) in place of the requirement for ENSC 440-(2-6) (Internship) or ENSC 499-(1-6) (Independent Study). ENSC 440-(2-6) or ENSC 499-(1-6) may be taken by Honours students, but they are not required for the Honours degree. The undergraduate thesis must be conducted under the supervision of a faculty member.

The minimum requirement for a BSc Honours degree is 130 credit hours. Students are responsible to find their own undergraduate thesis research supervisor. Faculty members are under no obligation to supervise Honours students. To be admitted to the Honours degree program, students must have completed 60 credit hours and obtained a minimum Cumulative GPA of 3.33. Attaining the minimum requirement will not guarantee admission into the Honours program, which will be at the discretion of the Environmental Science Program. Maintenance of a Cumulative GPA of 3.33 is required to remain in the Honours program.

Minor in Aquatic Science

The minor in Aquatic Science provides students with an opportunity to focus on aquatic processes associated with different water environments, such as rivers, lakes, and groundwaters. Emphasis is given to physical, chemical, and biological processes that govern the movement, fate, and management of water on timescales of seconds to decades. Attention is also given to the role of water (and associated chemicals, nutrients, and sediments) within ecosystems and society.

Students are required to take a minimum of 36 credit hours. Of these, 14 credit hours are foundational courses in Chemistry, Mathematics, and Physics; 13 credit hours are required aquatic science courses; and a minimum of 9 credit hours are selected from a list of suggested elective courses. Students may use 17 credit hours of lower-division courses and 7 credit hours of upper-division courses to meet the requirements of a major or another minor. **Note:** Some upper-division courses may be taught in alternate years; students should consider this when planning their course sequences.

Required Courses

Lower-Division Requirement

CHEM 100-3 General Chemistry I
CHEM 120-1 General Chemistry Lab I
ENSC 202-3 Introduction to Aquatic Systems
MATH 100-3 Calculus I
MATH 101-3 Calculus II
PHYS 100-4 Physics for Life Sciences I
or PHYS 110-4 Introductory Physics I: Mechanics

Upper-Division Requirement

BIOL 302-3	Limnology
ENVE 351-4	Groundwater Flow and Contaminant Transport
GEOG 310-3	Hydrology

Elective Courses*

A minimum of 9 credit hours from the following list:

BIOL 402-3	Aquatic Plants
BIOL 406-3	Fish Ecology
ENGR 254-4	Fluid Mechanics I
ENSC 402-3	Watershed Science and Management
ENSC 450-3	Environmental and Geophysical Data Analysis
ENSC 454-3	Snow and Ice
GEOG 311-3	Watershed Geomorphology
GEOG 405-3	Fluvial Geomorphology

*Students must ensure that all prerequisites are fulfilled prior to registering in any course.

Minor in Atmospheric Science

Atmospheric Science, or meteorology, is the study of the Earth's atmosphere, weather and climate. The minor in Atmospheric Science provides students with an opportunity to focus on atmospheric processes that occur near the Earth's surface. Emphasis is given to physical and chemical processes that govern the development of weather systems on timescales of days and that regulate the Earth's climate on timescales of decades.

Students are required to take 32 credit hours. Of these, 14 credit hours are foundational courses in Chemistry, Mathematics, and Physics; 12 credit hours are required atmospheric science courses; and 6 credit hours are selected from a list of suggested elective courses. Students may use 17 credit hours of lower-division courses and 6 credit hours of upper-division courses to meet the requirements of a major or another minor. **Note:** Some upper-division courses may be taught in alternate years; students should consider this when planning their course sequences.

Required Courses

Lower-Division Requirement

CHEM 100-3	General Chemistry I
CHEM 120-1	General Chemistry Lab I
ENSC 201-3	Weather and Climate
MATH 100-3	Calculus I
MATH 101-3	Calculus II
PHYS 100-4	Physics for Life Sciences I
or PHYS 110-4	Introductory Physics I: Mechanics

Upper-Division Requirement

ENSC 312-3	Biometeorology
ENSC 408-3	Storms
ENSC 425-3	Climate Change and Global Warming

Elective Courses*

Six credit hours from the following list:

ENSC 412-3	Air Pollution
ENSC 450-3	Environmental and Geophysical Data Analysis
ENSC 454-3	Snow and Ice
GEOG 310-3	Hydrology

*Students must ensure that all prerequisites are fulfilled prior to registering in any course.

Minor in Environmental Science

The minor in Environmental Science is intended for students who are not majoring in Environmental Science and offers an introduction to pollution and its management and the four environmental systems: aquatic, atmospheric, ecological, and terrestrial. Students are given the opportunity to develop more depth in one or two areas. Students in this minor gain an exposure to fundamental biological, chemical, and physical aspects integral to the field of environmental science.

The minor in Environmental Science requires the completion of a minimum of 21 credit hours from the courses listed below, a minimum of 12 of which must be at the upper-division level. Students may use a maximum of two courses (a minimum of 6 credit hours) to fulfill the program requirements for a major or another minor.

Students must select at least one course from each of the following lists. All courses listed for the minor have prerequisites; students must ensure that all prerequisites are fulfilled prior to registering in any course. **Note:** Some upper-division courses may be taught in alternate years; students should consider this when planning their course sequences.

Aquatic Systems

BIOL 302-3	Limnology
BIOL 402-3	Aquatic Plants
BIOL 406-3	Fish Ecology
ENGR 254-4	Fluid Mechanics I
ENSC 202-3	Introduction to Aquatic Systems
ENSC 454-3	Snow and Ice
ENVE 351-4	Groundwater Flow and Contaminant Transport
GEOG 310-3	Hydrology

Atmospheric Systems

ENSC 201-3	Weather and Climate
ENSC 312-3	Biometeorology
ENSC 408-3	Storms
ENSC 412-3	Air Pollution
ENSC 425-3	Climate Change and Global Warming
ENSC 454-3	Snow and Ice

Ecological Systems

BIOL 201-3	Ecology
BIOL 202-3	Invertebrate Zoology
BIOL 203-3	Microbiology
BIOL 210-3	Genetics
BIOL 301-3	Systematic Botany
BIOL 404-3	Plant Ecology
BIOL 410-3	Population and Community Ecology
BIOL 411-3	Conservation Biology

Environmental Pollution and Management

ENPL 305-3	Environmental Impact Assessment
ENSC 308-3	Northern Contaminated Environments
ENSC 402-3	Watershed Science and Management
ENSC 404-3	Waste Management
ENSC 406-3	Environmental Modelling
ENSC 412-3	Air Pollution
ENSC 452-3	Reclamation and Remediation of Disturbed Environments
ENVE 351-4	Groundwater Flow and Contaminant Transport

Terrestrial Systems

ENSC 325-3	Soil Physical Processes and the Environment
ENSC 452-3	Reclamation and Remediation of Disturbed Environments
ENVE 351-4	Groundwater Flow and Contaminant Transport
FSTY 205-3	Introduction to Soil Science
FSTY 435-3	Soil Biological Processes
GEOG 210-3	Introduction to Earth Science
GEOG 311-3	Watershed Geomorphology
GEOG 405-3	Fluvial Geomorphology
GEOG 411-3	Glacial Geology

Minor in Soils and the Environment

Processes and their dynamics at the interface between the biosphere, atmosphere, hydrosphere, and lithosphere are critical to the regulation of environmental quality from the micro-scale of millimeters to the macro-scale of climatic conditions. The minor in Soils and the Environment provides students with an opportunity to focus on the Earth's "Critical Zone," the thin outer layer which supports terrestrial life on the planet. The emphasis is on key biological, chemical, and physical processes active in soils, and how they influence environmental conditions.

Students are required to take 34 credit hours. Of these, 16 credit hours are foundational courses in biology and chemistry, 15 credit hours are required soils and geochemistry courses, and 3 credit hours are selected from a list of suggested elective courses. Students may use 16 credit hours of 100-level courses and 6 credit hours of other courses to meet the requirements of a major or another minor. **Note:** Some upper-division courses may be taught in alternate years; students should consider this when planning their course sequences.

Required Courses

BIOL 103-3	Introductory Biology I
BIOL 104-3	Introductory Biology II
BIOL 123-1	Introductory Biology I Laboratory
BIOL 124-1	Introductory Biology II Laboratory
CHEM 100-3	General Chemistry I
CHEM 101-3	General Chemistry II
CHEM 120-1	General Chemistry Lab I
CHEM 121-1	General Chemistry Lab II
ENSC 307-3	Introduction to Geochemistry
ENSC 325-3	Soil Physical Processes and the Environment
FSTY 205-3	Introduction to Soil Science
FSTY 425-3	Soil Formation and Classification
FSTY 435-3	Soil Biological Processes

Elective Courses*

A minimum of 3 credit hours from the following list:

ENSC 404-3	Waste Management
ENSC 452-3	Reclamation and Remediation of Disturbed Environments
ENVE 351-4	Groundwater Flow and Contaminant Transport
FSTY 415-3	Forest Soils
GEOG 315-3	Earth's Critical Zone

*Students must ensure that all prerequisites are fulfilled prior to registering in any course.

Environmental and Sustainability Studies (BA Program)

Tara Lynne Clapp, Associate Professor and Chair
Annie Booth, Professor
Sinead Earley, Associate Professor
Zoë Meletis, Associate Professor

Website:
www.unbc.ca/environmental-and-sustainability-studies

Major in Environmental and Sustainability Studies

The Bachelor of Arts in Environmental and Sustainability Studies emphasizes a social science and humanities perspective on environmental and sustainability challenges and opportunities. The program provides a strong philosophical, social and scientific basis for understanding the full diversity of environmental and sustainability issues, and positions students to be effective agents of social and environmental innovation, who can promote mitigation of, and/or adaptation to, environmental challenges. An understanding of the foundations of environmental citizenship is emphasized. The degree offers students substantial opportunity for experiential learning through a number of courses.

Students must complete the common degree requirements, the requirements of the Area of Specialization, and elective credit hours in any subject as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Undergraduate Academic Regulation on *Academic Breadth*).

Program Requirements

Lower-Division Requirement

100 Level
BIOL 110-3 Introductory Ecology
CHEM 110-3 Chemistry of Everyday Life
or CHEM 100-3 General Chemistry I
or ENSC 201-3 Weather and Climate
or ENSC 202-3 Introduction to Aquatic Systems
or PHYS 150-3 Physics for Future Leaders
ENVS 101-3 Introduction to Environmental Citizenship
FNST 100-3 The Aboriginal Peoples of Canada
GEOG 101-3 Planet Earth
or ENPL 104-3 Planning for Transformation
POLS 100-3 Contemporary Political Issues

Note: CPSC 150-3 (Computer Applications) is recommended for students without computing experience.

200 Level
ENGL 270-3 Expository Writing
or ENGL 271-3 Introduction to Creative Writing
ENVS 210-3 Environmental Perspectives
ENVS 230-3 Introduction to Environmental Policy
GEOG 202-3 Resources, Economies, and Sustainability
or ORTM 200-3 Sustainable Outdoor Recreation and Tourism
GEOG 204-3 Introduction to GIS

Upper-Division Requirement

300 Level
ENVS 309-3 Gender, Environment and Sustainability
ENVS 326-3 Public Engagement for Sustainability
ENVS 339-3 Low-Carbon Transitions: Theory and Practice
NREM 303-3 Aboriginal Perspectives on Land and Resource Management

400 Level
ENPL 401-3 Environmental Law
ENVS 414-3 Environmental and Professional Ethics
ENVS 431-3 Global Environmental Policy: Energy and Climate
ENVS 480-3 Environmental and Sustainability Studies Senior Seminar
GEOG 401-3 Tenure, Conflict, and Resource Geography
or FNST 306-3 Indigenous Women: Perspectives
or FNST 407-3 First Nations Perspectives on Race, Class, Gender and Power
or FNST 416-3 Indigenous Issues in International Perspective
or FNST 444-3 Experiential Course in First Nations Studies
or GEOG 306-3 Critical Development Geographies
GEOG 420-3 Environmental Justice
or GEOG 305-3 Political Ecology: Environmental Knowledge and Decision-Making
PSYC 408-3 Environmental Problems and Human Behaviour
or ANTH 312-3 Human Adaptability and Environmental Stress
or ANTH 405-3 Landscapes, Place and Culture
or ANTH 413-3 Environmental Anthropology

Areas of Specialization

Students must choose one of the following areas of specialization. Courses used to fulfill major requirements above may not be used to satisfy an Area of Specialization requirement.

1. Global Environmental Studies
2. Communities and Environmental Citizenship
3. Natural Resource Management
4. Indigenous Perspectives
5. Justice, Equity, Diversity, Inclusion and Indigeneity

Global Environmental Studies

Required

GEOG 206-3 Social Geography
INTS 100-3 Introduction to Global Studies

Eight of the following:

- GEOG 305-3 Political Ecology: Environmental Knowledge and Decision-Making (if NOT taken as a requirement for the major)
- GEOG 306-3 Critical Development Geographies
- GEOG 307-3 Changing Arctic: Human and Environmental Systems
- GEOG 426-3 Geographies of Culture, Rights and Power
- Any INTS 3-credit language course
- INTS 210-3 Globalizations
- NORS 101-3 Introduction to the Circumpolar North
- NORS 311-3 Lands and Environments of the Circumpolar North 1
- NORS 331-3 Contemporary Issues of the Circumpolar North 1

Communities and Environmental Citizenship

Required

ENPL 301-3 Sustainable Communities
or POLS 332-3 Community Development
GEOG 206-3 Social Geography

Seven of the following:

- COMM 100-3 Introduction to Canadian Business
- COMM 230-3 Organizational Behaviour
- ENPL 205-3 Environment and Society
- ENPL 304-4 Community Engagement and Inclusion Studio
- ENPL 313-3 Rural Community Economic Development (CED)
- FNST 217-3 Contemporary Challenges Facing Aboriginal Communities
- FNST 407-3 First Nations Perspectives on Race, Class, Gender and Power
- GEOG 209-3 Migration and Development
- GEOG 305-3 Political Ecology: Environmental Knowledge and Decision-Making
- GEOG 307-3 Changing Arctic: Human and Environmental Systems
- GEOG 308-3 Health Geography
- NREM 110-3 Food, Agriculture, and Society
- ORTM 100-3 Foundations of Outdoor Recreation and Tourism
- ORTM 200-3 Sustainable Outdoor Recreation and Tourism
- POLS 316-3 Municipal Government and Politics

Natural Resource Management

Students should note that some of these courses have prerequisites. It is the student's responsibility to ensure they have completed these prerequisites.

Required

NREM 100-3 Field Skills
NREM 101-3 Introduction to Natural Resources Management and Conservation
NREM 209-3 The Practice of Conservation
ORTM 100-3 Foundations of Outdoor Recreation and Tourism

One of the following:

- FNST 203-3 Introduction to Traditional Ecological Knowledge
- GEOG 205-3 Cartography and Geomatics
- NREM 203-3 Resource Inventories and Measurements
- ORTM 200-3 Sustainable Outdoor Recreation and Tourism

Five of the following:

- ENPL 304-4 Community Engagement and Inclusion Studio
- NREM 333-3 Field Applications in Resource Management
- NREM 400-4 Natural Resources Planning
- NREM 409-3 Conservation Planning
- ORTM 300-3 Recreation and Tourism Impacts
- ORTM 305-3 Protected Area Planning and Management
- POLS 315-3 Contemporary Issues in the Circumpolar World

Indigenous Perspectives

Required

Three of the following:

- ANTH 206-3 Indigenous Ethnography in Northern British Columbia
- FNST 217-3 Contemporary Challenges Facing Aboriginal Communities
- FNST 249-4 Land and Indigenous Reconciliation Studio
- GEOG 206-3 Social Geography

Six of the following:

BIOL 350-3	Ethnobotany
ENPL 208-4	Land and Indigenous Reconciliation Studio
ENPL 409-4	Indigenous Planning Studio
Any FNST 3-credit language course	
Any FNST 3-credit culture course	
FNST 300-3	Research Methods in First Nations Studies
FNST 303-3	First Nations Religion and Philosophy
FNST 306-3	Indigenous Women: Perspectives
FNST 350-3	Law and Indigenous Peoples
FNST 407-3	First Nations Perspectives on Race, Class, Gender and Power
FNST 416-3	Indigenous Issues in International Perspective
FNST 444-3	Experiential Course in First Nations Studies
FNST 451-3	Traditional Use Studies
GEOG 403-3	Indigenous Geographies of Climate Resilience
HIST 390-3	History of Indigenous People of Canada

Justice, Equity, Diversity, Inclusion and Indigeneity

Required

GEOG 203-3	Canada: Places, Cultures, and Identities
WMST 303-3	Lesbian and Bisexual Lives

One of the following:

ANTH 401-3	Anthropological Perspectives on Inequality
GEOG 420-3	Environmental Justice (if NOT taken as part of the Major's requirements)
POLS 413-3	Democracy and Diversity

Two of the following:

FNST 306-3	Indigenous Women: Perspectives
WMST 103-3	Introduction to Gender Studies
WMST 209-3	Gender and Cultural Studies: An Introduction

Three of the following:

ENPL 208-4	Land and Indigenous Reconciliation Studio
FNST 217-3	Contemporary Challenges Facing Aboriginal Communities
FNST 312-3	Image of the Indian in Film
FNST 350-3	Law and Indigenous Peoples

One of the following:

GEOG 209-3	Migration and Development
GEOG 306-3	Critical Development Geographies
POLS 377-3	Politics of Climate Change

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*). Electives may be at any level in any subject sufficient to ensure completion of a minimum of 120 credit hours.

Major in Environmental and Sustainability Studies (Okanagan Diploma in Environmental Studies Degree Completion)

This 60 credit-hour program of study is available only to students from Okanagan College with a diploma in Environmental Studies (Environmental Management Option or Interdisciplinary Environmental Arts Option).

If the diploma in Environmental Studies is completed, with the course choices noted*, the completion of the following courses through UNBC will result in the completion of the BA in Environmental and Sustainability Studies.

***Note:** Students must take Okanagan College's PHIL 251 Environmental Ethics, WMST 222 Ecofeminism and GEOG 210 Introduction to Environmental Issues, GEOG 311 Environmental Management and INDG 204 Indigenous Concepts and Frameworks as part of their course choices at Okanagan College, or additional UNBC courses meeting these requirements are required.

Degree requirements:
Diploma in Environmental Studies from Okanagan College, minimum Cumulative GPA of 2.00, plus 36 credit hours.
Area of Specialization: 24–29 credit hours
Elective credit hours in any subject as necessary to ensure completion of a minimum of 60 credit hours at UNBC.

Curriculum

Lower-Division Requirement

BIOL 110-3*	Introductory Ecology
or POLS 100-3	Contemporary Political Issues
ENVS 101-3	Introduction to Environmental Citizenship
ENVS 210-3	Environmental Perspectives

*Students who have completed the Interdisciplinary Arts diploma option should take BIOL 110, and students who have completed the Environmental Management diploma option should take POLS 100.

Upper-Division Requirement

300 Level

ENVS 326-3 Public Engagement for Sustainability
ENVS 339-3 Low-Carbon Transitions: Theory and Practice

400 Level

ENPL 401-3 Environmental Law
ENVS 431-3 Global Environmental Policy: Energy and Climate
ENVS 440-3 Internship
ENVS 480-3 Environmental and Sustainability Studies Senior Seminar
GEOG 401-3 Tenure, Conflict, and Resource Geography
or GEOG 306-3 Critical Development Geographies
or FNST 306-3 Indigenous Women: Perspectives
or FNST 407-3 First Nations Perspectives on Race, Class, Gender and Power
or FNST 416-3 Indigenous Issues in International Perspective
or FNST 444-3 Experiential Course in First Nations Studies

Total: 30 credit hours

Students must complete an Area of Specialization. Area of Specialization requirements may be reduced by 6 credit hours (with the exception of the Natural Resource Management Area of Specialization), depending on what has been completed through the Okanagan College Diploma.

Area of Specialization

Students must choose one of the following areas of specialization.

1. Global Environmental Studies
2. Communities and Environmental Citizenship
3. Natural Resource Management
4. Indigenous Perspectives

Courses used to fulfill major requirements above may not be used to fulfill an Area of Specialization requirement.

Joint Major in English and Environmental and Sustainability Studies (BA)

See Calendar entry under English.

Joint Major in Environmental and Sustainability Studies and Political Science (BA)

The Joint Major in Environmental and Sustainability Studies and Political Science is for students who want both a broad understanding of environmental issues and the political knowledge needed to respond to those issues.

The minimum requirement for completion of a Bachelor of Arts with a Joint Major in Environmental and Sustainability Studies and Political Science is 120 credit hours.

Program Requirements

Lower-Division Requirement

BIOL 110-3 Introductory Ecology
or NREM 101-3 Introduction to Natural Resources Management and Conservation
ENVS 101-3 Introduction to Environmental Citizenship
ENVS 210-3 Environmental Perspectives
ENVS 230-3 Introduction to Environmental Policy
FNST 100-3 The Aboriginal Peoples of Canada
GEOG 101-3 Planet Earth
GEOG 202-3 Resources, Economies, and Sustainability
or ORTM 200-3 Sustainable Outdoor Recreation and Tourism
GEOG 204-3 Introduction to GIS
INTS 100-3 Introduction to Global Studies
POLS 100-3 Contemporary Political Issues
POLS 200-3 Canadian Government and Politics
POLS 202-3 Canada in Comparative Perspective
POLS 270-3 Political Philosophy: Antiquity to Early Modernity

Upper-Division Requirement

ANTH 405-3 Landscapes, Place and Culture
or ANTH 413-3 Environmental Anthropology
ENPL 401-3 Environmental Law
ENVS 309-3 Gender, Environment and Sustainability
or GEOG 305-3 Political Ecology: Environmental Knowledge and Decision-Making
or GEOG 420-3 Environmental Justice
ENVS 326-3 Public Engagement for Sustainability
ENVS 414-3 Environmental and Professional Ethics
ENVS 431-3 Global Environmental Policy: Energy and Climate
ENVS 480-3 Environmental and Sustainability Studies Senior Seminar
NREM 303-3 Aboriginal Perspectives on Land and Resource Management
NREM 306-3 Society, Policy and Administration
or POLS 344-3 Society, Policy and Administration of Natural Resources
POLS 302-3 How Government Works
or POLS 320-3 Canadian Politics and Policy
POLS 303-3 Democracy and Democratization
POLS 370-3 Political Philosophy: Early Modernity to Post-Modernity
or POLS 372-3 Theories of Justice
POLS 377-3 Politics of Climate Change

POLS 413-3 Democracy and Diversity
or POLS 415-3 Comparative Northern Development
POLS 472-3 Seminar in Political Philosophy
PSYC 408-3 Environmental Problems and Human Behaviour
or ANTH 312-3 Human Adaptability and Environmental Stress

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours, including taking any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Minor in Environmental and Sustainability Studies

The minor in Environmental and Sustainability Studies offers an opportunity for students in other disciplines to learn how individual lives are connected with environmental systems, and to gain understanding and perspective on key environmental and sustainability issues.

A maximum of two courses (6 credit hours) used to fulfill program requirements for a major or another minor may also be used to fulfill requirements for a minor in Environmental and Sustainability Studies. The minor in Environmental and Sustainability Studies requires the completion of 18 credit hours, 12 of which must be at the upper-division level.

Required

ENVS 101-3 Introduction to Environmental Citizenship
ENVS 230-3 Introduction to Environmental Policy
ENVS 414-3 Environmental and Professional Ethics

Three of the following:
- ENPL 301-3 Sustainable Communities
- ENPL 401-3 Environmental Law
- ENVS 210-3 Environmental Perspectives
- ENVS 309-3 Gender, Environment and Sustainability
- ENVS 326-3 Public Engagement for Sustainability
- ENVS 431-3 Global Environmental Policy: Energy and Climate
- FNST 304-3 Indigenous Environmental Philosophy
- GEOG 305-3 Political Ecology: Environmental Knowledge and Decision-Making
- GEOG 401-3 Tenure, Conflict, and Resource Geography
- GEOG 420-3 Environmental Justice
- NREM 303-3 Aboriginal Perspectives on Land and Resource Management
- PSYC 408-3 Environmental Problems and Human Behaviour

Minor in Global Environmental Change

The Global Environmental Change minor offers students a well-rounded perspective on global change issues. The minor encompasses the science of global change and change predictions, the political realities of environmental change, and the way policy intersects with science.

The Global Environmental Change minor requires the completion of 21 credit hours, 12 of which must be at the upper-division level. A maximum of two courses (6 credit hours) used to fulfill program requirements for a major or another minor may also be used to fulfill requirements for the Global Environmental Change minor.

Required Courses

ENVS 210-3 Environmental Perspectives
ENVS 431-3 Global Environmental Policy: Energy and Climate

Two of the following:
- BIOL 110-3 Introductory Ecology
  or BIOL 201-3 Ecology
- BIOL 404-3 Plant Ecology
- ENSC 201-3 Weather and Climate
- ENSC 308-3 Northern Contaminated Environments
- ENSC 312-3 Biometeorology
- ENSC 408-3 Storms
- ENSC 412-3 Air Pollution
- GEOG 357-3 Introduction to Remote Sensing

Three of the following:
- ECON 305-3 Environmental Economics and Policy
- ENPL 205-3 Environment and Society
- ENPL 301-3 Sustainable Communities
- ENPL 305-3 Environmental Impact Assessment
- ENPL 401-3 Environmental Law
- ENVS 230-3 Introduction to Environmental Policy
- GEOG 305-3 Political Ecology: Environmental Knowledge and Decision-Making
- GEOG 401-3 Tenure, Conflict, and Resource Geography
- GEOG 420-3 Environmental Justice
- HIST 360-3 An Introduction to Environmental History
- HIST 421-(3-6) Topics in Environmental History
- INTS 100-3 Introduction to Global Studies
- INTS 300-3 International Organization
- ORTM 200-3 Sustainable Outdoor Recreation and Tourism
- POLS 100-3 Contemporary Political Issues
- POLS 344-3 Society, Policy and Administration of Natural Resources
- PSYC 408-3 Environmental Problems and Human Behaviour

Minor in Social Dimensions of Natural Resources Management

The minor in Social Dimensions of Natural Resources Management prepares students to engage the public and First Nations in collaborative processes dealing with the range of values encompassed within the practice of natural resources management. By completing the minor, students become familiar with planning policy and practice as it applies to natural resources management, the range of values and social considerations that apply to a number of resource sectors, and tools for soliciting and involving multi-stakeholder interests.

The minor in Social Dimensions of Natural Resources Management requires the completion of a minimum of 24 credit hours of study. A maximum of two courses (6 credit hours) used to fulfill the requirements for a major, or another minor, may also be used to fulfill requirements for this minor. Students must ensure that all prerequisites are fulfilled prior to registering in any course.

Required Courses

ENPL 401-3 Environmental Law

One of the following:

ENPL 304-4	Community Engagement and Inclusion Studio
ENVS 326-3	Public Engagement for Sustainability

One of the following:

POLS 332-3	Community Development
POLS 434-3	Resource Communities in Transition

An additional five of the following courses (no more than two courses in any single program [e.g., ENPL]):

BIOL 350-3	Ethnobotany
ENPL 104-3	Planning for Transformation
ENPL 304-4	Community Engagement and Inclusion Studio
ENPL 319-3	Social Research Methods
ENPL 409-4	Indigenous Planning Studio
ENVS 210-3	Environmental Perspectives
ENVS 230-3	Introduction to Environmental Policy
ENVS 326-3	Public Engagement for Sustainability
FNST 203-3	Introduction to Traditional Ecological Knowledge
FNST 304-3	Indigenous Environmental Philosophy
FSTY 440-(2-6)	Internship
GEOG 401-3	Tenure, Conflict, and Resource Geography
GEOG 403-3	Indigenous Geographies of Climate Resilience
GEOG 424-3	Northern Communities
HIST 421-(3-6)	Topics in Environmental History
NREM 413-3	Agroforestry
ORTM 200-3	Sustainable Outdoor Recreation and Tourism
POLS 316-3	Municipal Government and Politics
POLS 332-3	Community Development
POLS 434-3	Resource Communities in Transition

First Nations Studies (BA Program)

Margaret Anderson, Professor Emerita
Ross Hoffman, Professor Emeritus
Antonia Mills, Professor Emerita

Nancy Stevens, Associate Professor and Chair
Rheanna Robinson, Associate Professor
Daniel Sims, Associate Professor
Tara Joly, Assistant Professor
Tina Fraser, Adjunct Professor
Earl Henderson, Adjunct Professor
Travis Holyk, Adjunct Professor
Jessie King, Adjunct Professor
Tyler McCreary, Adjunct Professor
Deanna Nyce, Adjunct Professor

Website: www.unbc.ca/first-nations-studies

First Nations Studies takes the points of view of First Nations people and communities as the starting point for description and analysis, and contextualizes issues from this perspective. Courses in First Nations Studies will re-orient students to question the underlying assumptions of everyday understanding and will develop clarity in thought and presentation critical to advanced study.

First Nations Studies is a valuable part of any good undergraduate education in the contemporary world; it is an appropriate undergraduate major for students aspiring to careers in education, business, public administration, law, communications, cultural property management, social services, health care delivery and administration, and many other fields. With an undergraduate major in First Nations Studies students may apply for admission to graduate programs in several academic disciplines, and to many professional programs. Students intending to apply for graduate or professional programs should ensure that their programs include all required prerequisites.

Major in First Nations Studies

A major in First Nations Studies requires students to take 54 credit hours of First Nations Studies, at least 24 credit hours of which must be upper-division courses. Those courses from the offerings of other programs with content focused on First Nations are designated as approved ancillary courses for a major in First Nations Studies, and may be included among the 54 credit hours required for a major.

After the lower-division requirements have been met, all students majoring in First Nations Studies must take FNST 300-3 (Research Methods in First Nations Studies), and FNST 440-(3-6) (Internship in First Nations Studies) plus 18 credit hours of 300- or 400-level First Nations Studies courses or approved ancillary courses for the major in First Nations Studies. This structure permits each student to design a program emphasizing various aspects of First Nations Studies such as contemporary political issues, languages and cultures, etc.

The minimum requirement for completion of a Bachelor of Arts with a major in First Nations Studies is 120 credit hours.

Program Requirements

Lower-Division Requirements

100 and 200 Level

FNST 100-3	The Aboriginal Peoples of Canada
FNST 200-3	Perspectives in First Nations Studies

One of the following culture or language courses:

FNST 131-3	A First Nations Language: Level 1
FNST 132-3	A First Nations Language: Level 2
FNST 133-3	Dakelh / Carrier Language: Level 1
FNST 134-3	Dakelh / Carrier Language: Level 2
FNST 135-3	Haisla Language (X̄a'islaḵ̓ala): Level 1
FNST 136-3	Haisla Language (X̄a'islaḵ̓ala): Level 2
FNST 137-3	Ts'msyen Language (Sm'algyax): Level 1
FNST 138-3	Ts'msyen Language (Sm'algyax): Level 2
FNST 139-3	Nisg̱a'a Language: Level 1
FNST 140-3	Nisg̱a'a Language: Level 2
FNST 161-3	A First Nations Culture: Level 1
FNST 162-3	A First Nations Culture: Level 2
FNST 163-3	Dakelh / Carrier Culture: Level 1
FNST 169-3	Nisg̱a'a Culture: Level 1
FNST 170-3	Nisg̱a'a Culture: Level 2

Upper-Division Requirements

300 Level

FNST 300-3	Research Methods in First Nations Studies

400 Level

FNST 440-(3-6)	Internship in First Nations Studies

Eighteen credit hours of 300- or 400-level First Nations Studies courses or approved ancillary courses for the major in First Nations Studies.

Subject Requirement

Twenty-one additional credit hours of First Nations Studies or approved ancillary courses at any level.

Electives and Academic Breadth

Upper-division electives to meet UNBC residency requirement. Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Approved Ancillary Courses for a Major in First Nations Studies

This list is reviewed annually by the Department of First Nations Studies. Approved ancillary courses are those courses from other disciplines with content focused on First Nations. The following courses are included, and may be counted towards the required courses for a major in First Nations Studies.

ANTH 206-3	Indigenous Ethnography in Northern British Columbia
ANTH 404-3	Comparative Study of Indigenous Peoples of the World
ANTH 407-3	British Columbia Ethnography
ANTH 409-3	British Columbia Archaeology
BIOL 350-3	Ethnobotany
ENGL 320-3	Indigenous Literatures in Canada and the United States
ENGL 420-3	Special Topics in Indigenous Literatures
GEOG 403-3	Indigenous Geographies of Climate Resilience
HHSC 471-3	Health and Chronic Disease Management
HIST 215-3	Global History of Indigenous People
HIST 303-3	British Columbia
HIST 390-3	History of Indigenous People of Canada
HIST 456-(3-6)	Topics in Cultural Encounters
NREM 303-3	Aboriginal Perspectives on Land and Resource Management
NURS 205-3	Introduction to First Nations Health
NURS 422-(6, 8)	Indigenous Health and Nursing
NURS 498-(1-6)	Special Topics in Nursing
POLS 311-3	Russian Politics and Society
SOCW 455-3	Indigenous Governance and Social Policy
SOCW 456-3	Indigenous Wellness: Individuals, Families, and Communities
SOCW 457-3	Individual and Community Wellness for Indigenous Peoples
WMST 306-3	Indigenous Women: Perspectives
WMST 413-(3-6)	Topics in Aboriginal Women's Studies

Joint Major in Anthropology and First Nations Studies (BA)

See Calendar entry under Anthropology.

Joint Major in First Nations Studies and Women's Studies (BA)

The First Nations Studies/Women's Studies Joint Major will equip students to understand the role of women in First Nations societies, political and social institutions, and economies. The degree ought to be particularly attractive to students who intend to pursue a career in education, business, public administration, communications, social services, and many other fields.

The minimum requirement for completion of a Bachelor of Arts with a Joint Major in First Nations and Women's Studies is 120 credit hours.

Program Requirements

FNST 100-3	The Aboriginal Peoples of Canada
FNST 200-3	Perspectives in First Nations Studies
FNST 302-3	First Nations Health and Healing
FNST 305-3	Seminar in First Nations Studies
FNST 306-3/ WMST 306-3	Indigenous Women: Perspectives
WMST 413-3	Topics in Aboriginal Women's Studies
WMST 100-3	Introduction to Women's Studies
WMST 302-3	Women and the Contemporary World

At least 3 additional credit hours of 100-level First Nations in a culture or language.

At least 6 additional credit hours of Women's Studies at the 100 or 200 level.

At least 18 credit hours selected from the following:

ANTH 401-3	Anthropological Perspectives on Inequality
ANTH 406-3	Feminist Perspectives in Anthropology
ECON 301-3	Women and the Economy
ENVS 309-3	Gender, Environment and Sustainability
FNST 407-3	First Nations Perspectives on Race, Class, Gender and Power
HIST 309-3	Women in Canada
HIST 453-(3-6)	Topics in the History of Gender
HIST 454-(3-6)	Topics in Women's History
INTS 308-3	Gender and International Studies
NURS 412-3	Women and Health
WMST 303-3	Lesbian and Bisexual Lives
WMST 312-3/ HIST 312-3	An Introduction to the History of Gender
WMST 411-3	Contemporary Feminist Theories
WMST 420-3/ ENGL 410-3	Special Topics in Contemporary Women's Literature
WMST 498-(3-6)	Selected Topics in Women's Studies

At least 15 additional credit hours of First Nations 300 or 400 level courses.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Minor in First Nations Studies

The minor in First Nations Studies allows students to learn about the field, and to combine a minor concentration in FNST with a major concentration in another area. Students wishing to develop a particular focus could select a set of courses, for example on aboriginal issues, aboriginal languages, and/or aboriginal cultures (Nisga'a, Métis or Dakelh / Carrier). Other combinations are possible with the guidance of the undergraduate student advisor.

A maximum of two courses (6 credit hours) used to fulfill program requirements for a major or another minor may also be used to fulfill requirements for a minor in First Nations Studies. A maximum of two courses from the list of Approved Ancillary Courses for a Major in First Nations Studies can be used to fulfill the requirements of the First Nations Studies minor.

The minor requires completion of 18 credit hours (six courses):

FNST 100-3 The Aboriginal Peoples of Canada

Three credit hours of First Nations Studies at any level.
Twelve credit hours of 300 or 400 level First Nations Studies.

Minor in Indigenous Ecological Knowledge

The minor in Indigenous Ecological Knowledge assists students to gain an understanding of the unique ways that Indigenous Peoples know and understand the world. This minor prepares students to engage First Nations in collaborative processes that include traditional ways of living and knowing, environmental philosophies, and aboriginal governance.

The minor in Indigenous Ecological Knowledge requires the completion of a minimum of 21 credit hours of study, of which 12 must be at the upper division. A maximum of two courses (6 credit hours) used to fulfil the requirements for a major, or another minor, may also be used to fulfil requirements for this minor. It is the student's responsibility to ensure that they have the required prerequisites.

Required

FNST 100-3 The Aboriginal Peoples of Canada
FNST 203-3 Introduction to Traditional Ecological Knowledge
FNST 217-3 Contemporary Challenges Facing Aboriginal Communities

Four of the following:

FNST 301-3 Art and Material Culture of BC First Nations
FNST 302-3 First Nations Health and Healing
FNST 303-3 First Nations Religion and Philosophy
FNST 304-3 Indigenous Environmental Philosophy
FNST 350-3 Law and Indigenous Peoples
FNST 416-3 Indigenous Issues in International Perspective
FNST 440-(3-6) Internship in First Nations Studies
FNST 451-3 Traditional Use Studies

First Nations Studies Diploma Programs

A Diploma allows a student who has completed a Certificate to build on that qualification. After completing a Certificate, a Diploma will require another 30 credit hours (for a total of 60 credit hours) with a minimum of 15 credit hours being in upper-division courses. A maximum of 30 credit hours from other institutions may be applied to a Diploma.

Due to the diverse nature of the courses required to complete a specific Diploma the University cannot guarantee that an individual student will be able to complete a Diploma within a specified time period. Before starting to take courses towards the goal of completing a Diploma, students are advised to consult with the Chair of the First Nations Studies Program, and where appropriate the Director of their regional campus, in order to confirm when the required Diploma courses are scheduled to be offered.

Aboriginal/Indigenous Health and Healing

The Diploma in Aboriginal/Indigenous Health and Healing offers a multidisciplinary program allowing individuals to pursue their interest in Aboriginal/Indigenous Health and Healing through a concentrated program of courses on Aboriginal/Indigenous Health and Healing subjects. Individuals working with Aboriginal communities in a health related field or desiring to pursue a degree in the health sciences with a concentration on Aboriginal health will be especially interested in this program.

The Diploma in Aboriginal/Indigenous Health and Healing allows individuals to receive a credential after 60 credit hours of study. The Diploma especially complements a major in First Nations Studies, Anthropology, Environmental

and Sustainability Studies, Community Health, and Psychology. Students desiring to complete a degree after completion of the Diploma are strongly encouraged to speak with the relevant program Academic Advisor.

Diploma Requirements

Successful completion of the Certificate in Aboriginal/ Indigenous Health and Healing, and:

FNST 302-3	First Nations Health and Healing
FNST 303-3	First Nations Religion and Philosophy
FNST 304-3	Indigenous Environmental Philosophy
FNST 411-(3-6)	Advanced Topics in Indigenous Religion and Philosophy
FNST 440-(3-6)	Internship in First Nations Studies
FNST 498-(3-6)	Special Topics in First Nations Studies

First Nations Language

The Diploma in First Nations Language offers a program that allows individuals to pursue their interests in First Nations language through a concentrated program of courses on a particular language.

This diploma program is directed towards individuals who may not wish to commit to a full majors program in First Nations Studies, with the associated requirements of a Bachelor's degree. Persons of First Nations descent and people who are working in the area of aboriginal education will be especially interested in this shorter term program. The diploma program enhances public access to a university education with a course of study that allows flexibility in scheduling individual study programs, establishes a progression mechanism, and provides a short term exit or the option of continuing into other programs, including the Bachelor program.

The diploma program is based on existing undergraduate courses with the addition of two additional levels of language courses (level 5 and 6) and two specific Advanced Immersion First Nations Language courses, which may be delivered through language mentoring.

Diploma Requirements

Successful completion of 10 courses (30 credit hours):

- Six credit hours (two courses) of First Nations Language courses
- Three credit hours (one course) of Introduction to Linguistics
- Nine credit hours (three courses) in the structure of First Nations Languages
- Six credit hours (two courses) of First Nations Language Mentoring/Advanced Immersion
- Six credit hours (two courses) in First Nations Studies

Nisg̲a'a Language Fluency

The Nisg̲a'a Language Fluency Diploma provides an immersive education in the Nisg̲a'a language, and is intended to create new Nisg̲a'a language speakers. The fundamental pedagogical approach is to offer as much Nisg̲a'a language instruction as possible, as early as possible. The program is offered in a manner that recognizes that learners, knowledge keepers, and their communities as a whole benefit from, and contribute to, the (re) development of Nisg̲a'a language fluency.
In terms of goals and objectives, the program is designed to increase significantly the number of Nisg̲a'a language speakers, and to prepare them for employment, particularly in the fields of education and a variety of Nisg̲a'a organizations.

Students are required to complete 60 credit hours of university level instruction, including 30 credit hours from the Nisg̲a'a Language Fluency Certificate.

Diploma Requirements

The first year of the Diploma is the Certificate, and students take the following courses:

ARTS 101-3	Learning Strategies
ARTS 102-3	Research Writing
or ENGL 170-3	Writing and Communication Skills
FNST 139-3	Nisg̲a'a Language: Level 1
FNST 140-3	Nisg̲a'a Language: Level 2
FNST 141-3	Nisg̲a'a Language Immersion: Level 1
FNST 142-3	Nisg̲a'a Oral Culture: Level 1
FNST 169-3	Nisg̲a'a Culture: Level 1
FNST 170-3	Nisg̲a'a Culture: Level 2
FNST 241-3	Nisg̲a'a Language Immersion: Level 2
FNST 242-3	Nisg̲a'a Oral Culture: Level 2

During the second year of the Diploma students take the following courses:

CPSC 150-3	Computer Applications
or 3 credit hours of Mathematics at any level	
FNST 220-3	Introduction to Linguistics
FNST 239-3	Nisg̲a'a Language: Level 3
FNST 240-3	Nisg̲a'a Language: Level 4
FNST 269-3	Nisg̲a'a Culture: Level 3
FNST 270-3	Nisg̲a'a Culture: Level 4
FNST 341-3	Nisg̲a'a Language Immersion: Level 3
FNST 441-3	Nisg̲a'a Language Immersion: Level 4

Subject Requirement

Six additional credit hours of electives at any level; it is recommended that these be taken in the second year.

First Nations Studies Certificate Programs

The Certificate program is intended to enhance public access to a university education with a flexible course of study that allows either a short term exit (upon completion of Certificate requirements) or the option of laddering into other programs, including the Bachelor program.

The Certificate also provides flexibility. All courses in the Certificate are university-credit courses. This means that students can apply credit taken in their Certificate to other programs should they later decide to pursue a Bachelor's degree. Moreover, the requirements for the Certificate could be completed in one year or could be completed on a part-time basis over several years, depending upon course scheduling and the situation of the student.

As soon as a student completed the 10 courses required in the program of study, the student would be eligible to receive their Certificate. The completion of the Certificate would give students the equivalent of one full year of university credit. This provides a laddered program of study which could result in the completion of a Bachelor's degree with three more years of study at UNBC or another university. Because the program is based on existing undergraduate courses, Certificate students will take their courses alongside regular, full-time students.

The requirements for admission into a Certificate program are the same as for any student enrolled in a UNBC undergraduate program. To be eligible for a certificate, students must achieve a minimum GPA of C, based on all courses taken at UNBC that are applied to the Certificate. University transfer credit also can be applied to the program, as appropriate, to a maximum of 15 credit hours.

Due to the diverse nature of the courses required to complete a specific Certificate the University cannot guarantee that an individual student will be able to complete a Certificate within a specified time period. Before starting to take courses towards the goal of completing a Certificate, students are advised to consult with the Chair of the First Nations Studies Program, and where appropriate the Director of their regional campus, in order to confirm when the required Certificate courses are scheduled to be offered.

Aboriginal Community Resource Planning

The Aboriginal Community Resource Planning Certificate (ACRP) consists of 10 courses (minimum 30 credit hours) drawn primarily from First Nations Studies and Environmental Planning, with offerings from Geography, Commerce, Outdoor Recreation and Tourism, and Natural Resources and Environmental Management.

The courses from First Nations Studies provide students with foundations in First Nations in Canada, cultures and languages, internal and external issues, and First Nations environmental philosophies. The courses from Environmental Planning provide foundations in the principles of traditional planning. The program is generic in nature so that the knowledge can be transferred to different community settings, as well as to the variety of situations that students will encounter throughout their lives.

Two important purposes of the certificate are, first, to provide requisite education to assist individuals involved in the resource planning in First Nations communities and, second, to provide expanded educational opportunities at the university level for students who are not in a position to commit to a four year program of study. Students must meet with a First Nations Studies undergraduate student advisor prior to starting this program.

Certificate Requirements

ENPL 104-3 Planning for Transformation
ENPL 105-3 Dynamics of Community Planning
FNST 100-3 The Aboriginal Peoples of Canada
FNST 249-4 Land and Indigenous Reconciliation Studio
FNST 304-3 Indigenous Environmental Philosophy
GEOG 205-3 Cartography and Geomatics
Any First Nations Culture Level 1 course or any First Nations Language Level 1 course

One of the following:

ARTS 102-3	Research Writing
ENGL 170-3	Writing and Communication Skills
FNST 200-3	Perspectives in First Nations Studies

One of the following:

FNST 217-3	Contemporary Challenges Facing Aboriginal Communities
POLS 200-3	Canadian Government and Politics

One of the following:

COMM 100-3	Introduction to Canadian Business
GEOG 202-3	Resources, Economies, and Sustainability
NRES 100-3	Communication in Natural Resources and Environmental Studies

Aboriginal/Indigenous Health and Healing

The Certificate in Aboriginal/Indigenous Health and Healing offers a multidisciplinary program allowing individuals to pursue their interest in Aboriginal/Indigenous Health and Healing through a concentrated program of courses on Aboriginal/Indigenous Health and Healing subjects.

The Certificate requires completion of 10 courses (30 credit hours). Individuals working with Aboriginal communities in a health-related field or desiring to pursue a degree in the

health sciences with a concentration on Aboriginal health will be especially interested in this program.

The Certificate in Aboriginal/Indigenous Health and Healing allows individuals to receive a credential after 30 credit hours of study. The Certificate especially complements a major in First Nations Studies, Anthropology, Environmental and Sustainability Studies, Community Health, and Psychology. Students desiring to complete a degree after the Certificate are strongly encouraged to speak with the relevant program student advisor.

Students must establish their course of study with approval from the Chair of First Nations Studies.

Certificate Requirements

FNST 100-3	The Aboriginal Peoples of Canada
FNST 200-3	Perspectives in First Nations Studies
FNST 203-3	Introduction to Traditional Ecological Knowledge
FNST 217-3	Contemporary Challenges Facing Aboriginal Communities
FNST 280-3	Aboriginal Medicines I - Harvesting and Preservation
FNST 281-3	Aboriginal Medicines II - Administering and Ethics
FNST 282-3	Aboriginal Health Philosophy
FNST 298-3	Special Topics in First Nations Studies
HHSC 101-3	Introduction to Health Sciences I: Issues and Controversies
HHSC 102-3	Introduction to Health Sciences II: Rural and Aboriginal Issues

First Nations Language

The Certificate in First Nations Language consists of 10 courses (30 credit hours) and offers a program that allows individuals to pursue an interest in First Nations language through a concentrated program of courses on a particular language.

This certificate program is directed towards individuals who may not wish to commit to a full majors program in First Nations Studies, with the associated requirements of a Bachelor's degree. Persons of First Nations descent and people who are working in the area of Aboriginal education will be especially interested in this shorter term program. The certificate program enhances public access to a university education with a course of study that allows flexibility in scheduling individual study programs, establishes a progression mechanism, and provides a short term exit or the option of continuing into other programs, including the Bachelor's degree program.

Credit hours earned in the certificate program can be applied to the major or minor in First Nations Studies, subject to the requirements of those First Nations Studies programs.

Students must establish their course of study with approval from the Chair of First Nations Studies.

Certificate Requirements

Five courses (15 credit hours) of study in a First Nations language of Northern British Columbia, including one immersion course.

Two courses (6 credit hours) of introductory First Nations Studies, including courses on culture and issues.
Two courses (6 credit hours) of English.

One course (3 credit hours) of Linguistics of First Nations languages.

First Nations Public Administration

The Certificate in First Nations Public Administration consists of 10 courses (30 credit hours) drawn primarily from the Department of First Nations Studies and Political Science, with offerings from Business Administration, and Economics. The courses from First Nations Studies provide students with foundations in internal and external First Nations issues and culture, and the courses from Political Science provide foundations in the principles of government, politics, and public administration, as well as some specialization in First Nations law, self-government and administration. The program is generic in nature so that the knowledge can be transferred to different community settings, as well as to the variety of situations that students will encounter throughout their lives.

Two important purposes of the Certificate are, first, to provide requisite education to assist individuals involved in the administration of First Nations governments and, second, to provide expanded educational opportunities at the university level for students who are not in a position to commit to a four-year program of study.

Students must establish their course of study with approval from the Chair of First Nations Studies.

Certificate Requirements

COMM 210-3	Financial Accounting
ECON 101-3	Macroeconomics
ENGL 170-3	Writing and Communication Skills
or ARTS 102-3	Research Writing
FNST 100-3	The Aboriginal Peoples of Canada
FNST 217-3	Contemporary Challenges Facing Aboriginal Communities
FNST 249-4	Land and Indigenous Reconciliation Studio
FNST 350-3	Law and Indigenous Peoples
POLS 100-3	Contemporary Political Issues
POLS 200-3	Canadian Government and Politics

Three credit hours of any First Nations Culture Level 1 course or any First Nations Language Level 1 course.

General First Nations Studies

The Certificate in General First Nations Studies is a multidisciplinary program allowing individuals to pursue their interests in First Nations Studies through a concentrated program of courses on First Nations subjects. The program ladders well into a major in First Nations Studies, Anthropology, Biology, History, Education, English, Environmental Studies, Forestry, Geography, Nursing and Community Health, Political Science, Psychology, Social Work and Women's Studies.

The Certificate requires successful completion of 10 courses (30 credit hours). Eighteen of these credit hours are earned by completing six required courses. The remaining four courses (12 credit hours) consist of options from the First Nations Studies program, including at least one course from the approved ancillary course list.

Students must establish their course of study with approval from the Chair of First Nations Studies.

Certificate Requirements

ANTH 206-3	Indigenous Ethnography in Northern British Columbia
or FNST 304-3	Indigenous Environmental Philosophy
FNST 100-3	The Aboriginal Peoples of Canada
FNST 200-3	Perspectives in First Nations Studies
FNST 217-3	Contemporary Challenges Facing Aboriginal Communities
HIST 215-3	Global History of Indigenous People

Any one course from the series of First Nations Culture or First Nations Language Courses.

Nine credit hours of First Nations Studies at any level approved by the Chair of First Nations Studies.

Three credit hours from the approved list of ancillary courses. Please refer to the list of Approved Ancillary Courses.

Métis Studies

The Certificate in Métis Studies offers a program that allows individuals to pursue their interests through a concentrated program of courses on the Métis Nation.

The certificate requires successful completion of 10 courses (30 credit hours).

Persons of Métis descent, other aboriginal people, and people who are working with aboriginal organizations will be especially interested in this program.

The Certificate in Métis Studies allows students to receive a credential after one year of studies which can be laddered into any UNBC program. It especially complements a major in First Nations Studies, Anthropology, History, English, Environmental Studies, Forestry, Geography, Nursing and Community Health, Political Science, Psychology, Social Work, and Women's Studies.

The Certificate will be primarily offered through the Prince George campus. First Nations Studies is committed to distance delivery where possible. Students at regional locations could take the certificate through a combination of face to face and distance delivery.

Students must establish their course of study with approval from the Chair of First Nations Studies.

Certificate Requirements

FNST 100-3	The Aboriginal Peoples of Canada
FNST 200-3	Perspectives in First Nations Studies

Three of the following:

FNST 131-3	A First Nations Language (Cree Language): Level 1
FNST 132-3	A First Nations Language (Cree Language): Level 2
FNST 231-3	A First Nations Language (Cree Language): Level 3
FNST 232-3	A First Nations Language (Cree Language): Level 4

Note: Cree is subject to the availability of language instructors.

Five courses (15 credit hours) of First Nations Studies courses dealing with Métis culture, language, or issues. These options will be determined by FNST course offerings in that year. They can be either lower-division or upper-division courses. They can include ancillary courses identified by the program. An ancillary course is defined as a course in a program other than First Nations Studies which has sufficient substantive content in common with First Nations Studies. The program maintains a list of approved ancillary courses.

Nisg̲a'a Language Fluency

The Nisg̲a'a Language Fluency Certificate provides an immersive education in the Nisg̲a'a language, intended to create new Nisg̲a'a language speakers. The fundamental pedagogical approach is to offer as much Nisg̲a'a language instruction as possible, as early as possible. The program is offered in a manner that recognizes that learners, knowledge keepers, and their communities as a whole benefit from, and contribute to, the (re)development of Nisg̲a'a language fluency.

In terms of goals and objectives, the program is designed to increase significantly the number of Nisg̲a'a language speakers, and to prepare them for employment, particularly in the fields of education and a variety of Nisg̲a'a organizations.

Students are required to complete 30 credit hours of university-level instruction.

During the program of study leading to the Certificate students complete the following courses. All courses listed will be included in the UNBC academic calendar for students.

ARTS 101-3	Learning Strategies
ARTS 102-3	Research Writing
or ENGL 170-3	Writing and Communication Skills
FNST 139-3	Nisg̲a'a Language: Level 1
FNST 140-3	Nisg̲a'a Language: Level 2
FNST 141-3	Nisg̲a'a Language Immersion: Level 1
FNST 142-3	Nisg̲a'a Oral Culture: Level 1
FNST 169-3	Nisg̲a'a Culture: Level 1
FNST 170-3	Nisg̲a'a Culture: Level 2
FNST 241-3	Nisg̲a'a Language Immersion: Level 2
FNST 242-3	Nisg̲a'a Oral Culture: Level 2

Nisg̲a'a Studies

The Certificate in Nisg̲a'a Studies offers a program that allows individuals to pursue their interests in First Nations Studies through a concentrated program of courses on the Nisg̲a'a First Nation.

The certificate requires successful completion of 10 courses (30 credit hours).

Persons of Nisg̲a'a descent, other aboriginal people, and people who are working with aboriginal organizations will be especially interested in this program.

It especially complements a major in First Nations Studies, Anthropology, History, English, Environmental Studies, Forestry, Geography, Nursing and Community Health, Political Science, Psychology, Social Work and Women's Studies.

The Certificate will be primarily offered through the WWNI. First Nations Studies is committed to distance delivery where possible. Students at the Prince George campus or other regional locals could take the certificate through a combination of face to face and distance delivery.

Students must establish their course of study with approval from the Chair of First Nations Studies.

Certificate Requirements

FNST 200-3	Perspectives in First Nations Studies
FNST 217-3	Contemporary Challenges Facing Aboriginal Communities

Six of the following:

FNST 139-3	Nisg̲a'a Language: Level 1
FNST 140-3	Nisg̲a'a Language: Level 2
FNST 169-3	Nisg̲a'a Culture: Level 1
FNST 170-3	Nisg̲a'a Culture: Level 2
FNST 239-3	Nisg̲a'a Language: Level 3
FNST 240-3	Nisg̲a'a Language: Level 4
FNST 269-3	Nisg̲a'a Culture: Level 3
FNST 270-3	Nisg̲a'a Culture: Level 4

Note: It is possible to take all four levels of one category, either language or culture, and two levels of the other category.

Two courses (6 credit hours) of First Nations Studies dealing with Nisg̲a'a culture, language, or issues. These two options will be determined by FNST course offerings in that year. They can be at any level. They can include ancillary courses identified by the program. An ancillary course is defined as a course in a program other than First Nations Studies which has sufficient substantive content in common with First Nations Studies. The program maintains a list of approved ancillary courses.

Traditional Ecological Knowledge

The Certificate in Traditional Ecological Knowledge (TEK) is a multidisciplinary program allowing individuals to pursue their interests in TEK through a concentrated program of courses on First Nations and Environmental subjects.

This program ladders well into a major in First Nations Studies, Anthropology, Biology, History, Education, English, Environmental Studies, Forestry, Geography, Nursing and Community Health, Political Science, Psychology, Social Work, and Women's Studies as well as leading into majors in Physics and Chemistry.

The Certificate requires successful completion of 10 courses (minimum 30 credit hours). Eighteen of these hours are earned by completing six required First Nations courses. Options for a writing course include one additional First Nations Studies course. The remaining three courses (minimum 9 credit hours) must be selected from the approved list for Ecology, Chemistry, Geography, Physics and Natural Resources.

Students must establish their course of study with approval from the Chair of First Nations Studies.

Certificate Requirements

FNST 100-3	The Aboriginal Peoples of Canada
FNST 203-3	Introduction to Traditional Ecological Knowledge
FNST 304-3	Indigenous Environmental Philosophy

Any First Nations Culture course or any First Nations Language Level 1 course.

Two of the following:

FNST 206-3	First Nations Oral Literatures
FNST 217-3	Contemporary Challenges Facing Aboriginal Communities
FNST 302-3	First Nations Health and Healing
FNST 303-3	First Nations Religion and Philosophy

One of the following:

ARTS 102-3	Research Writing
ENGL 170-3	Writing and Communication Skills
FNST 200-3	Perspectives in First Nations Studies

Three courses (at least 9 credit hours) from the following:

BIOL 103-3	Introductory Biology I
BIOL 104-3	Introductory Biology II
BIOL 201-3	Ecology
CHEM 100-3	General Chemistry I
CHEM 101-3	General Chemistry II
ENPL 104-3	Planning for Transformation
ENSC 201-3	Weather and Climate
GEOG 200-3	British Columbia: People and Places
GEOG 211-3	Natural Hazards
NREM 100-3	Field Skills
NREM 204-3	Introduction to Wildlife and Fisheries
PHYS 100-4	Physics for Life Sciences I
PHYS 101-4	Physics for Life Sciences II
PHYS 110-4	Introductory Physics I: Mechanics
PHYS 111-4	Introductory Physics II: Waves and Electricity
PHYS 115-4	General Introduction to Physics

Forest Ecology and Management (BSc Program)

Philip Burton, Professor Emeritus
Art Fredeen, Professor Emeritus
Kathy Lewis, Professor Emerita
Staffan Lindgren, Professor Emeritus
Hugues Massicotte, Professor Emeritus
Chris Opio, Professor Emeritus
Katherine Parker, Professor Emerita
Paul Sanborn, Professor Emeritus

Ken Otter, Professor and Chair
Mark Dale, Professor
Ché Elkin, Professor, and FRBC/Slocan Endowed Chair in Mixedwood Ecology and Management
Ian Hartley, Professor
Dezene Huber, Professor
Chris Johnson, Professor
Brent Murray, Professor
Oscar Venter, Professor, and FRBC/West Fraser Endowed Chair in Conservation Solutions
Roy Rea, Associate Professor
Lisa Wood, Associate Professor
Samuel Bartels, Assistant Professor
Jonathan Cale, Assistant Professor
Erin Crockett, Assistant Professor
Michael Preston, Assistant Professor
Diogo Spinola, Assistant Professor
Violet Zhao, Assistant Professor
Colin Chisholm, Adjunct Professor
Shannon Crowley, Adjunct Professor
Susan Grainger, Adjunct Professor
Dexter Hodder, Adjunct Professor
Michael Jull, Adjunct Professor
Jenia Blair, Senior Lab Instructor
Saphida Migabo, Senior Lab Instructor

Website: www.unbc.ca/forestry

The Forest Ecology and Management degree provides students with a thorough understanding of the science, philosophy, and practice of managing forested ecosystems. Through study and active learning experiences, students obtain a consistent and broad background in coursework that encompasses foundational and integrative topics. Given the range of knowledge and expertise needed to effectively manage and conserve forested ecosystems, students are provided an opportunity to select a minor and pursue a specialization consistent with the overall objectives of the degree. Although the degree is designed to expose students to contemporary knowledge and techniques drawn from a variety of disciplines in the natural and social sciences, students are encouraged to challenge conventional knowledge paradigms and approaches to forest management. The Forest Ecology and Management degree is accredited by the Canadian Forestry Accreditation Board and meets certification requirements for the Association of BC Forest Professionals. The University has two research forests (Aleza Lake Research Forest, John Prince Research Forest) available to students in this program.

Undergraduate students are required to take a total of 96 credit hours of program core courses in addition to a qualified minor as outlined below.

The minimum requirement for completion of a Bachelor of Science in Forest Ecology and Management is 123 credit hours.

Major in Forest Ecology and Management

Program Requirements

Lower-Division Requirement

100 Level

BIOL 103-3	Introductory Biology I
BIOL 104-3	Introductory Biology II
BIOL 123-1	Introductory Biology I Laboratory
BIOL 124-1	Introductory Biology II Laboratory
CHEM 100-3	General Chemistry I
CHEM 101-3	General Chemistry II
CHEM 120-1	General Chemistry Lab I
CHEM 121-1	General Chemistry Lab II
ECON 100-3	Microeconomics
MATH 152-3	Calculus for Non-majors
NREM 100-3*	Field Skills
NREM 101-3	Introduction to Natural Resources Management and Conservation
NRES 100-3	Communications in Natural Resources and Environmental Studies

***Note:** Applications for exemption from NREM 100-3 must be made within the first year of study in this degree.

200 Level

BIOL 201-3	Ecology
ENSC 201-3	Weather and Climate
FSTY 201-3	Forest Plant Systems
FSTY 205-3	Introduction to Soil Science
FSTY 207-1	Terrestrial Ecological Classification
FSTY 209-4	Forest Biology and Silvics
GEOG 204-3	Introduction to GIS
or GEOG 205-3	Cartography and Geomatics

GEOG 210-3	Introduction to Earth Science
NREM 203-3	Resource Inventories and Measurements
STAT 240-3	Basic Statistics

Upper-Division Requirement

300 Level

ENVS 326-3	Public Engagement for Sustainability
FSTY 305-4	Silviculture
FSTY 307-3	Disturbance Ecology and Forest Health
FSTY 310-3	Forest Economics
or NREM 306-3	Society, Policy and Administration
FSTY 317-1	Forest Disturbance Agents
NREM 303-3	Aboriginal Perspectives on Land and Resource Management
NREM 333-3*	Field Applications in Resource Management

400 Level

ENVS 414-3	Environmental and Professional Ethics
FSTY 405-3	Forest Ecosystem Modelling
FSTY 408-3	Forest Practices and Management
NREM 400-4	Natural Resources Planning
NRES 421-1	Professional Writing
and NRES 422-2	Undergraduate Report
or NRES 430-6	Undergraduate Thesis

*Specified course must be completed at UNBC.

Minor Requirement Associated with the Forest Ecology and Management Degree

Forest Ecology and Management students are required to complete one of the eligible minors listed below as part of their degree. The eligible minors allow students to gain a solid foundation in numerous specialized areas of forest management.

Eligible minors are:

- Biology and Conservation
- Earth Sciences
- Environmental Science
- Environmental and Sustainability Studies
- Forest Recreation
- General Business
- Geographic Information Systems (GIS)
- Global Environmental Change
- Indigenous Ecological Knowledge
- Natural Resources Planning and Operations
- Planning
- Social Dimensions of Natural Resources Management
- Soils and the Environment

Any minors, other than those listed above, require prior approval from the Chair.

Minors have different credit hour requirements, but for all minors, 12 credit hours must be at the upper-division (i.e., 300 or 400) level. Students must ensure that all prerequisite courses have been completed for elective choices in each minor. Beyond the specific minor requirements, students must complete elective credit hours as necessary to ensure completion of a minimum of 123 credit hours.

BSc Honours – Forest Ecology and Management

The Honours in Forest Ecology and Management offers students a higher level of education and research experience for proceeding to post graduate studies. Honours students are required to complete the degree requirements for the BSc in Forest Ecology and Management. In addition, required hours of elective credit must be at the 300 or 400 level and each student must complete a 6 credit hour research thesis under the supervision of a faculty member.

Entry into the Honours Program takes place after the completion of 60 credit hours and requires a minimum Cumulative GPA of 3.33. Attaining the minimum requirement does not guarantee entry into the Honours Program, which is at the discretion of the Ecosystem Science and Management Program. Maintenance of a Cumulative GPA of 3.33 is required to remain in the Honours Program.

Elective credit hours are determined to be the number of credit hours needed to ensure completion of a minimum of 123 credit hours, not including thesis.

Note: Students are responsible for finding their own undergraduate thesis research supervisor. Faculty members are under no obligation to supervise Honours students.

Minor in Forest Recreation

The minor in Forest Recreation provides natural resource management students and others with an opportunity to gain a foundation and expertise in the specialized aspects of forest recreation while pursuing another major. This minor requires students to take a total of 18 credit hours. The minor includes three required courses foundational to the field of Forest Recreation (9 credit hours) and a set of elective courses (minimum of 9 credit hours).

Required Courses

ORTM 100-3	Foundations of Outdoor Recreation and Tourism
ORTM 200-3	Sustainable Outdoor Recreation and Tourism
ORTM 300-3	Recreation and Tourism Impacts

Elective Courses

Nine credit hours from the following list with a minimum of 3 credit hours at the 400 level:

ORTM 202-3 Ecotourism and Adventure Tourism
ORTM 305-3 Protected Area Planning and Management
ORTM 409-3 Critical Approaches to Outdoor Recreation Activities
ORTM 498-(1-3) Special Topics
ORTM 499-(1-6) Independent Study

A maximum of two courses (6 credit hours) used to fulfill program requirements for a major (or another minor) may also be used to fulfill requirements for this minor.

Minor in Natural Resources Planning and Operations

The Natural Resources Planning and Operations minor is designed for students primarily interested in planning and operations (and their governing policies) related to the management of forested and non-forested lands.

Students learn about natural resource policy, forest-management planning and operations, environmental impacts of management practices, forest productivity and timber supply, and resource sustainability, along with current computer-based management tools. It is strongly recommended that students taking this minor have a background in forest ecology and management.

The minor in Natural Resources Planning and Operations requires the completion of 18 credit hours, of which 12 credit hours must be upper division (i.e., 300 or 400 level). Courses used to fulfill major requirements in Forest Ecology and Management may not be applied toward the minor in Forest Planning and Operations. Students must ensure that all prerequisites are fulfilled prior to registering in any course.

Required Courses

ENPL 201-3 Land Policy in British Columbia
or NREM 201-3 Land Policy in British Columbia
FSTY 403-3 Timber Harvest Planning and Operations

Four of the following courses (with no more than two courses from any single program [e.g., ENPL]):

BIOL 325-3 Ecological Analyses
BIOL 413-3 Wildlife Management
ECON 305-3 Environmental Economics and Policy
ECON 411-3 Cost-Benefit Analysis
ENPL 105-3 Dynamics of Community Planning
ENPL 304-4 Community Engagement and Inclusion Studio
ENPL 305-3 Environmental Impact Assessment
ENPL 410-3 Applied Land Use Planning in British Columbia
ENPL 411-3 Philosophy of Community Change
ENSC 402-3 Watershed Science and Management
ENVS 326-3 Public Engagement for Sustainability
FSTY 310-3 Forest Economics
FSTY 405-3 Forest Ecosystem Modelling
FSTY 415-3 Forest Soils
FSTY 435-3 Soil Biological Processes
GEOG 357-3 Introduction to Remote Sensing
GEOG 413-3 Advanced GIS
GEOG 457-3 Advanced Remote Sensing
NREM 306-3 Society, Policy and Administration
NREM 409-3 Conservation Planning
NREM 413-3 Agroforestry
ORTM 305-3 Protected Area Planning and Management

Geography (BA and BSc Programs)

Gail Fondahl, Professor Emerita

Catherine Nolin, Professor and Chair
Greg Halseth, Professor and Canada Research Chair in Rural and Small Town Studies
Neil Hanlon, Professor
Brian Menounos, Professor
Tristan Pearce, Professor and Canada Research Chair in Cumulative Impacts of Environmental Change
Ellen Petticrew, Professor and FRBC Endowed Chair in Landscape Ecology
Roger Wheate, Professor/GIS Coordinator
Zoë Meletis, Associate Professor
Joseph Shea, Associate Professor
Adam Hawkins, Assistant Professor
Bill Floyd, Adjunct Professor
Anthony Jjumba, Adjunct Professor
Sean Markey, Adjunct Professor
Brendan Miller, Adjunct Professor
Marleen Morris, Adjunct Professor
Peter Reiners, Adjunct Professor
John Rex, Adjunct Professor
Grahame Russell, Adjunct Professor
Raquel Portes, Senior Research Scientist
Faran Ali, Senior Lab Instructor
Ping Bai, Senior Lab Instructor (GIS)
Christine Jackson, Senior Lab Instructor

Website: www.unbc.ca/geography

Geography is an interdisciplinary bridge between the human and physical sciences, studying human–environment interactions. The Geography program offers both a Bachelor of Science and a Bachelor of Arts. The BSc in physical geography examines the natural environment and the interaction of climate, soils, vegetation and landforms, while the BA in human geography focuses on cultural, social, economic and rural environments. Degrees emphasize the geography of the North and contemporary geographic technologies.

Geography (BA Program)

Major in Geography

This degree provides students with comprehensive training in the study of human geography, emphasizing the cultural, social, economic, and political connections between people and their environments. We offer courses that give students the conceptual and methodological means to make sense of the places and spaces they occupy and to understand how these relate to the rest of the world. Particular emphasis is on issues of community development, social justice, environmental equity, and population health in northern environments as a starting point for understanding the dynamics of place-making in a global context.

The minimum requirement for the completion of a Bachelor of Arts with a major in Geography is 120 credit hours.

Program Requirements

Lower-Division Requirement

100 Level

GEOG 101-3	Planet Earth
GEOG 102-3	Earth from Above

200 Level

GEOG 200-3	British Columbia: People and Places
GEOG 203-3	Canada: Places, Cultures, and Identities
GEOG 204-3	Introduction to GIS
GEOG 210-3	Introduction to Earth Science
STAT 240-3	Basic Statistics
or ECON 205-3	Statistics for Business and the Social Sciences

Four of the following:

GEOG 202-3	Resources, Economies, and Sustainability
GEOG 205-3	Cartography and Geomatics
GEOG 206-3	Social Geography
GEOG 209-3	Migration and Development
GEOG 211-3	Natural Hazards
GEOG 220-3	World Regions: Latin America and the Caribbean
GEOG 224-3	World Regions: Inuit Nunangat
GEOG 225-3	Global Environmental Change
GEOG 298-3	Special Topics

Upper-Division Requirement

300 Level

ENPL 319-3 Social Research Methods
or GEOG 324-3 Community-Based Research

Five of the following:
- GEOG 300-3 Intermediate GIS
- GEOG 305-3 Political Ecology: Environmental Knowledge and Decision-Making
- GEOG 306-3 Critical Development Geographies
- GEOG 307-3 Changing Arctic: Human and Environmental Systems
- GEOG 308-3 Health Geography
- GEOG 332-3 Community Development
- GEOG 333-3 Geography Field School

400 Level

COMM 332-3 Business and Professional Ethics
or ENVS 414-3 Environmental and Professional Ethics

Five of the following:
- GEOG 357-3 Introduction to Remote Sensing
- GEOG 401-3 Tenure, Conflict, and Resource Geography
- GEOG 403-3 Indigenous Geographies of Climate Resilience
- GEOG 413-3 Advanced GIS
- GEOG 416-3 Mountains
- GEOG 420-3 Environmental Justice
- GEOG 424-3 Northern Communities
- GEOG 426-3 Geographies of Culture, Rights and Power
- GEOG 498-(1-3) Special Topics
- GEOG 499-(3-6) Independent Studies

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours, of which 24 credit hours in any subject must be at the 300 or 400 level including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in Anthropology and Geography (BA)

See Calendar entry under Anthropology.

Joint Major in Geography and History (BA)

The minimum requirement for the completion of a Bachelor of Arts with a Joint Major in Geography and History is 120 credit hours.

Program Requirements

Lower-Division Requirement

GEOG 101-3 Planet Earth
or GEOG 102-3 Earth from Above
HIST 190-3 World History to 1550
HIST 191-3 World History since 1550
HIST 200-3 Historical Methodology

Four of the following:
- GEOG 200-3 British Columbia: People and Places
- GEOG 202-3 Resources, Economies, and Sustainability
- GEOG 203-3 Canada: Places, Cultures, and Identities
- GEOG 204-3 Introduction to GIS
  or GEOG 205-3 Cartography and Geomatics
- GEOG 206-3 Social Geography
- GEOG 209-3 Migration and Development
- GEOG 211-3 Natural Hazards
- GEOG 220-3 World Regions: Latin America and the Caribbean
- GEOG 224-3 World Regions: Inuit Nunangat
- GEOG 225-3 Global Environmental Change
- GEOG 298-3 Special Topics

In addition, six credit hours of History at the 200 level

Upper-Division Requirement

HIST 300-3 Historiography: The Nature of the Historical Discipline

Four of the following:
- GEOG 305-3 Political Ecology: Environmental Knowledge and Decision-Making
- GEOG 306-3 Critical Development Geographies
- GEOG 307-3 Changing Arctic: Human and Environmental Systems
- GEOG 308-3 Health Geography
- GEOG 324-3 Community-Based Research
- GEOG 332-3 Community Development
- GEOG 333-3 Geography Field School

Three of the following:
- GEOG 401-3 Tenure, Conflict, and Resource Geography
- GEOG 403-3 Indigenous Geographies of Climate Resilience
- GEOG 416-3 Mountains
- GEOG 420-3 Environmental Justice
- GEOG 424-3 Northern Communities
- GEOG 426-3 Geographies of Culture, Rights and Power

In addition, eighteen credit hours of History at the 300 or 400 level

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in Geography and Political Science (BA)

The minimum requirement for the completion of a Bachelor of Arts with a Joint Major in Geography and Political Science is 120 credit hours.

Program Requirements

Lower-Division Requirement

GEOG 101-3 Planet Earth
or GEOG 102-3 Earth from Above
POLS 100-3 Contemporary Political Issues
POLS 200-3 Canadian Government and Politics
POLS 202-3 Canada in Comparative Perspective
POLS 230-3 International Relations
POLS 270-3 Political Philosophy: Antiquity to Early Modernity

Four of the following:
- GEOG 200-3 British Columbia: People and Places
- GEOG 202-3 Resources, Economies, and Sustainability
- GEOG 203-3 Canada: Places, Cultures, and Identities
- GEOG 204-3 Introduction to GIS
- GEOG 206-3 Social Geography
- GEOG 209-3 Migration and Development
- GEOG 211-3 Natural Hazards
- GEOG 220-3 World Regions: Latin America and the Caribbean
- GEOG 224-3 World Regions: Inuit Nunangat
- GEOG 225-3 Global Environmental Change
- GEOG 298-3 Special Topics

Upper-Division Requirement

POLS 303-3 Democracy and Democratization
POLS 320-3 Canadian Politics and Policy
POLS 370-3 Political Philosophy: Early Modernity to Post-Modernity

Four of the following:
- GEOG 305-3 Political Ecology: Environmental Knowledge and Decision-Making
- GEOG 306-3 Critical Development Geographies
- GEOG 307-3 Changing Arctic: Human and Environmental Systems
- GEOG 308-3 Health Geography
- GEOG 324-3 Community-Based Research
- GEOG 332-3 Community Development
- GEOG 333-3 Geography Field School

Three of the following:
- GEOG 401-3 Tenure, Conflict, and Resource Geography
- GEOG 403-3 Indigenous Geographies of Climate Resilience
- GEOG 416-3 Mountains
- GEOG 420-3 Environmental Justice
- GEOG 424-3 Northern Communities
- GEOG 426-3 Geographies of Culture, Rights and Power

Three additional credit hours of POLS courses at the 300 level. **Note:** POLS 332-3 may be used to fulfill this requirement only if GEOG 332-3 has not been taken.

Nine additional credit hours of POLS courses at the 400 level.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Major in Public Administration and Community Development

The Public Administration and Community Development (PACD) major gives students the skills required to function within a range of groups, organizations, and offices. Graduates are able to interact with appropriate professionals, receive their input and reports, and collate a wide range of information and material in service of their group/organization/office. Skills in analysis and synthesis are complemented by an ability to work cooperatively and effectively, and an ability to communicate clearly through written, oral, and graphic media.

The PACD major requires completion of 120 credit hours, 48 of which must be at the upper-division level. At the lower division, students must take the seven required courses and a minimum of one course from each of the seven categories. At the upper division, students must take the four required courses and a minimum of one course from each of the seven categories.

It is possible for students to organize their course choices (categories and electives) to achieve a "specialization" of coursework. An Area of Specialization requires eight courses (24 credit hours) in one of the following:

- Local Public Administration
- Aboriginal Community Development
- Planning

Program Requirements

Lower-Division Requirements

COMM 100-3 Introduction to Canadian Business
ECON 100-3 Microeconomics
ECON 101-3 Macroeconomics
ENPL 104-3 Planning for Transformation
FNST 100-3 The Aboriginal Peoples of Canada
GEOG 101-3 Planet Earth
POLS 100-3 Contemporary Political Issues

Select ONE course from each category below:

Community
COMM 204-3 Entrepreneurship
FNST 217-3 Contemporary Challenges Facing Aboriginal Communities
GEOG 206-3 Social Geography
GEOG 209-3 Migration and Development

Public Administration
ECON 210-3 Introduction to Health Economics and Policy
ENVS 230-3 Introduction to Environmental Policy
NREM 209-3 The Practice of Conservation
POLS 255-3 Introduction to Law in Canada
SOCW 201-3 Introduction to Social Welfare

Governance
COMM 170-3 Fundamentals of Environmental, Social, and Governance Issues
ENVS 101-3 Introduction to Environmental Citizenship
HIST 257-3 Public Law in Canada
POLS 200-3 Canadian Government and Politics
POLS 257-3 Public Law in Canada

First Nations
FNST 200-3 Perspectives in First Nations Studies
FNST 249-4 Land and Indigenous Reconciliation Studio
or ENPL 208-4 Land and Indigenous Reconciliation Studio
GEOG 224-3 World Regions: Inuit Nunangat
INTS 240-3 Contemporary Circumpolar North
NORS 101-3 Introduction to the Circumpolar North

Methods
ECON 205-3 Statistics for Business and the Social Sciences
ENPL 105-3 Dynamics of Community Planning
ENPL 206-3 How to Shape the Future
FNST 200-3 Perspectives in First Nations Studies
FNST 203-3 Introduction to Traditional Ecological Knowledge
GEOG 204-3 Introduction to GIS
GEOG 205-3 Cartography and Geomatics

Economics
COMM 230-3 Organizational Behaviour
GEOG 202-3 Resources, Economies, and Sustainability
INTS 210-3 Globalizations
ORTM 200-3 Sustainable Outdoor Recreation and Tourism
ORTM 202-3 Ecotourism and Adventure Tourism

General
ANTH 102-3 Anthropology: A World of Discovery
COMM 240-3 Introduction to Marketing
ECON 220-3 Global Economic Shifts
GEOG 200-3 British Columbia: People and Places
GEOG 225-3 Global Environmental Change
ORTM 100-3 Foundations of Outdoor Recreation and Tourism

Upper-Division Requirements

ENPL 320-4 Land Use and Development Studio
GEOG 424-3 Northern Communities
POLS 332-3 Community Development
or GEOG 332-3 Community Development
POLS 403-3 Social and Health Policy and Administration

Select ONE course from each category below:

Community

ENPL 301-3	Sustainable Communities
ENPL 415-4	Sustainable and Inclusive Design Studio
ORTM 307-3	Land Relations and Communities in Recreation and Tourism
SOCW 437-3	Social Work with Groups and Communities
SOCW 456-3	Indigenous Wellness: Individuals, Families, and Communities
SOCW 457-3	Individual and Community Wellness for Indigenous Peoples

Public Administration

COMM 330-3	Human Resource Management
ENPL 304-4	Community Engagement and Inclusion Studio
ENPL 401-3	Environmental Law
NREM 306-3	Society, Policy and Administration
POLS 302-3	How Government Works
POLS 344-3	Society, Policy and Administration of Natural Resources
POLS 351-3	Local Services and Public Policy
POLS 360-3	Local Government Finance
SOCW 455-3	Indigenous Governance and Social Policy

Governance

ANTH 410-3	Theory of Nation and State
ENVS 326-3	Public Engagement for Sustainability
FNST 350-3	Law and Indigenous Peoples
GEOG 305-3	Political Ecology: Environmental Knowledge and Decision-Making
POLS 316-3	Municipal Government and Politics
POLS 320-3	Canadian Politics and Policy
POLS 333-3	Politics and Government of BC
POLS 350-3	Law and Municipal Government
POLS 353-3	Project Management in Local Government

First Nations

ANTH 404-3	Comparative Study of Indigenous Peoples of the World
ENPL 409-4	Indigenous Planning Studio
FNST 416-3	Indigenous Issues in International Perspective
GEOG 403-3	Indigenous Geographies of Climate Resilience
GEOG 426-3	Geographies of Culture, Rights and Power
HIST 303-3	British Columbia
HIST 390-3	History of Indigenous People of Canada
INTS 340-3	Changing Arctic: Human and Environment Systems
NREM 303-3	Aboriginal Perspectives on Land and Resource Management
POLS 415-3	Comparative Northern Development

Methods

ANTH 300-3	Qualitative Research Methods for Social and Medical Anthropology
ANTH 310-3	Practicing Anthropology
ANTH 421-(3-6)	Ethnographic Field Methods
ENPL 305-3	Environmental Impact Assessment
ENVS 339-3	Low-Carbon Transitions: Theory and Practice
FNST 300-3	Research Methods in First Nations Studies
GEOG 324-3	Community-Based Research

Economics

COMM 303-3	Introduction to International Business
ECON 305-3	Environmental Economics and Policy
ECON 307-3	Northern BC in the Global Economy
ECON 331-3	Forestry Economics
ECON 350-3	Managerial Economics
ENPL 404-3	Housing: From Concept to Construction
ENVS 431-3	Global Environmental Policy: Energy and Climate
GEOG 401-3	Tenure, Conflict, and Resource Geography
INTS 421-3	The Political Economy of Natural Resource Extraction
INTS 425-3	Sustainability Problem Solving
ORTM 300-3	Recreation and Tourism Impacts

General

COMM 332-3	Business and Professional Ethics
COMM 340-3	Marketing Communication
COMM 342-3	Services Marketing
COMM 346-3	Internet Marketing
ENVS 414-3	Environmental and Professional Ethics
FNST 451-3	Traditional Use Studies
or ANTH 451-3	Traditional Use Studies
FNST 498-(3-6)	Special Topics in First Nations Studies
GEOG 307-3	Changing Arctic: Human and Environmental Systems
GEOG 308-3	Health Geography
GEOG 416-3	Mountains
GEOG 420-3	Environmental Justice
HIST 360-3	An Introduction to Environmental History
POLS 327-3	Leadership and Ethics in Local Government

Areas of Specialization

It is possible for students to organize their course choices (areas and electives) to achieve an Area of Specialization of coursework. For the PACD major, completion of an Area of Specialization requires eight courses (24 credit hours) from one of the following:

- Local Public Administration
- Aboriginal Community Development
- Planning

Area of Specialization in Local Public Administration

Note: Students choosing this Area of Specialization should be aware that UNBC also offers a Local Government Administration Certificate through the Department of Political Science, as well as a First Nations Public

Administration Certificate through the Department of First Nations Studies.

Lower-Division course choices

COMM 100-3	Introduction to Canadian Business
COMM 230-3	Organizational Behaviour
POLS 255-3	Introduction to Law in Canada

Upper-Division course choices

POLS 316-3	Municipal Government and Politics
POLS 320-3	Canadian Politics and Policy
POLS 327-3	Leadership and Ethics in Local Government
POLS 333-3	Politics and Government of BC
POLS 350-3	Law and Municipal Government
POLS 351-3	Local Services and Public Policy
POLS 360-3	Local Government Finance
POLS 403-3	Social and Health Policy and Administration

Area of Specialization in Aboriginal Community Development

Lower-Division course choices

COMM 204-3	Entrepreneurship
FNST 200-3	Perspectives in First Nations Studies
FNST 203-3	Introduction to Traditional Ecological Knowledge
FNST 217-3	Contemporary Challenges Facing Aboriginal Communities
FNST 249-4	Land and Indigenous Reconciliation Studio
or ENPL 208-4	Land and Indigenous Reconciliation Studio

Upper-Division course choices

ANTH 404-3	Comparative Study of Indigenous Peoples of the World
ENPL 409-4	Indigenous Planning Studio
FNST 300-3	Research Methods in First Nations Studies
FNST 304-3	Indigenous Environmental Philosophy
FNST 350-3	Law and Indigenous Peoples
FNST 416-3	Indigenous Issues in International Perspective
FNST 451-3	Traditional Use Studies
FNST 498-(3-6)	Special Topics in First Nations Studies
GEOG 403-3	Indigenous Geographies of Climate Resilience
HIST 390-3	History of Indigenous People of Canada
NREM 303-3	Aboriginal Perspectives on Land and Resource Management
SOCW 455-3	Indigenous Governance and Social Policy
SOCW 457-3	Individual and Community Wellness for Indigenous Peoples

Area of Specialization in Planning

Note: The Area of Specialization in Planning does not lead to an accredited planning degree. The School of Planning and Sustainability offers a professional accredited Canadian Institute of Planner degree. Refer to the Bachelor of Planning calendar entry for further information.

Required Courses

ENPL 104-3	Planning for Transformation
ENPL 105-3	Dynamics of Community Planning
ENPL 301-3	Sustainable Communities
ENPL 304-4	Community Engagement and Inclusion Studio

Four of the following:

ENPL 206-3	How to Shape the Future
ENPL 208-4	Land and Indigenous Reconciliation Studio
ENPL 305-3	Environmental Impact Assessment
ENPL 320-4	Land Use and Development Studio
ENPL 401-3	Environmental Law
ENPL 404-3	Housing: From Concept to Construction
ENPL 409-4	Indigenous Planning Studio
ENVS 326-3	Public Engagement for Sustainability

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Geography (BSc Program)

Major in Geography

This degree focuses on geography as an earth science, with introductions to biology, chemistry, mathematics and physics, followed by upper-level courses in climatology, hydrology, geomorphology, soils and weathering, and geomatics. This combination enables the understanding of the interactions between the atmosphere, lithosphere, hydrosphere, and biosphere, aided by the use of statistical techniques, mapping, remote sensing, and geographic information systems. Courses develop applied field and technical skills for associated career paths.

Undergraduate students are required to take a minimum of 13 Geography courses (37 credit hours). Of these courses, a minimum of six must be upper division. Students are required to take a minimum of 24 credit hours of elective science courses, of which 15 credit hours must be upper division. Additional electives, as necessary, are required to ensure the completion of a minimum of 120 credit hours.

The minimum requirement for completion of a Bachelor of Science with a major in Geography is 120 credit hours.

Program Requirements

Lower-Division Requirement

100 Level

BIOL 104-3 Introductory Biology II
BIOL 124-1 Introductory Biology II Laboratory
CHEM 100-3 General Chemistry I
CHEM 101-3 General Chemistry II
CHEM 120-1 General Chemistry Lab I
CHEM 121-1 General Chemistry Lab II
GEOG 101-3 Planet Earth
GEOG 102-3 Earth from Above
GEOG 111-1 Earth and Environment
MATH 100-3 Calculus I
or MATH 152-3 Calculus for Non-majors
PHYS 100-4 Physics for Life Sciences I
or PHYS 110-4 Introductory Physics I: Mechanics

200 Level

ENSC 201-3 Weather and Climate
FSTY 205-3 Introduction to Soil Science
GEOG 200-3 British Columbia: People and Places
GEOG 204-3 Introduction to GIS
or GEOG 205-3 Cartography and Geomatics
GEOG 210-3 Introduction to Earth Science
GEOG 211-3 Natural Hazards
GEOG 250-3 Environmental and Geospatial Data Analysis
or ENSC 250-3 Environmental and Geospatial Data Analysis
STAT 240-3 Basic Statistics

Upper-Division Requirement

300 Level

GEOG 300-3 Intermediate GIS
GEOG 310-3 Hydrology
GEOG 311-3 Watershed Geomorphology
GEOG 315-3 Earth's Critical Zone
GEOG 357-3 Introduction to Remote Sensing

Two of the following:

ENSC 307-3 Introduction to Geochemistry
ENSC 312-3 Biometeorology
ENSC 325-3 Soil Physical Processes and the Environment
or FSTY 415-3 Forest Soils
or FSTY 425-3 Soil Formation and Classification
GEOG 333-3 Geography Field School

400 Level

Three of the following:

GEOG 405-3 Fluvial Geomorphology
GEOG 411-3 Glacial Geology
GEOG 413-3 Advanced GIS
GEOG 416-3 Mountains
GEOG 430-(3-6) Undergraduate Thesis
GEOG 450-3 Advanced Geospatial Analysis
GEOG 457-3 Advanced Remote Sensing
GEOG 498-(1-3) Special Topics
GEOG 499-(3-6) Independent Studies

Elective Requirement

Science Electives

A minimum of 9 credit hours of science electives at any level and 15 credit hours of science electives at the 300 or 400 level.

Elective Science Courses

All courses allowed in Astronomy (ASTR), Biology (BIOL), Chemistry (CHEM), Civil Engineering (CIVE), Computer Science (CPSC), Engineering (ENGR), Environmental Science (ENSC), Environmental Engineering (ENVE), Forestry (FSTY), Health Sciences (HHSC), Mathematics (MATH), Natural Resources Management (NREM), Physics (PHYS), and Statistics (STAT)

Anthropology

The following courses are allowed:

ANTH 200-3 Biological Anthropology
ANTH 205-3 Introduction to Archaeology

ANTH 216-3	Anthropology of Food, Drink and Health
ANTH 301-3	Archaeological Lab Methods
ANTH 312-3	Human Adaptability and Environmental Stress

Geography
The following courses are allowed:

GEOG 204-3	Introduction to GIS
GEOG 205-3	Cartography and Geomatics
GEOG 213-3	*Sii Aks* Volcano
GEOG 250-3	Environmental and Geospatial Data Analysis
GEOG 333-3	Geography Field School
GEOG 405-3	Fluvial Geomorphology
GEOG 411-3	Glacial Geology
GEOG 413-3	Advanced GIS
GEOG 416-3	Mountains
GEOG 450-3	Advanced Geospatial Analysis
GEOG 457-3	Advanced Remote Sensing

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

BSc Honours – Physical Geography

A BSc Honours in Physical Geography provides students with the opportunity to complete independent research. It is encouraged for students who are considering a postgraduate degree. In addition to the BSc Physical Geography degree requirements, Honours students must complete an undergraduate thesis chosen from GEOG 430-6 (Undergraduate Thesis), or NRES 430-6 (Undergraduate Thesis). The undergraduate thesis must be conducted under the supervision of a faculty member.

The minimum requirement for a BSc Honours degree in Geography is 126 credit hours. Students are responsible to find their own undergraduate thesis research supervisor. However, faculty members are under no obligation to supervise Honours students. To be admitted to the Honours degree program, students must have completed 60 credit hours and obtained a minimum Cumulative GPA of 3.33. Attaining the minimum requirement does not guarantee admission into the Honours program, which is at the discretion of the Geography Program (contact the Program Chair for details). Maintenance of a Cumulative GPA of 3.33 is required to remain in the Honours program.

Areas of Specialization

In order to increase the breadth and utility of their degree, and to demonstrate an interest in a particular sub-discipline, students are encouraged to complete an Area of Specialization (normally 12 credit hours) during their degree, which can be chosen from the following list:

1. Air
2. Water
3. Earth
4. Soil Science
5. Ecogeography
6. Geospatial Science

There is no limit to the number of courses taken within a specialization that may be used to fulfill both common Geography BSc requirements and specialization requirements. Students who are considering an Area of Specialization are strongly encouraged to talk to an advisor early in their second year in order to ensure that the pre-requisites are met for upper-division courses.

Air

A specialization in Air provides a deeper understanding of atmospheric processes near Earth's surface that govern the development of weather systems, regulate climate, and are implicit in environmental challenges such as climate change and air pollution.

Choose four of the following:

ENSC 312-3	Biometeorology
ENSC 408-3	Storms
ENSC 412-3	Air Pollution
ENSC 425-3	Climate Change and Global Warming
ENSC 450-3	Environmental and Geophysical Data Analysis
ENSC 454-3	Snow and Ice

Water

Water and water resources represent an important component of physical geography. The Water specialization provides students with courses that develop key competencies in water science.

Choose four of the following:

BIOL 302-3	Limnology
ENSC 202-3	Introduction to Aquatic Systems
ENSC 450-3	Environmental and Geophysical Data Analysis
ENSC 454-3	Snow and Ice
ENVE 351-4	Groundwater Flow and Contaminant Transport
GEOG 405-3	Fluvial Geomorphology

Earth

The Earth specialization provides foundational knowledge about the Earth's materials, processes and resources, and examines key challenges such as energy and resource availability, geological hazards, and environmental sustainability.

Choose four of the following:

ENSC 307-3	Introduction to Geochemistry
ENSC 325-3	Soil Physical Processes and the Environment
GEOG 213-3	*Sii Aks* Volcano
GEOG 333-3	Geography Field School
GEOG 405-3	Fluvial Geomorphology
GEOG 411-3	Glacial Geology
GEOG 416-3	Mountains

Soil Science

The Soil Science specialization focuses on the physical, chemical, and biological processes which regulate the formation, maintenance, and restoration of the Earth's range of soils.

Choose four of the following:

ENSC 325-3	Soil Physical Processes and the Environment
ENSC 404-3	Waste Management
ENSC 452-3	Reclamation and Remediation of Disturbed Environments
ENVE 351-4	Groundwater Flow and Contaminant Transport
FSTY 415-3	Forest Soils
FSTY 425-3	Soil Formation and Classification
FSTY 435-3	Soil Biological Processes
GEOG 411-3	Glacial Geology

Ecogeography

The Ecogeography specialization combines elements of physical geography with a selection of theory and methods-based ecology courses.

BIOL 201-3	Ecology
BIOL 325-3	Ecological Analyses

Choose two of the following:

BIOL 333-3	Field School
BIOL 404-3	Plant Ecology
BIOL 410-3	Population and Community Ecology
BIOL 411-3	Conservation Biology

Geospatial Science

A specialization in Geospatial Science provides students with theoretical and practical skills necessary to analyze and visualize large geospatial datasets, and to solve geophysical problems with code-based solutions.

Choose four of the following:

ENSC 450-3	Environmental and Geophysical Data Analysis
GEOG 413-3	Advanced GIS
GEOG 450-3	Advanced Geospatial Analysis
GEOG 457-3	Advanced Remote Sensing

Minor in Earth Sciences

The Earth Sciences minor provides depth in areas of earth science that support natural resource management. Students are required to complete 18 credit hours (12 of which must be at the 300- or 400-level) chosen from the following lists, with at least one course from each of the first three groups. Students may use a maximum of two upper-division courses (6 credit hours) used to fulfill the requirements for a major or another minor. Students must ensure that all prerequisites are fulfilled prior to registering in any course.

Note: Some upper-division courses may be taught in alternate years; students should consider this when planning their course sequences.

Hydrology

ENSC 202-3	Introduction to Aquatic Systems
ENSC 454-3	Snow and Ice
ENVE 351-4	Groundwater Flow and Contaminant Transport
GEOG 310-3	Hydrology

Geomorphology

GEOG 311-3	Watershed Geomorphology
GEOG 405-3	Fluvial Geomorphology
GEOG 411-3	Glacial Geology
GEOG 416-3	Mountains

Soil Science

ENSC 325-3	Soil Physical Processes and the Environment
FSTY 415-3	Forest Soils
FSTY 425-3	Soil Formation and Classification
FSTY 435-3	Soil Biological Processes

Other

ENSC 307-3	Introduction to Geochemistry
ENSC 425-3	Climate Change and Global Warming
GEOG 315-3	Earth's Critical Zone
GEOG 357-3	Introduction to Remote Sensing
GEOG 413-3	Advanced GIS
GEOG 457-3	Advanced Remote Sensing

Minor in Geomorphology

A minor in Geomorphology is appropriate for students who wish to obtain a level of competence in the history of Earth's landscapes, surface processes, and environmental change. The minor consists of key courses which, when taken together, provide a degree of proficiency in a field that is actively sought after by environmental consulting firms and government agencies.

A maximum of two courses (6 credit hours) used to fulfill program requirements for a major or another minor

may also be used to fulfill requirements for a minor in Geomorphology.

The minimum requirement for the completion of the minor in Geomorphology is 18 credit hours.

Requirements

GEOG 210-3 Introduction to Earth Science
GEOG 311-3 Watershed Geomorphology

Four of the following:
- FSTY 205-3 Introduction to Soil Science
  - or FSTY 425-3 Soil Formation and Classification
- GEOG 300-3 Intermediate GIS
  - or GEOG 357-3 Introduction to Remote Sensing
  - or GEOG 413-3 Advanced GIS
- GEOG 310-3 Hydrology
- GEOG 315-3 Earth's Critical Zone
- GEOG 405-3 Fluvial Geomorphology
- GEOG 411-3 Glacial Geology

Minor in GIS (Geographic Information Systems)

The aim of the minor in GIS (Geographic Information Systems) is to provide a high level of competence in a combination of courses in GIS and Computer Science technologies. Students with a minor in GIS gain experience in geographic data processing and analysis and are well-positioned for GIS-related careers.

Four required Geography courses and one Computer Science course form the core of the minor. Two additional courses can be selected from a range of options. CPSC 110-3 (Introduction to Computer Systems and Programming) and CPSC 344-3 (Data Communications and Networking) are aimed at those not majoring in Computer Science.

A maximum of two courses (6 credit hours) at or above the 200 level used to fulfill program requirements for a major or another minor may also be used to fulfill requirements for a minor in GIS.

The minimum requirement for the completion of the minor in GIS is 21 credit hours, of which at least 12 must be upper-division credit hours. Students must ensure that all prerequisites are fulfilled prior to taking courses at the 300 and 400 levels.

Requirements

CPSC 100-4 Computer Programming I
- or CPSC 110-3 Introduction to Computer Systems and Programming
- or GEOG 250-3 Environmental and Geospatial Data Analysis

GEOG 204-3 Introduction to GIS
GEOG 205-3 Cartography and Geomatics
- or CPSC 224-3 Introduction to Database Systems

GEOG 300-3 Intermediate GIS
GEOG 357-3 Introduction to Remote Sensing

Two courses from the following list:
- CPSC 344-3 Data Communications and Networking
  - or COMM 353-3 Business Data Communications and Networking
  - or CPSC 444-3 Computer Networks
- GEOG 413-3 Advanced GIS
- GEOG 450-3 Advanced Geospatial Analysis
- GEOG 457-3 Advanced Remote Sensing

Minor in Physical Geography

A minor in Physical Geography is appropriate for students who seek a broad-based exposure to earth and environmental sciences. Prospective teachers, human geographers, and government agency and environmental consulting employees find the study of Earth's processes and the natural environment beneficial to their future careers. The minor consists of a group of courses which, when taken together, provide a degree of proficiency in Physical Geography.

A maximum of two courses (6 credit hours) used to fulfill program requirements for a major or another minor may also be used to fulfill requirements for a minor in Physical Geography.

The minimum requirement for the completion of the minor in Physical Geography is 18 credit hours.

Requirements

ENSC 201-3 Weather and Climate
FSTY 205-3 Introduction to Soil Science
GEOG 210-3 Introduction to Earth Science

Three of the following:
- ENSC 312-3 Biometeorology
  - or ENSC 408-3 Storms
- GEOG 300-3 Intermediate GIS
  - or GEOG 357-3 Introduction to Remote Sensing
  - or GEOG 413-3 Advanced GIS
- GEOG 310-3 Hydrology
  - or GEOG 405-3 Fluvial Geomorphology
- GEOG 311-3 Watershed Geomorphology
- GEOG 315-3 Earth's Critical Zone
- GEOG 411-3 Glacial Geology

Minor in Human Geography

The minor in Human Geography is designed to provide students with the following:

1. an introduction to the basics of Human Geography;
2. a well-rounded introduction to several of the key sub-fields of Human Geography; and
3. the chance to explore at least one facet of Human Geography of special interest to the student at the 400 level.

A maximum of two courses (6 credit hours) at or above the 200 level used to fulfill program requirements for a major or another minor may also be used to fulfill requirements for a minor in Human Geography.

The minimum requirement for completion of a minor in Human Geography is 18 credit hours, including 12 upper-division credit hours.

Requirements

Two of the following:

GEOG 101-3	Planet Earth
GEOG 102-3	Earth from Above
GEOG 200-3	British Columbia: People and Places
GEOG 202-3	Resources, Economies, and Sustainability
GEOG 203-3	Canada: Places, Cultures, and Identities
GEOG 204-3	Introduction to GIS
GEOG 206-3	Social Geography
GEOG 209-3	Migration and Development
GEOG 211-3	Natural Hazards
GEOG 220-3	World Regions: Latin America and the Caribbean
GEOG 224-3	World Regions: Inuit Nunangat
GEOG 225-3	Global Environmental Change
GEOG 298-3	Special Topics

Three of the following:

GEOG 305-3	Political Ecology: Environmental Knowledge and Decision-Making
GEOG 306-3	Critical Development Geographies
GEOG 307-3	Changing Arctic: Human and Environmental Systems
GEOG 308-3	Health Geography
GEOG 324-3	Community-Based Research
GEOG 332-3	Community Development
GEOG 333-3	Geography Field School

One of the following:

GEOG 401-3	Tenure, Conflict, and Resource Geography
GEOG 403-3	Indigenous Geographies of Climate Resilience
GEOG 416-3	Mountains
GEOG 420-3	Environmental Justice
GEOG 424-3	Northern Communities
GEOG 426-3	Geographies of Culture, Rights and Power

Global and International Studies (BA Program)

Paul Bowles, Professor Emeritus

Jacqueline Holler, Professor and Chair
Heather Smith, Professor
Agnieszka Pawlowska-Mainville, Associate Professor
Gabrielle Daoust, Assistant Professor
Luna KC, Assistant Professor
Ami Hagiwara, Senior Instructor

Website: www.unbc.ca/international-studies

Our world is rapidly globalizing, bringing exciting opportunities and daunting challenges. Global and International Studies, hereafter referred to as Global Studies, seeks to tackle this brave new world in all its complexity. We train students to be global citizens, global thinkers, and global problem-solvers, and prepare them for global careers in academia, business, government, and the non-profit sector, among others. A unique feature of our program is that we train students in foreign languages.

Global Studies is a holistic and timely field of study whose scope is the whole Earth and whose eyes are on the future, aiding a global transformation toward healthy, just, peaceful, prosperous, and sustainable societies for all. The focus of our program is on the 'big picture,' international to global. Using multi-disciplinary, multi-perspective, local-to-global, and critical ways of thinking, students emerge from our program with knowledge of the macro-level structures, actors, processes, ideas, issues, and events shaping our planet and its societies.

Language Study in the Global and International Studies Department
Global and International Studies is the home of global language learning at UNBC. Join us for regularly scheduled courses in French, Japanese, and Spanish, and for beginner programming in other languages. Students may also minor in Japanese language and culture.

Introductory language courses offered by the Department of Global and International Studies are not designed for heritage speakers (speakers who have learned a given language at home or during childhood) or for students who have prior knowledge of the language in question. To ensure proper placement, such students must consult with the instructor, complete a language skill evaluation, and receive the permission of the instructor before registering for a language course.

French

INTS 171-3	Beginning French I
INTS 172-3	Beginning French II
INTS 271-3	Intermediate French I
INTS 272-3	Intermediate French II

Japanese

INTS 121-3	Beginning Japanese I
INTS 122-3	Beginning Japanese II
INTS 221-3	Intermediate Japanese I
INTS 222-3	Intermediate Japanese II
INTS 321-3	Japanese Conversation and Composition I
INTS 322-3	Japanese Conversation and Composition II

Spanish

INTS 181-3	Beginning Spanish I
INTS 182-3	Beginning Spanish II
INTS 281-3	Intermediate Spanish I

Other

INTS 151-3	Beginning International Language I

Major in Global and International Studies

The Global and International Studies major requires 57 credit hours of Global and International Studies coursework of which 21 credit hours are at the lower level, 30 credit hours at the upper level, and 6 credit hours from the Cultures and Regions requirement at either second- or third-year levels.

The minimum requirement for completion of a Bachelor of Arts with a major in Global and International Studies is 120 credit hours.

Program Requirements

Lower-Division Requirement

100 and 200 Level

ANTH 213-3	Peoples and Cultures
HIST 240-3	The Global Age of Expansion
INTS 100-3	Introduction to Global Studies
INTS 210-3	Globalizations
INTS 211-3	Contemporary Economic Issues
INTS 225-3	Global Environmental Change
POLS 202-3	Canada in Comparative Perspective

Cultures and Regions Requirement

Two of the following:

GEOG 220-3	World Regions: Latin America and the Caribbean

HIST 281-3	Republican Latin America
INTS 208-3	Japanese Culture and Society
INTS 234-3	Introduction to Islamic Civilizations
INTS 240-3	Contemporary Circumpolar North
INTS 311-3	Russian Politics and Society
INTS 312-3	Chinese Politics and Society
INTS 314-3	European Politics and Society
INTS 315-3	American Politics and Society
INTS 328-3	African Politics and Society
INTS 340-3	Changing Arctic: Human and Environment Systems

Or two language courses (6 credit hours) of any one language

Upper-Division Requirement

300 and 400 Level

INTS Upper-Division Courses (24 credit hours)

INTS 320-3	The Global and the Everyday
INTS 490-3	Global Capstone

Any six additional INTS upper-division courses (18 credit hours) not including any 300-level courses used to fulfil the Cultures and Regions Requirement.

No more than 6 credit hours may be drawn from INTS 423-(3-9).

Non-INTS Upper-Division Courses (6 credit hours)
Students must take two courses (6 credit hours) from the following disciplines: Anthropology, Economics, Environmental Studies, First Nations Studies, Geography, History, Northern Studies, Natural Resources and Environmental Management, Political Science, and Women's Studies.

Note: Some courses have prerequisites that are not met by INTS lower-division required courses. Students must ensure that all prerequisites are fulfilled prior to registering in any course.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in Economics and Global and International Studies (BA)

See calendar entry under Economics

Joint Major in Global and International Studies and Political Science (BA)

The minimum requirement for completion of a Bachelor of Arts with a joint major in Global and International Studies and Political Science is 120 credit hours.

Lower-Division Requirement

INTS 100-3	Introduction to Global Studies
INTS 210-3	Globalizations
POLS 100-3	Contemporary Political Issues
POLS 200-3	Canadian Government and Politics
POLS 202-3	Canada in Comparative Perspective
POLS 230-3	International Relations
POLS 270-3	Political Philosophy: Antiquity to Early Modernity

Upper-Division Requirement

INTS 320-3	The Global and the Everyday
INTS 490-3	Global Capstone
POLS 303-3	Democracy and Democratization
POLS 320-3	Canadian Politics and Policy
POLS 370-3	Political Philosophy: Early Modernity to Post-Modernity

One of the following:

POLS 305-3	American Politics and Society
POLS 309-3	Chinese Politics and Society
POLS 311-3	Russian Politics and Society
POLS 314-3	European Politics and Society
POLS 315-3	Contemporary Issues in the Circumpolar World
POLS 328-3	African Politics and Society
POLS 380-3	Law and Indigenous Peoples

One of the following:

POLS 414-3	Comparative Federalism
POLS 415-3	Comparative Northern Development
POLS 416-3	Gender and Politics

An additional 9 credit hours of upper division Global and International Studies (INTS) courses.

An additional 6 credit hours of 400-level Political Science (POLS) courses.

An additional 6 credit hours of 300- or 400-level Global and International Studies (INTS) or Political Science (POLS) courses.

Language and Regional Studies Requirement

One of the following:

GEOG 220-3	World Regions: Latin America and the Caribbean
HIST 281-3	Republican Latin America
INTS 208-3	Japanese Culture and Society
INTS 240-3	Contemporary Circumpolar North
INTS 328-3	African Politics and Society

A minimum of 6 credit hours of Global and International Studies (INTS) language courses in one language.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Minor in Global and International Studies

Students must complete a total of 21 credit hours of Global and International Studies coursework, of which 6 credit hours are INTS 100-3 and INTS 210-3.

Students must complete:

INTS 100-3	Introduction to Global Studies
INTS 210-3	Globalizations

Three additional credit hours of lower-level Global and International Studies coursework.

Twelve additional credit hours of upper-division Global and International Studies (INTS) courses.

A maximum of two courses (6 credit hours) used to fulfill the requirements for a major (or another minor) may also be used to fulfill the requirements for the minor in Global and International Studies.

Minor in Global Sustainability

Students must complete a total of 21 credit hours of Global and International Studies coursework:

INTS 210-3	Globalizations
INTS 211-3	Contemporary Economic Issues
INTS 225-3	Global Environmental Change
INTS 304-3	International Development
INTS 340-3	Changing Arctic: Human and Environment Systems
INTS 421-3	The Political Economy of Natural Resource Extraction
INTS 425-3	Sustainability Problem Solving

Minor in Japanese Language and Culture

Students must complete a total of 21 credit hours of Global and International Studies coursework:

INTS 121-3	Beginning Japanese I
INTS 122-3	Beginning Japanese II
INTS 208-3	Japanese Culture and Society
INTS 221-3	Intermediate Japanese I
INTS 222-3	Intermediate Japanese II
INTS 321-3	Japanese Conversation and Composition I
INTS 322-3	Japanese Conversation and Composition II

Health Sciences (BHSc Program)

Website: www.unbc.ca/health-sciences/undergraduate

The Bachelor of Health Sciences degree is a four-year program consisting of a range of courses that relate directly to the science of health, in the recognition that health is a complex entity defying a simple explanation or a single disciplinary perspective. The courses identified within the School of Health Sciences offer learning opportunities from a variety of disciplines, including the life sciences, social sciences, behavioural sciences, and ethics and law, to enable students to develop a body of knowledge and understanding relating to the dimensions of health. Some of these courses are considered to be 'core' and therefore central to the basic understandings of health, while others offer the student opportunities to learn about a specific health perspective that is focused on one of three Majors:

i. Biomedical Studies
ii. Community and Population Health-Aboriginal and Rural Health
iii. Community and Population Health-Environmental Health

Graduation from either of the Community and Population Health Majors enables students to embark on careers or graduate programs related to health care management, administration, information systems or public health.

Students pursuing the Biomedical Studies Major are required to complete a set of courses that enables them to be prepared for application to professional programs, such as medicine, nursing, pharmacy, occupational therapy, dentistry, speech pathology or physiotherapy. This major provides a foundational, multidisciplinary knowledge base that is focused on the natural and physical sciences, and social sciences, and includes population health and research methodology. Students interested in other fields requiring extensive biomedical laboratory skills may enroll in the degree in Biochemistry and Molecular Biology (BCMB).

All students graduating with the Bachelor of Health Sciences degree will have developed critical analytical skills, life-long learning skills, and the ability to work from the evidence of best practice.

General Requirements

To be awarded the BHSc degree, students are required to complete 122 credit hours of University-level courses.

Students enrolling in Health Sciences courses with prerequisites are required to have completed all prerequisite courses for those courses with a C or better, or have permission to enroll from the School Chair.

To change BHSc majors, students must apply through Student Advising.

Admission Requirements

Admission to the Bachelor of Health Sciences program is based on academic qualifications and available space. At the time of application, students must specify whether they intend to pursue either the Biomedical Studies Major or one of the two Community and Population Health Majors. Priority admission is given to students who meet admission criteria and apply by the deadline of February 1. Applications received after the deadline may be reviewed based on available space in the program. Self-identified Aboriginal applicants who meet or exceed the minimum requirements for admission to the program are given priority for up to twenty percent (20%) of the first-year seats for the Bachelor of Health Sciences program.

Applicants from British Columbia and Yukon secondary schools must:
- Meet the basic UNBC admission requirements, and
- Have completed Mathematics 12 or Pre-calculus 12, Chemistry 11 or Chemistry 12, Biology 12, English 12, and other approved Grade 12 courses as specified in the Admissions section of the Undergraduate Calendar, with a minimum of 70% in each course.

Other Applicants must:
- Meet UNBC admission requirements, and
- Have completed the equivalent of Mathematics 12 or Pre-calculus 12, Chemistry 11 or Chemistry 12, Biology 12, English 12, and other approved Grade 12 courses as specified in the Admissions sections of the Undergraduate Calendar, with a minimum of 70% in each course.

Students interested in specializing in the Biomedical Studies Major are strongly encouraged to take Pre-calculus 12 and Chemistry 12 before entering the Program.

Major in Biomedical Studies

Students pursuing a major in Biomedical Studies are required to complete the following 98 credit hours of courses. It is recommended that students take the following courses in the year of study indicated. Students must take an additional 24 elective credit hours of which at least 9 credit hours must be upper-division courses from any discipline for degree completion.

1st year - 34 credit hours

BIOL 103-3	Introductory Biology I
BIOL 104-3	Introductory Biology II
BIOL 123-1	Introductory Biology I Laboratory

BIOL 124-1 Introductory Biology II Laboratory
CHEM 100-3 General Chemistry I
CHEM 101-3 General Chemistry II
CHEM 120-1 General Chemistry Lab I
CHEM 121-1 General Chemistry Lab II
FNST 100-3 The Aboriginal Peoples of Canada
HHSC 101-3 Introduction to Health Sciences I: Issues and Controversies
HHSC 103-3 Health Care Systems
HHSC 105-3 Functional Anatomy

Two of the following:
ENGL 100-3 Introduction to Literary Structures
ENGL 104-3 Introduction to Film
ENGL 170-3 Writing and Communication Skills

2nd year - 32 credit hours
BIOL 203-3 Microbiology
BIOL 210-3 Genetics
CHEM 201-3 Organic Chemistry I
CHEM 203-3 Organic Chemistry II
CHEM 204-3 Introductory Biochemistry
CHEM 250-1 Organic Chemistry Lab I
CHEM 251-1 Organic Chemistry Lab II
HHSC 201-3 Ethics and Law in Health Care
HHSC 311-3 Nutrition
PSYC 101-3 Introduction to Psychology I
PSYC 102-3 Introduction to Psychology II
STAT 240-3 Basic Statistics
or ECON 205-3 Statistics for Business and the Social Sciences

3rd year - 23 credit hours
BCMB 306-3 Intermediary Metabolism
BIOL 311-3 Cell and Molecular Biology
FNST 302-3 First Nations Health and Healing
HHSC 305-3 Human Physiology I
HHSC 306-3 Human Physiology II
HHSC 325-1 Human Physiology I Lab
HHSC 326-1 Human Physiology II Lab
HHSC 351-3 Research Design and Methods for Health Sciences
PSYC 309-3 Introduction to Health Psychology

4th year - 9 credit hours
HHSC 401-3 Principles of Epidemiology
HHSC 445-3 Health and Human Development
HHSC 471-3 Health and Chronic Disease Management

Note: Students intending to apply to professional health degree programs are encouraged to take the following courses as electives: PHYS 110-4, PHYS 111-4, MATH 100-3 and MATH 101-3.

Major in Community and Population Health – Aboriginal and Rural Health

Students pursuing a major in Community and Population Health - Aboriginal and Rural Health are required to complete the following 97 credit hours. It is recommended that students take the following courses in the year of study indicated:

1st year - 26 credit hours
BIOL 103-3 Introductory Biology I
BIOL 104-3 Introductory Biology II
BIOL 123-1 Introductory Biology I Laboratory
BIOL 124-1 Introductory Biology II Laboratory
CHEM 100-3 General Chemistry I
FNST 100-3 The Aboriginal Peoples of Canada
HHSC 101-3 Introduction to Health Sciences I: Issues and Controversies
HHSC 103-3 Health Care Systems
HHSC 105-3 Functional Anatomy

One of the following:
ENGL 100-3 Introduction to Literary Structures
ENGL 104-3 Introduction to Film
ENGL 170-3 Writing and Communication Skills

2nd year - 24 credit hours
BIOL 203-3 Microbiology
ECON 210-3 Introduction to Health Economics and Policy
or GEOG 202-3 Resources, Economies, and Sustainability
HHSC 102-3 Introduction to Health Sciences II: Rural and Aboriginal Issues
HHSC 201-3 Ethics and Law in Health Care
HHSC 311-3 Nutrition
PSYC 101-3 Introduction to Psychology I
PSYC 102-3 Introduction to Psychology II
STAT 240-3 Basic Statistics
or ECON 205-3 Statistics for Business and the Social Sciences

3rd year - 23 credit hours
ENPL 313-3 Rural Community Economic Development (CED)
FNST 302-3 First Nations Health and Healing
FNST 303-3 First Nations Religion and Philosophy
or FNST 304-3 Indigenous Environmental Philosophy
HHSC 305-3 Human Physiology I
HHSC 306-3 Human Physiology II
HHSC 325-1 Human Physiology I Lab
HHSC 326-1 Human Physiology II Lab
HHSC 351-3 Research Design and Methods for Health Sciences
PSYC 309-3 Introduction to Health Psychology

4th year - 18 credit hours

HHSC 401-3	Principles of Epidemiology
HHSC 421-3	Medical Geography
HHSC 445-3	Health and Human Development
HHSC 471-3	Health and Chronic Disease Management
HHSC 473-3	Health Promotion
SOCW 444-3	Social Work Critical Issues in Aging

Students must take an additional 6 credit hours from the following list, of which at least 3 credit hours must be upper-division courses. Students must ensure that all prerequisites are fulfilled prior to registering in any course.

ANTH 201-3	Medical Anthropology
ANTH 206-3	Indigenous Ethnography in Northern British Columbia
ECON 410-3	Health Economics
FNST 249-4	Land and Indigenous Reconciliation Studio
FNST 305-3	Seminar in First Nations Studies
POLS 403-3	Social and Health Policy and Administration
SOCW 440-3	Social Work in Mental Health
SOCW 441-3	Social Work and Substance Use
SOCW 443-3	Social Work and Health Care

Major in Community and Population Health – Environmental Health

Students pursuing a major in Community and Population Health - Environmental Health are required to complete the following 97 credit hours. It is recommended that students take the following courses in the year of study indicated:

1st year - 26 credit hours

BIOL 103-3	Introductory Biology I
BIOL 104-3	Introductory Biology II
BIOL 123-1	Introductory Biology I Laboratory
BIOL 124-1	Introductory Biology II Laboratory
CHEM 100-3	General Chemistry I
FNST 100-3	The Aboriginal Peoples of Canada
HHSC 101-3	Introduction to Health Sciences I: Issues and Controversies
HHSC 103-3	Health Care Systems
HHSC 105-3	Functional Anatomy

One of the following:

ENGL 100-3	Introduction to Literary Structures
ENGL 104-3	Introduction to Film
ENGL 170-3	Writing and Communication Skills

2nd year - 27 credit hours

BIOL 203-3	Microbiology
ECON 210-3	Introduction to Health Economics and Policy
or GEOG 202-3	Resources, Economies, and Sustainability
ENPL 205-3	Environment and Society
HHSC 102-3	Introduction to Health Sciences II: Rural and Aboriginal Issues
HHSC 201-3	Ethics and Law in Health Care
HHSC 311-3	Nutrition
PSYC 101-3	Introduction to Psychology I
PSYC 102-3	Introduction to Psychology II
STAT 240-3	Basic Statistics
or ECON 205-3	Statistics for Business and the Social Sciences

3rd year - 20 credit hours

ENSC 308-3	Northern Contaminated Environments
FNST 302-3	First Nations Health and Healing
HHSC 305-3	Human Physiology I
HHSC 306-3	Human Physiology II
HHSC 325-1	Human Physiology I Lab
HHSC 326-1	Human Physiology II Lab
HHSC 351-3	Research Design and Methods for Health Sciences
PSYC 309-3	Introduction to Health Psychology

4th year - 18 credit hours

HHSC 401-3	Principles of Epidemiology
HHSC 421-3	Medical Geography
HHSC 445-3	Health and Human Development
HHSC 471-3	Health and Chronic Disease Management
HHSC 473-3	Health Promotion
SOCW 444-3	Social Work Critical Issues in Aging

Students must take an additional 6 credit hours from the following list. Students must ensure that all prerequisites are fulfilled prior to registering in any course.

ECON 410-3	Health Economics
ENPL 208-4	Land and Indigenous Reconciliation Studio
ENPL 304-4	Community Engagement and Inclusion Studio
HIST 360-3	An Introduction to Environmental History
NREM 306-3	Society, Policy and Administration
or POLS 344-3	Society, Policy and Administration of Natural Resources
POLS 403-3	Social and Health Policy and Administration

Electives and Academic Breadth for all BHSc Majors

Elective credit hours must be taken as necessary to ensure completion of a minimum 122 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Bachelor of Health Sciences Honours (BHSc Honours)

Entry to the Honours Program takes place after the end of the third year (i.e., upon completion of 90 credit hours) and requires a minimum Cumulative GPA of 3.33 over the most recent 30 credit hours or permission of the School Chair. Consultation with Student Advising is highly recommended before applying. Attaining the minimum requirement does not guarantee entry to the Honours Program, which is at the discretion of the School Chair. Subsequent to entry and to remain in the Honours Program, students must maintain a minimum Semester GPA of 3.33 in each semester. All Honours students complete a thesis project (HHSC 490-6 Honours Thesis) under the direct supervision of a faculty member. Students are responsible to find their own undergraduate thesis research supervisor. Faculty members are under no obligation to supervise Honours students.

To be awarded the BHSc Honours degree, students must complete all requirements for the BHSc in their major of choice and the following 9 Honours credit hours:

HHSC 490-6	Honours Thesis*
HHSC 497-3	Senior Seminar

*Students must achieve a minimum grade of B (3.0) in HHSC 490-6 to be granted the Honours designation.

The minimum requirement for completion of a BHSc Honours is 131 credit hours.

All honours thesis research must comply with the Research Ethics Board requirements and is carried out at the discretion of the School of Health Sciences.

History (BA Program)

Theodore Binnema, Professor Emeritus
Charles Jago, Professor Emeritus
Gordon Martel, Professor Emeritus
William Morrison, Professor Emeritus
Jonathan Swainger, Professor Emeritus

Dana Wessell Lightfoot, Professor and Chair
Jacqueline Holler, Professor
Barrie Blatchford, Assistant Professor
Sara Farhan, Assistant Professor
Max Hamon, Assistant Professor

Website: www.unbc.ca/history

Tracing the origins of their discipline to the Ancient Greek scholar Herodotus (fifth century B.C.E.), historians examine the records of the human past, with the goal of understanding change over time. We are particularly interested in establishing cause and effect in the patterns of how society, politics, economies, culture, identity, and thought developed. Traditionally, historians have examined prominent individuals or critical events in politics, warfare, diplomacy, economics and intellectual activity. But in recent decades, the scope of historical study has expanded to encompass a wide range of phenomena and a broad spectrum of society. Women's roles in history, the daily life of ordinary men and women in the past, and the impact of imperialism and colonialism are just a few of the topics that have come under intense historical scrutiny in recent years. Of particular interest to the current generation of historians are the relationship of the individual to society; encounters between diverse cultures; the dynamics of class, race, and gender; and the expression of power and authority (political, social, or cultural).

The study of history has direct relevance on the present. It provides an enlightening perspective on the cultures and societies of the past and on how the ideals, institutions, and issues of today arose and evolved over time. The discipline of History also requires intellectual rigour, and cultivates critical thinking, creative analysis, and both oral and written communication skills. History majors are highly sought after in fields such as law, education, journalism, business, government service, and "public history" (i.e., museums, historical sites, and archives). A History major is also an ideal foundation for graduate study in the Humanities and Social Sciences.

Major in History

A degree in History requires students to complete 54 credit hours of History courses, at least 30 credit hours of which must be upper-division courses.

The minimum requirement for completion of a Bachelor of Arts with a major in History is 120 credit hours.

Program Requirements

Lower-Division Requirement

100 and 200 Level

HIST 190-3	World History to 1550
HIST 191-3	World History since 1550
HIST 200-3	Historical Methodology

Nine additional credit hours in 200-level History courses.

Upper-Division Requirement

300 and 400 Level

HIST 300-3	Historiography: The Nature of the Historical Discipline

Eighteen additional credit hours of History at the 300 level. Nine credit hours of History at the 400 level.

Subject Requirement

Six additional credit hours of History at any level to ensure completion of 54 credit hours of History in total.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

BA Honours – History

The BA Honours - History provides a higher level of training and specialization for students planning to proceed to postgraduate work or professional schools. The program of study is offered to students majoring in History who have completed their first 60 credit hours.

The minimum requirement for completion of a BA Honours - History is 120 credit hours.

In order to enter the Honours Degree Program, students must have completed the following:

- HIST 190-3 World History to 1550;
- HIST 191-3 World History since 1550;
- HIST 200-3 Historical Methodology;
- Nine credit hours in 200-level History courses;
- HIST 300-3 Historiography: The Nature of the Historical Discipline;
- and have attained a Cumulative GPA of no less than 3.33 upon completion of 60 credit hours.

Having fulfilled the requirements of admission to the History Honours Degree Program, students must then complete the requirements for the major including 54 credit hours for the History BA Program and 15 credit hours of additional history courses, listed below, designed for Honours students.

HIST 500-3	Honours Historiography: Contemporary Theories and Methods
HIST 501-3	Honours Directed Readings
HIST 505-6	Honours Thesis
HIST 545-3	Historical Methods and Approaches

In addition to the above requirements, students need to ensure they have sufficient credit hours of elective work (including those for Academic Breadth) to total a minimum of 120 credit hours.

Attaining the minimum requirement does not guarantee entry to the Honours Program, which is at the discretion of the Department.

Students must maintain a Cumulative GPA of 3.33 to remain in the Honours Program. Students are responsible to find their own undergraduate thesis research supervisor. Faculty members are under no obligation to supervise Honours students.

In addition, students must achieve a minimum grade of B (3.0) in HIST 505-6 to be granted the Honours designation.

Joint Major in English and History (BA)

See Calendar entry under English.

Joint Major in Geography and History (BA)

See Calendar entry under Geography.

Joint Major in History and Political Science (BA)

The minimum requirement for completion of a Bachelor of Arts with a Joint Major in History and Political Science is 120 credit hours.

Program Requirements

Lower-Division Requirement

ECON 205-3	Statistics for Business and the Social Sciences
or STAT 240-3	Basic Statistics
HIST 190-3	World History to 1550
HIST 191-3	World History since 1550
HIST 200-3	Historical Methodology
POLS 100-3	Contemporary Political Issues
POLS 200-3	Canadian Government and Politics
POLS 202-3	Canada in Comparative Perspective
POLS 230-3	International Relations
POLS 270-3	Political Philosophy: Antiquity to Early Modernity

Six credit hours of History at the 100 or 200 level

Upper-Division Requirement

HIST 300-3	Historiography: The Nature of the Historical Discipline
POLS 303-3	Democracy and Democratization
POLS 320-3	Canadian Politics and Policy
POLS 370-3	Political Philosophy: Early Modernity to Post-Modernity

Nine credit hours of Political Science at the 400 level

Eighteen credit hours of History at the 300 or 400 level

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in History and Women's Studies (BA)

The minimum requirement for completion of a Bachelor of Arts with a Joint Major in History and Women's Studies is 120 credit hours.

Program Requirements

Lower-Division Requirement

HIST 190-3	World History to 1550
HIST 191-3	World History since 1550
HIST 200-3	Historical Methodology
WMST 100-3	Introduction to Women's Studies

Three additional credit hours of History at the 100 or 200 level

Six additional credit hours of Women's Studies at the 100 or 200 level

Upper-Division Requirement

HIST 300-3	Historiography: The Nature of the Historical Discipline
HIST 309-3	Women in Canada

HIST 453-(3-6) Topics in the History of Gender
HIST 454-(3-6) Topics in Women's History
WMST 302-3 Women and the Contemporary World
WMST 307-3 Qualitative Research Methods
WMST 311-3 History of Feminism
or HIST 311-3 History of Feminism
WMST 312-3 An Introduction to the History of Gender
or HIST 312-3 An Introduction to the History of Gender

Nine additional credit hours of History at the 300 or 400 level

Additional Requirement

Twelve additional credit hours selected from the following:

ANTH 401-3 Anthropological Perspectives on Inequality
ANTH 406-3 Feminist Perspectives in Anthropology
ECON 301-3 Women and the Economy
ENVS 309-3 Gender, Environment and Sustainability
FNST 407-3 First Nations Perspectives on Race, Class, Gender and Power
INTS 308-3 Gender and International Studies
NURS 412-3 Women and Health
WMST 303-3 Lesbian and Bisexual Lives
WMST 306-3 Indigenous Women: Perspectives
or FNST 306-3 Indigenous Women: Perspectives
WMST 411-3 Contemporary Feminist Theories
WMST 413-(3-6) Topics in Aboriginal Women's Studies
WMST 420-3 Contemporary Women's Literature
or ENGL 410-3 Special Topics in Contemporary Women's Literature
WMST 498-(3-6) Selected Topics in Women's Studies

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Minor in History

The minor in History provides students with an understanding of how to evaluate historical sources and writings, with specialized knowledge of historical processes.

The minor in History requires students to take at least 24 credit hours of History, 15 of which must be upper-division. A maximum of two courses (6 credit hours) used to fulfill program requirements for a major or another minor may also be used to fulfill requirements for a minor in History.

Program Requirements

HIST 190-3 World History to 1550
HIST 191-3 World History since 1550
HIST 200-3 Historical Methodology
HIST 300-3 Historiography: The Nature of the Historical Discipline

Twelve additional credit hours of 300- or 400-level History courses.

Local Government Administration Certificate Program

This Certificate provides a comprehensive overview of local government administration in Canada, with a focus on British Columbia. The Certificate complements existing degree programs at UNBC and is designed to help students prepare for careers in local government administration, policy, planning and economic development. Some of the courses in the Certificate also meet the requirements for provincial certification programs for local government administrators.

Drawing primarily from the disciplines of Political Science and Environmental Planning, the Certificate in Local Government Administration consists of 10 courses (30 credit hours), four of which are electives. The elective courses are drawn from lists of courses in two specializations: Policy and Administration and Planning and Economic Development. Students can choose to specialize in one of these areas, in which case they take four courses from one of the lists. They can also choose a generalist focus in which they take two courses from each list. Students must ensure that all prerequisite courses have been completed for the elective courses in the certificate.

Students can take the Certificate as a stand-alone program of study or in conjunction with a degree program. The requirements for admission into a Certificate program are the same as for any general UNBC undergraduate program. University transfer credit can also be applied to the Certificate, as appropriate, to a maximum of 15 credit hours.

Certificate Requirements

Required Courses

ENPL 104-3	Planning for Transformation
POLS 100-3	Contemporary Political Issues
POLS 316-3	Municipal Government and Politics
POLS 350-3	Law and Municipal Government
POLS 351-3	Local Services and Public Policy
POLS 360-3	Local Government Finance

Elective Courses

Specialization 1: Policy and Administration

COMM 330-3	Human Resource Management
POLS 200-3	Canadian Government and Politics
POLS 302-3	How Government Works
POLS 320-3	Canadian Politics and Policy
POLS 327-3	Leadership and Ethics in Local Government
POLS 332-3	Community Development
POLS 333-3	Politics and Government of BC
POLS 344-3	Society, Policy and Administration of Natural Resources
POLS 353-3	Project Management in Local Government
POLS 380-3	Law and Indigenous Peoples
POLS 415-3	Comparative Northern Development

Specialization 2: Planning and Economic Development

COMM 204-3	Entrepreneurship
ENPL 105-3	Dynamics of Community Planning
ENPL 208-4	Land and Indigenous Reconciliation Studio
ENPL 301-3	Sustainable Communities
ENPL 313-3	Rural Community Economic Development (CED)
ENPL 318-3	Professional Planning Practice
GEOG 202-3	Resources, Economies, and Sustainability
GEOG 424-3	Northern Communities
POLS 332-3	Community Development
POLS 415-3	Comparative Northern Development

Public Administration and Community Development Major

See Calendar entry under Geography.

Mathematics and Statistics (BSc Program)

Lee Keener, Professor Emeritus

Dan Ryan, Associate Professor and Chair
Jennifer Hyndman, Professor
Kevin Keen, Professor
Pranesh Kumar, Professor
Mohammad El Smaily, Associate Professor
Alia Hamieh, Associate Professor
Edward Dobrowolski, Assistant Professor
Chunyi Gai, Assistant Professor
Stanley Xiao, Assistant Professor
Sam Walters, Adjunct Professor
Erin Beveridge, Senior Lab Instructor
Brian Schaan, Lecturer

Website: www.unbc.ca/math-statistics

The Department of Mathematics and Statistics provides undergraduate and postgraduate instruction and training in pure mathematics, applied mathematics, and statistics. A Bachelor of Science degree is available in Mathematics, as well as joint BSc degrees in Mathematics and Physics, Economics and Mathematics, Chemistry and Mathematics, and Computer Science and Mathematics.

In addition, there is a minor in Mathematics and a minor in Statistics. A graduate degree (MSc—Mathematics) is also supported by the Department of Mathematics and Statistics. Students interested in graduate studies are advised to consult the UNBC Graduate Calendar for further information.

The Department of Mathematics and Statistics offers Mathematics and Statistics service courses to students in the biological sciences, health sciences, management, economics, social sciences, and other areas.

Some sections of introductory calculus are enhanced through the use of computer software which provides exceptional computational power and high-quality graphical display. Introductory statistics courses teach the use of statistical analysis software to analyze data.

An important feature of the Mathematics degree program is the early emphasis on the development of abstract reasoning and the relation of the abstract to the concrete. The degree requirements have been chosen so as to provide students with a broad background in Mathematics while still leaving them room to pursue individual interests.

Major in Mathematics

A major in Mathematics requires 17 MATH or STAT courses (51 credit hours), at least 30 credit hours of which must be upper-division courses; and, of those upper-division credit hours, at least 12 must be taken at the 400 level.

STAT 240-3 (Basic Statistics) may not be used for credit towards any Mathematics major, minor, or joint major.

MATH 150-3 (Finite Mathematics for Business and Economics) may not be used for credit towards any Mathematics major or joint major.

The minimum requirement for completion of a Bachelor of Science with a major in Mathematics is 120 credit hours.

Program Requirements

Note: Unless otherwise stated, students enrolling in any MATH or STAT courses with prerequisites are required to have completed all prerequisite courses for that course with a C- (60%) or better, or have permission to enroll from the Department Chair. If the prerequisite course is a BC high school course, the minimum required grade is a C (60%).

Literacy Requirement

One of the following:

ENGL 170-3	Writing and Communication Skills
ENGL 270-3	Expository Writing

Lower-Division Requirement

100 Level

CPSC 100-4	Computer Programming I
CPSC 141-3	Discrete Computational Mathematics
MATH 100-3	Calculus I
MATH 101-3	Calculus II

200 Level

MATH 202-3	Multivariable Calculus I
MATH 204-3	Multivariable Calculus II
MATH 220-3	Linear Algebra
MATH 224-3	Foundations of Modern Mathematics
MATH 230-3	Ordinary Differential Equations and Boundary Value Problems

Recommended

CPSC 101-4	Computer Programming II

General Science Requirement

Two of the following:

BIOL 103-3	Introductory Biology I
and BIOL 123-1	Introductory Biology I Laboratory

BIOL 104-3 Introductory Biology II
and BIOL 124-1 Introductory Biology II Laboratory
CHEM 100-3 General Chemistry I
and CHEM 120-1 General Chemistry Lab I
CHEM 101-3 General Chemistry II
and CHEM 121-1 General Chemistry Lab II
PHYS 100-4 Physics for Life Sciences I
or PHYS 110-4* Introductory Physics I: Mechanics
PHYS 111-4* Introductory Physics II: Waves and Electricity

***Note:** PHYS 110-4 (Introductory Physics I: Mechanics) and PHYS 111-4 (Introductory Physics II: Waves and Electricity) are strongly recommended for all majors.

Upper-Division Requirement

300 Level
MATH 301-3 Introduction to Complex Analysis
MATH 302-3 Introductory Mathematical Analysis
MATH 320-3 Survey of Algebra
MATH 336-3 Intermediate Differential Equations
or MATH 335-3 Introduction to Numerical Methods
STAT 371-3 Probability and Statistics for Scientists and Engineers
STAT 372-3 Mathematical Statistics

300 or 400 Level
MATH 326-3 Advanced Linear Algebra
or MATH 405-3 Topology

400 Level
Twelve additional credit hours in Mathematics or Statistics at the 400 level.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

BSc Honours – Mathematics

The Honours in Mathematics recognizes undergraduate students who develop a breadth of knowledge through coursework and research. Students considering graduate work or industrial research gain experience and confidence in working in areas where the outcome is unknown.

Entry into the Mathematics Honours Program takes place after completion of 60 credit hours and requires a minimum Cumulative GPA of 3.33 over the previous 30 credit hours, and the permission of the Department Chair. Candidates are required to consult with their Student Advisor prior to applying for the program. Attaining the minimum requirement does not guarantee entry to the Honours Program, which is at the discretion of the Department of Mathematics and Statistics and depends on the availability of a supervisor. Faculty members are under no obligation to supervise Honours students. To remain in the Honours Program requires the maintenance of a minimum Cumulative GPA of 3.33.

To be awarded the BSc Honours degree students will:
- complete 126 credit hours
- satisfy the requirements for a BSc in Mathematics
- within the existing 400-level requirements, take
  - one of MATH 420-3 Structure of Groups and Rings or MATH 421-3 Field Theory
  - one of MATH 402-3 Functional Analysis or MATH 403-3 Measure Theory and Integration
  - one of STAT 471-3 Linear Models, or STAT 472-3 Survey Sampling Design and Analysis, or STAT 473-3 Experimental Design and Analysis
- complete 6 credit hours of MATH 530 or STAT 530, with the outcome of one undergraduate thesis under the supervision of a faculty member.

Note: Because faculty are under no obligation to supervise undergraduate theses, students are encouraged to find an undergraduate thesis supervisor well in advance of completing 90 credit hours.

Joint Major in Chemistry and Mathematics (BSc)

See Calendar entry under Chemistry.

Joint Major in Computer Science and Mathematics (BSc)

See Calendar entry under Computer Science.

Joint Major in Mathematics and Physics (BSc)

The minimum requirement for completion of a Bachelor of Science with a Joint Major in Mathematics and Physics is 125 credit hours.

MATH 150-3 (Finite Mathematics for Business and Economics) may not be used for credit towards any Mathematics major or joint major.

Program Requirements

Lower-Division Requirement

CPSC 100-4 Computer Programming I
CPSC 141-3 Discrete Computational Mathematics
or MATH 224-3 Foundations of Modern Mathematics
MATH 100-3 Calculus I
MATH 101-3 Calculus II
MATH 202-3 Multivariable Calculus I
MATH 204-3 Multivariable Calculus II

MATH 220-3	Linear Algebra
MATH 230-3	Ordinary Differential Equations and Boundary Value Problems
PHYS 110-4	Introductory Physics I: Mechanics
PHYS 111-4	Introductory Physics II: Waves and Electricity
PHYS 200-3	Thermal Physics
PHYS 202-4	Electromagnetism and Optics
PHYS 205-3	Modern Physics I
PHYS 206-4	Modern Physics II

Upper-Division Requirement

MATH 301-3	Introduction to Complex Analysis
MATH 320-3	Survey of Algebra
MATH 326-3	Advanced Linear Algebra
MATH 335-3	Introduction to Numerical Methods
MATH 336-3	Intermediate Differential Equations
PHYS 300-3	Classical Mechanics
PHYS 302-3	Quantum Mechanics I
PHYS 310-3	Classical Electromagnetism I
PHYS 400-3	Quantum Mechanics II
PHYS 407-3	Statistical Mechanics
PHYS 410-3	Classical Electromagnetism II
STAT 371-3	Probability and Statistics for Scientists and Engineers

Subject Upper-Division Requirements: 9 additional upper-division credit hours are required from MATH or STAT courses, of which at least 6 must be at the 400 level. An additional 6 upper-division credit hours of PHYS courses are required, of which at least 3 credit hours must be at the 400 level.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 125 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in Economics and Mathematics (BSc)

See Calendar entry under Economics.

Minor in Mathematics

The minor in Mathematics requires students to take 27 credit hours, 12 of which must be upper-division credit hours.

There is no limit to the number of courses that may be used to fulfill program requirements for a major (or another minor) and also a minor in Mathematics.

Requirements

100 Level

CPSC 141-3	Discrete Computational Mathematics
MATH 100-3	Calculus I
MATH 101-3	Calculus II

200 Level

MATH 202-3	Multivariable Calculus I
MATH 220-3	Linear Algebra

Twelve additional credit hours in Mathematics or Statistics at the 300 or 400 level.

Minor in Statistics

The Minor in Statistics requires students to take 24 credit hours, 18 of which must be upper-division credit hours.

There is no limit to the number of courses that may be used to fulfill program requirements for a major or another minor with a Minor in Statistics.

Requirements

Lower-Division Requirement

MATH 100-3	Calculus I
MATH 101-3	Calculus II

Upper-Division Requirement

STAT 371-3	Probability and Statistics for Scientists and Engineers
STAT 372-3	Mathematical Statistics

Four of the following:

BIOL 325-3	Ecological Analyses
ECON 312-3	Introduction to Econometrics
ENSC 450-3	Environmental and Geophysical Data Analysis
GEOG 300-3	Intermediate GIS
GEOG 357-3	Introduction to Remote Sensing
GEOG 413-3	Advanced GIS
GEOG 457-3	Advanced Remote Sensing
HHSC 401-3	Principles of Epidemiology
STAT 471-3	Linear Models
STAT 472-3	Survey Sampling Design and Analysis
STAT 473-3	Experimental Design and Analysis
STAT 475-3	Methods for Multivariate Data

Note: Students are required to complete any additional prerequisite courses.

Recommended

STAT 240-3	Basic Statistics

Nature-Based Tourism Management (BA Program)

Pamela Wright, Professor Emerita

Ken Otter, Professor and Chair
Philip Mullins, Associate Professor
Lauren Harding, Assistant Professor
Jennifer Wigglesworth, Assistant Professor

Website:
www.unbc.ca/outdoor-recreation-tourism-management

Tourism has become the largest industry and employer in the world. One of the most important and fastest growing sectors in tourism is nature-based tourism, which comprises attractions, activities and experiences involving interaction with natural and cultural resources (e.g., ecotourism, adventure tourism, indigenous tourism). This degree examines the various components of the nature-based tourism system, giving emphasis to the entrepreneurial perspectives and sustainability issues in the industry. Reflecting the interdisciplinarity of the field, and related career directions, students select from the following Areas of Specialization: marketing and entrepreneurship, outdoor education and leadership, communities and tourism, or environment and society.

Major in Nature-Based Tourism Management

Students must complete a minimum of 120 credit hours through (a) the common degree requirements, (b) the requirements of an Area of Specialization and (c) elective credit hours in any subject.

Common Degree Requirements

Lower-Division Requirement

100 Level

BIOL 110-3 Introductory Ecology
COMM 100-3 Introduction to Canadian Business
ECON 100-3 Microeconomics
ENPL 104-3 Planning for Transformation
ORTM 100-3 Foundations of Outdoor Recreation and Tourism

One of the following:

ENVS 101-3 Introduction to Environmental Citizenship
ENVS 210-3 Environmental Perspectives
FNST 100-3 The Aboriginal Peoples of Canada
GEOG 101-3 Planet Earth
GEOG 102-3 Earth from Above

200 Level

COMM 204-3 Entrepreneurship
COMM 240-3 Introduction to Marketing
ECON 205-3 Statistics for Business and the Social Sciences
or STAT 240-3 Basic Statistics
ENVS 210-3 Environmental Perspectives
or HIST 360-3 An Introduction to Environmental History
or INTS 225-3 Global Environmental Change
or NREM 225-3 Global Environmental Change: Sustainability
NREM 209-3 The Practice of Conservation
ORTM 200-3 Sustainable Outdoor Recreation and Tourism
ORTM 202-3 Ecotourism and Adventure Tourism
ORTM 205-3 Outdoor Skills and Leadership
ORTM 206-3 Recreation and Leisure Programming

Upper-Division Requirement

300 Level

FNST 304-3 Indigenous Environmental Philosophy
or NREM 303-3 Aboriginal Perspectives on Land and Resource Management
ORTM 300-3 Recreation and Tourism Impacts
ORTM 307-3** Land Relations and Communities in Recreation and Tourism
ORTM 332-3 Outdoor, Environmental, and Experiential Education
ORTM 333-3 Field School

400 Level

A minimum of 9 credit hours from the following:

ORTM 305-3 Protected Area Planning and Management
ORTM 401-3** The Culture of Adventure
ORTM 405-3** Leadership Praxis
ORTM 409-3** Critical Approaches to Outdoor Recreation Activities
ORTM 415-3 Conservation, Culture, and Society
ORTM 433-(1-6) Field School II
ORTM 440-(2-6) Internship
ORTM 498-(1-3) Special Topics
ORTM 499-(1-6) Independent Study

****Note:** Students should note some senior-level ORTM classes are offered in alternating years.

Area of Specialization

Students must choose one of the following Areas of Specialization. Courses used to fulfill common degree requirements above may not be used to satisfy an Area of Specialization requirement.

1. Marketing and Entrepreneurship
2. Outdoor Education and Leadership
3. Communities and Tourism
4. Environment and Society

Marketing and Entrepreneurship

COMM 210-3 Financial Accounting
COMM 342-3 Services Marketing
or COMM 340-3 Marketing Communication

Two of the following:

- COMM 340-3 Marketing Communication
- COMM 343-3 Behavioural Marketing
- COMM 346-3 Internet Marketing
- COMM 441-3 International Marketing
- COMM 442-3 Marketing Strategy

Two of the following:

- COMM 230-3 Organizational Behaviour
- COMM 300-3 Introduction to Business Law
- COMM 303-3 Introduction to International Business
- COMM 443-3 Marketing Research
- ECON 305-3 Environmental Economics and Policy
- ENPL 313-3 Rural Community Economic Development (CED)
- GEOG 424-3 Northern Communities

Outdoor Education and Leadership

EDUC 101-3 Introduction to Education
EDUC 201-3 Education Theory and Practice
ENVS 101-3 Introduction to Environmental Citizenship
ORTM 405-3** Leadership Praxis
ORTM 409-3** Critical Approaches to Outdoor Recreation Activities

One of the following:

- ANTH 405-3 Landscapes, Place and Culture
- BIOL 333-3 Field School
- BIOL 350-3 Ethnobotany
- HIST 421-(3-6) Topics in Environmental History
- NREM 333-3 Field Applications in Resource Management

Communities and Tourism

FNST 100-3 The Aboriginal Peoples of Canada
or HIST 215-3 Global History of Indigenous People
FNST 203-3 Introduction to Traditional Ecological Knowledge
or GEOG 206-3 Social Geography

One of the following:

- ENPL 208-4 Land and Indigenous Reconciliation Studio
- ENPL 313-3 Rural Community Economic Development (CED)
- ENVS 210-3 Environmental Perspectives
- FNST 217-3 Contemporary Challenges Facing Aboriginal Communities
- GEOG 305-3 Political Ecology: Environmental Knowledge and Decision-Making
- GEOG 306-3 Critical Development Geographies
- GEOG 324-3 Community-Based Research

Two of the following:

- BIOL 350-3 Ethnobotany
- ENPL 301-3 Sustainable Communities
- ENPL 409-4 Indigenous Planning Studio
- GEOG 403-3 Indigenous Geographies of Climate Resilience
- GEOG 420-3 Environmental Justice
- GEOG 424-3 Northern Communities
- GEOG 426-3 Geographies of Culture, Rights and Power
- HIST 390-3 History of Indigenous People of Canada
- INTS 240-3 Contemporary Circumpolar North
- NORS 321-3 Peoples and Cultures of the Circumpolar World 1
- POLS 332-3 Community Development
- WMST 209-3 Gender and Cultural Studies: An Introduction

One of the following:

- ORTM 307-3** Land Relations and Communities in Recreation and Tourism
- ORTM 405-3** Leadership Praxis
- ORTM 415-3 Conservation, Culture, and Society

Environment and Society

ENPL 205-3 Environment and Society
or ENPL 208-4 Land and Indigenous Reconciliation Studio
or ENVS 210-3 Environmental Perspectives
ENVS 101-3 Introduction to Environmental Citizenship
ORTM 415-3 Conservation, Culture, and Society

One of the following:

- GEOG 204-3 Introduction to GIS
- GEOG 205-3 Cartography and Geomatics

One of the following:

- ENPL 304-4 Community Engagement and Inclusion Studio
- ENVS 326-3 Public Engagement for Sustainability
- NREM 306-3 Society, Policy and Administration

One of the following:

- ANTH 405-3 Landscapes, Place and Culture
- ENPL 301-3 Sustainable Communities

ENVS 309-3	Gender, Environment and Sustainability
GEOG 305-3	Political Ecology: Environmental Knowledge and Decision-Making
GEOG 420-3	Environmental Justice
GEOG 424-3	Northern Communities
HIST 421-(3-6)	Topics in Environmental History

****Note:** Students should note that some senior-level ORTM classes are offered in alternating years.

Course Prerequisites

Students should review all proposed course selections in advance to make sure course prerequisites are taken where needed.

Electives

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours.

Major in Nature-Based Tourism Management (Diploma Completion)

This 60-credit-hour program of study is available only to students with a 2-year diploma.

Degree requirements: Two-year Diploma in Environmental Studies, Natural Resources, Tourism, Sport or Recreation Studies, Commerce, Geography, or equivalent, with a minimum Cumulative GPA of 2.00, plus (a) 42 credit hours of required courses; (b) 18 credit hours in an Area of Specialization; and (c) elective credit hours in any subject as necessary to ensure completion of a minimum of 60 credit hours (minimum 30 upper-division credit hours) at UNBC.

Curriculum

Lower-Division Requirement (21 credit hours)

BIOL 110-3	Introductory Ecology
COMM 100-3	Introduction to Canadian Business
ECON 100-3	Microeconomics
ORTM 100-3	Foundations of Outdoor Recreation and Tourism
ORTM 200-3	Sustainable Outdoor Recreation and Tourism
ORTM 205-3	Outdoor Skills and Leadership
ORTM 206-3	Recreation and Leisure Programming

Upper-Division Requirement (21 credit hours)

FNST 304-3	Indigenous Environmental Philosophy
or NREM 303-3	Aboriginal Perspectives on Land and Resource Management
ORTM 300-3	Recreation and Tourism Impacts
ORTM 333-3	Field School

A minimum of 12 credit hours of the following:

ORTM 305-3	Protected Area Planning and Management
ORTM 307-3*	Land Relations and Communities in Recreation and Tourism
ORTM 332-3	Outdoor, Environmental, and Experiential Education
ORTM 401-3*	The Culture of Adventure
ORTM 405-3*	Leadership Praxis
ORTM 409-3*	Critical Approaches to Outdoor Recreation Activities
ORTM 415-3	Conservation, Culture, and Society
ORTM 433-(1-6)	Field School II
ORTM 440-(2-6)	Internship
ORTM 498-(1-3)	Special Topics

***Note:** Some senior-level ORTM classes are offered in alternating years.

Area of Specialization

Students must choose one of the following Areas of Specialization. Courses used to fulfill common degree requirements above may not be used to satisfy an Area of Specialization requirement.

1. Marketing and Entrepreneurship
2. Outdoor Education and Leadership
3. Communities and Tourism
4. Environment and Society

Marketing and Entrepreneurship

COMM 210-3	Financial Accounting
COMM 342-3	Services Marketing
or COMM 340-3	Marketing Communication

Two of the following:

COMM 340-3	Marketing Communication
COMM 343-3	Behavioural Marketing
COMM 346-3	Internet Marketing
COMM 441-3	International Marketing
COMM 442-3	Marketing Strategy

Two of the following:

COMM 230-3	Organizational Behaviour
COMM 300-3	Introduction to Business Law
COMM 303-3	Introduction to International Business
COMM 443-3	Marketing Research
ECON 305-3	Environmental Economics and Policy
ENPL 313-3	Rural Community Economic Development (CED)
GEOG 424-3	Northern Communities

Outdoor Education and Leadership

EDUC 101-3	Introduction to Education

EDUC 201-3 Education Theory and Practice
ENVS 101-3 Introduction to Environmental Citizenship
ORTM 405-3** Leadership Praxis
ORTM 409-3** Critical Approaches to Outdoor Recreation Activities

One of the following:
- ANTH 405-3 Landscapes, Place and Culture
- BIOL 333-3 Field School
- BIOL 350-3 Ethnobotany
- HIST 421-(3-6) Topics in Environmental History
- NREM 333-3 Field Applications in Resource Management

Communities and Tourism

FNST 100-3 The Aboriginal Peoples of Canada
or HIST 215-3 Global History of Indigenous People
FNST 203-3 Introduction to Traditional Ecological Knowledge
or GEOG 206-3 Social Geography

One of the following:
- ENPL 208-4 Land and Indigenous Reconciliation Studio
- ENPL 313-3 Rural Community Economic Development (CED)
- ENVS 210-3 Environmental Perspectives
- FNST 217-3 Contemporary Challenges Facing Aboriginal Communities
- GEOG 305-3 Political Ecology: Environmental Knowledge and Decision-Making
- GEOG 306-3 Critical Development Geographies
- GEOG 324-3 Community-Based Research

Two of the following:
- BIOL 350-3 Ethnobotany
- ENPL 301-3 Sustainable Communities
- ENPL 409-4 Indigenous Planning Studio
- GEOG 403-3 Indigenous Geographies of Climate Resilience
- GEOG 420-3 Environmental Justice
- GEOG 424-3 Northern Communities
- GEOG 426-3 Geographies of Culture, Rights and Power
- HIST 390-3 History of Indigenous People of Canada
- INTS 240-3 Contemporary Circumpolar North
- NORS 321-3 Peoples and Cultures of the Circumpolar World 1
- POLS 332-3 Community Development
- WMST 209-3 Gender and Cultural Studies: An Introduction

One of the following:
- ORTM 307-3** Land Relations and Communities in Recreation and Tourism
- ORTM 405-3** Leadership Praxis
- ORTM 415-3 Conservation, Culture, and Society

Environment and Society

ENPL 205-3 Environment and Society
or ENPL 208-4 Land and Indigenous Reconciliation Studio
or ENVS 210-3 Environmental Perspectives
ENVS 101-3 Introduction to Environmental Citizenship
ORTM 415-3 Conservation, Culture, and Society

One of the following:
- GEOG 204-3 Introduction to GIS
- GEOG 205-3 Cartography and Geomatics

One of the following:
- ENPL 304-4 Community Engagement and Inclusion Studio
- ENVS 326-3 Public Engagement for Sustainability
- NREM 306-3 Society, Policy and Administration

One of the following:
- ANTH 405-3 Landscapes, Place and Culture
- ENPL 301-3 Sustainable Communities
- ENVS 309-3 Gender, Environment and Sustainability
- GEOG 305-3 Political Ecology: Environmental Knowledge and Decision-Making
- GEOG 420-3 Environmental Justice
- GEOG 424-3 Northern Communities
- HIST 421-(3-6) Topics in Environmental History

****Note:** Students should note that some senior-level ORTM classes are offered in alternating years.

Course Prerequisites

Students must ensure that all prerequisites are fulfilled prior to registering in any course.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure the completion of a minimum of 120 credit hours. This includes taking any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

BA Honours – Nature-Based Tourism Management

The Honours in Nature-Based Tourism Management offers students a higher level of education and substantial research experience for proceeding to postgraduate studies.

To enter the Honours Program, students must have completed 60 credit hours and obtained a minimum Cumulative GPA of 3.33. Attaining the minimum requirement does not guarantee entry into the Honours Program, which is at the discretion of the Outdoor

Recreation and Tourism Management Program.

Maintenance of a Cumulative GPA of 3.33 is required to remain in the Honours Program.

Honours students must complete the degree requirements for the BA in Nature-Based Tourism Management. In addition, each student must also complete an additional 6 credit hours in the form of an undergraduate thesis (NRES 430-6) under the supervision of a faculty member.

Note: Students are responsible to find their own undergraduate thesis research supervisor. Faculty members are under no obligation to supervise Honours students.

Minor in Outdoor Recreation and Tourism Management

The minor in Outdoor Recreation and Tourism Management is designed to afford students an opportunity to gain foundational knowledge in tourism and recreation while pursuing another major. The minor requires students to take a total of 18 credit hours. The minor has three required courses basic to the field of Outdoor Recreation and Tourism Management (9 credit hours) and a set of elective courses (minimum of 9 credit hours). A maximum of two courses (6 credit hours) used to fulfill program requirements for a major (or another minor) may also be used to fulfill requirements for this minor.

Required Courses

ORTM 100-3	Foundations of Outdoor Recreation and Tourism
ORTM 300-3	Recreation and Tourism Impacts

One of the following:

ORTM 200-3	Sustainable Outdoor Recreation and Tourism
ORTM 202-3	Ecotourism and Adventure Tourism
ORTM 205-3	Outdoor Skills and Leadership
ORTM 206-3	Recreation and Leisure Programming

Elective Courses

A minimum of 9 credit hours from the following list, with a minimum of 6 credit hours at the 400 level:

ORTM 305-3	Protected Area Planning and Management
ORTM 307-3	Land Relations and Communities in Recreation and Tourism
ORTM 332-3	Outdoor, Environmental, and Experiential Education
ORTM 401-3	The Culture of Adventure
ORTM 405-3	Leadership Praxis
ORTM 409-3	Critical Approaches to Outdoor Recreation Activities
ORTM 415-3	Conservation, Culture, and Society

Nisg̲a'a Language Fluēncy (BA Program)

The Bachelor of Arts, Nisg̲a'a Language Fluency degree provides an immersive education in the Nisg̲a'a language, intended to create new Nisg̲a'a language speakers. The fundamental pedagogical approach is to offer as much Nisg̲a'a language instruction as possible, as early as possible. The program is offered in a manner that recognizes that learners, knowledge keepers, and their communities as a whole benefit from, and contribute to, the (re) development of Nisg̲a'a language fluency.

Students are required to complete 120 credit hours including a minimum of 60 credit hours of upper-division coursework. 84 credit hours (including 36 credit hours at the upper level) consists of courses with a Nisg̲a'a language component.

For the purpose of the Bachelor of Arts, Nisg̲a'a Language Fluency, all courses with Nisg̲a'a language, history and/or culture from the following areas are considered:

- Anthropology
- Arts
- Biology (Ethnobotany)
- First Nations Studies
- History

During the first year of the degree students take the following courses:

ARTS 101-3	Learning Strategies
ARTS 102-3	Research Writing
or ENGL 170-3	Writing and Communication Skills
FNST 139-3	Nisg̲a'a Language: Level 1
FNST 140-3	Nisg̲a'a Language: Level 2
FNST 141-3	Nisg̲a'a Language Immersion: Level 1
FNST 142-3	Nisg̲a'a Oral Culture: Level 1
FNST 169-3	Nisg̲a'a Culture: Level 1
FNST 170-3	Nisg̲a'a Culture: Level 2
FNST 241-3	Nisg̲a'a Language Immersion: Level 2
FNST 242-3	Nisg̲a'a Oral Culture: Level 2

During the second year of the degree students take the following courses:

CPSC 150-3	Computer Applications
or 3 credits of Mathematics at any level	
FNST 220-3	Introduction to Linguistics
FNST 239-3	Nisg̲a'a Language: Level 3
FNST 240-3	Nisg̲a'a Language: Level 4
FNST 269-3	Nisg̲a'a Culture: Level 3
FNST 270-3	Nisg̲a'a Culture: Level 4
FNST 341-3	Nisg̲a'a Language Immersion: Level 3
FNST 441-3	Nisg̲a'a Language Immersion: Level 4

Subject Requirement

Six additional credit hours of electives at any level; it is recommended that these be taken in the second year.

During the third year of the degree students take the following courses:

BIOL 350-3	Ethnobotany
FNST 300-3	Research Methods in First Nations Studies
FNST 310-3	Lisims Anadromous Summer and Fall Fisheries in Nisg̲a'a Culture and History
FNST 311-3	The Spring Anadromous Fisheries of Lisims in Nisg̲a'a Culture and History
FNST 320-3	The Structure of a First Nations Language
FNST 321-3	First Nations Advanced Composition and Conversation: Level 1
FNST 322-3	First Nations Advanced Composition and Conversation: Level 2
FNST 324-3	Advanced First Nations Language Immersion
FNST 325-3	First Nations Language Mentoring

And one of the following courses:

FNST 301-3	Art and Material Culture of BC First Nations
FNST 302-3	First Nations Health and Healing
FNST 303-3	First Nations Religion and Philosophy
FNST 304-3	Indigenous Environmental Philosophy
FNST 305-3	Seminar in First Nations Studies

During the fourth year of the degree students take the following courses:

FNST 400-3	Community-Based Research Project
FNST 420-3	Developing Language Materials
FNST 421-3	First Nations Songs and Poetry
FNST 422-3	First Nations Speeches and Stories
FNST 425-3	Oral History

And two of the following courses:

FNST 410-6	Advanced Topics in First Nations Art and Material Culture
FNST 440-6	Internship in First Nations Studies
FNST 497-6	Senior Project in First Nations Studies
FNST 498-6	Special Topics in First Nations Studies

Northern Studies (BA Program)

Tristan Pearce, Coordinator and Canada Research Chair in Cumulative Impacts of Environmental Change

Website: www.unbc.ca/northern-studies

Major in Northern Studies

Northern Studies is an interdisciplinary field of particular importance to the University of Northern British Columbia, and of growing relevance globally. Circumpolar environmental processes are becoming recognized as key indicators of global change; circumpolar indigenous peoples are gaining a greater voice both nationally and internationally; circumpolar political arrangements are illustrating new forms of regional governance. For these and other reasons, a better understanding of northern conditions and issues is needed.

Students are required to complete 54 credit hours of coursework consisting of seven core courses (21 credit hours) one course (3 credit hours) in Methodology; at least five courses (15 credit hours) from the "Environment and Health" list of courses, and at least five courses (15 credit hours) from the "Culture and People" list of courses.

The remaining electives and prerequisites are open to design by the student, but 30 credit hours must be at the upper-division level.

Note: Completion of a Bachelor of Arts with a major in Northern Studies requires a minimum of 120 credit hours.

Block transfer of credit up to 60 credit hours towards the BA in Northern Studies at UNBC may be given to students from Yukon University who have completed one of the following two-year diploma programs at Yukon University: Diploma of Northern Studies; Diploma of Northern Outdoor and Environmental Studies.

Program Requirements

Core Courses

NORS 101-3	Introduction to the Circumpolar North
NORS 311-3	Lands and Environments of the Circumpolar North 1
NORS 312-3	Lands and Environments of the Circumpolar North 2
NORS 321-3	Peoples and Cultures of the Circumpolar World 1
NORS 322-3	Peoples and Cultures of the Circumpolar World 2
NORS 331-3	Contemporary Issues in the Circumpolar North 1
NORS 332-3	Contemporary Issues in the Circumpolar North 2

Note: These courses may be available in face-to-face format, cross-listed with other UNBC courses, or as web-based courses offered in conjunction with the University of the Arctic.

Environment and Health

(at least 15 credit hours)

ANTH 312-3	Human Adaptability and Environmental Stress
ANTH 409-3	British Columbia Archaeology
BIOL 304-3	Plants, Society and the Environment
BIOL 350-3	Ethnobotany
BIOL 404-3	Plant Ecology
ECON 305-3	Environmental Economics and Policy
ENPL 305-3	Environmental Impact Assessment
ENSC 454-3	Snow and Ice
ENVS 326-3	Public Engagement for Sustainability
FNST 249-4	Land and Indigenous Reconciliation Studio
FNST 302-3	First Nations Health and Healing
FNST 304-3	Indigenous Environmental Philosophy
FSTY 425-3	Soil Formation and Classification
GEOG 308-3	Health Geography
GEOG 403-3	Indigenous Geographies of Climate Resilience
GEOG 424-3	Northern Communities
HHSC 440-(3-6)	Special Topics in Health Sciences
HHSC 473-3	Health Promotion
INTS 225-3	Global Environmental Change
NORS 498-3	Special Topics in Northern Studies
NORS 499-(3-6)	Independent Research/Directed Reading in Northern Studies
NREM 303-3	Aboriginal Perspectives on Land and Resource Management

Culture and People

(at least 15 credit hours)

ANTH 201-3	Medical Anthropology
ANTH 206-3	Indigenous Ethnography in Northern British Columbia
ANTH 335-3	Archaeological Heritage Management
ANTH 407-3	British Columbia Ethnography
ANTH 409-3	British Columbia Archaeology
ANTH 421-(3-6)	Ethnographic Field Methods
ANTH 422-(3-6)	Ethnographic Research Project
ANTH 451-3	Traditional Use Studies
ECON 307-3	Northern BC in the Global Economy
ENGL 320-3	Indigenous Literatures in Canada and the United States
ENGL 420-3	Special Topics in Indigenous Literatures

ENGL 431-3	Special Topics in Northern BC Literature
FNST 217-3	Contemporary Challenges Facing Aboriginal Communities
FNST 306-3	Indigenous Women: Perspectives
FNST 350-3	Law and Indigenous Peoples
GEOG 403-3	Indigenous Geographies of Climate Resilience
GEOG 424-3	Northern Communities
HIST 390-3	History of Indigenous People of Canada
NORS 498-3	Special Topics in Northern Studies
NORS 499-(3-6)	Independent Research/Directed Reading in Northern Studies
POLS 316-3	Municipal Government and Politics
POLS 332-3	Community Development
POLS 414-3	Comparative Federalism
POLS 415-3	Comparative Northern Development
POLS 434-3	Resource Communities in Transition

Methodology

(at least 3 credit hours)

ANTH 300-3	Qualitative Research Methods for Social and Medical Anthropology
BIOL 325-3	Ecological Analyses
ECON 205-3	Statistics for Business and the Social Sciences
ENPL 319-3	Social Research Methods
FNST 200-3	Perspectives in First Nations Studies
FNST 300-3	Research Methods in First Nations Studies
GEOG 204-3	Introduction to GIS
GEOG 205-3	Cartography and Geomatics
GEOG 333-3	Geography Field School

Note: Students are encouraged to participate in an optional semester at another university in the Circumpolar North, through exchange agreements between UNBC and other circumpolar universities. This should be done in consultation with the NORS Coordinator.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours, including any additional credit hours to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Minor in Northern Studies

Northern Studies is an interdisciplinary field of particular importance to the University of Northern British Columbia, and of growing relevance globally. Many circumpolar issues are gaining importance, and there are important lessons that can be exchanged between circumpolar regions and other areas of the globe. Northern Studies can be an interesting and useful complement to students' other areas of study.

A minor consists of eight courses (24 credit hours). Students must take seven required core courses (21 credit hours). Students must also take one methodology course (3 credit hours) from the list below.

Courses used to fulfill program requirements for a major or another minor may not be used to fulfill requirements for this minor.

Required Core Courses

NORS 101-3	Introduction to the Circumpolar North
NORS 311-3	Lands and Environments of the Circumpolar North 1
NORS 312-3	Lands and Environments of the Circumpolar North 2
NORS 321-3	Peoples and Cultures of the Circumpolar World 1
NORS 322-3	Peoples and Cultures of the Circumpolar World 2
NORS 331-3	Contemporary Issues in the Circumpolar North 1
NORS 332-3	Contemporary Issues in the Circumpolar North 2

Note: These courses may be available in face-to-face format, cross-listed with other UNBC courses, or as web-based courses offered in conjunction with the University of the Arctic.

Methodology

(Choose one from the list)

ANTH 300-3	Qualitative Research Methods for Social and Medical Anthropology
BIOL 325-3	Ecological Analyses
ECON 205-3	Statistics for Business and the Social Sciences
ENPL 319-3	Social Research Methods
FNST 200-3	Perspectives in First Nations Studies
FNST 300-3	Research Methods in First Nations Studies
GEOG 204-3	Introduction to GIS
GEOG 205-3	Cartography and Geomatics
GEOG 333-3	Geography Field School

School of Nursing (BScN Program)

- **Northern Collaborative Baccalaureate Nursing Program**
- **Northern Baccalaureate Nursing Program**
- **Rural Nursing Certificate Program**

Sylvia Barton, Professor Emerita
Martha MacLeod, Professor Emerita

Catharine Schiller, Associate Professor and Chair
Davina Banner-Lukaris, Professor
Shannon Freeman, Professor
Caroline Sanders, Professor
Aderonke Agboji, Assistant Professor
Darryn DiFrancesco, Assistant Professor
Viviane Josewski, Assistant Professor
Zahra Rahmaty, Assistant Professor
Esther Alonso, Adjunct Professor
Gerrit Clements, Adjunct Professor
Tina Fraser, Adjunct Professor
Kelly Gunn, Adjunct Professor
Cindy Milner, Adjunct Professor
Rose Perrin, Adjunct Professor
Ann Syme, Adjunct Professor
Cathy Ulrich, Adjunct Professor
Lela Zimmer, Adjunct Professor
Ngoc Huynh, Lecturer
Amanda De Smit, Senior Lab Instructor III
Lena MacBlain, Senior Lab Instructor II
Deb Carter, Senior Lab Instructor
Heidi Dodenberg, Senior Lab Instructor
Phil Dovey, Senior Lab Instructor
Braylin Jantz, Senior Lab Instructor
Kimberly Cameron, Senior Instructor
Elizabeth Enes, Senior Instructor
Amy Klepetar, Senior Instructor
Kristine Rowswell, Senior Instructor
Valerie Sokolowski, Senior Instructor
Rebecca Stent, Senior Instructor
Heidi Dunbar, Instructor
Madison Friesen, Instructor
Erika Giesbrecht, Instructor
Crystal Patenaude, Instructor
Breanna Siemens, Instructor

Website: www.unbc.ca/nursing

Statement of Nursing

Nursing is a professional practice discipline which offers a valuable service to the public by working with individuals, families, groups, and communities, to develop and implement strategies to meet health care needs. Caring is a central and dominant feature of nursing.

Nursing:
a. considers the physical, psychological, social, environmental, and spiritual domains of clients;
b. requires cultural sensitivity; and,
c. collaborates with clients, other health care providers, and the community.

Nursing is based on knowledge and skills developed in its own and related disciplines. Nursing knowledge is developed through research and other methods.

Nursing advocates for a health care system that:
a. emphasizes health promotion, and illness prevention,
b. is based on practical, affordable, manageable, and culturally acceptable care and technology, and
c. is available for all clients in a universal, equitable manner.

Statement of Nursing Education

Nursing education responds to societal concerns by developing a curriculum that is relevant and considers future trends in health care. Nursing education strives to provide an environment that is challenging and supportive, where all students learn the practice of nursing through the application and evaluation of knowledge, the practise of skills, and the internalization of caring and professional attitudes. A dynamic and positive relationship occurs between health care services and education through the sharing of knowledge, skills, and research.

Undergraduate Programs of Study

UNBC offers the following programs:

- **Northern Collaborative Baccalaureate Nursing Program (NCBNP)** is offered collaboratively between UNBC, the College of New Caledonia (CNC), and Coast Mountain College (CMTN), providing entry into the nursing profession. The integrated program of studies culminates in a Bachelor of Science in Nursing (BScN), awarded by UNBC. Graduates are eligible to write the National Council Licensure Examination (NCLEX-RN) and to apply for registration with the British Columbia College of Nurses and Midwives (BCCNM) after passing the exam.
- **Northern Baccalaureate Nursing Program (NBNP)** is offered by UNBC and provides entry into the nursing profession. This condensed program of studies culminates in a Bachelor of Science in Nursing (BScN). Graduates are eligible to write the National Council Licensure Examination (NCLEX-RN) and to apply for registration with the British Columbia College of Nurses and Midwives (BCCNM) after passing the exam.

Aims of the BScN Program

The goal of the BScN program is to improve access to and successful completion of nursing education for residents of the North. The aim of the nursing program is to prepare professional nurses who:

- practice with cultural sensitivity;
- practice with awareness of particular health needs of northern populations;
- practice assessment and promotion of holistic health with individuals, families, groups, and communities;
- participate in the appraisal of population health needs and implement and evaluate the appropriate interventions to meet those needs;
- make nursing judgements that reflect application of current nursing research and research from related disciplines;
- practice in a broad range of settings with an emphasis on northern communities;
- influence health services to bring about policy development that meets the health needs of northern populations;
- practice effectively within collaborative interdisciplinary and intersectorial health care teams;
- demonstrate critical thinking skills and effective clinical decision making;
- demonstrate skills of a self-directed learner;
- meet professional practice requirements as identified in the BCCNM *Professional Standards for Registered Nurses and Nurse Practitioners*;
- meet professional practice requirements as identified in the current BCCNM *Competencies in Context of Entry-level Registered Nurse Practice in British Columbia* (NCBNP and NBNP graduates).

General Requirements

Nursing courses are normally restricted to students admitted into the BScN program, unless otherwise specified in a course description. Not all courses in the Calendar are offered every semester or academic year. Admission to the BScN program does not guarantee registration in any specific course; early registration is advised.

The admission criteria and general requirements set out in the Admissions section of this Calendar are applicable to this section.

Standards of Professional Conduct

In addition to fulfilling all University and Program expectations, all students are expected to abide by professional standards as set forth in the current BCCNM *Professional Standards for Registered Nurses and Nurse Practitioners* and the Canadian Nurses Association (CNA) Code of Ethics for Registered Nurses. Violation of professional standards may result in suspension or dismissal from the program or the educational institution.

British Columbia College of Nurses and Midwives Requisite Skills and Abilities

All students who apply to the Northern Collaborative Baccalaureate Nursing Program (NCBNP) and the Northern Baccalaureate Nursing Program (NBNP) must demonstrate the capacity to meet British Columbia College of Nurses and Midwives (BCCNM) Requisite Skills and Abilities. Certain basic skills and abilities are required for a student to attain the Competencies in the Context of Entry-Level Registered Nurse Practice in British Columbia. These Requisite Skills and Abilities can be found on the BCCNM website.

Clinical Practica Scheduling and Expectations

Clinical practica may be configured and offered outside of the existing timetable structure and session dates. The students in the NCBNP must complete a consolidating nursing practicum following both their fourth and sixth semesters of study in the program, and a focused nursing practicum in the seventh or eighth semester. Students in the NBNP must complete a consolidating practicum in the fourth semester and a focused nursing practicum in the fifth semester.

Attendance in each clinical course is mandatory. Students who do not complete their total required practicum experience hours are at risk of failure. Students who are unable to attend practicum due to unforeseen circumstances must contact the clinical instructor and the clinical area with as much notice as possible. The opportunity to make up missed clinical time is not guaranteed and may only be granted for extreme extenuating circumstances.

Program Costs

Costs associated with study in the BScN programs are the responsibility of the individual student, including transportation costs and any expenses involved in academic studies, labs, and clinical practica. Students may be required to complete clinical experiences at sites other than Prince George, Fort St. John, Quesnel, or Terrace. Provision for all travel, accommodation, and living expenses associated with required clinical practice is the sole responsibility of the student.

Academic Performance

Students must adhere to all policies and regulations of the institution(s) where they are registered for courses. This requirement includes but is not limited to matters related to academic appeals and academic dishonesty. Progression through the program is governed by guidelines on academic standing and continuance. However, probation guidelines are governed by UNBC.

Students must obtain the minimum passing grade for all required Nursing and Health Sciences (NURS, NRSG, and

HHSC or equivalent) courses as defined under "Qualification for Degree."

Students are required to withdraw from their respective Nursing programs if they have two instances of not meeting the minimum passing grade requirement either in the same Year or in two consecutive Years, in any combination of the following:

- NURS laboratory, theory and/or practice courses;
- NRSG theory and/or practice courses;
- required HHSC courses;
- equivalents of the above.

A 'Year' is comprised of all the mandatory NURS, NRSG and HHSC (or equivalent) courses in a given Level (e.g. Year 1 includes all 100-level courses listed under the Lower-Division requirements in the Calendar) regardless of how long it takes the student to complete the courses.

Students who are required to withdraw in Year 1 or Year 2 may reapply to the NCBNP after a minimum of one year. Those required to withdraw in Year 3 or 4 (including NCBNP and RNCP) may reapply after three years.

For NCBNP students, assessments are performed on an individual basis by a joint committee of the UNBC School of Nursing, CMTN, and CNC with no guarantee of readmission. Students who are readmitted to the NCBNP must begin the Program at Year 1 and repeat all NURS and HHSC (or equivalent) courses. Any reapplications to the RNCP are assessed by the UNBC School of Nursing. Readmission to the NBNP is reviewed on an individual basis. The School of Nursing reserves the right to readmit students and to stipulate conditions attached to readmission.

Students may be removed from a clinical setting due to unsafe or unprofessional performance or conduct, and may receive a grade of F in the clinical component of the course. When a student receives a grade of F for the clinical component of a course, the overall course grade is calculated on the basis of the grade achieved in all other components of the course, to a maximum grade of C-.

Students who withdraw from more than one NURS, NRSG and/or HHSC course (or equivalent) in an academic year are required to meet with the Program Coordinator at the institution they are currently attending to discuss whether the student is suited to continue in the program. Consultation must occur with and permission must be granted by the Program Coordinator before the student is allowed to register in subsequent courses.

Misconduct

Any conduct that violates the ethical or legal standards of the institution at which the student is currently registered, particularly those related to academic dishonesty, is a serious offense. Academic misconduct and/or professional misconduct may result in the student being required to withdraw from the respective Nursing program and possibly the University. Satisfactory academic performance is not the sole criterion for progression or graduation. The School of Nursing and the NCBNP institutional partners reserve the right to require a student to withdraw from the student's respective program if the student is considered to be unsuited to proceed with the study or practice of nursing.

Transfer Credit

Transfer credit may be awarded for coursework completed at other recognized institutions.

Individual Nursing (NURS) or Health Sciences (HHSC) courses, or their equivalents, must have been completed within five years prior to the semester of admission to the specific nursing program in order to be eligible for transfer credit. Other coursework must be completed within 10 years prior to the semester of admission in order to be considered for transfer credit. Coursework taken at other institutions after admission may also be eligible for transfer credit (Refer to Letter of Permission in the General Requirements for Nursing). Students are encouraged to consult with the advisor in their specific program prior to registration for courses completed outside of UNBC.

Students who have completed a Registered Nurse Diploma at a recognized post-secondary institution may be eligible for transfer credit towards the Rural Nursing Certificate Program/BScN Completion. Students may also be eligible for transfer credit for post-diploma coursework (Refer to the Rural Nursing Certificate Program/BScN Completion).

Students who are admitted to the Northern Baccalaureate Nursing Program (NBNP) may use a maximum of 60 credit hours towards the BScN degree (Refer to Admission Requirements: Academic Requirements and Required Pre-Admission Courses under the NBNP).

Students who have completed a Licensed Practical Nurse Certificate or Diploma may be eligible for specific transfer credit towards the Northern Collaborative Baccalaureate Nursing Program (Refer to Admission Requirements: Licensed Practical Nurse (LPN) Access under the NCBNP). Students applying to the Northern Baccalaureate Nursing Program may be eligible for up to a maximum of 15 unspecified elective transfer credit hours towards the BScN (Refer to Admission Requirements: Licensed Practical Nurse (LPN) Access under the NBNP).

Previous UNBC Coursework

Nursing (NRSG, NURS) and Health Sciences (HHSC) courses, or their equivalents taken at UNBC more than five years prior to the semester of admission or re-admission to a nursing program are evaluated on an individual basis to determine eligibility towards the program of study.

Qualification for Degree or Certificate

It is the students' responsibility to ensure that their

degree or certificate requirements are met. Graduation requirements are found in the Regulations and Policies section of this Calendar. To fulfill the requirements of graduation, students must do the following:

- attain a minimum Cumulative GPA of 2.33 (C+) on all courses used for credit towards the degree or certificate;
- attain a minimum passing grade of (P) in NRSG 310-3, NURS 220-5, NURS 328-(1, 2), NURS 329-1 and NURS 330-4, as applicable to the specific program;
- attain a minimum passing grade of 2.00 (C) in the following courses, or their equivalents, as applicable to the specific program:
  - all NURS courses, including NURS electives
  - all NRSG courses
  - all mandatory HHSC courses
  - ANTH 213-3
  - STAT 240-3
  - POLS 403-3

  Note: *Students enrolling in any required course must have completed all prerequisites with a grade of (C) or better, or if NRSG 310-3, NURS 220-5, NURS 328-(1, 2), NURS 329-1 or NURS 330-4 is the prerequisite, a passing grade of (P) is required.*
- confirm all eligible transfer credit and has been awarded;
- complete all outstanding requirements for the specific program of study, starting from the first semester of registration following admission to one of the following programs:
  - NCBNP BScN within eight years;
  - NBNP BScN within five years;
  - RNCP/BScN Completion within eight years;
  - Rural Nursing Certificate Program within six years.

Letter of Permission

Once admitted to the Nursing Program, students who want to take coursework at other institutions for transfer credit towards the degree require a Letter of Permission prior to registration in the course. A student who has committed an academic offense may be denied a Letter of Permission for subsequent coursework. Students who complete courses without having first obtained a Letter of Permission risk not having those courses accepted for transfer credit.

Students should contact the Nursing Advisor at the institution they are currently attending for further information. (Refer to Academic Regulation on *Letters of Permission* in this Calendar).

Course Challenge

Up to 6 credit hours of course challenge may be applied towards the degree if less than 9 credit hours of nursing courses have been transferred in. Only 3 credit hours of course challenge can apply towards the degree if the maximum of 9 credit hours in nursing have been transferred in.

Part-time Studies

With prior approval by the Nursing Advisor at the institution the student is applying to or currently attending, and subject to course availability, undergraduate Nursing programs may be taken on a part-time basis; however, students may be required to enroll full-time during a portion of their program.

Auditing Courses

Under certain circumstances, students may be able to audit an NURS (or equivalent)* course. Courses with lab or clinical components cannot be audited.

Students wishing to audit an NURS (or equivalent) course must obtain approval from the Instructor as well as the Undergraduate Nursing Programs Coordinator. Forms for audit approval are available from the Office of the Registrar. Priority for registration will be given to students taking the course for credit. Approval from the Instructor in no way guarantees that an audit student will be able to register in the course.

Audit courses do not meet prerequisites or course/program requirements, but will be recorded on a student's transcript.

The degree of participation in a course for an audit student is at the discretion of the instructor. Audit students are not entitled to write the final exam or be granted credit for the course. Students may need to pay an auditing fee.

*Students should consult with an Advisor regarding equivalency.

Leave of Absence

Students wanting to take a Leave of Absence must apply, in writing, to the Nursing Advisor at the institution that the student is currently attending. Upon approval, students are eligible for up to a one-year Leave of Absence. Students who do not apply for a Leave of Absence will be considered to be out-of-sequence and will lose their priority for registration.

Time Lapse Between Clinical Practica

Students who are out of clinical practice in a Nursing education program for more than 18 months are reassessed to determine what clinical practice remediation is needed. This may include repeating all components of courses taken previously, regardless of whether the student successfully completed the course.

Students are assessed on an individual basis as to when the 18 months is initiated and which courses are to be repeated.

Students reapplying to the program after a leave of over 18 months are re-evaluated as to the level at which they will need to re-enter the program.

Withdrawal from the Nursing Program

Students who voluntarily withdraw from the Nursing program must notify, in writing, the Nursing Advisor at the institution that the student is currently attending. Where students fail to notify the Nursing Advisor, the Nursing Advisor will deem a student to have voluntarily withdrawn from the Nursing program where the student has not registered in Nursing courses in any of the last three semesters.

Northern Collaborative Baccalaureate Nursing Program

The Northern Collaborative Baccalaureate Nursing Program (NCBNP) requires students to take at least 95 credit hours of Nursing courses. The minimum requirement for completion of a Bachelor of Science in Nursing is 136 credit hours.

Transfer Credit

Transfer credit may be awarded for coursework completed at other recognized institutions. All transfer credit for coursework taken prior to admission to the BScN program will be evaluated at the request of the student.

The total transfer credit awarded on the basis of acceptable coursework completed at non-collaborative partner institutions may not exceed 60 credit hours. Nursing (NURS) and Health Science (HHSC) courses, or their equivalents, must have been completed within five years prior to the semester of admission to be eligible for transfer credit into the NCBNP.

Criminal Records Search

NCBNP students are required to undergo criminal records searches prior to being admitted, as well as upon entry to Year 3. (Refer to Academic Regulation on *Criminal Records Review* in this Calendar).

Immunization and CPR Certification

All students accepted into the NCBNP are sent documentation and information regarding immunization policies. Once accepted into the Program, all students must submit:

- A record of immunization status and any annual vaccination requirements, such as the Influenza Vaccine, based on release date of vaccine.
  - A completed immunization form must be submitted to the institution the student is currently attending prior to September 15 in the first year of attendance. Students entering the Program in Year 2 or above must submit the completed immunization form before the first week of classes in September. Failure to do so may result in the student not being allowed to practice in the clinical setting.
- Documentation of one of the following Cardiopulmonary Resuscitation (CPR) certifications, which must be successfully maintained throughout the program: CPR-C or Basic Life Support (BLS).
  - BLS is highly recommended.
  - Online CPR courses that do not include face-to-face practice components are not acceptable.
  - Proof of CPR certification (and recertification) must be submitted annually prior to commencement of classes, regardless of the expiry date on the card.

Admission Requirements

Self-identified Aboriginal applicants who meet or exceed the minimum requirements for admission to the program will be given priority for up to twenty percent (20%) of the first-year seats for the Northern Collaborative Baccalaureate Nursing Program (NCBNP).

Students must apply at the collaborative colleges: The College of New Caledonia in Prince George or Quesnel, or Coast Mountain College in Terrace. Admission is based on academic qualifications and available space. Priority admission will be given to students who meet admission criteria (see Admissions Section in this calendar) and apply by the deadline of March 31. Applications received after the deadline may be reviewed based on available space in the program.

Applicants must meet the following criteria:

- UNBC admission requirements with a minimum 70% average; and
- completion of the equivalent BC secondary school courses with a minimum 70% in each course:
  - one of Foundations of Mathematics 11, Pre-calculus 11, or Principles of Math 11
  - Chemistry 11
  - one of English Studies 12, English 12 or English First Peoples 12;
- completion of the equivalent of Anatomy and Physiology 12 or Biology 12 with a minimum 73% within five years prior to the semester of admission to the NCBNP.

Applicants whose first language is not English, regardless of citizenship or country of origin, must submit evidence of English language proficiency prior to admission. For the NCBNP, the following are required for admission:

- fulfillment of the BC Secondary School English 12 requirement (70%), or equivalent, and;
- either an IELTS (International English Language Testing System) Academic, or a CELBAN (Canadian English Language Assessment for Nurses) with current, valid results and scores as set by the British Columbia College of Nurses and Midwives (BCCNM) for the year of admission.

Admission Requirements: Licensed Practical Nurse (LPN) Access

Licensed Practical Nurses (LPNs) who are applying for

admission to the NCBNP must
- meet all Northern Collaborative Baccalaureate Nursing Program admission requirements;
- be graduates of a Practical Nursing program recognized by the British Columbia College of Nurses and Midwives (BCCNM) since 1994;
- have current practicing registration or be eligible for practicing registration with the BCCNM.

LPN applicants are assessed on an individual basis and may be eligible for up to a maximum of 15 transfer credit hours of NCBNP courses.

Applicants who have completed a BC Practical Nursing Certificate prior to 1994, or have completed a certificate or diploma from a program outside of British Columbia, or have graduated from an institution not listed in the BC Transfer Guide, may not be exempt from any of the Year 1 or Year 2 NCBNP courses.

In order to have their documents referred to Nursing faculty members for transfer credit assessment, all successful LPN applicants must meet individually with the Nursing Advisor at the institution to which they are applying. Further criteria may be required in order to receive transfer credit.

Program Requirements

Lower-Division Requirement

Year 1
ANTH 213-3 Peoples and Cultures (or equivalent)
HHSC 110-3 Basic Microbiology (at UNBC
or BIO 105-3 Basic Microbiology (at CNC)
or BIOL 133-3 Applied Microbiology (at CMTN)
HHSC 111-4 Anatomy and Physiology I (at UNBC)
or BIO 111-3 Human Anatomy & Physiology I (at CNC)
or BIOL 131-3 Human Anatomy & Physiology I (at CMTN)
HHSC 112-4 Anatomy and Physiology II (at UNBC)
or BIO 112-3 Human Anatomy & Physiology II (at CNC)
or BIOL 132-3 Human Anatomy & Physiology II (at CMTN)
NURS 101-3 The Art and Science of Nursing
NURS 102-3 Communication Theory and Practice
PSYC 101-3 Introduction to Psychology I (or equivalent)
STAT 240-3 Basic Statistics (at UNBC)
or ECON 205-3 Statistics for Business and the Social Sciences (at UNBC)
or MATH 104-3 Elementary Statistics (at CNC)
or MATH 157-3 Business Statistics (at CNC)
or MATH 131-3 Introduction to Statistics (at CMTN)
or MATH 251-3 Statistics (at CMTN)
Note: UNBC STAT 240-3, CNC MATH 104-3, or CMTN MATH 131-3 are recommended for the Statistics requirement.

Year 2
NURS 201-4 Introduction to Health Assessment
NURS 202-3 Pathophysiological Concepts (at CNC)
or BIOL 220-3 Pathophysiology (at CMTN)
NURS 203-3 Health Promotion in Families
NURS 204-3 Healing Modalities (at CNC)
or BIOL 221-3 Pharmacology for Nurses (at CMTN)
NURS 205-3 Introduction to First Nations Health
NURS 206-3 Basic Nutrition (at CNC)
or BIOL 222-3 Human Nutrition (at CMTN)
NURS 215-8 Nursing Care of the Adult
NURS 220-5 Extended Clinical Practicum I

Upper-Division Requirement

Prior to each academic year, students will be advised which courses are being offered at each campus. Courses may be offered face-to-face, online, or using a combination of delivery methods.

Students must expect to complete at least one practicum rotation at a site other than Prince George, Quesnel, or Terrace.

Year 3
NURS 304-3 Introduction to Nursing Knowledge
NURS 306-3 Introduction to Epidemiology
NURS 308-3 Ethics and Law in Nursing
NURS 317-5 Nursing Theory and Practice: Maternity
NURS 318-5 Nursing Theory and Practice: Pediatrics
NURS 323-5 Nursing Theory and Practice: Older Adult
NURS 326-5 Nursing Theory and Practice: Mental Health
NURS 328-(1, 2) Nursing Laboratory*
NURS 329-1 Year 3 Objective Structured Clinical Examination
NURS 330-4 Extended Clinical Practicum II

*Students must successfully complete 2 credit hours of NURS 328-(1, 2), either as two 1-credit hour courses or one 2-credit hour course (minimum 36 hours of structured laboratory practice), no more than eight months prior to undertaking the NURS 329-1 Year 3 Objective Structured Clinical Examination. Students must successfully complete the September semester of NURS 328-1 before progressing to the January semester of NURS 328-1 and subsequent Year 3 combined theory and practice courses.

Year 4
NURS 403-3 Introduction to Nursing Research
NURS 408-3 Nursing Leadership
NURS 418-7 Introduction to Community Health and Nursing
POLS 403-3 Social and Health Policy and Administration

At least one of the following areas of clinical focus:
NURS 420-8 Community Health Nursing
NURS 422-8 Indigenous Health and Nursing
NURS 426-8 Acute Care Nursing
NURS 432-8 Nursing Practice in Mental Health and Substance Use
NURS 435-8 Pediatric Nursing
NURS 454-8 Perinatal Care

NURS 455-8	Foundations in Emergency and Trauma Nursing
NURS 461-8	Rural Health and Nursing
NURS 497-8	Specialty Focus in Nursing

Elective Requirement

Eighteen credit hours chosen to fulfill the requirements below, and to ensure completion of a minimum of 136 credit hours. A course may not be used to satisfy the requirements in more than one category. Students are strongly advised to complete the following elective coursework prior to Year 4:

- Three credit hours in First Nations Studies at any level, or HIST 215-3 Global History of Indigenous People, or equivalent;
- Three credit hours in Humanities at any level, or ENGL 170-3 Writing and Communication Skills, or equivalent;
- Three additional credit hours in Nursing at the 200 level or above, or 3 credit hours at the 200 level or above in a subject related to Nursing (with permission of Program);
- At least 3 credit hours at the 200 level or above in any subject;
- At least 3 credit hours at the 300 level or above in any subject;
- Three credit hours at any level in any subject.

Northern Baccalaureate Nursing Program

The Northern Baccalaureate Nursing Program (NBNP) is a Year 3 and Year 4 Bachelor of Science in Nursing (BScN) degree program offered in Fort St. John and Prince George, BC. Students are expected to commit to a full-time program of combined theoretical and clinical coursework delivered over five consecutive semesters.

The Northern Baccalaureate Nursing Program (NBNP) requires students to take at least 68 credit hours of Nursing courses. The minimum requirement for completion of a Bachelor of Science in Nursing is 128 credit hours.

Transfer Credit

Students who are admitted to the Northern Baccalaureate Nursing Program (NBNP) may use a maximum of 60 credit hours towards the BScN degree.

Criminal Records Search

NBNP students are required to undergo criminal records searches prior to admission (refer to Academic Regulation on *Criminal Records Review* in this Calendar).

Immunization and CPR Certification

The UNBC School of Nursing sends documentation and information regarding immunization policies to all students accepted into the NBNP. Once accepted into the Program, all students must submit:

- a record of immunization status and any annual vaccination requirements, such as the Influenza Vaccine, based on release date of vaccine.
  - Students must submit a completed immunization form to the UNBC School of Nursing prior to September in the first year of attendance. Students who fail to submit a completed form may not be allowed to practice in the clinical setting.
- documentation of one of the following Cardiopulmonary Resuscitation (CPR) certifications, which must be successfully maintained throughout the program: CPR-C or Basic Life Support (BLS).
  - BLS is highly recommended.
  - Online CPR courses that do not include face-to-face practice components are not acceptable.
  - Students must submit proof of CPR certification (and recertification) annually prior to commencement of classes, regardless of the expiry date on the card.

Admission Requirements

Admission to the NBNP is a competitive, criteria-weighted process consisting of the following two parts:

- compiled minimum admissions qualification score based on admission GPA and supplemental application materials; and
- the online CASPer assessment.

UNBC grants priority admission to students who meet admission criteria (see Admissions Section in this calendar) and apply by the deadline of January 15th. The University may review applications received after the deadline based on available space in the program.

The fulfillment of admission requirements does not guarantee admission to the NBNP. The UNBC School of Nursing considers all applicants who complete the application process and meet the minimum requirements; however, it gives preference to Canadian citizens and permanent residents. Fifty percent (50%) of NBNP seats in Fort St. John are allocated to applicants who complete a minimum of 15 university transfer credit hours at Northern Lights College (within 10 years prior to the semester of admission). A further twenty-five percent (25%) of seats in Fort St. John and twenty-five percent (25%) of seats in Prince George are allocated to self-identified Indigenous applicants. If the allocated seats listed above are not filled, UNBC offers the remaining seats to other qualified applicants.

The UNBC School of Nursing reserves the right to select and admit those students who demonstrate academic potential, strong motivation to study nursing, and the qualities, judgement and clinical aptitude necessary to be a caring and professional nurse.

Academic Requirements

Applicants must meet all of the following criteria:

- meet UNBC admission requirements;
- have a minimum B average on the most recent 60 credit hours of university level coursework;
- meet the 24 credit hours of required prerequisite coursework; and
- have a minimum of 24 credit hours of university level coursework completed at the 200 level or above.

Required Pre-Admission Courses

Students must have a minimum grade of B- in the following university level courses. Students may not use a course in more than one category to satisfy the requirements:

- Human Anatomy and Physiology (6 credit hours; lab components highly recommended);
- Microbiology (3 credit hours; lab components highly recommended);
- Statistics (3 credit hours);
- Social Sciences (3 credit hours);
- English (3 credit hours);
- Indigenous Studies (3 credit hours);
- Psychology (3 credit hours).

Note: All pre-admission courses must normally be completed within 10 years prior to the semester of admission.

CASPer Requirement

All applicants to the Northern Baccalaureate Nursing Program (NBNP) are required to complete an online computer-based assessment (CASPer) test in addition to meeting academic requirements.

CASPer is an online, video-scenario-based, situational judgement test that assesses the non-academic attributes and personal/professional characteristics of applicants that are important for the success of students and graduates of the NBNP.

It is mandatory for applicants to complete the CASPer test and submit the results to the UNBC School of Nursing prior to the NBNP application deadline.

Applicants can only write the CASPer test once within an admission cycle, and test results are only valid for one admission cycle.

Supplemental Application Information Requirements

Applicants must also submit the following documentation:

- a Rural Remote Suitability Index questionnaire;
- a résumé detailing education, work and volunteer experience and any credentials, accomplishments or experiences relevant to nursing;
- a personal statement outlining the reason(s) the Northern Baccalaureate Nursing Program is the applicant's program of choice and demonstrating why the applicant is a suitable candidate for the program; and

The applicant is responsible for arranging two references submitted directly by the referees to UNBC on the BScN Confidential Reference form. One academic and one work-related reference are preferred.

English Language Requirement

Applicants whose first language is not English, regardless of citizenship or country of origin, must submit evidence of English language proficiency prior to admission. For the NBNP, either an IELTS (International English Language Testing System) Academic, or a CELBAN (Canadian English Language Benchmark Assessment for Nurses) with current, valid results and minimum scores as set by the British Columbia College of Nurses and Midwives (BCCNM) for the year of admission is required.

Applicants who have completed 60 credit hours at recognized post-secondary institutions where English is the language of instruction, and who also have completed a university-level English course with a final grade of 75% (B) or better, may be exempt from this requirement.

Admission Requirements: Licensed Practical Nurse (LPN) Access

Licensed Practical Nurses (LPNs) who are applying for admission to the NBNP must

- meet all Northern Baccalaureate Nursing Program admission requirements;
- be graduates of a Practical Nursing program recognized by the British Columbia College of Nurses and Midwives (BCCNM) since 1994;
- have current practicing registration or be eligible for practicing registration with the BCCNM.

The UNBC School of Nursing assesses LPN applicants on an individual basis. Applicants may be eligible for up to a maximum of 15 unspecified elective transfer credit hours towards the minimum 60 UNBC or university transferable credit hours for admission. Applicants cannot apply the block of transfer credit hours towards the 24 credit hours of required prerequisite courses.

Applicants who have any of the following may not be eligible for transfer credit:

- a BC Practical Nursing Certificate prior to 1994;
- a certificate or diploma from a program outside of British Columbia;
- graduation from an institution not listed in the BC Transfer Guide.

The NBNP Coordinator, in consultation with the Program Advisor, assesses transfer credit. Further criteria may be required in order to receive transfer credit.

Program Requirements

300 Level

NRSG 300-4 Fundamentals of Nursing

NRSG 301-3	Health Assessment
NRSG 302-3	Pathophysiological Concepts
NRSG 303-3	Pharmacology
NRSG 304-3	Ethics and Law for Nursing Practice
NRSG 305-3	Concepts for Evidence-Informed Nursing
NRSG 310-3	Introduction to Nursing Practice
NRSG 311-7	Medical and Surgical Nursing Practice 1

400 Level

NRSG 400-3	Nursing Leadership for Quality Care
NRSG 410-7	Professional Practice: Mental Health
NRSG 411-7	Professional Practice: Community Health Nursing
NRSG 412-7	Professional Practice: Perinatal Health and Care of the Childbearing Family
NRSG 415-7	Medical and Surgical Nursing Practice 2

At least one of the following areas of clinical focus:

NRSG 420-8	Community Health Nursing
NRSG 421-8	Rural Health and Nursing
NRSG 422-8	Indigenous Health and Nursing
NRSG 423-8	Nursing Practice in Mental Health and Substance Use
NRSG 424-8	Acute Care Nursing
NRSG 425-8	Pediatric Nursing
NRSG 497-8	Specialty Focus in Nursing

Rural Nursing Certificate Program

The Rural Nursing Certificate Program provides the opportunity for Registered Nurses to pursue a concentrated program of courses in Rural Nursing. The Certificate provides students with some of the essential knowledge and clinical skills needed to provide nursing care in rural practice.

The Certificate Program has been developed as an academic program that is practice-driven, and is supported by health authorities across British Columbia. It is based upon the principles of primary health care, and provides an orientation to the needs of nurses working in rural and remote communities.

The Certificate requires successful completion of 30 credit hours. Admission occurs in September and January.

The Certificate is designed to be completed on a part-time basis through distance education. Students can complete their BScN through the attainment of 15 additional credit hours of prescribed courses.

Nursing Program policies for Registered Nurse students pursuing a degree apply to Certificate students.

Transfer Credit

A maximum of 15 credit hours from other recognized institutions may be transferred into the Certificate and the BScN Completion. Nursing courses must have been completed within five years prior to the semester of admission to be eligible for transfer credit into the nursing program.

Students who have completed a Registered Nurse Diploma at a recognized post-secondary institution may be eligible to receive up to 60 credit hours towards the BScN Completion.

Admission Requirements

Applicants must:

- meet UNBC admission requirements
- submit official transcript(s) from degree or diploma program
- provide evidence of active practicing registration as a nurse in the jurisdiction in which the student resides for the duration of enrollment without conditions or limitations on the license. Annual submission of documentation of current licensure is required while enrolled in the program.

Once accepted to the Rural Nursing Certificate Program, all students must complete and submit the specified immunization forms prior to commencing a course with a clinical component. If clinical hours are to be completed, all students must submit active registration without conditions or limitations within the jurisdiction in which a clinical component is to be completed. Failure to do so may result in the student not being allowed to practice in the clinical setting.

Certificate Requirements

NURS 451-3	Health Assessment and RN First Call
NURS 453-3	Nursing Practice with Older Persons
NURS 454-6	Perinatal Care
NURS 455-6	Foundations in Emergency and Trauma Nursing
NURS 456-3	Mental Health and Addictions
NURS 457-3	Living and Working in a Rural Community
NURS 462-3	Chronic Disease Management and Wound Care
NURS 463-3	Palliative Care

BScN Completion

Students wishing to complete the BScN will be required to successfully complete 15 credit hours in addition to the Rural Nursing Certificate to a total of 45 credit hours.

200 Level

STAT 240-3	Basic Statistics, or equivalent

300 Level

NURS 304-3	Introduction to Nursing Knowledge

400 Level

NURS 403-3	Introduction to Nursing Research
NURS 408-3	Nursing Leadership
POLS 403-3	Social and Health Policy and Administration

Philosophy

Boris DeWiel, Associate Professor and Coordinating Committee Chair
Jacqueline Holler, Professor (Global and International Studies)
Kevin Hutchings, Professor (English)

Philosophy is the oldest academic discipline taught at a university. From a functional point of view, philosophy is synonymous with critical thinking. From a formal point of view, it is a body of knowledge answering three questions: what is it (ontology)?; what good is it (axiology)?; and, how do you know it (epistemology)?

Minor in Philosophy

A minor in philosophy requires students to take PHIL 205-3 or POLS 270-3 and PHIL 305-3 or POLS 370-3 in addition to 12 credit hours chosen from courses listed below for a total of 18 credit hours. At least 12 credit hours must be at the 300 or 400 level.

A maximum of four courses (12 credit hours) used to fulfill program requirements for a major or another minor may also be used to fulfill requirements for a minor in Philosophy.

Required

PHIL 205-3 Introduction to the History of Philosophy
or POLS 270-3 Political Philosophy: Antiquity to Early Modernity
PHIL 305-3 History of Philosophy: Early Modernity to Post-Modernity
or POLS 370-3 Political Philosophy: Early Modernity to Post-Modernity

Four of the following:

ANTH 401-3 Anthropological Perspectives on Inequality
ANTH 405-3 Landscapes, Place and Culture
ANTH 406-3 Feminist Perspectives in Anthropology
COMM 332-3 Business and Professional Ethics
CPSC 141-3 Discrete Computational Mathematics
ENGL 200-3 Gender and Literary Theory
ENGL 300-3 The History of Literary Criticism and Theory
ENGL 400-3 Contemporary Theory
ENVS 414-3 Environmental and Professional Ethics
FNST 303-3 First Nations Religion and Philosophy
FNST 304-3 Indigenous Environmental Philosophy
HIST 300-3 Historiography: The Nature of the Historical Discipline
HIST 311-3 History of Feminism
or WMST 311-3 History of Feminism
MATH 224-3 Foundations of Modern Mathematics
PHIL 202-3 Comparative Religion
PHIL 302-3 Philosophy of Religion
PHIL 400-3 Classics in Philosophy
PHIL 472-3 Philosophical Research Seminar
POLS 372-3 Theories of Justice
POLS 413-3 Democracy and Diversity
POLS 427-3 Ethics and Public Affairs
POLS 472-3 Seminar in Political Philosophy
WMST 411-3 Contemporary Feminist Theories

Physics (BSc Program)

Ahmed Hussein, Professor Emeritus
Elie Korkmaz, Professor Emeritus
Mark Shegelski, Professor Emeritus

Erik Jensen, Professor and Chair
Ian Hartley, Professor
Matthew Reid, Professor
Jean-Sebastien Bernier, Associate Professor
George Jones, Senior Lab Instructor

Website: www.unbc.ca/physics

Physics is the study of nature at its most fundamental level. As such it is the science upon whose principles all other sciences and technologies are based. Because it is so basic, a major in physics is ideal preparation, not only for further study in physics, but also for advanced study in such diverse fields as biophysics, medicine, astrophysics, chemical physics, engineering, meteorology, and computer science.

Major in Physics

A major in Physics requires students to complete 58 credit hours of Physics; 36 credit hours of these must be at the upper-division level.

The minimum requirement for completion of a Bachelor of Science degree with a major in Physics is 120 credit hours.

Program Requirements

Lower-Division Requirement

100 Level

CHEM 100-3	General Chemistry I
CPSC 100-4	Computer Programming I
or CPSC 110-3	Introduction to Computer Systems and Programming
MATH 100-3	Calculus I
MATH 101-3	Calculus II
PHYS 110-4	Introductory Physics I: Mechanics
PHYS 111-4	Introductory Physics II: Waves and Electricity

200 Level

MATH 202-3	Multivariable Calculus I
MATH 204-3	Multivariable Calculus II
MATH 220-3	Linear Algebra
MATH 230-3	Ordinary Differential Equations and Boundary Value Problems
PHYS 200-3	Thermal Physics
PHYS 202-4	Electromagnetism and Optics
PHYS 205-3	Modern Physics I
PHYS 206-4	Modern Physics II

Upper-Division Requirement

300 Level

MATH 301-3	Introduction to Complex Analysis
MATH 336-3	Intermediate Differential Equations
PHYS 300-3	Classical Mechanics
PHYS 302-3	Quantum Mechanics I
PHYS 310-3	Classical Electromagnetism I
PHYS 390-3	Advanced Physics Laboratory

400 Level

PHYS 400-3	Quantum Mechanics II
PHYS 401-3	Seminar on Contemporary Topics in Physics
PHYS 404-3	Solid State Physics
PHYS 407-3	Statistical Mechanics
PHYS 410-3	Classical Electromagnetism II

Nine additional credit hours of Physics at the 300 or 400 level.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Recommended electives include:

CHEM 101-3	General Chemistry II
CHEM 200-3	Physical Chemistry I
CPSC 101-4	Computer Programming II
MATH 335-3	Introduction to Numerical Methods
STAT 371-3	Probability and Statistics for Scientists and Engineers

BSc Honours – Physics

The Honours Program in Physics offers students a higher level of physics education and physics research experience for proceeding to postgraduate studies in physics or related fields. Honours students must complete the program requirements for the BSc degree in Physics (Major in Physics). In addition, they must complete PHYS 402 for a minimum of 3 credit hours and submit for approval an undergraduate thesis or research project report under the supervision of a faculty member.

Students can seek entry to the Honours program after the completion of 60 credit hours with a Cumulative GPA of at least 3.33, and their continuance in the program also requires maintaining a Cumulative GPA of 3.33 or better. Entry to the Honours Program is at the discretion of the Physics Department.

Joint Major in Chemistry and Physics (BSc)

See Calendar entry under Chemistry.

Joint Major in Computer Science and Physics (BSc)

See Calendar entry under Computer Science.

Joint Major in Mathematics and Physics (BSc)

See Calendar entry under Mathematics.

Minor in Physics

Students interested in obtaining a minor in Physics must complete 27 credit hours of Physics, of which 12 must be at the upper level.

A maximum of four courses (consisting of two 100 level courses plus two courses at the 200 level or beyond to a maximum of 15 credit hours) which are used to fulfill requirements for a major (or another minor) may also be used to fulfill requirements for a minor in Physics.

The following courses are required:

PHYS 110-4	Introductory Physics I: Mechanics
PHYS 111-4	Introductory Physics II: Waves and Electricity
PHYS 202-4	Electromagnetism and Optics
PHYS 205-3	Modern Physics I

Twelve credit hours of 300 or 400 level PHYS.

The upper-division courses are selected in consultation with an advisor from the Physics Department to reflect the student's specific interests.

Political Science (BA Program)

Alex Michalos, Professor Emeritus

Gary Wilson, Professor and Chair
Michael Murphy, Professor
Boris DeWiel, Associate Professor
Fiona MacDonald, Associate Professor
Walter Babicz, Adjunct Professor
Alberto De Feo, Adjunct Professor
Tracy Summerville, Adjunct Professor
Jason Lacharite, Senior Instructor
Jason Morris, Senior Instructor III

Website: www.unbc.ca/political-science

Besides literacy and numeracy, citizenship and diplomacy are fundamental skills needed to achieve a good quality of life. Citizenship includes both the rights and duties of membership in a political community. Diplomacy is the art and practice of reaching agreements through negotiation. A healthy democracy requires the active and informed participation of its citizens, but this is only possible with a good understanding of its political institutions, processes and issues. Political Science is the discipline devoted to the systematic investigation of citizenship and diplomacy in local, national and international communities.

To achieve its purposes, the Department of Political Science offers the opportunity to study political philosophy, comparative politics, Canadian government, international politics and public administration. The latter field is offered in the Local Government Administration Certificate, which focuses on municipal and local government administration.

Majors in Political Science must take a minimum of 51 credit hours in Political Science or other designated disciplines.

The minor requires a minimum of six Political Science courses. Students may also choose to complete the certificate in Local Government Administration.

Political Philosophy

Political philosophy investigates normative questions about political life: What is the best form of government? What is justice? Is there an inherent right to self-government?

Comparative Politics

Comparative politics examines the relationships between government and society around the world. This includes studies of individual countries such as Russia or the United States, as well as political issues such as the role of government in the economy, transitions to democracy or aboriginal-state relations across sets of countries.

Canadian Government

The study of Canadian government investigates the conflicts and challenges within Canadian society and the institutions of government at federal, provincial, local and First Nations levels. This includes such topics as Canadian political culture, federalism, political economy and the Charter.

International Politics

International politics examines politics among nations and will cover a wide variety of topics such as Canadian Foreign Policy, International Organizations as well as a diversity of theoretical approaches.

Major in Political Science

Political Science majors are required to take 51 credit hours in Political Science and related disciplines.

The Political Science major offers a foundation in four fields of political science: Canadian Government, Comparative Politics, International Relations and Political Philosophy.

The minimum requirement for completion of a Bachelor of Arts with a major in Political Science is 120 credit hours.

Program Requirements

Lower-Division Requirement

100 Level

INTS 100-3	Introduction to Global Studies
POLS 100-3	Contemporary Political Issues

200 Level

POLS 200-3	Canadian Government and Politics
POLS 202-3	Canada in Comparative Perspective
POLS 230-3	International Relations
POLS 270-3	Political Philosophy: Antiquity to Early Modernity

Upper-Division Requirement

POLS 303-3	Democracy and Democratization
POLS 320-3	Canadian Politics and Policy
POLS 370-3	Political Philosophy: Early Modernity to Post-Modernity

Nine credit hours of 400-level Political Science courses

Six additional credit hours of upper-division Political Science courses

Nine credit hours of upper-division Global and International Studies courses

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in Anthropology and Political Science (BA)

See Calendar entry under Anthropology.

Joint Major in Economics and Political Science (BA)

See Calendar entry under Economics.

Joint Major in English and Political Science (BA)

See Calendar entry under English.

Joint Major in Environmental and Sustainability Studies and Political Science (BA)

See Calendar entry under Environmental and Sustainability Studies.

Joint Major in Geography and Political Science (BA)

See Calendar entry under Geography.

Joint Major in Global and International Studies and Political Science (BA)

See Calendar entry under Global and International Studies.

Joint Major in History and Political Science (BA)

See Calendar entry under History.

Joint Major in Political Science and Women's Studies (BA)

The Political Science and Women's Studies Joint Major equips students to understand the relationship between the study of the literature and its women's studies context. The degree is particularly attractive to students who intend to pursue a career in teaching or further studies in political science or women's studies.

The minimum requirement for completion of a Bachelor of Arts with a Joint Major in Political Science and Women's Studies is 120 credit hours.

Program Requirements

Lower-Division Requirement

ECON 205-3	Statistics for Business and the Social Sciences
or STAT 240-3	Basic Statistics
POLS 100-3	Contemporary Political Issues
POLS 200-3	Canadian Government and Politics
POLS 202-3	Canada in Comparative Perspective
POLS 230-3	International Relations
POLS 270-3	Political Philosophy: Antiquity to Early Modernity
WMST 100-3	Introduction to Women's Studies

Three additional Women's Studies courses (9 credit hours) at the 100 or 200 level.

Upper-Division Requirement

HIST 311-3	History of Feminism
INTS 308-3	Gender and International Studies
POLS 320-3	Canadian Politics and Policy
POLS 370-3	Political Philosophy: Early Modernity to Post-Modernity
WMST 302-3	Women and the Contemporary World
WMST 307-3	Qualitative Research Methods

Three additional Political Science courses (9 credit hours) at the 400 level.

Additional Requirement

Three of the following:

ANTH 401-3	Anthropological Perspectives on Inequality
ANTH 406-3	Feminist Perspectives in Anthropology
ECON 301-3	Women and the Economy
ENVS 309-3	Gender, Environment and Sustainability
FNST 407-3	First Nations Perspectives on Race, Class, Gender and Power
HIST 309-3	Women in Canada
HIST 453-(3-6)	Topics in the History of Gender
HIST 454-(3-6)	Topics in Women's History
NURS 412-3	Women and Health
WMST 303-3	Lesbian and Bisexual Lives
WMST 312-3	An Introduction to the History of Gender
WMST 411-3	Contemporary Feminist Theories

WMST 413-(3-6) Topics in Aboriginal Women's Studies
WMST 420-3 Contemporary Women's Literature
or ENGL 410-3 Special Topics in Contemporary Women's Literature
WMST 498-(3-6) Selected Topics in Women's Studies

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Minor in Political Science

This minor provides students with a foundation in each of the fields of Canadian Politics, Comparative Politics, and Political Theory, as well as permits some specialization in upper-division courses.

A minor in Political Science requires students to take at least six Political Science courses (18 credit hours), at least four of which must be upper division.

A maximum of two courses (6 credit hours) used to fulfill program requirements for a major or another minor may also be used to fulfill requirements for a minor in Political Science.

To fulfill the minor, students must successfully complete the following courses:

POLS 100-3 Contemporary Political Issues

One of the following:
POLS 200-3 Canadian Government and Politics
POLS 202-3 Canada in Comparative Perspective
POLS 270-3 Political Philosophy: Antiquity to Early Modernity
and four upper-division courses in Political Science.

Alternative courses may be substituted for the above with the written permission of the Department Chair or Faculty Dean.

Psychology (BSc Program)

Steven Cronshaw, Professor Emeritus
Henry Harder, Professor Emeritus
Kenneth Prkachin, Professor Emeritus

John Sherry, Associate Professor and Chair
Sherry Beaumont, Professor
Han Li, Professor
Paul Siakaluk, Professor
Annie Duchesne, Associate Professor
Xiaoxue (Sonia) Kong, Assistant Professor
Christopher Kowalski, Assistant Professor
Loraine Lavallee, Assistant Professor
Nick Reid, Assistant Professor
James Climenhage, Adjunct Professor
Tammy Klassen-Ross, Adjunct Professor
Elizabeth Rocha, Adjunct Professor
Anita Shaw, Adjunct Professor
Julie Howard, Senior Lab Instructor IV

Website: www.unbc.ca/psychology

Psychology is the study of behaviour, feelings, and thinking. Psychologists study the biopsychosocial and developmental mechanisms and processes that regulate the behaviour of individuals. The goal of the Department of Psychology is to provide advanced knowledge in the substantive areas of psychology, as well as excellent training that enhances students' competitiveness for advanced graduate study in psychology and related areas.

Major in Psychology

Undergraduate students are required to take a minimum of 55 credit hours of psychology courses. Of these, at least 38 credit hours must be upper-division courses.

The minimum requirement for completion of a Bachelor of Science with a major in Psychology is 121 credit hours.

Program Requirements

Lower-Division Requirement

100 and 200 Level
PSYC 101-3 Introduction to Psychology I
PSYC 102-3 Introduction to Psychology II
PSYC 215-3 Research Design and Methodology in Psychology I

Three of the following:
PSYC 207-3 Social Psychology
PSYC 211-3 Lifespan Development
PSYC 212-3 The Psychology of Learning
PSYC 221-3 Biopsychology

Upper-Division Requirement

300 and 400 Level
PSYC 315-4 Analysis of Psychological Research

Two of the following:
PSYC 314-3 Emotion and Motivation
PSYC 318-3 Sensation and Perception
PSYC 319-3 Philosophy of Mind
PSYC 332-3 Cognition

Two of the following:
PSYC 303-3 Introduction to Abnormal Psychology
PSYC 306-3 Theories of Personality
PSYC 309-3 Introduction to Health Psychology
PSYC 322-3 Positive Psychology

Twenty-one credit hours of 300- or 400-level Psychology courses, of which 9 credit hours must be at the 400 level.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 121 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

BSc Honours – Psychology

Honours students are required to complete 122 credit hours. Students must successfully complete the 55 credit hours for the Psychology BSc program, 51 credit hours of electives and 16 credit hours from the courses listed below:

PSYC 416-4 Advanced Analysis of Psychological Research
PSYC 490-3 Honours Thesis I
PSYC 495-3 Honours Thesis II
and two additional 400-level Psychology courses.

Each student must complete a thesis (PSYC 490-3 Honours Thesis I, and PSYC 495-3 Honours Thesis II) under the supervision of a faculty member. To enter the Honours Program students must have completed 60 credit hours and obtained a minimum GPA of 3.33 on the last 60 credit hours completed at the time of declaration to the Honours Program.

Attaining the minimum requirement does not guarantee entry to the Honours Program, which will be at the discretion of the Department. Students must maintain a Semester GPA of 3.33 to remain in the Honours Program as

well as receive no grade lower than a C+ in any Psychology course after entry to the Honours Program.

Students are responsible to find their own undergraduate thesis research supervisor. Faculty members are under no obligation to supervise Honours students.

The minimum requirement for completion of a BSc Honours - Psychology is 122 credit hours.

Minor in Psychology

The minor in Psychology provides students with a foundation in the natural and social science components of the discipline and exposure to its basic observational and analytic methods. It also allows the student to pursue special interests within the discipline at the upper-year levels.

A maximum of two courses (6 credit hours) used to fulfill program requirements for a major or another minor may also be used to fulfill requirements for a minor in Psychology.

To fulfill the minor, students must successfully complete a total of 27 credit hours from the following courses:

PSYC 101-3 Introduction to Psychology I
PSYC 102-3 Introduction to Psychology II
PSYC 215-3 Research Design and Methodology in Psychology I

Two of the following:
- PSYC 207-3 Social Psychology
- PSYC 211-3 Lifespan Development
- PSYC 212-3 The Psychology of Learning
- PSYC 221-3 Biopsychology

One of the following:
- PSYC 303-3 Introduction to Abnormal Psychology
- PSYC 306-3 Theories of Personality
- PSYC 309-3 Introduction to Health Psychology
- PSYC 322-3 Positive Psychology

One of the following:
- PSYC 314-3 Emotion and Motivation
- PSYC 318-3 Sensation and Perception
- PSYC 319-3 Philosophy of Mind
- PSYC 332-3 Cognition

Two other 300- or 400- level Psychology courses.

Social Work (BSW Program)

Dawn Hemingway, Professor Emerita
Glen Schmidt, Professor Emeritus

Tammy Pearson, Associate Professor and Chair
Indrani Margolin, Professor
Bruce Bidgood, Associate Professor
Susan Burke, Associate Professor
Gretchen Perry, Associate Professor
Si Chava Transken, Associate Professor
Emmanuel Chilanga, Assistant Professor
Tareq Hardan, Assistant Professor
Lisa Kyle, Assistant Professor
Nancy Jokinen, Adjunct Professor
Christa Sato, Lecturer
Melanie Lansall, Senior Lab Instructor

Website: www.unbc.ca/social-work

The School of Social Work offers a schedule of studies leading to the degree of Bachelor of Social Work (BSW).

The Bachelor of Social Work is designed to prepare students for beginning-level generalized social work practice with individuals, families, groups and communities. The program's orientation places emphasis on Social Work in northern and remote areas, Indigenous peoples, women and the human services, and community practice and research. Analyses of class, gender and race relations are considered central to the School of Social Work. As mandated by its accrediting body, the Canadian Association for Social Work Education (CASWE), and the relevant Social Work Codes of Ethics, Social Work at UNBC provides a professional program that prepares graduates with the intellectual, analytical, practical and professional skills needed to advocate for justice and equality and to promote beneficial change.

Admission Requirements

Admission to the Bachelor of Social Work program is limited and is based on academic qualifications and available space. Students will normally complete 60 credit hours of study that includes a minimum of 48 credit hours of liberal arts and science courses. Students will achieve a minimum grade point average of 2.67 (B-) (calculated on a student's most recent 60 credit hours of study) and meet other selection criteria prior to program entry. More information about these criteria can be found in the BSW Supplementary Application for Admission form.

Students who have completed a social service worker program at a community college may be eligible for discretionary transfer credit.

The School of Social Work will permit up to three Social Work elective courses to be taken prior to formal admission to the BSW program. Successful completion of these courses does not guarantee admission into the program.

Students will be required to undergo a criminal records search prior to being admitted (see Academic Regulation on *Criminal Records Review*).

Students applying to the School of Social Work will have completed the following four BSW course prerequisites:

FNST 100-3	The Aboriginal Peoples of Canada
SOCW 200-3	Introduction to Social Work Practice
SOCW 201-3	Introduction to Social Welfare
WMST 100-3	Introduction to Women's Studies

Students applying to the School of Social Work with a Baccalaureate degree in a related discipline do not have to complete the four BSW course prerequisites.

Students admitted to the Bachelor of Social Work program are required to withdraw from the Bachelor of Social Work program if they register a second fail in Social Work Field Education (SOCW 302-6 and/or SOCW 402-15).

The minimum requirement for a Bachelor of Social Work is 120 credit hours.

Field Placements

Every effort will be made to secure appropriate field placements for students in the School of Social Work. However, the location and type of placement are subject to availability.

Costs Associated with the School of Social Work

Costs associated with study in the School of Social Work are the responsibility of the individual student, including transportation costs and any expenses involved in academic studies, lab, and field placement. In some circumstances, students may complete field experiences at sites other than their campus of registration. Provision for all travel, accommodation, and living expenses associated with field education is the sole responsibility of the student.

Standards of Professional Conduct

All students are expected to abide by professional standards as set forth by the Canadian Association for Social Work Education (CASWE) and the relevant Social Work Codes of Ethics. Violation of professional standards may result in suspension or dismissal from the program or the educational institution.

Academic Performance

Students must adhere to all policies and regulations of the institution(s) where they are registered for courses. This requirement includes but is not limited to matters related to academic appeals and academic dishonesty. Progression through the program is governed by guidelines on academic standing and continuance; however, probation guidelines are governed by UNBC.

Students must obtain the minimum passing grade for all required Social Work courses as defined under "Qualification for Degree."

Students are required to withdraw from their respective Social Work programs if they have two instances of not meeting the minimum passing grade requirement either in the same Year or in two consecutive Years, in any combination of the following:

SOCW 300, SOCW 301, SOCW 302, SOCW 310, SOCW 320, SOCW 330, SOCW 336, SOCW 401, SOCW 402, SOCW 420 and SOCW 421.

A 'Year' is comprised of all the mandatory SOCW courses in a given Level (e.g. Year 3 includes all 300-level courses listed under the Upper-Division requirements in the Calendar) regardless of how long it takes the student to complete the courses.

Qualification for Degree

It is the responsibility of the student to ensure that their degree requirements are met. Graduation requirements are found in the Regulations and Policies section of this Calendar. To fulfill the requirements of graduation, the student must also:

- attain a minimum Cumulative GPA of 2.33 (C+) on courses for credit towards the Social Work degree;
- obtain a minimum passing grade of 2.00 (C) in every Social Work course for credit towards the degree (**note:** Students enrolling in any required course must have completed all prerequisites with a grade of C or better); and
- complete all requirements for the BSW program within eight years of admission into the program or from the first Social Work course used for credit towards the degree.

Transfer Credit

All transfer credit for coursework taken prior to admission to the BSW program is evaluated, and applied at the time of initial registration in the program. After students have been admitted to the School of Social Work, coursework taken in other institutions for transfer credit towards the degree requires a letter of permission prior to registration in the course.

Program Requirements

300 Level

SOCW 300-6	Introduction to Counselling and Assessment Skills
SOCW 301-3	Critical Social Work Practice
SOCW 302-6	Social Work Field Education I
SOCW 310-3	Social Work and Indigenous Peoples
SOCW 320-3	Critical Social Policy
SOCW 330-3	Social Work Research/Policy/Practice
SOCW 336-3	Social Work Philosophy and Ethics

400 Level

SOCW 401-3	Northern/Remote Social Work Practice
SOCW 402-15	Social Work Field Education II
SOCW 420-3	Family/Child Welfare Policy
SOCW 421-3	Human Growth and Development

Students must select an additional 9 credit hours of approved 400-level Social Work courses from the approved list.

SOCW 426-3	Current Issues in Child Welfare Practice
SOCW 437-3	Social Work with Groups and Communities
SOCW 439-3	Social Work/Law and the Justice System
SOCW 440-3	Social Work in Mental Health
SOCW 441-3	Social Work and Substance Use
SOCW 442-3	Social Work with Victims of Abuse
SOCW 443-3	Social Work and Health Care
SOCW 444-3	Social Work Critical Issues in Aging
SOCW 450-3	Social Work and Family Practice
SOCW 453-3	Social Work Practice and Spirituality
SOCW 454-3	Disability Issues
SOCW 455-3	Indigenous Governance and Social Policy
SOCW 456-3	Indigenous Wellness: Individuals, Families, and Communities
SOCW 498-(3-6)	Special Topics
SOCW 499-3	Directed Readings

Elective Requirement

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours.

Wildlife and Fisheries (BSc Program)

Staffan Lindgren, Professor Emeritus
Michael Gillingham, Professor Emeritus
Katherine Parker, Professor Emerita

Ken Otter, Professor and Chair
Mark Dale, Professor
Russell Dawson, Professor
Dezene Huber, Professor
Chris Johnson, Professor
Nicola Koper, Professor
Brent Murray, Professor
Mark Shrimpton, Professor
Erin Baerwald, Associate Professor
Heather Bryan, Associate Professor
Jamie Gorrell, Associate Professor
Eduardo Martins, Associate Professor
Roy Rea, Associate Professor
Shannon Crowley, Adjunct Professor
Dexter Hodder, Adjunct Professor
Jenia Blair, Senior Lab Instructor
Saphida Migabo, Senior Lab Instructor

Website: www.unbc.ca/wildlife-fisheries

The BSc in Wildlife and Fisheries provides students with a solid foundation in wildlife and fisheries biology, with considerable indoor and outdoor laboratory experience, exposing students to an integrated approach to resource issues that confront today's professionals. The combination of theoretical and applied ecology with practical labs and exercises in the Wildlife and Fisheries degree gives students the background to pursue post-graduate studies and public- and private-sector employment in the wildlife or fisheries professions. Students completing all courses in the Wildlife and Fisheries degree meet the education requirements for eligibility as a Registered Professional Biologist (RPBio) in BC.

The minimum requirement for completion of a Bachelor of Science in Wildlife and Fisheries is 123 credit hours.

Major in Wildlife and Fisheries

Program Requirements

Lower-Division Requirement

100 Level

BIOL 103-3 Introductory Biology I
BIOL 104-3 Introductory Biology II
BIOL 123-1 Introductory Biology I Laboratory
BIOL 124-1 Introductory Biology II Laboratory
CHEM 100-3 General Chemistry I
CHEM 101-3 General Chemistry II
CHEM 120-1 General Chemistry Lab I
CHEM 121-1 General Chemistry Lab II
MATH 152-3 Calculus for Non-majors
NREM 100-3* Field Skills
NREM 101-3 Introduction to Natural Resources Management and Conservation
NRES 100-3 Communications in Natural Resources and Environmental Studies
or ENGL 170-3 Writing and Communication Skills
PHYS 100-4 Physics for Life Sciences I
or PHYS 115-4 General Introduction to Physics

*Applications for exemption from NREM 100-3 must be made within the first year of study in this degree.

200 Level

BIOL 201-3 Ecology
BIOL 210-3 Genetics
CHEM 220-3 Organic and Biochemistry
FSTY 201-3 Forest Plant Systems
or BIOL 301-3 Systematic Botany
FSTY 205-3 Introduction to Soil Science
FSTY 207-1 Terrestrial Ecological Classification
GEOG 204-3 Introduction to GIS
NREM 204-3 Introduction to Wildlife and Fisheries
STAT 240-3 Basic Statistics

Two of the following:
BIOL 202-3 Invertebrate Zoology
BIOL 204-3 Plant Biology
BIOL 315-3 Animal Diseases and Parasites
ENPL 201-3 Land Policy in British Columbia
or NREM 201-3 Land Policy in British Columbia
GEOG 210-3 Introduction to Earth Science
GEOG 310-3 Hydrology

Upper-Division Requirement

300 Level

BIOL 302-3 Limnology
BIOL 307-3 Ichthyology and Herpetology
BIOL 308-3 Ornithology and Mammalogy
BIOL 323-3 Evolutionary Biology
BIOL 325-3 Ecological Analyses

ENPL 305-3 Environmental Impact Assessment
or ENPL 401-3 Environmental Law
or ENVS 326-3 Public Engagement for Sustainability
or ENVS 414-3 Environmental and Professional Ethics
NREM 303-3 Aboriginal Perspectives on Land and Resource Management
or NREM 306-3 Society, Policy and Administration

400 Level
BIOL 402-3* Aquatic Plants
or BIOL 404-3 Plant Ecology
BIOL 406-3 Fish Ecology
BIOL 410-3 Population and Community Ecology
BIOL 412-3 Wildlife Ecology
BIOL 413-3 Wildlife Management
or BIOL 414-3 Fisheries Management

One of the following:
BIOL 409-3 Conservation of Aquatic Ecosystems
BIOL 411-3 Conservation Biology
ENSC 402-3 Watershed Science and Management
NREM 333-3 Field Applications in Resource Management
NREM 400-4 Natural Resources Planning
NREM 409-3 Conservation Planning

***Note:** Prerequisites for these courses may be met by appropriate selection of courses in options listed in "Two of the following" at the 200 level above.

Elective Requirement

Elective credit hours must be taken as necessary to ensure completion of a minimum of 123 credit hours, while ensuring 15 courses (45-46 credit hours) are at the upper-division level in any of BIOL, FSTY, NREM, NRES, or ORTM.

BSc Honours – Wildlife and Fisheries

The Honours in Wildlife and Fisheries recognizes undergraduate students who both excel at their studies and who complete an undergraduate thesis (normally NRES 430-6).

To enter the Honours Program, students must have completed 60 credit hours and obtained a minimum Cumulative GPA of 3.33. Attaining the minimum requirement does not guarantee admission into the Honours Program, which will be at the discretion of the Ecosystem Science and Management Program. Maintenance of a Cumulative GPA of 3.33 is required to remain in the Honours Program.

Honours students are required to complete the degree requirements for the BSc in Wildlife and Fisheries. Each student also must complete a 6-credit Undergraduate Thesis (as part of their elective credit hours) under the supervision of a faculty member. Students are responsible to find their own undergraduate thesis research supervisor. Faculty members are under no obligation to supervise Honours students.

Women's Studies (BA Program)

Maryna Romanets, Professor and Coordinator
Jacqueline Holler, Professor
Theresa Healy, Adjunct Professor
Dawn Hemingway, Adjunct Professor

Website: www.unbc.ca/gender-studies

Women's Studies is an interdisciplinary field dedicated to studying the historical, cultural, literary, and societal role of women and gender. UNBC's program has strengths in areas such as women's and gender history; gender, literature, and literary theory; gender, colonialism, and postcolonialism; gender and globalization; feminism, justice, and ethics; gender and health; and gender and international studies.

The Women's Studies program offers majors and minors in Women's Studies and, in cooperation with other programs, four joint majors. At the graduate level, the program offers a Master's degree in Gender Studies.

Major in Women's Studies

A major in Women's Studies requires students to take 48 credit hours of Women's Studies (16 courses), at least 36 credit hours of which must be upper-division courses either in Women's Studies or from the gender-and/or women related offerings of other programs.

The minimum requirement for completion of a Bachelor of Arts with a major in Women's Studies is 120 credit hours.

Program Requirements

Lower-Division Requirement

WMST 100-3 Introduction to Women's Studies

Three additional Women's Studies courses at the 100 or 200 level.

Upper-Division Requirement

WMST 302-3 Women and the Contemporary World
WMST 307-3 Qualitative Research Methods

Three of the following:

WMST 306-3 Indigenous Women: Perspectives
or FNST 306-3 Indigenous Women: Perspectives
WMST 311-3 History of Feminism
or HIST 311-3 History of Feminism
WMST 312-3 An Introduction to the History of Gender
or HIST 312-3 An Introduction to the History of Gender
WMST 413-(3-6) Topics in Aboriginal Women's Studies
WMST 420-3 Contemporary Women's Literature
or ENGL 410-3 Special Topics in Contemporary Women's Literature

Additional Requirement

Seven courses (21 credit hours) selected from the following:

ANTH 401-3 Anthropological Perspectives on Inequality
ANTH 406-3 Feminist Perspectives in Anthropology
ECON 301-3 Women and the Economy
ENVS 309-3 Gender, Environment and Sustainability
FNST 407-3 First Nations Perspectives on Race, Class, Gender and Power
HIST 309-3 Women in Canada
HIST 453-(3-6) Topics in the History of Gender
HIST 454-(3-6) Topics in Women's History
INTS 308-3 Gender and International Studies
NURS 412-3 Women and Health
WMST 303-3 Lesbian and Bisexual Lives
WMST 411-3 Contemporary Feminist Theories
WMST 498-(3-6) Selected Topics in Women's Studies

Alternative courses related to women and/or gender may be substituted with the written permission of the Program Coordinator.

Electives and Academic Breadth

Elective credit hours must be taken as necessary to ensure completion of a minimum of 120 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation on *Academic Breadth*).

Joint Major in English and Women's Studies (BA)

See Calendar entry under English.

Joint Major in First Nations Studies and Women's Studies (BA)

See Calendar entry under First Nations Studies.

Joint Major in History and Women's Studies (BA)

See Calendar entry under History.

Joint Major in Political Science and Women's Studies (BA)

See Calendar entry under Political Science.

Minor in Women's Studies

In conjunction with a major in another program, students may pursue a minor in Women's Studies. A minor in Women's Studies requires 18 credit hours of Women's Studies courses, 12 of which must be upper-division courses. Courses used to fulfill program requirements for a major (or another minor) may not be used toward a minor in Women's Studies.

Division of Medical Sciences

The Division of Medical Sciences is an academic administrative unit that consists of the UBC MD Undergraduate Program (Northern Medical Program), the distributed UBC Health Professions Degree Programs, and the UBC/UNBC joint Health Professions Degree Programs. The Division of Medical Sciences promotes scholarship and innovation in research and medical education to address societal health needs, specifically in northern and rural communities. It is affiliated with the Faculty of Human and Health Sciences for the purposes of professional academic association and collaboration.

Northern Medical Program

The Northern Medical Program (NMP) is part of UBC's Faculty of Medicine Distributed Medical Program and is a partnership involving the University of British Columbia (Vancouver Fraser Medical Program – VFMP and Southern Medical Program – SMP), the University of Victoria (Island Medical Program – IMP) and the University of Northern British Columbia (Northern Medical Program – NMP).

Students interested in the NMP apply through UBC's Faculty of Medicine Admissions. NMP students are fully registered UBC students and receive UBC medical degrees upon graduation.

NMP students spend their first two years studying at the UNBC campus in Prince George. Students are also offered opportunities to spend time in local physicians' offices working with patients and at the University Hospital of Northern British Columbia (UHNBC) learning clinical skills.

The third year is more clinically intensive. Students complete their clinical clerkships in hospital and community settings in northern British Columbia. The majority of students complete their clerkships at the UHNBC. In these clerkships, students rotate through different disciplines, spending several weeks in each. Terrace and Fort St. John are home to integrated clerkships in which up to four students from each class spend their entire third year in those communities. In integrated clerkships, students follow the same objectives and experience the same disciplines as traditional clerkships, but do so in an integrated manner.

The fourth year of medical education is composed of electives in areas of medicine which are of particular interest to the student.

After successfully completing the four-year undergraduate MD program, graduates enter residency training across Canada in one of over 50 specialty areas, including family medicine. Residency programs currently offered in northern BC include family medicine and psychiatry in Prince George, and family medicine in both Terrace and Fort St. John. A number of other UBC residency programs include rotations throughout northern BC. Depending on the residency program chosen, post-graduate training ranges from two to six years.

Affiliate Status and Access to UNBC Student Services

UNBC offers an array of student services designed to foster student success. While academic registrations for all NMP students are at UBC, NMP students are registered as "affiliate students" at UNBC, enabling them to take advantage of student services on campus at UNBC. During 3rd and 4th year, when NMP students spend most of the time off campus, the list of UNBC services offered is reduced. Please consult the NMP Student Affairs Office for a complete and current list.

Academic and Non-Academic Policies, Procedures and Regulations

NMP students are subject to the UBC Faculty of Medicine's policies, procedures and regulations. For more information, please visit entrada.med.ubc.ca/community/policiesandforms.

While studying at the UNBC campus, NMP students are also subject to UNBC's non-academic related policies and procedures. For more information, please visit www.unbc.ca/policy.

How to Apply

Admission to the NMP is done through the UBC Faculty of Medicine Admissions Office. To apply for admission and to confirm application deadline dates for the Faculty of Medicine, please visit www.mdprogram.med.ubc.ca/admissions.

Office of the Division of Medical Sciences

The Office of the Division of Medical Sciences is responsible for the delivery of the NMP curriculum in northern BC. This responsibility includes the coordination of teaching and research staff, the support of student well-being, and the maintenance of close links with UBC and UVic. For more information about the NMP, please visit www.unbc.ca/northern-medical-program.

Course Prefixes Listed Alphabetically

Course Code	Courses
ANTH	Anthropology
ARTS	Arts
ASTR	Astronomy
BCMB	Biochemistry and Molecular Biology
BIOL	Biology
CHEM	Chemistry
CIVE	Civil Engineering
COMM	Commerce/Business Administration
COOP	Cooperative Education
CPSC	Computer Science
ECON	Economics
EDUC	Education
ENGL	English
ENGR	Engineering
ENPL	Environmental Planning
ENSC	Environmental Science
ENVE	Environmental Engineering
ENVS	Environmental and Sustainability Studies
FNST	First Nations Studies
FSTY	Forestry
GEOG	Geography
HHSC	Health Science
HIST	History
INTS	Global and International Studies
INTX	International Exchange
MATH	Mathematics
NORS	Northern Studies
NREM	Natural Resources Management
NRES	Natural Resources and Environmental Studies
NRSG	Nursing
NURS	Nursing
ORTM	Outdoor Recreation and Tourism Management
PHIL	Philosophy
PHYS	Physics
POLS	Political Science
PSYC	Psychology
SOCW	Social Work
STAT	Statistics
UNIV	University
VRES	Visiting Research Student
WMST	Women's Studies

Upper Division and Graduate Level Courses

Credit is not granted for both 400- and 600-level courses having the same title, unless otherwise specified in the course description.

Prerequisites

A prerequisite course is an academic requirement that must be completed prior to the student taking a course. Unless otherwise stated, a passing grade of D- or better is required to satisfy as a prerequisite course.

Prerequisites are used to ensure that a student has the required background to successfully complete the course. Prerequisites may also have prerequisites. These prerequisites must also be fulfilled.

For example: COMM 314-3 has a prerequisite of COMM 313-3, COMM 313-3 has a prerequisite of COMM 210-3, and COMM 210-3 has a prerequisite of COMM 100-3. In this case, a student must have credit for COMM 313-3, COMM 210-3, and COMM 100-3 before being eligible to enroll in COMM 314-3.

Course Offerings

Not all courses are offered every year. Check online course listings for a list of the courses being offered in each semester.

Course Descriptions

The following explanation will help clarify the terms found in the course descriptions.

Course Number—indicates discipline and level of study (100-299 for lower division, 300-499 for upper division, 500 for honours level and post-baccalaureate courses).

Credit Hours—credit hours are assigned to each course; most courses are 3 credit hours.

Courses with Variable Credit Hours—some courses are listed with a choice of credit hours; for example: (3-6) implies that the course may be offered for any number of credit hours from 3 to 6 inclusive. Some courses may be repeated for credit when the subject matter differs substantially. Where an option to repeat is available, a statement to this effect appears within the course description.

BIOL 312-3 Molecular Cell Physiology This course examines the molecular basis of cellular processes from cell-division to cell signalling, cell and tissue interactions, cellular mechanisms of development, cell differentiation, and the immune system.
Prerequisite(s): BIOL 311-3
Preclusion(s): BIOL 424-3

Course Title

Course Description

Prerequisites/Corequisites—requirements needed before or concurrent with a student's registration in the course. This section may also contain recommendations that will help students understand the course materials better.

Preclusions—Students cannot receive credit for both the course being described and the course(s) listed in this section.

Anthropology (ANTH)

ANTH 102-3 Anthropology: A World of Discovery Using a thematic approach, this course explores what defines the human species. Some of the themes explored may include human evolution and our primate biological kin; archaeology and digging for the past; culture in a global world; communication or the essentials of being a talking and increasingly texting primate; health as social and biological; production and consumption, from the first stone tools to the Big Mac; and other topics that deal with humanity past and contemporary.

Prerequisite(s): None
Preclusion(s): ANTH 100-3, ANTH 101-3

ANTH 200-3 Biological Anthropology This course is a survey of the origins and evolution of humans. Topics include an introduction to evolutionary and population genetic theory; trends and debates in human evolution; humans as primates; principles of human growth and development; and biocultural adaptation in contemporary human populations.

Prerequisite(s): None
Recommendation(s): ANTH 102-3

ANTH 201-3 Medical Anthropology This course explores understandings of wellness across cultures through the classification of health and illness categories. It examines evidence for the evolution of human vulnerability to disease across the life cycle (conception to death) and the implications for health of contemporary populations using biocultural and political-economic lenses.

Prerequisite(s): None
Recommendation(s): ANTH 102-3

ANTH 203-3 Archaeology of the Americas This course is a survey of the deep and fascinating regional histories of Indigenous peoples of North, Central, and South America. Using archaeological evidence, students examine topics such as First Peoples; adaptations to a diverse range of environments; the development of agriculture, trade networks, resource management, permanent villages and cities; and the consequences of European contact.

Prerequisite(s): None
Recommendation(s): ANTH 102-3

ANTH 205-3 Introduction to Archaeology An introduction to archaeological methods. This course will trace the developmental history of the discipline, and will focus on current methods and techniques used in archaeology. Using case studies drawn from around the globe, the course will highlight the holistic and interdisciplinary nature of archaeology.

Prerequisite(s): None
Recommendation(s): ANTH 102-3

ANTH 206-3 Indigenous Ethnography in Northern British Columbia This course is a survey of the ethnographic literature for northern British Columbia, with a focus on Indigenous communities, and an introduction to the methodology and paradigms of ethnographic research.

Prerequisite(s): None
Preclusion(s): FNST 207-3
Recommendation(s): ANTH 102-3

ANTH 207-3 Popular Culture The study of contemporary cultural phenomena with anthropological methods.

Prerequisite(s): None
Recommendation(s): ANTH 102-3

ANTH 211-3 Anthropology Through Film This course will introduce the student to the subject matter and theories of social and cultural anthropology through the extensive use of anthropological and documentary film. Topics will cover a spectrum of issues, including: marriage and the family; economics; ritual and religion; conflict and conflict resolution; and culture change, among others.

Prerequisite(s): None
Recommendation(s): ANTH 102-3

ANTH 212-3 Archaeology of the Old World This survey course focuses on human antiquity outside of the Americas. Temporally the course covers some two and a half million years of prehistory, beginning with the earliest known archaeological evidence in Africa, and ending with the great civilizations of Asia, Europe and Africa.

Prerequisite(s): None
Recommendation(s): ANTH 102-3

ANTH 213-3 Peoples and Cultures This course examines the diversity of human cultures and languages through the comparison of contemporary societies, and patterns of social organization.

Prerequisite(s): None
Preclusion(s): ANTH 101-3
Recommendation(s): ANTH 102-3

ANTH 214-3 Anthropology of Europe A survey of the anthropological literature of Europe, with a focus on selected cultures or regions. The course will discuss the methodology and paradigms of the area's ethnographic research.

Prerequisite(s): None
Recommendation(s): ANTH 102-3

ANTH 215-3 Anthropology of Canada A survey of the anthropological literature describing Canada, with a focus on selected cultures or regions. Examples relevant to northern peoples and issues will be used. The course will discuss the methodology and paradigms of the area's ethnographic research. This course will allow students to make inferences to analyze what is happening in their own community.

Prerequisite(s): None
Recommendation(s): ANTH 102-3

ANTH 216-3 Anthropology of Food, Drink and Health This course uses a biocultural approach to examine the relationship between humans and food (e.g., origins, acquisition and avoidance; distribution; preparation). The evolution of food and health (human dietary needs; malnutrition) is explored over time with regard to hunter-gatherers, food domesticators, and contemporary populations.

Prerequisite(s): None

ANTH 217-3 Language and Culture This course provides an overview of the ways linguistic anthropology analyzes languages and communication. Topics may include: ethnolinguistics and ethnoscience; discourse analysis; and language use and language planning in the modern nation-state.

Prerequisite(s): None
Preclusion(s): ANTH 306-3
Recommendation(s): ANTH 102-3

ANTH 218-3 Introduction to Folklore and Cultural Heritage This course is designed for students who have an interest in cultures. It allows students to develop research and communication skills by examining policies and best practices in conservation, cultural heritage, folklore research methods, and cultural and linguistic safeguarding. This course may have a field trip or experiential-learning component.

Prerequisite(s): None
Preclusion(s): INTS 218-3

ANTH 230-3 Introduction to Forensic Anthropology This course examines the contribution of anthropology to the recovery, identification and interpretation of recent human skeletal remains. Topics covered include forensic archaeology, methods of biological and personal identification, trauma and taphonomy, crime scene analysis, the anthropologist as an expert witness, war crimes, and mass graves.

Prerequisite(s): None
Recommendation(s): ANTH 102-3

ANTH 231-3 Anthropology and Africa This course explores the historical connections between anthropology and Africa by introducing ethnographic studies of ritual, kinship, religion, economy, violence, law, and political order. Students examine local/global politics, and African identities through a colonial lens but also consider potential social change and more equitable futures. Key questions are: What does 'Indigenous' or indigeneity mean in African contexts? How do ethnographic studies of African contexts help us understand the broader world?

Prerequisite(s): None
Recommendation(s): ANTH 102-3

ANTH 240-3 The Neandertals This course examines conceptions and misconceptions of the most enigmatic of our ancestors, the Neandertals. Since first discovered in 1848 Neandertals have occupied a special place in the story of human evolution - they have been pathologized, idealized, and romanticized. Neandertals have generated more controversy surrounding human evolution than any other ancestor. This course examines aspects of biology, culture, symbolic behaviour, and subsistence, considering Neandertal origins and 'disappearance,' as well as considering how Neandertals have been represented in 'popular culture' over the past 150 years.

Prerequisite(s): None
Recommendation(s): ANTH 102-3

ANTH 250-3 The Ancient Egyptians This course is a survey of the development and workings of ancient Egyptian state society. The course begins with the pre-Dynastic Period and ends with the Ptolemaic Period, but the major focus is on the Dynastic Period. Using a combination of archaeological and documentary evidence, the course examines ancient Egyptian history, politics, technology, cosmology, and other aspects of everyday life.

Prerequisite(s): None
Recommendation(s): ANTH 102-3

ANTH 298-(3-6) Topics in Anthropology This course covers particular aspects of anthropology selected by the instructor. This course may be repeated for credit (maximum 6 credit hours) with permission of the Department Chair (permission to be given only when the subject matter differs substantially).

Prerequisite(s): None
Recommendation(s): ANTH 102-3

ANTH 300-3 Qualitative Research Methods for Social and Medical Anthropology This course explores the significance of the ethnographic method in the practice of qualitative research. Students learn about defining research questions, creating research designs, selecting research strategies, and understanding the ethics of carrying out research. Topics include different kinds of data collection and research tools, including participant-observation, interviewing, focus groups, data recording through field notes, journaling, and visual and sound methods. Students are introduced to qualitative health research methods used in medical anthropology.

Prerequisite(s): 60 credit hours or permission of the instructor

ANTH 301-3 Archaeological Lab Methods This course introduces students to laboratory methods used in archaeological analyses. Topics will include chipped and ground stone tools, fauna, bone tools, basketry, quantitative methods and more. Students will conduct research projects, and may have the opportunity to analyze artifacts from archaeological sites in British Columbia and elsewhere.

Prerequisite(s): ANTH 205-3

ANTH 303-3 Museums, Galleries, Archives This course explores anthropological museum practice, archival research, and art curation. Special attention is given to community stakeholders in curatorial practice and heritage management. Students engage in hands-on archival research and participate in multiple museum/gallery field trips.

Prerequisite(s): Upper-division standing or permission of the instructor

ANTH 305-3 Circumpolar Ethnography A survey of the archaeological and ethnographic literature on the North, with a focus on selected cultures from Alaska, northern Canada, Greenland, northern Scandinavia and northern Russia. The course will discuss the methodology and paradigms of the area's ethnographic research.

Prerequisite(s): None
Preclusion(s): NORS 321-3
Recommendation(s): ANTH 102-3 or ANTH 213-3

ANTH 310-3 Practicing Anthropology This course examines the career opportunities and ethical challenges of practicing sociocultural anthropology outside of academia, in areas such as international aid and development, business and industry, policy and defence, art and design, legal consultancy, and community and government organizations. Students explore the relevance of anthropological training in working with clients, consultants, and communities. Through a series of course assignments, students build a proposal for their own consultancy projects.

Prerequisite(s): Upper-division standing
Recommendation(s): One of ANTH 200-3, ANTH 205-3 or ANTH 213-3

ANTH 312-3 Human Adaptability and Environmental Stress This course examines the human capacity to adapt to a wide array of environmental (physical and social) stressors. Topics include: adaptation to extreme environments (e.g. cold, hot, high altitude); (mal)adaption to modern and urban conditions (e.g. sleep, crowding, noise, pollution); and the role of genetics, culture/behaviour, and epigenetics in human adaptation.

Prerequisite(s): ANTH 200-3 or permission of the instructor

ANTH 313-3 Plagues and Peoples This course examines the relationship between humankind and infectious disease. Using cultural, evolutionary, epidemiological, and ecological perspectives, students examine the interplay between human behaviour and infectious disease through a study of specific plagues and epidemics through history. An over-arching objective is to appreciate how humanity's past experience with plagues can inform our current and future encounters with new (or re-emerging) diseases.

Prerequisite(s): None
Preclusion(s): ANTH 298-3 when offered as Plagues and Peoples
Recommendation(s): ANTH 102-3

ANTH 315-3 Anthropological Theory This course investigates the major theoretical trends in anthropology from the nineteenth century to the present. It will introduce central issues in anthropology theory, key concepts in the discipline, important authors and debates over theoretical perspectives.

Prerequisite(s): 60 credit hours
Preclusion(s): ANTH 210-3

ANTH 325-3 Archaeological Theory Over the last three decades, there has been a tremendous explosion of literature concerning theory in archaeology. In this seminar course, students will learn about the historical contexts and development of the various theoretical schools that have contributed to our current state of knowledge. Weekly readings and seminar discussion will be mandatory.

Prerequisite(s): ANTH 205-3

ANTH 335-3 Archaeological Heritage Management In this lab-seminar course, weekly readings focus on topics relevant to archaeological heritage management, also known as Cultural Resource Management (CRM). Discussions will center on issues such as: heritage legislation in British Columbia and elsewhere, First Nations and private sector concerns, and archaeological consulting. Labs will focus on methodological issues such as survey techniques, culturally modified trees and more.

Prerequisite(s): ANTH 205-3

ANTH 400-3 Thinking Through Anthropology: Ideas for a Better World This course examines a range of concepts and theories central to contemporary anthropology. The course addresses the critical social and political practice of anthropology, recognizing that practicing anthropology means theorizing, and theorizing anthropology means practicing.

Prerequisite(s): 60 credit hours or permission of the instructor

ANTH 401-3 Anthropological Perspectives on Inequality An examination of the embedding of inequality in cultural systems, and the intersection of categories such as race, class and gender in systems of hegemony; examples will be selected from a variety of cultural contexts.

Prerequisite(s): Upper-division standing or permission of the instructor

ANTH 404-3 Comparative Study of Indigenous Peoples of the World A project-based seminar in which students will examine the similarities and differences of selected groups, focusing on issues such as relations with state societies, etc.

Prerequisite(s): ANTH 206-3 or ANTH 211-3 or permission of the instructor

ANTH 405-3 Landscapes, Place and Culture This course provides an examination and critique of the anthropological approaches to landscape, space and place. Cross-cultural and cross-temporal case studies are used.

Prerequisite(s): Upper-division standing
Preclusion(s): ANTH 413-3

ANTH 406-3 Feminist Perspectives in Anthropology This course will survey and critique selected theoretical approaches and ethnographies to examine key areas of interest and debate in the field of feminist anthropology. This course will draw from the political ideology in feminism concerned with critical examination of gender relations and cross-cultural anthropological study.

Prerequisite(s): Upper-division standing or permission of the instructor

ANTH 407-3 British Columbia Ethnography This course is a comparative critique of contemporary ethnographic research of selected cultures or regions.

Prerequisite(s): Upper-division standing
Recommendation(s): Prior course(s) in sociocultural anthropology

ANTH 409-3 British Columbia Archaeology This course is a problem-based seminar in which selected issues are examined from several points of view.

Prerequisite(s): One of ANTH 203-3, ANTH 205-3, ANTH 212-3, ANTH 301-3, ANTH 325-3 or permission of the instructor

ANTH 410-3 Theory of Nation and State A critical examination of theories of ethnicity, nationalism and statehood from an anthropological perspective.

Prerequisite(s): Upper-division standing

ANTH 411-(3, 6) Topics in Biological Anthropology This course is a problem-oriented and project-based seminar in which one or more selected topics in biological anthropology are examined. This course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): ANTH 200-3 or permission of the instructor

ANTH 413-3 Environmental Anthropology This course is an examination of the anthropological literature on ecology and environmental practices in which contemporary issues and examples relevant to indigenous practices and northern peoples are developed.

Prerequisite(s): 60 credit hours or permission of the instructor

ANTH 414-3 Religion, Ideology, and Belief Systems This course provides a review of anthropological approaches to religion, ideology and belief systems with comparative examples from several cultures.

Prerequisite(s): 60 credit hours or permission of the instructor
Recommendation(s): ANTH 102-3 or ANTH 213-3

ANTH 416-(3-6) Archaeological Survey and Mapping Course participants learn about archaeological survey, from both the academic perspective and from the perspective of professional consulting archaeology. Students become proficient at map reading, compassing, sampling strategies in forest and non-forest environments, and recognizing cultural features pertinent to the area. Participants learn skills necessary for potential employment with professional archaeology firms; this includes observing protocols with First Nation communities and liaising with government and corporate entities. Where possible, students have an opportunity to work with professional consultants.

Prerequisite(s): Permission of the instructor

ANTH 417-(3-6) Excavation and Field Interpretation in Archaeology Excavation forms a central aspect of archaeology. As part of this course, students and community members will participate in a six to eight week excavation of an archaeological locality. This will involve initial set up of the area, excavation and record-keeping, and basic field laboratory procedures. In addition to "hands-on" participation, daily seminar discussion will be mandatory; topics will centre on each day's survey and excavation results. These sessions will be interdisciplinary, reflecting the interests of the instructors, community members, visiting researchers and students. Topics will invariably focus on geomorphology, lithic artifacts, zooarchaeology, paleoethnobotany, paleoecology, oral traditions and traditional use, and the social context of conducting archaeology. The field school will often take place in remote localities in British Columbia and elsewhere, and so students may have to live in a field camp situation. In addition to basic tuition, there may be additional fees to cover camp and transportation costs.

Prerequisite(s): Permission of the instructor

ANTH 418-3 Archaeology and Indigenous Communities This course introduces students to the value of community engagement and ethnographic information (including oral history, place names documentation, traditional technology, subsistence, and traditional use activities), the interpretation of archaeological data, and construction of Indigenous histories.

Prerequisite(s): Permission of the instructor

ANTH 421-(3-6) Ethnographic Field Methods A project-based seminar in which students will actualize field methods in ethnographic research, in addition to closely examining questions of ethical research and community participation in ethnographic research. This course consists of at least three weeks of classroom instruction in a field location and will emphasize the actualization of conventional ethnographic methods and procedures in an actual field setting. Students will be expected to participate in a larger field project and to gain direct experience in field methods while being sensitized to the requirements of ethical research and community involvement in ethnography.

Prerequisite(s): 60 credit hours or permission of the instructor
Recommendation(s): ANTH 102-3 or ANTH 213-3

ANTH 422-(3-6) Ethnographic Research Project
A project-based course in which students shall examine and compare selected aspects of cultures and peoples before integrating this acquired knowledge to design and carry out a major research project arising from the field experience. The ethnographic material covered shall be appropriate to the field school's locality and/or general research topic.

Prerequisite(s): 60 credit hours or permission of the instructor
Recommendation(s): ANTH 102-3 or ANTH 213-3

ANTH 423-3 Urban Anthropology This course provides a review of the anthropological approaches to and the social theory of contemporary urban society in the local, national and global contexts of the modern world. Contemporary issues relevant to the North will be addressed.

Prerequisite(s): 60 credit hours or permission of the instructor
Recommendation(s): ANTH 102-3 or ANTH 213-3

ANTH 425-3 Introduction to Zooarchaeology This lab course introduces students to the study of animal bones found in archaeological contexts. The first part of the course focuses on animal bone identification, while the second part centers on theoretical aspects of animal use by pre-Industrial human societies. As part of the course, students may have to prepare animal skeletons.

Prerequisite(s): ANTH 301-3 or permission of the instructor

ANTH 430-3 Stone Tools in Archaeology Stone tools are the most ubiquitous type of artifacts found around the world. This lab-seminar course focuses on methods and techniques for analyzing stone tools, and includes a strong theoretical component on stone tool production and use in pre-Industrial societies. Weekly labs will focus on analytical procedures, and in addition students are expected to complete assigned readings and participate in discussions.

Prerequisite(s): ANTH 301-3 or permission of the instructor

ANTH 431-3 Special Topics: Conflict and Integration This course explores the anthropological dimensions of conflict, reconciliation, and integration in different parts of the world. Students analyze how historical, socio-cultural, political, and environmental factors shape and intensify conflicts, as they re/create identity and structures of power. Students also learn how local cultural communities strategize practices of collaboration, integration, and Indigenous means of conflict resolution to contribute to building social justice and peace. With permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): Upper-division standing or permission of the instructor

ANTH 440-3 Internship

Prerequisite(s): Upper-division standing and permission of the Department Chair

ANTH 450-6 Undergraduate Thesis Students explore an original research topic developed in consultation with and supervised by a faculty member in the Anthropology Department. This thesis builds upon past coursework, but also includes a much more thorough review of the literature than would be the case of upper-level undergraduate courses. The research results are presented in the form of an 8,000-10,000-word research paper that the student informally presents to the members of the Anthropology Department.

Prerequisite(s): Upper-division standing and permission of the Department Chair

ANTH 451-3 Traditional Use Studies This course is an advanced seminar on traditional land use and occupation studies, their use, application, and development. This seminar examines methods of recording patterns of traditional use by Indigenous peoples; explores the origins and development of this field; reviews case studies; and reviews recent mapping techniques and contemporary policies. The course may have a field trip component.

Prerequisite(s): 60 credit hours or permission of the instructor
Preclusion(s): FNST 451-3
Recommendation(s): ANTH 102-3, ANTH 213-3 or FNST 100-3

ANTH 460-3 Anthropology Capstone This course engages students in the contemporary methodological and theoretical debates, and ideological challenges that face anthropologists today. Topics range from ethical considerations over the construction and ownership of knowledge to the practical challenges of how to set up a field/research project. This course prepares students to work within this ever-changing discipline through reinforcing the interlinked nature of sociocultural, biological and archaeological inquiry. Using an integrative approach, this course illustrates how our diverse theory, methods and practice may work together to challenge established rhetoric and create innovative ideas about the past, present and future.

Prerequisite(s): Student must be a major, minor or joint major in Anthropology with 90 credit hours

ANTH 498-(3, 6) Special Topics in Anthropology The topics for this course may vary based on faculty availability and expertise. This course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): Upper-division standing and permission of the Department Chair

ANTH 499-(3, 6) Independent Study This course concentrates on a particular topic(s) agreed upon by the student and a member of the Anthropology faculty. It may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): Upper-division standing and permission of the Department Chair

Arts (ARTS)

ARTS 101-3 Learning Strategies This course helps students identify their strengths and weaknesses as learners, master essential academic learning strategies, identify appropriate career goals and majors, and make a successful transition to university.

Prerequisite(s): Fewer than 30 credit hours or permission of the Program Dean/Regional Chair
Preclusion(s): NRES 100-3

ARTS 102-3 Research Writing This course complements ARTS 101-3 and focuses primarily on skills associated with effective research writing techniques. The course also focuses on the knowledge and skills necessary for the production of university-level, library-based research papers. Using the library, mastering computers, reviewing grammar, and presenting findings orally are integral components of the process.

Prerequisite(s): Fewer than 30 credit hours or permission of the Program Dean/Regional Chair
Preclusion(s): NRES 100-3

Astronomy (ASTR)

Astronomy courses are designed as general interest courses accessible to students in any degree program, and are particularly suited to meet the physical science component of the UNBC breadth requirements. These courses are part of the Physics department offerings.

ASTR 120-3 Introduction to Astronomy I: The Solar System This is an introductory course in astronomy that is general enough to be of interest to science and non-science majors with a proper background in mathematics. This course is complementary to ASTR 121-3. Topics include: an overview of our solar system; the Sun; Earth and Moon; the inner planets; the gas giants and their ring structures and moons; Pluto and Charon; asteroids, comets, meteors, and meteorites; the origin and evolution of our solar system; the origin and evolution of the Sun; and other solar systems and exoplanets. ASTR 120 and ASTR 121 may be taken in either order.

Prerequisite(s): At least one of Pre-calculus 11 or Pre-calculus 12 or Foundations of Math 11 or Foundations of Math 12 or UNIV 113-3 or MATH 115-3 or permission of the instructor
Preclusion(s): PHYS 120-3

ASTR 121-3 Introduction to Astronomy II: The Universe This is an introductory course in astronomy general enough to be of interest to science and non-science majors with a proper background in mathematics. This course is complementary to ASTR 120-3. Topics include the origins of stars and planetary systems; the Sun; properties and structures of stars; stellar interiors; the evolution of stars; stellar remnants; white dwarfs; neutron stars; black holes and warped spacetime; the Milky Way; the universe of galaxies; distance scales and indicators; active galaxies and quasars; cosmology; and astrobiology. ASTR 121 and ASTR 120 may be taken in either order.

Prerequisite(s): At least one of Pre-calculus 11 or Pre-calculus 12 or Foundations of Math 11 or Foundations of Math 12 or UNIV 113-3 or MATH 115-3 or permission of the instructor. UNIV 113-3 or MATH 115-3 may be taken concurrently.
Preclusion(s): PHYS 121-3

Biochemistry and Molecular Biology (BCMB)

BCMB 100-1 Introductory Seminar in Biochemistry and Molecular Biology This course introduces students to the possibilities and promises of research benefitting the world in the disciplines of biochemistry and molecular biology through seminars and invited presentations on current UNBC research and topical issues. This course is graded on a PASS/FAIL basis.

BCMB 255-2 Introduction to Biochemical Methods This is a laboratory-based course in which students explore basic biochemical and molecular biological laboratory techniques. Topics include buffers, calculations in biochemistry, enzyme kinetics, and purification of carbohydrates and proteins. Techniques include centrifugation, chromatography, spectrophotometry, and electrophoresis.

Prerequisite(s): CHEM 201-3
Corequisite(s): CHEM 204-3
Preclusion(s): CHEM 255-1

BCMB 306-3 Intermediary Metabolism This lecture-based course emphasizes the importance of biochemical pathways and macromolecules in physiological systems. The goal of the course is to impart an understanding of metabolism on a cellular scale and the macroscopic implications of impairments in the metabolic pathways. Topics include the metabolism of amino acids, lipids, carbohydrates, nucleotides and how these pathways are interrelated at tissue and organ levels.

Prerequisite(s): CHEM 204-3 with a minimum grade of C
Preclusion(s): CHEM 306-3

BCMB 310-3 Molecular Biology Methods This laboratory-based course covers modern molecular biological laboratory techniques, and focuses on the purification and characterization of nucleic acids. Students are educated in the theory and practice of laboratory methods that include DNA and RNA purification techniques, restriction enzymes and cloning techniques, electrophoresis of nucleic acids, DNA sequence analysis, blotting techniques, and the polymerase chain reaction and its variations.

Prerequisite(s): BCMB 255-2
Preclusion(s): BCMB 308-3

BCMB 320-3 Biochemical Methods This laboratory-based course covers modern biochemical and molecular biological laboratory techniques focusing on the purification and characterization of proteins. Students are educated in the theory and practice of laboratory techniques that include centrifugation, chromatography, enzyme kinetics, electrophoresis of proteins, western blotting, immobilized metal affinity chromatography, and enzyme-linked immune sorbent assay.

Prerequisite(s): BCMB 255-2
Preclusion(s): BCMB 308-3

BCMB 340-3 Physical Biochemistry This lecture-based course allows students to explore the physical basis of biochemistry through in-depth study of some of the most important biochemical phenomena in nature. The concepts of entropy, enthalpy, and equilibria are discussed in the context of repressor function, photosynthesis, and ATP synthesis. Other topics include the physical basis of biochemical techniques such as centrifugation, electrophoresis, and spectroscopy.

Prerequisite(s): PHYS 101 or PHYS 111, and CHEM 204-3 with a minimum grade of C
Corequisite(s): BCMB 255-2
Preclusion(s): CHEM 340-3

BCMB 401-3 Basic Science of Oncology This is a lecture-based course designed to provide insight into the biological chemistry of cancer. Major topics include chemical carcinogenesis, genomic instability, oncogenes and tumor suppressor genes, cell growth, apoptosis, tumor progression and metastasis, tumor angiogenesis, hormones, viruses, and drug resistance. This course also provides an in-depth look at the advanced technology used in controlling the disease, including immunotherapy and therapeutic approaches for controlling gene expression.

Prerequisite(s): BIOL 311-3 with a minimum grade of C

BCMB 402-3 Macromolecular Structure This is a lecture-based course designed to provide students with an understanding of the theory behind structural techniques used in biochemical laboratories. Topics include X-ray crystallography, nuclear magnetic resonance spectroscopy and electron microscopy; students are expected to develop an understanding of the theory and application of these techniques and technical considerations. Students also learn how to judge the quality of data.

Prerequisite(s): CHEM 204-3 with a minimum grade of C
Preclusion(s): CHEM 405-3

BCMB 403-3 Advanced Nucleic Acids This is a lecture-based course designed to provide in-depth knowledge on advanced topics in nucleic acid biochemistry. Topics include mechanistic analysis of nucleic acid metabolism; the RNA world hypothesis and theories of the origin of life; epigenetics; specificity and role of polymerases and repair pathways; replication and recombination mechanisms; RNA structural motifs and physical processing in gene expression; structure and function of non-coding RNA; silencing and micro RNA; catalytic RNA molecules; and technological applications of RNA.

Prerequisite(s): CHEM 204-3 with a minimum grade of C
Preclusion(s): CHEM 405-3

BCMB 404-3 Proteins and Enzymology This lecture-based course provides knowledge of contemporary protein biochemistry and emphasizes the importance and role of enzymes in biochemistry and molecular biology. Topics include the structure and function of proteins, protein biotechnology, mechanisms of enzyme action, kinetic analysis of enzymes and regulation of protein activity.

Prerequisite(s): CHEM 204-3 with a minimum grade of C
Preclusion(s): CHEM 409-3

BCMB 405-3 Topics in Biochemistry and Molecular Biology This course considers selected advanced topics in biochemistry. Topics depend on instructor and student interest and normally focus on material not dealt with in other courses. Note: Credit may be granted for both 400- and 600-level offerings of Topics in Biochemistry and Molecular Biology courses, and either the 400- or 600-level courses or a combination of both may be repeated to a maximum of 6 credit hours, provided the content of the independent offerings of the courses is sufficiently different (as determined by the Program Chair or Dean).

Prerequisite(s): BCMB 340-3 with a minimum grade of C

BCMB 430-6 Undergraduate Thesis This is a laboratory-based undergraduate research thesis, designed for students with serious research interests. This course includes an oral presentation of research results. Students must have completed at least 90 credit hours of study and be BCMB major. The thesis may be taken over one or two semesters.

Prerequisite(s): 90 credit hours, BCMB major, and permission of the instructor

BCMB 499-(1-6) Independent Study This course concentrates on a particular topic agreed upon by the student and a member of the BCMB faculty. It may be repeated to a maximum of 6 credit hours. Credit may be granted for both 400- and 600-level offerings of the course provided the content is sufficiently different (as determined by the Program Chair or Dean).

Prerequisite(s): Permission of the Program Chair

Biology (BIOL)

BIOL 103-3 Introductory Biology I This lecture-based course is an introduction to the biological sciences including the nature of life, cell structure, function, development, metabolism, genetics and evolutionary theory.

Prerequisite(s): Biology 11 or Biology 12 or BIOL 110-3 (or equivalent) with a minimum grade of C+
Preclusion(s): BIOL 101-4

BIOL 104-3 Introductory Biology II This lecture-based course is a survey of living organisms, plant and animal form and function, ecology and population biology.

Prerequisite(s): Biology 11 or Biology 12 or BIOL 103-3 or BIOL 110-3 (or equivalent) with a minimum grade of C+
Preclusion(s): BIOL 102-4
Recommendation(s): BIOL 103-3

BIOL 110-3 Introductory Ecology This course is designed to introduce non-science majors to ecological systems. Principles of ecology, biotic and abiotic conditions, population, community and ecosystem structure, human impacts on these systems, and basic concepts of conservation and preservation of ecosystems.

Prerequisite(s): None
Preclusion(s): BIOL 201-3

BIOL 123-1 Introductory Biology I Laboratory This laboratory-based course introduces students to techniques in the biological sciences, closely following the lecture organization in BIOL 103-3. Students normally take this course concurrently with BIOL 103-3 as the lab component complements the lecture, but should check the relevant program requirements to see if the lab is required. (Note: not all the programs require both the lecture and lab components.)

Pre- or Corequisite(s): BIOL 103-3
Preclusion(s): BIOL 101-4

BIOL 124-1 Introductory Biology II Laboratory This laboratory-based course introduces students to plant and animal diversity, form and functions and ecological relationships among organisms, closely following the lecture organization in BIOL 104-3. Students normally take this course concurrently with BIOL 104-3 as the lab component complements the lecture, but should check the relevant program requirements to see if the lab is required. (Note: not all programs require both the lecture and lab components.)

Pre- or Corequisite(s): BIOL 104-3
Preclusion(s): BIOL 102-4

BIOL 201-3 Ecology This course provides students with an understanding of the relationship of the environment to organisms, principles of animal and plant ecology, populations, communities, ecosystems and human ecology.

Prerequisite(s): BIOL 102-4, or BIOL 104-3 and BIOL 124-1
Pre- or Corequisite(s): BIOL 101-4 or BIOL 103-3 and BIOL 123-1

BIOL 202-3 Invertebrate Zoology Systematics, development and evolution of the invertebrates.

Prerequisite(s): BIOL 101-4, or BIOL 103-3 and BIOL 123-1; and BIOL 102-4 or BIOL 104-3 and BIOL 124-1

BIOL 203-3 Microbiology This course introduces students to the classification and biology of prokaryotic and eukaryotic microorganisms, and applications to forestry, agriculture, environmental science, medicine and industry. In the laboratory, students will learn techniques for culturing and characterizing microorganisms.

Prerequisite(s): BIOL 101-4 or BIOL 103-3 and BIOL 123-1; and BIOL 102-4, or BIOL 104-3 and BIOL 124-1
Recommendation(s): BIOL 210-3 and at least one of CHEM 201-3, CHEM 204-3, or CHEM 220-3 (may be taken concurrently)

BIOL 204-3 Plant Biology This course focuses on the interrelationships between form and function of the living plant, including systematics, development, physiology and evolution.

Prerequisite(s): BIOL 101-4 or BIOL 103-3 and BIOL 123-1; and BIOL 102-4 or BIOL 104-3 and BIOL 124-1

BIOL 210-3 Genetics This course emphasizes principles of both modern and classical genetics.

Prerequisite(s): BIOL 101-4 or BIOL 103-3 and BIOL 123-1
Pre- or Corequisite(s): BIOL 102-4 or BIOL 104-3 and BIOL 124-1

BIOL 301-3 Systematic Botany This course introduces students to plant taxonomy and biodiversity, including principles of systematic botany, nomenclature and classification. Special attention is given to the identification of the native regional flora. Students contemplating registration in this course should consult with the instructor before the end of the previous spring term regarding the making of a summer collection for study during the course. This course includes scheduled field trips as a required course component.

Prerequisite(s): BIOL 101-4 or BIOL 103-3 and BIOL 123-1; and BIOL 102-4 or BIOL 104-3 and BIOL 124-1

BIOL 302-3 Limnology Ecology of aquatic systems, their chemical, physical and biological characteristics.

Prerequisite(s): BIOL 201-3

BIOL 304-3 Plants, Society and the Environment This course explores the interactions between plants and humans, and how plants and their essential services are altered by human activities and the environment. Lectures and labs permit student-driven exploration of how plants, society and the environment are integrated. Students will investigate the underlying mechanisms of plant function and adaptation to address present-day environmental issues such as rising greenhouse gas concentrations, disturbance events, and biological invasions.

Prerequisite(s): BIOL 204-3 or permission of the instructor

BIOL 307-3 Ichthyology and Herpetology This course focuses on the identification, comparative anatomy and evolution of fishes, amphibians and reptiles. Particular reference is made to species endemic to British Columbia.

Prerequisite(s): BIOL 101-4 or BIOL 103-3 and BIOL 123-1; and BIOL 102-4 or BIOL 104-3 and BIOL 124-1

BIOL 308-3 Ornithology and Mammalogy This course focuses on the identification, comparative anatomy and evolution of birds and mammals. Particular reference is made to species endemic to British Columbia.

Prerequisite(s): BIOL 101-4 or BIOL 103-3 and BIOL 123-1; and BIOL 102-4 or BIOL 104-3 and BIOL 124-1

BIOL 311-3 Cell and Molecular Biology Cellular structure and function, molecular genetics, genome organization, and gene regulation in eukaryotic and prokaryotic organisms.

Prerequisite(s): BIOL 210-3 and one of CHEM 204-3 or CHEM 220-3

BIOL 312-3 Molecular Cell Physiology This course examines the molecular basis of cellular processes from cell-division to cell signalling, cell and tissue interactions, cellular mechanisms of development, cell differentiation, and the immune system.

Prerequisite(s): BIOL 311-3

BIOL 315-3 Animal Diseases and Parasites Biological aspects of infectious diseases, parasites and environmental contaminants in wild vertebrate animal populations.

Prerequisite(s): BIOL 307-3 or BIOL 308-3

BIOL 318-3 Fungi and Lichens This course uses lectures, field and laboratory exercises to introduce students to the diversity of the Fungal Kingdom, including lichenized fungi. Students learn to recognize fungal and lichen structures and identify taxa. Emphasis is placed upon fungi and lichens in their natural environments, their ecology and physiology, and their importance to ecosystem function. Field trips and labs teach students to collect, isolate and identify fungi and lichens.

Prerequisite(s): BIOL 101-4 or BIOL 103-3 and BIOL 123-1; and BIOL 102-4 or BIOL 104-3 and BIOL 124-1

BIOL 321-3 Animal Physiology Basic animal functions and physiology. Operation and integration of major life support and reproductive systems, with emphasis on vertebrates.

Prerequisite(s): BIOL 307-3 or BIOL 308-3

BIOL 322-3 Entomology Diversity, structure, function, evolution, behaviour and importance of insects. Students intending to take the course should contact the instructor as early as possible for information and materials regarding the required insect collection.

Prerequisite(s): BIOL 202-3 or FSTY 307-4 or permission of the instructor

BIOL 323-3 Evolutionary Biology This course covers the mechanisms and processes of evolution of biological organisms. It discusses the evolutionary principles from Darwinism to molecular evolution.

Prerequisite(s): BIOL 201-3 and BIOL 210-3

BIOL 325-3 Ecological Analyses This course is an introduction to the application of analytical methods for addressing common ecological problems. Particular emphasis is placed on: sampling design, formulating hypotheses, statistical inference and the writing of abstracts. Students learn to analyze data by applying the scientific method to ecological research.

Prerequisite(s): BIOL 201-3 and STAT 240-3

BIOL 333-3 Field School This is an experiential course designed for students to focus on theoretical and practical skills involved in the field. Each field school is designed to incorporate the theories, models and other concepts introduced in the classroom and bring them into greater clarity by examining them in a real world setting. This course may be repeated with the permission of the instructor if the subject matter and course location differ substantially.

Prerequisite(s): Permission of the instructor

BIOL 350-3 Ethnobotany This course incorporates empirical knowledge and experiential learning to study both traditional and modern uses of plants by humans. This exploration includes the use of plants for food, medicine, textiles, and technology around the world.

Prerequisite(s): None

BIOL 402-3 Aquatic Plants Classification, physiology, ecology, and environmental implications of aquatic plants. Both marine and freshwater systems are covered with emphasis on the aquatic plants of British Columbia.

Prerequisite(s): BIOL 204-3 or permission of the instructor

BIOL 404-3 Plant Ecology The ecology of terrestrial plants and ecosystems. Structure, function, classification, and analytical tools for describing the dynamic behaviour of plant communities.

Prerequisite(s): BIOL 201-3 or BIOL 204-3

BIOL 406-3 Fish Ecology The general life history, ecology, zoogeography and habitats of freshwater, anadromous and marine fishes.

Prerequisite(s): BIOL 201-3 and BIOL 307-3

BIOL 409-3 Conservation of Aquatic Ecosystems Aquatic ecosystems face many challenges requiring diverse conservation approaches. This course introduces students to the structure and functioning of aquatic ecosystems and exposes them to the myriad of conservation challenges being faced by these systems. Common approaches used to address conservation issues in aquatic ecosystems are presented and discussed using a series of case studies illustrating their successes and failures.

Prerequisite(s): BIOL 201-3

BIOL 410-3 Population and Community Ecology This course is an advanced treatment of population and community ecology including theoretical and applied aspects of structure and dynamics.

Prerequisite(s): BIOL 325-3

BIOL 411-3 Conservation Biology This course provides a broad exposure to the theory and techniques necessary for understanding and preventing threats and declines to biological diversity. The science and application of conservation biology draw from a wide range of disciplines; thus, course and lab materials integrate perspectives from both the natural and social sciences. Students are advised to take this course in their final year of studies.

Prerequisite(s): 90 credit hours or permission of the Chair, BIOL 201-3

BIOL 412-3 Wildlife Ecology The general ecology and biology of wildlife species, including physiology, behaviour, nutrition and endocrinology.

Prerequisite(s): BIOL 201-3 and BIOL 308-3

BIOL 413-3 Wildlife Management This course gives students an understanding of concepts, techniques and applications used in wildlife management. The course emphasizes the application of experimental design and the scientific method, and includes socio-economic aspects of management. Students gain an appreciation for challenges facing wildlife scientists and resource managers.

Prerequisite(s): BIOL 325-3, BIOL 410-3 and BIOL 412-3
Recommendation(s): NREM 204-3

BIOL 414-3 Fisheries Management Management of freshwater and anadromous fish of British Columbia.

Prerequisite(s): BIOL 406-3
Preclusion(s): BIOL 602-3
Recommendation(s): NREM 204-3

BIOL 420-3 Animal Behaviour Adaptive significance and evolutionary basis of behaviour patterns exhibited by the major animal phyla.

Prerequisite(s): BIOL 202-3, BIOL 307-3, or BIOL 308-3

BIOL 421-3 Insects, Fungi and Society This course focuses on the historical, social and economic importance of insects and fungi to human society, including underlying biological and ecological principles.

Prerequisite(s): 60 credit hours which includes BIOL 101-4 or BIOL 103-3 and BIOL 123-1; and BIOL 102-4, or BIOL 104-3 and BIOL 124-1, or permission of the instructor

BIOL 423-3 Molecular Evolution and Ecology This course is lecture and laboratory based and focuses on the evolution of macromolecules, the reconstruction of the evolutionary history of species, populations, or genes, and the use of genetic information to gain insights into the ecology of species.

Prerequisite(s): BIOL 323-3

BIOL 425-3 Applied Genetics and Biotechnology This course provides an introduction to advanced genetic laboratory techniques and processes. Lectures cover applications of genetic techniques and biotechnology as well as ethical issues regarding the use of these technologies. Specific topics include: animal forensics, recombinant and transgenic theory, genomics/ bioinformatics, biotechnology and molecular ecology.

Prerequisite(s): BIOL 311-3
Recommendation(s): BCMB 308-3 and BIOL 423-3

BIOL 440-(2-6) Internship May be repeated for credit (maximum 6 credit hours).

BIOL 498-(3-6) Special Topics This course covers selected biological topics and may be repeated for credit (maximum 6 credit hours).

Prerequisite(s): Permission of the instructor and Chair

BIOL 499-(1-6) Independent Study May be repeated for credit (maximum 6 credit hours).

Chemistry (CHEM)

CHEM 100-3 General Chemistry I This is the first course in a two-course lecture-based sequence of chemistry courses emphasizing the basic principles of chemistry. Topics include: classification of matter, periodic properties of elements, atomic and molecular structure, stoichiometry, chemical reactions, thermochemistry, chemical bonding and an introduction to organic chemistry. Students requiring the first year laboratory courses in their program of study are encouraged to enroll in CHEM 120-1 concurrently.

Prerequisite(s): Principles of Math 12 or Pre-calculus 12 or MATH 115-3 (or equivalent). Note: MATH 115-3 may be taken concurrently.

CHEM 101-3 General Chemistry II This is the second course in a two-course lecture-based sequence of chemistry courses emphasizing the basic principles of chemistry. Topics include: intermolecular forces, properties of solutions, reaction kinetics, chemical equilibrium, acids and bases, applications of aqueous equilibria, entropy and free energy, electrochemistry, and organic chemistry. Students requiring the first-year laboratory courses in their program of study are encouraged to enroll in CHEM 121-1 concurrently.

Prerequisite(s): CHEM 100-3; and Principles of Math 12 or Pre-calculus 12 or MATH 115-3 (or equivalent)

CHEM 110-3 Chemistry of Everyday Life A lecture-based chemistry course for non-science majors which presents the chemistry of substances of our everyday world and discusses real-world societal issues that have important chemistry components. Environmentally relevant topics including the ozone layer and its depletion, global warming, and acid rain will be studied. The use of energy in our society in its various forms will be looked at from a chemical perspective. The importance and implications of using man made materials and drugs will be discussed. A discussion of these topics will give students a fundamental background in chemistry, and allow them to better understand issues of relevance to our modern industrial society.

Prerequisite(s): None

CHEM 120-1 General Chemistry Lab I A laboratory course designed to accompany CHEM 100-3 and introduce basic chemistry laboratory procedures. Experiments will be performed which complement the material presented in CHEM 100-3.

Prerequisite(s): CHEM 100-3 (may be taken concurrently)

CHEM 121-1 General Chemistry Lab II A laboratory course designed to accompany CHEM 101-3 and introduce basic chemistry laboratory procedures. Experiments will be performed which complement the material presented in CHEM 101-3.

Prerequisite(s): CHEM 101-3 (may be taken concurrently), CHEM 120-1

CHEM 200-3 Physical Chemistry I Fundamental concepts of classical thermodynamics, thermochemistry, chemical and phase equilibria.

Prerequisite(s): CHEM 101-3, CHEM 121-1, MATH 101-3 or permission of the instructor

CHEM 201-3 Organic Chemistry I A lecture-based course providing an introduction to the structure, nomenclature, classification, properties and reactions of the major functional groups of organic compounds. Examples of the syntheses and the reactions of the major functional groups will be given, supported by reaction mechanisms where appropriate. Students requiring the second year Organic Chemistry laboratory courses in their program of study are encouraged to enroll in CHEM 250-1 concurrently.

Prerequisite(s): CHEM 101-3 and CHEM 121-1 or permission of the instructor

CHEM 202-3 Inorganic Chemistry I This introductory course in inorganic chemistry has two parts. The first part focuses on structure and bonding, crystal field theory, and molecular orbital theory. The second part provides an introduction to the role of inorganic elements in biochemistry such as enzymes, storage proteins, and transport.

Prerequisite(s): CHEM 101-3 and CHEM 121-1 or permission of the instructor

CHEM 203-3 Organic Chemistry II A continuation of the topics covered in CHEM 201-3, with emphasis on the mechanistic aspect of organic chemical reactions. Students requiring the second year Organic Chemistry laboratory courses in their program of study are encouraged to enroll in CHEM 251-1 concurrently.

Prerequisite(s): CHEM 201-3

CHEM 204-3 Introductory Biochemistry This lecture-based course introduces the basic principles of biological chemistry, focusing on the structure, composition and role of proteins, nucleic acids, carbohydrates and lipids in living systems. Other major topics include the nature and functions of enzymes, principles of bioenergetics and the energy-trapping metabolic pathways and their regulation in animals and plants.

Prerequisite(s): CHEM 201-3; BIOL 101-4, or BIOL 103-3 and BIOL 123-1; and BIOL 102-4, or BIOL 104-3 and BIOL 124-1
Pre- or Corequisite(s): CHEM 203-3

CHEM 210-3 Analytical Chemistry I This is a laboratory course (two hours of lecture and three hours of laboratory per week) designed to introduce the discipline of analytical chemistry. Topics include data handling (basic statistics, use of spreadsheets, graphing techniques), electronic spectroscopy (UV-Vis, fluorescence, AA, ICP) and separation techniques (column chromatography, TLC, HPLC, GC).

Prerequisite(s): CHEM 101-3 and CHEM 121-1

CHEM 220-3 Organic and Biochemistry A lecture-based course designed to present an introductory sequence of organic chemistry and biochemistry. An understanding of organic chemistry is required to properly understand biochemistry. This course treats organic chemistry in enough depth to make biochemistry understandable.

Prerequisite(s): CHEM 101-3
Preclusion(s): CHEM 201-3, CHEM 203-3, CHEM 204-3

CHEM 250-1 Organic Chemistry Lab I A laboratory-based course providing an introduction to the techniques used in organic chemistry.

Prerequisite(s): CHEM 201-3 (may be taken concurrently)

CHEM 251-1 Organic Chemistry Lab II A laboratory-based course focusing on the practical aspects of organic chemistry.

Prerequisite(s): CHEM 203-3 (may be taken concurrently), CHEM 250-1

CHEM 300-3 Physical Chemistry II Fundamental concepts in statistical mechanics, reaction theory, chemical kinetics and surface chemistry.

Prerequisite(s): CHEM 200-3 and MATH 101-3

CHEM 301-3 Advanced Organic Chemistry I An advanced course emphasizing the structural, physical and mechanistic aspects of organic reactions.

Prerequisite(s): CHEM 203-3

CHEM 303-3 Quantum Chemistry This course covers techniques of quantum mechanics and their application to problems relevant to chemistry. Methods such as the variation method, perturbation theory, and Hartree-Fock Self-Consistent Field theory, are applied to simple chemical systems. The extension of these to more complex systems is explored.

Prerequisite(s): CHEM 200-3 and PHYS 205-3
Preclusion(s): PHYS 302-3

CHEM 304-3 Advanced Organic Chemistry II An advanced course studying modern methods in synthetic organic chemistry.

Prerequisite(s): CHEM 203-3

CHEM 305-3 Physical Chemistry III Fundamental concepts of quantum mechanics and spectroscopy.

Prerequisite(s): CHEM 200-3 and MATH 101-3

CHEM 310-3 Analytical Chemistry II A laboratory course (two hours of lecture and three hours of laboratory per week) designed as a sequel to CHEM 210-3. Topics include functional group identification in organic and inorganic molecules (IR spectroscopy), mass spectrometry and NMR spectroscopy. An emphasis is placed on the structural elucidation of molecules.

Prerequisite(s): CHEM 203-3 and CHEM 210-3

CHEM 315-3 Physical Chemistry Lab This is a laboratory course in physical chemistry consisting of six hours of laboratory work weekly. The course covers the fundamental aspects of physical chemistry such as spectroscopy, thermodynamics, equilibrium, and kinetics.

Prerequisite(s): CHEM 200-3

CHEM 320-3 Inorganic Chemistry II This lecture-based course is focused on symmetry and group theory, along with the organometallic chemistry of the transition elements.

Prerequisite(s): CHEM 202-3

CHEM 321-3 Inorganic Chemistry III This lecture-based course is focused on the general chemical principles within transition elements, along with their descriptive chemistry. Bio-inorganic chemistry is also examined.

Prerequisite(s): CHEM 202-3

CHEM 322-3 Inorganic Chemistry Lab A laboratory-based course (one hour lecture, six hour lab) examining the descriptive side of modern inorganic chemistry, including organometallic and bio-inorganic chemistry. This course will provide both general and specific laboratory skills.

Prerequisite(s): CHEM 202-3

CHEM 401-3 Chemistry Seminar This is a workshop-based course emphasizing oral and written communication in the sciences. Topics include preparation of visuals, lecture and seminar presentation, scientific writing including grant applications and scientific articles.

Prerequisite(s): Permission of the instructor and CHEM 200-3, CHEM 201-3, CHEM 202-3, CHEM 203-3, CHEM 210-3, and at least 9 credit hours of chemistry at the 300 level or higher

CHEM 402-3 Topics in Organic Chemistry This course considers advanced and selected topics in organic chemistry. Topics depend on instructor and student interest and normally focus on advanced material not dealt with in other courses. Credit may be granted for both 400- and 600-level offerings of Topics in Chemistry courses, and either the 400 or 600 level or a combination of both may be repeated to a maximum of 6 credit hours provided the content of the courses is sufficiently different as determined by the Program Chair or Dean.

Prerequisite(s): CHEM 301-3 or CHEM 304-3

CHEM 404-3 Topics in Physical Chemistry This course considers advanced and selected topics in physical chemistry. Topics depend on instructor and student interest and normally focus on advanced material not dealt with in other courses. Credit may be granted for both 400- and 600-level offerings of Topics in Chemistry courses, and either the 400 or 600 level or a combination of both may be repeated to a maximum of 6 credit hours provided the content of the courses is sufficiently different as determined by the Program Chair or Dean.

Prerequisite(s): Permission of the instructor and one of CHEM 300-3 or CHEM 305-3

CHEM 406-3 Advanced Laboratory I The two courses, CHEM 406-3 and CHEM 407-3, are intended to act as capstone lab courses that provide experience with a wide variety of advanced synthetic, analytical and physical techniques.

Prerequisite(s): CHEM 310-3

CHEM 407-3 Advanced Laboratory II The two courses, CHEM 406-3 and CHEM 407-3, are intended to act as capstone lab courses that provide experience with a wide variety of advanced synthetic, analytical and physical techniques.

Prerequisite(s): CHEM 310-3 and CHEM 406-3

CHEM 410-3 Topics in Analytical Chemistry This course provides an advanced treatment of selected topics in analytical chemistry such as spectroscopy, separation technology and analytical instrumentation. Credit may be granted for both 400- and 600-level offerings of Topics in Chemistry courses, and either the 400 or 600 level or a combination of both may be repeated to a maximum of 6 credit hours provided the content of the courses is sufficiently different as determined by the Program Chair or Dean.

Prerequisite(s): CHEM 310-3

CHEM 430-6 Undergraduate Thesis In this course students pursue an independent research project under the direct supervision of a faculty member. Students are expected to design and implement a research methodology, analyze data, and present findings in thesis format. The final grade in this course is based in part on a written research proposal, a written thesis, a public presentation of research results, and the evaluation of the thesis by a second reader. The thesis is normally completed over the September and January semesters.

Prerequisite(s): Acceptance into Honours in Chemistry, completion of at least 90 credit hours of study including all lower-division degree requirements, and permission of an Academic Supervisor and the Program Chair

CHEM 499-(1-6) Independent Study This course concentrates on particular topics agreed upon by the student and a member of the Chemistry faculty. It may be repeated for a maximum of 6 credit hours. Credit may be granted for both 400- and 600-level offerings of the course provided the content is sufficiently different (as determined by the Program Chair or Dean).

Prerequisite(s): Permission of the Program Chair

Civil Engineering (CIVE)

CIVE 241-4 Civil Engineering Materials This course introduces the structure and properties of common civil engineering materials such as aggregates, cement, concrete, wood, steel, and other construction materials. The emphasis is on the relationship between the structure of materials and their mechanical properties.

Prerequisite(s): Admission to an Engineering program; CHEM 100-3; CHEM 120-1; ENGR 130-4; MATH 101-3; MATH 220-3

CIVE 260-4 Soil Mechanics This course provides students with a theoretical and practical understanding of soil mechanics, principles, and properties. Topics include, but are not limited to, the following: physical properties of soils; classification; soil compaction and permeability; seepage; stresses in soils; and consolidation.

Prerequisite(s): Admission to an Engineering program; ENGR 130-4; MATH 220-3; PHYS 110-4

CIVE 320-3 Structural Analysis I This course introduces theory and application of structural analysis with concepts including, but not limited to, analysis of statically determinate structures such as trusses, beams, frames, cables, and arches; influence lines and moving loads; and calculation of displacements using virtual work. This course also includes an introduction to the analysis of indeterminate structures using force methods, and an introduction to displacement methods using slope-deflection and moment distribution.

Prerequisite(s): Admission to an Engineering program; ENGR 240-4

CIVE 321-3 Structural Analysis II This course explores the following advanced concepts of structural analysis: shear flow and deformation; St. Venant torsion and warping torsion; beams on an elastic foundation; shear wall analysis and elasto-plastic analysis. Students are introduced to the following finite element method and structural dynamics: mode shapes; natural frequencies; lumped mass models; modal analysis; and response spectra.

Prerequisite(s): Admission to an Engineering program; CIVE 320-3; MATH 220-3

CIVE 340-3 Structural Design I This course focuses on steel and wood structure design. Topics include, but are not limited, to the following: design loads for structures; properties of structural steel and structural wood; design of tension, compression, and bending members; bolted and welded connections; and use of design standards and handbooks.

Prerequisite(s): Admission to an Engineering program; CIVE 241-4; CIVE 320-3, ENGR 217-4

CIVE 341-3 Structural Design II This course focuses on concrete and masonry structure design. Topics include, but are not limited to, the following: design loads for structures; properties of concrete and masonry; design of tension, compression, and bending members; connections; and use of design standards and handbooks.

Prerequisite(s): Admission to an Engineering program; CIVE 241-4; CIVE 320-3, ENGR 217-4

CIVE 360-4 Geotechnical Engineering This course builds on the understanding of CIVE 260-4 Soil Mechanics, utilizing soil properties for engineering analysis of various geotechnical problems. Topics include, but are not limited to, the following: shear strength of soil, subsurface exploration; ground improvement; slope stability; lateral earth pressure; retaining walls and braced cuts; shallow foundations; bearing capacity; and pile foundations/drill shafts.

Prerequisite(s): Admission to an Engineering program and CIVE 260-4

CIVE 370-3 Transportation Systems This course introduces elements and operations involved in various transportation systems (air, sea, rail, road). Topics include but are not limited to the following: analysis of system performance; traffic stream characteristics; traffic flow theory; traffic engineering studies; intersection control; capacity and level of service of freeways and signalized intersections; the role of traffic engineering in sustainable transportation systems; highway safety; and travel demand forecasting.

Prerequisite(s): Admission to an Engineering program; ENGR 211-3; ENGR 217-4

CIVE 372-3 Construction Management This course provides the knowledge required for managers. Topics include but are not limited to the following: construction methods selection; practice of construction management; contract administration and control; computer integration in administration; control and project network techniques; total quality management and the ISO framework; design of false work and formwork lifting and rigging; welding techniques and procedures; and occupational health and safety.

Prerequisite(s): Admission to an Engineering program; ENGR 211-3; ENGR 217-4

CIVE 400-3 Capstone Design Project I This is the first course of a two-course civil engineering capstone design project intended to provide real life experience as part of a design team. Working in teams, students solicit a project from an industrial sponsor, develop a full set of specifications, and deliver a project proposal and preliminary design report. The intent is for the teams to draw upon all of the knowledge gained during their civil engineering degree.

Prerequisite(s): Admission to an Engineering program; ENGR 300-3; ENGR 380-3

CIVE 401-6 Capstone Design Project II This course is the continuation of the two-semester civil engineering capstone design project. Working in teams, students complete the project started in CIVE 400-3 Capstone Design Project I and deliver a final design report. The intent is for the teams to draw upon all of the knowledge gained during their civil engineering degree.

Prerequisite(s): Admission to an Engineering program and CIVE 400-3

CIVE 438-4 Rock Mechanics and Rock Engineering This course introduces rock mechanics and its applications to rock engineering problems. Topics include mechanical properties of intact rock; rock mass properties and classifications; structural mapping and stereonets; rock and rock mass strength criteria; stresses in rock masses; rock slope stability analysis; rock support and stabilization; and empirical, analytical, and numerical analysis techniques for underground excavations.

Prerequisite(s): CIVE 360-4
Preclusion(s): ENGR 638-4

CIVE 439-3 Introduction to Structural Fire Engineering This course introduces fire as a structural hazard and presents basic strategies for achieving fire safety in the built environment. Relevant topics include, but are not limited to, the fundamentals of fire behaviour, fire load, active- and passive-fire safety measures, material properties at elevated temperatures, and design methods and code guidelines for fire resistant structural design.

Prerequisite(s): CIVE 321-3 and CIVE 341-3
Preclusion(s): ENGR 639-3

CIVE 441-3 Bridge Engineering This course introduces engineering principles and their applications to bridge engineering problems. Topics include overview and history of bridges, bridge types and components, design considerations, structural modelling and analysis, and design of substructure and superstructure.

Prerequisite(s): CIVE 340-3 and CIVE 341-3

CIVE 451-3 Building Physics This course explores concepts of building physics associated with the design of modern buildings. The course focuses on the building envelope's role in environmental separation and controlling the movement of heat, air, and water in liquid and vapour states.

Prerequisite(s): Admission to an Engineering program; ENGR 221-3; ENGR 300-3

CIVE 461-3 Foundation Design This course introduces building and structure foundations. Topics include but are not limited to the following: stress distribution in soils; settlement of structures; bearing capacity of soils; design of shallow foundations; retaining structures; excavations; geotechnical earthquake engineering; design of deep foundations; piles and pile foundations; and the underpinning of existing structures.

Prerequisite(s): Admission to an Engineering program; CIVE 321-3; CIVE 341-3; CIVE 360-4

CIVE 471-3 Cold Climate Construction Engineering This course introduces engineering concerns related to a cold and variable climate. Topics include but are not limited to the following: northern climates and permafrost; thermal deformation characteristics of frozen and unfrozen soils; thaw of permafrost and settlement; ice and snow construction; ice motion; policy issues; transportation in the North; and the design of roads, runways, and building foundations.

Prerequisite(s): Admission to an Engineering program; ENGR 300-3; CIVE 340-3; CIVE 372-3

CIVE 481-3 Urban and Regional Planning This course provides an introduction to urban and regional planning. The course considers the legal, environmental and governmental context of topics such as land use, growth management, transportation, environmental planning and community development.

Prerequisite(s): Admission to an Engineering program; ENGR 300-3; CIVE 370-3

CIVE 491-3 Introduction to Wood as a Building Material This course provides an overview of using wood as a building material. The course first examines the macroscopic and microscopic structures, chemical compositions, physical, mechanical, and fire properties of wood. It then covers a variety of structural wood-based products by exploring the manufacturing process, characteristics, mechanical properties and application in modern wood structures. The course also briefly introduces wood technologies related to the use of wood in buildings.

Prerequisite(s): Admission to an Engineering program; ENGR 240-4
Preclusion(s): IENG 611-3

Commerce/Business Administration (COMM)

Registration priority in 200, 300 and 400 level Commerce courses may be given to students who require those specific courses for completion of their programs.

Students enrolling in any Commerce course with prerequisites are required to have completed all prerequisite courses for that course with a C- or better, or have permission to enroll from the Program Chair.

COMM 100-3 Introduction to Canadian Business This course is an overview of the Canadian business environment, forms of organizations, the management function, and an introduction to the functional areas of business management. This course includes the challenges and opportunities facing small business.

Prerequisite(s): None
Note: Students transferring with 30 credit hours of Commerce courses are exempt from COMM 100-3 as a course, and as a prerequisite to other courses.

COMM 170-3 Fundamentals of Environmental, Social, and Governance Issues This course introduces students to the concept of ESG (environmental, social, and governance) issues and the diverse ways environmental, social, and economic sustainability are understood. The knowledge and skills taught in this class borrow from ecology, economics, environmental sciences, psychology, and management disciplines. Students are also exposed to sustainable actions that they can do in their everyday lives. This course lays the foundation for more advanced courses that cover the ideation, design, and implementation of ESG in practice.

Prerequisite(s): None

COMM 200-3 Business Communication This course provides basic skills in written and oral business communication. It assists students to transition from academic to business writing and to effectively organize and deliver written and orally presented business reports. Topics covered in this course include: recognizing and avoiding plagiarism; accessing and using research sources for business purposes; writing business correspondence including letters and emails; and working on collaborative writing projects. Students acquire skills in communicating within workplaces typified by diverse backgrounds and varying work roles. Students are introduced to the case study method and the writing and delivery of solutions for business cases.

Prerequisite(s): COMM 100-3

COMM 202-3 Basic Financial Management and Analysis This course covers essential principles for organizational success, instructing students in interpreting financial reports and operational metrics, and providing an opportunity to learn how to assess internal performance, understand reporting practices, and benchmark success. The course emphasizes compliance with Canadian regulations, focusing on key reporting and operational metrics, while prioritizing essential parameters for external reporting.

Pre- or Corequisite(s): COMM 100-3
Preclusion(s): COMM 210-3, COMM 220-3, ENGR 380-3

COMM 203-3 Service Design Organizations succeed when intentional design of all aspects of their operation results in effective execution of service, providing compelling customer-centric solutions. This course examines how organizations build long-term value, utilizing a deeper understanding of customers' needs and experiences to create more profitable and attractive services.

Pre- or Corequisite(s): COMM 100-3

COMM 204-3 Entrepreneurship This course focuses on the processes and techniques required to convert ideas, inventions, and innovations into profitable business undertakings, with a brief introduction to business fundamentals. Students have the opportunity to develop a new venture business plan.

Prerequisite(s): 30 credit hours or permission of Program Chair

COMM 210-3 Financial Accounting Introduction to the construction and interpretation of financial reports prepared primarily for external use. Students need a basic understanding of a spreadsheet application.

Prerequisite(s): COMM 100-3

COMM 211-3 Managerial Accounting Introduction to the development and use of accounting information for managerial planning and control and the development of cost information for financial reports. Problems in managerial accounting using spreadsheet tools.

Prerequisite(s): COMM 210-3

COMM 220-3 Financial Management I Deals with functions of the financial manager within the corporate setting. Topics include the Canadian financial environment, forms of business organizations and taxation, financial forecasting and planning, financial statement analysis, time value of money, capital budgeting under certainty, working capital management and short, intermediate and long term financing.

Prerequisite(s): COMM 100-3, COMM 210-3, and ECON 205-3; STAT 240-3 may substitute for ECON 205-3

COMM 230-3 Organizational Behaviour This course provides an introduction to the study of people and groups in organizations. Topics include perceptions, personality, learning, work motivation, job attitudes, group dynamics, and leadership.

Prerequisite(s): COMM 100-3

COMM 240-3 Introduction to Marketing This course is an introduction to the study of marketing in the context of social, consumer, and managerial processes. In this course, students study how marketing decisions concerning the choice of target markets, the development of product/services, price, promotion and distribution strategies influence the evolution of the exchange process and the satisfaction of buyer needs.

Prerequisite(s): COMM 100-3

COMM 251-3 Introduction to Management Science This course is a study of analytical approaches in management science that assist managerial decision-making under conditions of both certainty and uncertainty. Attention is given to the formulation of quantitative models from a variety of areas. Topics include linear programming, transportation/assignment problems, integer programming, multicriteria decisions, dynamic programming, decision analysis, queuing theory, and simulation.

Prerequisite(s): MATH 150-3 or MATH 220-3, MATH 152-3 or MATH 100-3, and ECON 205-3 or STAT 240-3

COMM 270-3 Sustainable Business Management This course connects environmental, social, and governance issues to management and business principles. The topics cover the specific management knowledge and techniques that support sustainable actions such as organizational development, change management, corporate governance, sustainability reporting and accounting, risk management, marketing, supply chains, and operations.

Prerequisite(s): COMM 170-3, or permission of the Chair

COMM 300-3 Introduction to Business Law This course provides an introduction to the general principles of law relating to contract and tort. Special contracts include: agency, assignment, bailment, employment guarantee, insurance, negotiable instruments, sale of goods, and contracts creating a security interest in goods. Some aspects of the law relating to real property, partnership and corporations will be discussed.

Prerequisite(s): COMM 100-3

COMM 303-3 Introduction to International Business Introduces the student to the global setting in which international business decisions are made. Emphasis is placed on the factors which are relevant to decision-making and a wide range of international business functions (e.g., marketing, finance, human resource management) and international business forms (e.g., export-import, foreign manufacturing, joint ventures).

Prerequisite(s): COMM 240-3

COMM 304-3 Employment Law in Canada The purpose of this course is to foster an understanding of the legal context of the relationship between employer and employee, and of the duties and responsibilities in that relationship. The laws surrounding human rights, employment standards, health and safety, grievance and arbitration, and dismissal are examined.

Prerequisite(s): COMM 300-3 or POLS 255-3

COMM 310-3 Intermediate Financial Accounting I An examination of financial accounting theory from the viewpoint of procedures, principles and professional requirements related to the measurement, recording and reporting of assets and related income and expenses for use by third parties.

Prerequisite(s): COMM 211-3

COMM 311-3 Intermediate Financial Accounting II Continuation of COMM 310-3.

Prerequisite(s): COMM 310-3

COMM 312-3 Intermediate Managerial Accounting The provisions and analysis of cost accounting information that will assist management in making operating decisions and in evaluating operations and performance. The utilization of statistical analysis and linear models is included.

Prerequisite(s): COMM 211-3

COMM 313-3 Personal Taxation Interpretation problems associated with the Income Tax Act and the provisions of the Act concerned with the computation of taxable income and tax payable by an individual are examined.

Prerequisite(s): COMM 210-3

COMM 314-3 Corporate Taxation The provisions of the Income Tax Act relating to the taxes payable by various types of corporate entities and trusts are considered. Application of the provisions of the Act to business situations is examined in detail.

Prerequisite(s): COMM 313-3

COMM 320-3 Financial Management II This course deals with analytical techniques and broad issues of financial management. Topics include capital budgeting and uncertainty, risk and return, the capital asset pricing model and market efficiency, determination of discount rates for capital projects including the weighted average cost of capital, leasing options and applications to corporate finance, capital structure and dividend policy, mergers and acquisitions, bankruptcy and reorganization.

Prerequisite(s): COMM 220-3, MATH 150-3 or MATH 220-3, and MATH 152-3 or MATH 100-3

COMM 321-3 Investments and Security Analysis The principles and techniques of investing in securities are discussed. Material covered includes sources and analysis of investment information, evaluation of risks and returns associated with various financial instruments including futures and options, and security analysis including fundamental and technical analysis.

Pre- or Corequisite(s): COMM 320-3

COMM 322-3 International Financial Management An introduction to the various international financial markets and the problems, risks and opportunities involved in the financial management of multinational enterprises. Hedging of foreign exchange risk, international capital budgeting and import/export financing are among the topics covered.

Prerequisite(s): COMM 320-3

COMM 323-3 Risk, Insurance and Financial Planning Deals with the concepts of risk and business risk management, the various kinds of insurance including life, health and property and liability. Financial planning for the individual and employees including pension plans, taxation issues and real asset investment decisions including real estate.

Prerequisite(s): COMM 320-3

COMM 330-3 Human Resource Management The analysis, design, operation and management of HRM processes, their contribution to employee and organization effectiveness and the influence of organizational and external environment. The principal topics considered are HRM planning and its link to strategic planning, employment equity, staffing, training/development (including performance appraisal) and employee maintenance. The course views the management of human resources as the joint responsibility of line and HRM managers.

Prerequisite(s): COMM 230-3 and ECON 205-3 or STAT 240-3

COMM 332-3 Business and Professional Ethics This course focuses on ethical philosophies and their application to specific ethical issues of relevance to work organizations and to the demands of multiple stakeholders.

Prerequisite(s): None

COMM 334-3 Strategic Human Resource Planning This course examines the leadership role that a human resources professional plays in developing the organization's vision, goals, and strategies and the human resource initiatives that support these strategic directions. Students acquire capabilities in job analysis and human resources planning, which provides the informational foundation for all of human resources management.

Prerequisite(s): COMM 330-3

COMM 335-3 Organizational Effectiveness Students learn how to develop high performance work programs that support organizational culture and goals. Students acquire an understanding of an organization's relationship to its external environment; the principles of organizational design, structure, and change; and the strategies for employee communication, retention and involvement.

Prerequisite(s): COMM 330-3

COMM 340-3 Marketing Communication A study of communication theory and its application to advertising and sales promotion decisions. An examination of the role of advertising in relation to the overall marketing strategy.

Prerequisite(s): COMM 240-3

COMM 341-3 Sales Management The study of the management of the personal selling area, including an examination of the selling function, the sales manager, and sales management.

Prerequisite(s): COMM 240-3

COMM 342-3 Services Marketing Applies marketing management principles specifically to the service industries, including the financial services and tourism industries.

Prerequisite(s): COMM 240-3

COMM 343-3 Behavioural Marketing This course examines the psychological, social, and cultural factors that influence consumer cognition, feelings, attitudes and behaviour by introducing concepts, principles and theories drawn from marketing and related social science disciplines. Students learn from a managerial decision-making perspective and investigate the implications of consumer behaviour for all stages of the marketing process, including product development, marketing communications, and post-sales services.

Prerequisite(s): COMM 240-3

COMM 346-3 Internet Marketing This course provides insights into the converging logic of traditional marketing in the information age from managerial and consumers' perspectives. Students learn how to understand consumer internet behaviour, identify appropriate target segments, develop product opportunities, pricing structures, and distribution channels over the Internet, and execute marketing strategy in a computer-mediated environment.

Prerequisite(s): COMM 240-3 and CPSC 250-3

COMM 347-3 Marketing Channels and Retail Management This course provides insights into marketing distribution systems, retailing and wholesaling as well as relevant legislation. Further, this course emphasizes the structure of retailing in Canada, and the retail management of location, layout, inventory, personnel, sales, promotion, financial control and pricing procedures.

Prerequisite(s): COMM 240-3

COMM 350-3 Production and Operations Management An introduction to the production/operations function with emphasis on the use of both qualitative and quantitative analysis to assist decision-making. Topics include forecasting, product design, capacity planning, process selection, facility location and layout, aggregate planning, material requirement planning, JIT, scheduling, inventory management, project planning, statistical quality control and total quality management.

Prerequisite(s): COMM 251-3

COMM 351-3 Management Information Systems This course emphasizes the strategic role of information systems in modern business. Topics include the technical foundations of information systems, the impact of information systems on business operations and decision-making, and the processes that are required for successful implementation of business information systems.

Prerequisite(s): COMM 100-3, CPSC 250-3, and ECON 205-3 or STAT 240-3

COMM 352-3 e-Business The course provides an introduction to electronic business concepts and e-business strategies. The students study various e-business models and applications, their benefits and risks, infrastructure needs, Business-to-Business and Business-to-Customer strategies, and legal and ethical issues. An introduction to business intelligence tools is also provided. Students work in teams to develop an internet business plan and implement a prototype with emphasis on form validation, security, electronic payment systems, and linkage with backend databases.

Prerequisite(s): CPSC 250-3 or permission of the Program Chair

COMM 353-3 Business Data Communications and Networking This course provides an understanding of basic data communications and networking concepts with emphasis on business computing. Topics covered include data transmission and encoding, Internet and Internet2, Network Layer model, network protocols, data privacy and security, and data communication hardware. Students learn about protocols and topologies of Local Area Networks (LANs), Wireless LANs, Wide Area Networks (WANs), Metropolitan Area Networks (MANs), and Backbone Networks (BNs). Students also engage in researching emerging technologies and present a case-study.

Prerequisite(s): CPSC 250-3 or permission of the Program Chair
Preclusion(s): CPSC 344-3

COMM 354-3 Introduction to Business Intelligence Business intelligence involves conversion of mass data into effectively communicated information through visual, interactive media that enables evidence-based strategic decision making. Course topics include: data extract-transform-load (ETL); data quality; master data management (MDM); data warehouse models; conformance; star/snowflake dimensional models; online transaction processing (OLTP); online analytical processing (OLAP); effective data visualization (lead/lag key performance indicators, scorecards, dashboards, reports); governance; success/failure factors; and emerging trends. The students apply the concepts in a term project using leading technologies and business intelligence tools.

Prerequisite(s): COMM 351-3 or CPSC 224-3 or CPSC 351-3
Preclusion(s): CPSC 354-3

COMM 360-3 Business Process Management This course provides a basic understanding of the business process management (BPM) lifecycle. Students begin with learning systematic identification and prioritization of business processes within an organization. A process discovery phase then follows which leads to the development of an as-is process model. Qualitative and quantitative techniques are used to analyze the performance and assess the impact of changes. Other components of the BPM lifecycle which are introduced include redesign, implementation and monitoring. The course also includes a lab component for documenting and simulating business processes at various levels of detail using business process management notation (BPMN) and modelling techniques.

Prerequisite(s): COMM 100-3 and CPSC 250-3

COMM 370-3 Sustainable Solutions: Current Issues and Case Studies This course explores environmental, social, and economic issues in organizations, and their solutions. Through applied case studies, students see how real-world sustainable solutions can be applied in various industries. These topics can include transitioning businesses towards low-carbon emissions, developing viable business plans for social enterprises, and encouraging mainstream adoption of green technology.

Pre- or Corequisite(s): COMM 170-3 or permission of the Program Chair

COMM 400-3 Strategic Management This integrative course focuses on the core concepts and analytical tools of strategic planning and implementation. The materials presented cover the changes in competitive markets and company strategies that are being driven by globalization and technological innovation. The course includes extensive use of case analysis and features a wide range of business types and sizes. This course is open to Commerce students in their graduating year.

Prerequisite(s): Admission to the Business program and 90 credit hours

COMM 411-3 Advanced Management Accounting Design of management planning and control systems. Development of depth of understanding in the quantitative techniques relevant to the managerial accountant. Consideration is given to cost analysis, transfer pricing and information for capital expenditure and inventory decisions.

Prerequisite(s): COMM 312-3

COMM 412-3 Auditing Principles of external auditing, the nature of evidence, reporting requirements, standards in auditing. The philosophy of auditing, independence and ethics are also considered.

Prerequisite(s): COMM 311-3

COMM 414-3 Advanced Financial Accounting An examination of accounting problems encountered in such areas as complex business organizations, intercorporate investments, foreign operations and foreign currency transactions, and not-for-profit operations.

Prerequisite(s): COMM 311-3

COMM 420-3 Advanced Financial Management Intensive treatment is given to selected areas of finance, including elements of both theory and practice with an emphasis on the role of financial strategy in the overall corporate business policy. Emphasis is placed on financial policy and strategy issues through discussions, case analysis and presentation covering a variety of topics.

Prerequisite(s): COMM 320-3 and COMM 321-3

COMM 421-3 Portfolio Theory and Management Fundamentals of multi-asset portfolio construction and management including fixed-income portfolio strategies. The uses of derivative securities in portfolio management. Issues involved in setting investment objectives and performance evaluation. International investment and diversification. Asset allocation and contemporary issues.

Prerequisite(s): COMM 320-3 and COMM 321-3

COMM 422-3 Management of Financial Institutions The financial management issues of financial institutions such as chartered banks, insurance companies, trust companies, mortgage and loan companies, pension funds and investment companies. The regulatory environment and the asset and liability management techniques employed.

Prerequisite(s): COMM 321-3

COMM 423-3 Financial Engineering Study of futures, options, swaps and other complex derivative securities, application of option pricing theory to a broad range of corporate finance and investment decisions.

Prerequisite(s): COMM 320-3 and COMM 321-3

COMM 431-3 Industrial Relations Canadian industrial and labour relations with emphasis on the labour-management relationship. Topics include the basic elements of an industrial relations system, the social, economic, legal and political environment in which participants interact, and the process of collective bargaining.

Prerequisite(s): COMM 330-3

COMM 432-3 Cross-cultural Workplace Practices Examines cross-cultural differences in management practices, industrial relations systems and human resource practices, including those pertaining to First Nations. It also includes a discussion of the management of diversity within North American organizations.

Prerequisite(s): Upper-division standing and COMM 330-3

COMM 433-3 Recruitment, Selection and Retention This course develops the knowledge and skills to recruit and select employees who will contribute to the success of an organization. The concepts and techniques of recruitment, selection, orientation, and deployment are examined from legal, ethical, cultural, and strategic perspectives.

Prerequisite(s): COMM 330-3 and COMM 334-3

COMM 434-3 Compensation This course develops the knowledge and skills to design and administer compensation and benefit programs that attract and retain employees and support organizational goals. Labour markets, job evaluation, internal and external equity, and communication and confidentiality are examined from legal, ethical, cultural, and strategic perspectives.

Prerequisite(s): COMM 334-3

COMM 435-3 Organizational Learning, Development and Training This course develops the knowledge and skills to design, implement, and evaluate training and development programs that will enable employees to fulfill their potential and contribute to the goals of an organization. Principles of adult learning, coaching and counseling, program design and evaluation, and career planning are examined from legal, ethical, cultural, and strategic perspectives.

Prerequisite(s): COMM 334-3

COMM 436-3 Workplace Health and Safety This course develops the knowledge and skills to design, manage and evaluate programs in the areas of health, safety, security, and worker's compensation to ensure the protection and well-being of employees. The joint responsibilities and rights of employers, unions, and employees, the identification of risks and hazards in the environment, the development of training programs and preventative measures, accident investigation, the accommodation of disabled workers, the provision of wellness and employee assistance programs, and information management systems are discussed from legal and ethical perspectives.

Prerequisite(s): COMM 334-3

COMM 440-(3-6) Internship

Prerequisite(s): Upper-division standing and permission of the Program Chair

COMM 441-3 International Marketing The problems and opportunities of marketing in foreign environments are examined. The course focuses on the cultural, economic and geographic problems encountered in managing the marketing function from a Canadian manager's perspective.

Prerequisite(s): COMM 240-3

COMM 442-3 Marketing Strategy Using a marketing simulation, this course is designed to assist students in acquiring skill and experience in strategic marketing decision-making. By understanding how changes in markets, industries, and organizational strengths/ weaknesses create marketing opportunities and threats, students are exposed to the role of strategic marketing decision-maker. In that role, they will learn to develop and execute creative target market and positioning strategies in a competitive environment.

Prerequisite(s): COMM 240-3 and COMM 343-3

COMM 443-3 Marketing Research Assists students in acquiring an understanding of basic marketing research concepts and practice that facilitates the systematic specification, collection, and analysis of information for marketing decision-making. The course is organized around an applied research project in which students will be responsible for conceiving, executing, analyzing and reporting the results of an original marketing research project for a business client.

Prerequisite(s): COMM 240-3, COMM 343-3, and ECON 205-3

COMM 449-3 Advanced Topics in Marketing Advanced and selected topics in marketing. Topics depend on instructor and student interest and focus on material not dealt with in the regular course sequence.

Prerequisite(s): COMM 240-3

COMM 451-3 Project Management This course considers behavioural and structural aspects of projects, study of project life cycles, project planning, scheduling, budgeting, resource loading, resource levelling, resource planning, and cost estimation and crashing, project monitoring and controlling, project evaluation, auditing and termination. Project management related exercises, case studies and use of project management software are the practical aspects of the course.

Prerequisite(s): COMM 350-3 or permission of the instructor

COMM 452-3 Logistics and Supply Chain Management This course introduces students to the application of logistics and supply chain management concepts. The course examines the nature and scope of supply chain, logistics framework, purchasing and procurements, processing, transportation, warehousing, and distribution logistics, role of information and simulation technology, reverse logistics and contemporary issues.

Prerequisite(s): COMM 350-3

COMM 461-3 Information System Analysis This course gives students the conceptual tools and analytical skills to identify problems in an organization and design information systems that can solve these problems. The knowledge and skills that students receive can help them become useful designers and users of information technology and is suited to students looking to further careers in business analysis, management and IT consulting. This course is a continuation of COMM 360 and some initial work will be similar to that class. However, in this course we focus on the information system as a solution to BPM issues.

Prerequisite(s): COMM 351-3

COMM 470-3 Not-For-Profit Business Consulting This course provides students with the knowledge and opportunity to conduct business consulting work, specifically consulting work for not-for-profit organizations, helping them to implement their organizational strategies. Professional business consultants act as mentors in the course and students consult for real not-for-profit organizations in northern BC. Students conduct a consulting project, work with clients, and create a positive impact in the community.

Pre- or Corequisite(s): 60 credit hours or permission of the Program Chair

COMM 497-(3, 6) Honours Thesis in Business Administration Students pursue an independent research study under the supervision of a PhD-qualified faculty member in the School of Business. Students present the results of their thesis research to members of the School of Business and other interested members of the university community. This course is graded on a PASS/FAIL basis.

Prerequisite(s): Acceptance into BComm Honours program

COMM 498-(3-6) Special Topics in Business Administration

Prerequisite(s): Upper-division standing and permission of the Program Chair

COMM 499-(3-6) Independent Study

Prerequisite(s): Upper-division standing and permission of the Program Chair

Co-operative Education (COOP)

Students must be enrolled in the Co-operative Education (Co-op) program and meet all other prerequisites to register in a COOP course.

COOP 395 Co-op Work Semester I
First term co-operative work experience.

Prerequisite(s): None

COOP 396 Co-op Work Semester II
Second term co-operative work experience.

Prerequisite(s): COOP 395

COOP 397 Co-op Work Semester III
Third term co-operative work experience.

Prerequisite(s): COOP 396

COOP 398 Co-op Work Semester IV
Fourth term co-operative work experience.

Prerequisite(s): COOP 397

COOP 399 Co-op Work Semester V
Fifth term co-operative work experience.

Prerequisite(s): COOP 398

Computer Science (CPSC)

Unless otherwise stated, a student may enroll in any Computer Science course with permission of the Program Chair.

Note: BC Introductory Mathematics 11, Applications of Mathematics 11 and Applications of Mathematics 12 are not considered as prerequisites for any Computer Science courses as currently taught.

Students enrolling in any Computer Science or Mathematics course with prerequisites are required to have completed all prerequisite courses for that course with a C- or better, or have permission to enroll from the Program Chair.

CPSC 100-4 Computer Programming I This course introduces the fundamental concepts of programming from an object-oriented perspective. Topics include fundamentals of programming style, syntax, data types, arithmetic and logical expressions, assignments, control structures, arrays, functions, file i/o, classes, inheritance, and dynamic storage allocation. The course emphasizes the development of problem solving and programming skills, including testing techniques and the use of debugging tools. Students must also register in a lab and in a tutorial section.

Prerequisite(s): Pre-calculus 12 or MATH 115-3
Preclusion(s): Credit will not be awarded for both CPSC 110-3 and CPSC 100-4. Refer to major for required course.

CPSC 101-4 Computer Programming II This course is a continuation of CPSC 100-4. Objects, classes, inheritance and polymorphism are discussed in depth. Other topics include object-oriented program design and development using principles of software engineering; modeling with UML; GUI components and graphics; dynamic storage allocation, exception handling, the heap, and garbage collection; run-time support for program execution; and the use of standard libraries. Students work cooperatively to complete a medium-sized project. This course requires both tutorial and laboratory components.

Prerequisite(s): CPSC 100-4 and CPSC 141-3

CPSC 110-3 Introduction to Computer Systems and Programming This course provides an introduction to computer systems and programming, concepts in computer architecture including the central processing unit, buses, memory units, input/output and communication devices. The introduction to operating systems emphasizes the file system and program development utilities. Programming concepts and techniques include problem analysis, program design, coding, and testing, as well as language elements such as data types, variables and assignment statements, expressions, mixed-mode arithmetic, input/output operations, basic data structures and control structures, procedures and abstract data types. Basic database management concepts are also introduced. Students develop small applications programs. CPSC 110-3 is a first course in computer science and computer programming. CPSC 110-3 cannot be counted as a computer science course by computer science majors.

Prerequisite(s): Pre-calculus 12 or MATH 115-3
Preclusion(s): Credit will not be awarded for both CPSC 110-3 and CPSC 100-4. Refer to major for required course.

CPSC 127-3 Introduction to Technology This course introduces students to a current technological topic, defines technology, and explores the context of technology, prototyping, and testing. Students participate in a project involving remote or autonomous control and use project-based learning to analyze how competing social, ethical, and sustainability considerations influence the creation and development of technological solutions.

CPSC 141-3 Discrete Computational Mathematics This course provides an introduction to set theory, elements of combinatorics and probability theory, logical and formal reasoning using predicate and propositional calculus, together with narrative proof techniques. Other topics include well ordered sets, recursive definitions and mathematical induction; introductory number theory including the division algorithm, Euclidean algorithm, prime numbers and the fundamental theorem of arithmetic; properties of functions and relations including bijections, projections, inverses, composition, and Cartesian products.

Prerequisite(s): Pre-calculus 12 or MATH 115-3

CPSC 150-3 Computer Applications Taught through the use of common applications, beginning with word processing, this course prepares students for future as well as present needs in computing literacy by reaching beyond examples to recognition of principles. Students gain a practical grasp of data formats, program behaviour, using documentation, and the role of hardware. Communications (including the World Wide Web), and cross-platform transference of data, feature prominently, in addition to traditional office applications such as spreadsheets and databases. Students attend lectures and work from web-mounted lab material. Each student undertakes a personal project, which documents independent learning. May not be counted as a computer science course by computer science majors.

Prerequisite(s): None

CPSC 199-(1-3) Introductory Special Topics I The intent of this course is to provide timely offering of courses that either reflect rapid change in Computer Science, provide supplementary material in specific concrete topics or skills, or expose non-majors to advances in Computer Science. Consequently, the topic and availability of this course varies. The course may be retaken any number of times, provided all topics are distinct.

Prerequisite(s): Permission of the instructor

CPSC 224-3 Introduction to Database Systems This course focuses on core concepts of database systems, the relational database model, data modeling, and querying. Topics include the purpose and components of database systems, core DBMS functionalities, relational models and algebra, SQL, database design, and the entity-relationship model. Also discussed are best practices, such as the use of logical schema and normalization. An applied project using business requirements to answer complex business questions is provided. A relational DBMS is used to gain high competency with using SQL and other database-related tasks.

Prerequisite(s): CPSC 101-4
Recommended Co-requisite(s): CPSC 281-3
Preclusion(s): CPSC 324-3, CPSC 422-3

CPSC 230-4 Introduction to Logic Design Topics include Boolean algebra, basic switching functions and gate-level implementation, canonical forms, simplification methods, voltage assignments, combinatorial and sequential logic circuits, registers, counters, ALUs, CPUs, instruction sets, control units, and bus organization. Please note: You must register separately in lecture and lab components.

Prerequisite(s): CPSC 100-4 and CPSC 141-3

CPSC 231-4 Computer Organization and Architecture Topics include computer abstractions and technologies, computer architecture, instruction sets, processor data paths and control, pipelining, hyper-threading, memory systems, I/O systems, busses, multiprocessors, and parallel computers. Students perform a series of assembly level programming assignments. Please note: You must register separately in lecture and lab components.

Prerequisite(s): CPSC 230-4

CPSC 250-3 Applied Business Computing This course examines core computing knowledge and techniques as they apply to business applications. The course covers database design and information retrieval techniques with emphasis on web-database integration, advanced features of spreadsheets, recording/analyzing basic business transactions using a variety of accounting software, and implementation of selected financial models. Presentational and interface design techniques are also covered. Students complete a term project that solves a typical business problem using the software and procedures of their choice. This course may not be counted as a computer science course by computer science majors.

Prerequisite(s): None. Basic knowledge of computers and experience with browsing the World Wide Web is preferable

CPSC 260-3 Ethics in Computing Science This course focuses on codes of ethics of computing professional societies, technology and human values, costs and benefits of technology, the social context of work in computer science and engineering, copyright, patents, access, and other concepts.

Prerequisite(s): None

CPSC 272-3 Web Application Development This course introduces client-side and server-side mechanisms for creating dynamic web applications that are interactive and data driven. Topics include browser-server interaction via HTTP, static web page creation using current markup and styling languages, client-side programming with modern scripting languages and the DOM, server-side programming with emerging web programming languages, and frameworks. This course provides a breadth of knowledge of many tools/technologies rather than deep knowledge of any specific tool or technology.

Prerequisite(s): CPSC 101-4

CPSC 281-3 Data Structures I This course introduces a variety of practical and important data structures and methods for analytical evaluation and experimental implementation using an object-oriented programming language. Structures include arrays and matrices; list related structures including stacks, queues, and skip lists; hashing; various tree structures, their traversals and their use in expressions and search trees; priority queues and heaps; graphs, and graph algorithms (such as shortest-path and minimum-cost spanning trees.

Prerequisite(s): CPSC 101-4

CPSC 299-(1-3) Introductory Special Topics II The intent of this course is to provide timely offering of courses that either reflect rapid change in Computer Science, provide supplementary material in specific concrete topics or skills, or expose non-majors to advances in Computer Science. Consequently, the topic and availability of this course varies. The course may be retaken any number of times, provided all topics are distinct. This course normally supposes some first-year exposure to Computer Science.

Prerequisite(s): Permission of the instructor

CPSC 300-3 Software Engineering I Fundamental problem-solving concepts, the software development process, software requirements and specifications, software design and implementation, verification and validation, organization and management of programming teams, and documentation are discussed. Students work on a team project.

Prerequisite(s): CPSC 281-3

CPSC 320-3 Programming Languages This course is a general introduction to programming languages. Topics include an overview of programming languages and language design objectives, specification of syntax and semantics, virtual machines and language translation, program correctness and reasoning about programs, programming language constructs, declarations and types, abstraction mechanisms, and programming paradigms. Assignments include case studies and a team-based report on a particular language.

Prerequisite(s): CPSC 141-3 and CPSC 281-3, or permission of the Chair
Recommended: CPSC 340-3

CPSC 321-3 Operating Systems This course introduces the fundamental concepts of operating systems. Topics include tasking and processes, process co-ordination and synchronization, scheduling and dispatch, physical and virtual memory organization, paging and segmentation, device management, file systems, and security and protection. Students study a simple operating system and have an opportunity to make modifications to it in laboratory exercises.

Prerequisite(s): CPSC 231-4 and CPSC 281-3

CPSC 340-3 Theory of Computation This course examines regular expressions, deterministic and non-deterministic finite automata, pushdown automata, Chomsky and Greibach normal forms, Chomsky hierarchy, pumping lemmas, Turing machines, undecidability, computability, recursive function theory, computational complexity, NP-hard and NP-complete problems, and context-free and other grammars.

Prerequisite(s): CPSC 141-3 or CPSC 142-3, and upper-division standing

CPSC 344-3 Data Communications and Networking This course provides an understanding of basic concepts underlying data communications and networking. Topics covered include data transmission and encoding, Internet and Internet2, Network Layer model, multiplexing, circuit switching, packet switching, network protocols, and data communication hardware. Students also learn about protocols and topologies of Local Area Networks (LANs), Wireless LANs, Wide Area Networks (WANs), Metropolitan Area Networks (MANs), and Backbone Networks (BNs). The basic concepts of network design and implementation, network management, and network security are also introduced.

Preclusion(s): COMM 353-3

CPSC 345-3 Fundamentals of Cybersecurity This course is a broad survey of fundamental topics in cybersecurity with the purpose of laying a practical foundation and cultivating an appropriate mindset for information security and privacy issues. Topics include information security, authentication, access controls, cryptography, communication security, malware, social aspects of security, and emerging industry trends. Legal and ethical considerations are included.

Pre- or Corequisite(s): CPSC 344-3, CPSC 444-3, or COMM 353-3

CPSC 351-3 Management Information Systems This course emphasizes the strategic role of information systems in modern business. Topics include the technical foundations of information systems, the impact of information systems on business operations and decision-making, and the processes that are required for successful implementation of business information systems.

Prerequisite(s): CPSC 100-4 or permission of the instructor
Preclusion(s): COMM 351-3

CPSC 354-3 Introduction to Business Intelligence This course provides students with an understanding of business intelligence which involves conversion of mass data into effectively communicated information through visual, interactive media that enables evidence-based strategic decision making. Course topics include: data-extract-transform-load (ETL); data quality; MDM; data warehouse models; conformance; star or snowflake dimensional models; OLTP; OLAP; effective data visualization; governance; success or failure factors; and emerging trends. Students apply the concepts in a term project using leading technologies and business intelligence tools.

Prerequisite(s): COMM 351-3 or CPSC 224-3 or CPSC 351-3
Preclusion(s): COMM 354-3

CPSC 357-3 Mobile Application Development This course focuses on the fundamentals of mobile application development. Topics include the mobile development environment, user interface design with views and layouts, app lifecycle management, and event handling. Students learn about data management through intents, file systems, shared preferences, and databases. An introduction to networking, cloud integration, and best practices for building scalable, efficient mobile apps is provided. Development is conducted using an industry-standard IDE, with hands-on exercises that emphasize real-world mobile development and deployment.

Prerequisite(s): CPSC 101-4

CPSC 370-3 Functional and Logic Programming This course provides an introduction to programming in symbolic languages such as the functional language Scheme and the logic programming language Prolog, with applications to systems programming, symbolic computation, artificial intelligence and other areas.

Prerequisite(s): CPSC 141-3 and CPSC 281-3

CPSC 371-3 Artificial Intelligence I This course introduces foundational concepts, techniques, and applications of artificial intelligence (AI), blending classical approaches with recent advancements in the field. Students study traditional AI methods, including search algorithms and knowledge representation, alongside contemporary techniques such as modern machine learning and probabilistic modeling. This course emphasizes understanding algorithmic frameworks and the evolution of AI methods to solve complex problems.

Prerequisite(s): CPSC 281-3 and MATH 220-3, or permission of the instructor

CPSC 377-3 Introduction to Robotics This course is an introduction to hardware architecture and control architecture of robotic and mechatronic devices. Topics include electronics, sensor capabilities, calibration of sensors, control of sensor I/O, motor and motion control through duty cycle and pulse width modulation. Laboratory topics include the development of interfaces between sensors, their control boards and digital circuitry including microprocessors. Microprocessor control of sensors and motors is developed, including the use of reasoning embedded in onboard microprocessor software for control of robotic actions.

Prerequisite(s): PHYS 100-4 or PHYS 110-4, CPSC 231-4 or permission of the instructor

CPSC 400-3 Software Engineering Project The course provides students, working in groups, with a significant project experience in which they can integrate much of the material they have learned in CPSC 300 Software Engineering, including matters relating to requirements, design, human factors, professionalism, and project management.

Prerequisite(s): CPSC 300-3

CPSC 424-3 Advanced Database Systems This course is an introduction to advanced concepts in database design and applications. Topics discussed include transaction management, concurrency control, query processing and optimization, recovery and security, data warehousing and data mining, handling of special data types such as multimedia, spatial data, and XML documents. An introduction to object-oriented and object-relational models, parallel and distributed databases, and special purpose databases is also provided. Support for complex applications, information retrieval and data analysis is examined.

Prerequisite(s): CPSC-321 and CPSC-324 or permission of the instructor
Preclusion(s): CPSC 422-3, CPSC 624-3

CPSC 430-(3, 6) Undergraduate Thesis This undergraduate thesis allows students to examine and research a topic in the field of computer science. Students must have completed at least 90 credit hours and be computer science majors. This thesis may be taken in one or two semesters. CPSC 430 is normally taken over two semesters and requires that a student find an Undergraduate Thesis research supervisor. Therefore, students are encouraged to apply to potential supervisors well in advance of completing 90 credit hours. This course may be repeated for a total of 6 credit hours.

Prerequisite(s): 90 credit hours, permission of the Instructor and Department Chair

CPSC 441-3 Distributed Systems This course covers the fundamental principles and paradigms underlying the design of distributed computing systems. Coverage includes the definition and types of distributed systems, communication, processes, naming, synchronization, consistency and replication, fault tolerance, and security. Term projects focus on case studies of specific systems representing web-based, peer-to-peer, mobile, grid, and other modern paradigms.

Prerequisite(s): CPSC 321-3 or permission of the instructor

CPSC 442-3 Parallel Computing This course introduces students to concepts in high performance computing. Topics include classification of parallel architectures, basic communications operations, interconnection networks, topologies of dynamic and static networks, performance issues and techniques for optimization, and dynamic programming. Parallel algorithm design for high-performance computing such as applications in computational biology, finite-element and finite-difference methods for numerical simulations, dense/sparse matrix algorithms, and multidimensional data structures is also discussed. Message passing (MPI and OpenMP) is used for implementation of algorithms on high performance cluster computers.

Prerequisite(s): CPSC 321-3 or permission of the instructor

CPSC 444-3 Computer Networks This course explores essential topics in computer networks including TCP protocol, TCP reliable transport service, Internet protocol IP addresses, IP datagram and datagram forwarding, IPv6, network applications, real time interactive applications protocols (RTP, RTCP, SIP, H.323), security in computer networks, and network management. Network applications discussed include client-server interaction, naming and domain name system DNS, multimedia networking, VoIP, audio and video streaming.

Prerequisite(s): CPSC 321-3

CPSC 450-3 Bioinformatics This course introduces computational techniques for solving biological problems and presents an overview of tools and the methods used to analyze large biological data sets. After introducing the background in molecular biology for computer scientists, the course explores pairwise and multiple sequence alignment, sequence database searches, pattern identification of genes, promoters, and transcription factor binding sites, as well as secondary and tertiary structure prediction for RNA and proteins. Markov models for gene prediction are introduced.

Prerequisite(s): CPSC 224-3 or permission of the instructor

CPSC 461-3 Applied Machine Learning This course explores key areas of machine learning and data mining, focusing on the best ways to apply these concepts in actual systems. This course focuses on supervised machine learning methods, but it also touches on unsupervised learning. Key subjects include essential algorithms like linear and logistic regression, decision trees, support vector machines, and clustering, along with neural networks. Students also delve into important methods for choosing the right features in data, reducing data complexity, estimating errors, and practical testing of these methods.

Prerequisite(s): CPSC 371-3 or permission of the instructor

CPSC 472-3 Knowledge Based Systems This course introduces students to Expert Systems. The two major topics addressed are Rule-based systems and Fuzzy Logic systems. Goal driven forward-chaining and backward-chaining paradigms are introduced. Automatic theorem provers, inference engines and problems of knowledge representation and knowledge acquisition are discussed. Approaches to reasoning about uncertainty are covered including Bayesian probabilities, certainty factors, non-monotonic logics and reasoning with beliefs. A Fuzzy Logic system is implemented and an application is developed and tested.

Prerequisite(s): CPSC 370-3 or permission of the instructor

CPSC 473-3 Introduction to Data Mining This course introduces algorithms and paradigms that allow computers to discover previously hidden patterns in databases or datasets. Main topics include discovery of frequent patterns, analysis of different types of data (static, dynamic, sequential, uncertain, etc.) clustering and classification. Other topics may include data visualization, social network mining, real-life applications, and parallel/distributed data mining. Students work on assignments, term tests and a course project.

Prerequisite(s): CPSC 281-3 and CPSC 340-3

CPSC 475-3 Multiagent Systems An introduction to the theoretical and practical aspects of intelligent agents and multiagent systems, this course is open to undergraduate students majoring in different areas and fosters creative multi-disciplinary interaction. Coverage includes the basic concepts, agent architectures, deductive and practical reasoning agents, reactive and hybrid agents, multiagent interactions, human-agent interactions, agreements, communication, and teamwork. Individual or team projects allow students to explore specific topics in their areas of interest through theoretical or laboratory work.

Prerequisite(s): Upper-division standing in Computer Science, or upper-division standing in another area and permission of the instructor

CPSC 476-3 Social Robotics This course offers a comprehensive introduction to the field of social robotics, emphasizing a human-centered approach and real-world applications. It covers the fundamentals, principles, and theories involved in designing, developing, and deploying robots capable of fostering meaningful social interactions with humans across diverse contexts, such as robots as tools in education or robot-assisted therapy. Through a combination of lectures, discussions, and critical analyses of human-robot interaction, the course provides opportunities to engage with key methodologies, and practical applications, equipping students with a thorough understanding of this rapidly evolving discipline.

Prerequisite(s): CPSC 101-4

CPSC 482-3 Data Structures II This course considers the design and analysis of efficient data structures and algorithms including extensions of those studied in CPSC 281. Also considered are general techniques for building and analyzing algorithms (greedy, divide and conquer, dynamic programming) and topics from: amortized time estimates, complexity analysis, and NP completeness.

Prerequisite(s): CPSC 281-3, or permission of the instructor

CPSC 495-3 Undergraduate Research Project I This course consists of a small research project undertaken by the student or by teams of students. Projects will consist of the definition of a problem in computing and a literature survey of recent work in the field. Students are encouraged to define their own possible solutions and to prototype the solutions where appropriate. Regular review of progress is made in meetings. Students develop skills in the preparation of topic survey notes and in the development of arguments in support of or against published approaches to problems in computing. Students are expected to prepare and present their work. This course may be repeated provided all topics are distinct.

Prerequisite(s): Permission of the instructor

CPSC 499-3 Special Topics The topics for this course vary, depending on student interest and faculty availability. This course may be retaken any number of times, provided all topics are distinct.

Prerequisite(s): Permission of the instructor

Economics (ECON)

Successful completion of Math 12 or equivalent is strongly recommended before taking Economics courses.

ECON 100-3 Microeconomics The interactions of households, firms and government policies. An analysis of how different economic agents interact to determine what is produced, how it is produced and to whom it is distributed.

Prerequisite(s): None

ECON 101-3 Macroeconomics The determinants of unemployment, inflation and growth focusing on Canada's macroeconomic performance.

Prerequisite(s): None

ECON 105-3 Introduction to Sustainability Economics This course offers a comprehensive introduction to key principles in economics through the perspective of sustainability, examining key theories, models, and policies that balance economic growth with environmental stewardship and social equity. The course explores how economic systems interact with environmental and social factors. Students have the opportunity to develop a comprehensive understanding of sustainability economics and its application in addressing contemporary global challenges such as climate change, biodiversity loss, and economic inequality.

Prerequisite(s): None

ECON 204-3 Contemporary Economic Issues This course provides an introduction to contemporary economic issues. Issues examined will vary by year and may be related to trade, finance, demographic change, regional economic development, Aboriginal economic development, energy, and various aspects of government policy and behaviour. This course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): None

ECON 205-3 Statistics for Business and the Social Sciences An introduction to the principles and applications of statistics relevant to business and the social sciences, with emphasis on making inferences based on observed data. Topics covered include descriptive statistics, probability, random variables, decision theory, estimation, hypothesis testing, and statistical software.

Prerequisite(s): None

ECON 206-3 Methods of Economic Evaluation This course provides an introduction to the analysis and evaluation of socio-economic issues, projects, programs and policies. Contemporary techniques of project and program evaluation are examined. Methods of economic evaluation include cost-benefit, cost-effectiveness and impact analyses. These methods and techniques are applied to issues such as health care, deregulation, wildlife, and resource investment.

Prerequisite(s): None

ECON 210-3 Introduction to Health Economics and Policy This course provides a general understanding of health and health care from an economic perspective. It introduces models of health production and discusses the socio-economic determinants of health. Topics considered may include the efficient and equitable allocation of scarce resources in health, alternative methods of health care financing and delivery, the effect of health uncertainty on insurance, and the effects of externalities and information asymmetries in the health sector on the behaviour of health care providers and receivers. Issues of health policy in Canada, including those for remote and rural areas, and other countries are examined.

Prerequisite(s): None
Preclusion(s): ECON 110-3

ECON 220-3 Global Economic Shifts This course examines the shifting spatial dynamics of the world economy. Trends in global production, trade, and investment over the past 200 years are analyzed and the reasons for these shifts discussed. Contemporary dimensions of globalization are identified with a focus on examining the rise and re-emergence of new global powers such as Brazil, Russia, India and China.

Prerequisite(s): None
Preclusion(s): ECON 120-3

ECON 300-3 Labour Economics An examination of the Canadian labour market. The course considers labour demand and supply, wages and terms of employment, wage structures and differentials, education and training, unemployment, unions, and selected labour market policies.
Prerequisite(s): ECON 100-3 and ECON 101-3, or permission of the instructor

ECON 301-3 Women and the Economy This course examines women's economic situations in Canada and other industrialized economies. Labour market topics such as why women earn lower wages than men, occupational segregation, and the international division of labour are considered. Other topics include the unequal distribution of resources within the household, pay equity, and the feminization of poverty; attention is paid to public policies relating to these issues.

Prerequisite(s): ECON 100-3 and ECON 101-3, or COMM 230-3, or permission of the instructor

ECON 305-3 Environmental Economics and Policy This course is an introduction to environmental economics emphasizing the relationship between economic activities and environmental quality. The course introduces students to frameworks for measuring environmental costs and benefits and evaluating the efficiency and equity of environmental policies. Local and global environmental issues, including ozone depletion and climate change, are analyzed.

Prerequisite(s): ECON 100-3, and one of MATH 100-3 or MATH 152-3

ECON 307-3 Northern BC in the Global Economy This course compares the economic characteristics of northern British Columbia with other Canadian regions. Regional development in the context of global economic integration is examined. Past and present regional economic development programs and initiatives taken by various levels of government are analyzed and contemporary resource projects discussed.

Prerequisite(s): ECON 100-3 and ECON 101-3, or permission of the instructor
Preclusion(s): ECON 407-3

ECON 308-3 International Economic Relations Trade theory, multilateral institutions (such as the World Bank and International Monetary Fund), trading blocs (such as NAFTA), internationalization of finance, world debt, North-South relations.

Prerequisite(s): ECON 100-3 and ECON 101-3, or permission of the instructor

ECON 310-3 Intermediate Microeconomic Theory This course examines the main principles and techniques of economic analysis in their application to modern theories of price, production, distribution, and theory of the firm.

Prerequisite(s): ECON 100-3 (minimum grade C-), ECON 101-3, and one of MATH 100-3 (minimum grade C-) or MATH 152-3 (minimum grade C-)

ECON 311-3 Intermediate Macroeconomic Theory

This course covers concepts and methods of analysis of macroeconomic variables, such as consumption, investment, government, and foreign trade. This course includes a discussion of classical and Keynesian models as well as the analysis of economic statics and dynamics.

Prerequisite(s): ECON 100-3, ECON 101-3, and MATH 100-3 or MATH 152-3, or permission of the instructor

ECON 312-3 Introduction to Econometrics In this course, simple linear regression, maximum likelihood estimators, and multiple regression are used in applied economic analysis. Students are introduced to various software programs.

Prerequisite(s): ECON 100-3 (minimum grade C-), ECON 101-3 (minimum grade C-), ECON 205-3 (minimum grade C-), one of MATH 100-3 (minimum grade C-) or MATH 152-3 (minimum grade C-), and one of MATH 150-3 (minimum grade C-) or MATH 220-3 (minimum grade C-)

ECON 315-3 Economics of Social Policy Examination of public expenditure with specific reference to health, education and social security. Examples will be drawn from various countries.

Prerequisite(s): ECON 100-3 and ECON 101-3, or permission of the instructor

ECON 317-3 Money, Banking and Financial Institutions An examination of the operations of the Canadian financial system and the impact of monetary policy and regulation on the performance of the economy.

Prerequisite(s): ECON 100-3 and ECON 101-3, or permission of the instructor

ECON 320-3 Introduction to Mathematical Economics In this course, the mathematical interpretation of fundamental economic concepts such as demand, supply, and competitive equilibrium is examined. Calculus is used in the analysis of production and distribution theory.

Prerequisite(s): one of MATH 100-3 (minimum grade C-) or MATH 152-3 (minimum grade C-), and one of MATH 150-3 (minimum grade C-) or MATH 220-3 (minimum grade C-)

ECON 321-3 Economics of Developing Countries An analysis of the economic problems and policy choices facing developing countries. The course takes a comparative approach analyzing why some developing countries have been more successful than others.

Prerequisite(s): ECON 100-3 and ECON 101-3, or permission of the instructor

ECON 322-3 Public Finance Examination of selected policy problems from areas of taxation, income security and public expenditures. Examples in Canadian public pension policy, privatization, tax reform and federal-provincial cost sharing programs.

Prerequisite(s): ECON 100-3 and ECON 101-3, or permission of the instructor

ECON 331-3 Forestry Economics Economic analysis of private and public forest management. Topics include the measurement of timber and non-timber values, multiple use management, and the regulation of forest practices.

Prerequisite(s): ECON 100-3 and ECON 101-3, or permission of the instructor
Preclusion(s): FSTY 310-3

ECON 350-3 Managerial Economics This course is concerned with the application of economic principles and methodologies to key management decisions within organizations. It provides principles to foster the goals of the organization, as well as a better understanding of the external business environment in which an organization operates. Topics may include: demand, production, and cost analysis; market structure and pricing practices; objectives in private and public organizations; regulation and; entrepreneurship.

Prerequisite(s): ECON 100-3 and ECON 101-3

ECON 401-3 Global Economy and Development This course analyzes the evolution, and assesses competing theories, of the global economy. The prospects for developing countries within the global economy are examined.

Prerequisite(s): ECON 100-3 and ECON 101-3, ECON 308-3 or ECON 311-3 or ECON 321-3, or permission of the instructor

ECON 404-3 Poverty, Inequality and Development This course examines the dimensions and causes of poverty and inequality. It analyzes development strategies aimed at reducing poverty and inequality.

Prerequisite(s): ECON 100-3, ECON 101-3, and ECON 310-3 or permission of the instructor

ECON 410-3 Health Economics In this course, economic analysis is applied to health and health care. Topics include identifying the nuances of the health sector such as uncertainty, information asymmetry, and externalities, as well as economic evaluation of health care services and policies.

Prerequisite(s): ECON 100-3 and ECON 101-3, or ECON 210, or permission of the instructor

ECON 411-3 Cost-Benefit Analysis Techniques and problems in cost-benefit analysis. Case studies of projects in the areas of natural resources, the environment, human resources, public services and transportation.

Prerequisite(s): ECON 100-3 and ECON 101-3, or ECON 210, or permission of the instructor

ECON 412-3 Applying Economics in the Community In this course, students apply their economics knowledge to a real-world problem or question. Working with a local organization, students will design the methodology to answer the problem or question identified by the organization, engage in collaborative research, and produce a group report. The organization chosen may vary from year to year.

Prerequisite(s): ECON 310-3 or ECON 350-3, and ECON 311-3, or permission of the Program Chair

ECON 423-3 Economics Field School This course allows students to learn about the application of economics in specific contexts. Course location varies with instructor and year taken. This course may be repeated to a maximum of 6 credit hours if the course content differs.

Prerequisite(s): Upper-division standing and permission of the Program Chair

ECON 425-3 Trade and the Environment This course considers the relationship between different international trade regimes and environmental issues.

Prerequisite(s): ECON 100-3 (minimum grade C-) and ECON 101-3 (minimum grade C-)

ECON 435-3 Financial Economics and Quantitative Methods This course explores the theoretical and conceptual foundations of financial economics. The course also includes the study of quantitative methods for testing some of the basic financial propositions in finance.

Prerequisite(s): ECON 100-3, ECON 101-3, ECON 205-3, and MATH 100-3 or MATH 152-3, or permission of the instructor

ECON 440-(3-6) Internship

Prerequisite(s): Upper-division standing and permission of the Program Chair

ECON 451-3 Advanced Microeconomic Theory This course examines selected topics in microeconomics.

Prerequisite(s): ECON 310-3 (C- or 60%), and ECON 311-3, or permission of the instructor

ECON 498-(3-6) Special Topics in Economics

Prerequisite(s): Upper-division standing

ECON 499-(3-6) Independent Study

Prerequisite(s): Upper-division standing and permission of the Program Chair

Education (EDUC)

EDUC 101-3 Introduction to Education This course is intended to provide students with an understanding of the basic issues facing elementary and secondary teachers in Canadian schools. The topics to be covered include social, emotional, cognitive and physical development, classroom management, social and economic issues, gender, multiculturalism, teacher characteristics, special needs, and reflective practice. It introduces students to the values, concepts, expectations, and responsibilities of classroom teachers. The course will also acquaint students with the British Columbia Teachers' Federation Guide to Professional Practice.

EDUC 201-3 Education Theory and Practice In this course, students will extend their understanding of contemporary educational issues. The course introduces theoretical models of curriculum and instruction, as well as provincial curricular guidelines. Students will reflect on practical aspects of teaching and learning, and they will identify their own beliefs and aims with respect to teaching. This course builds on and complements the topics addressed in EDUC 101-3.

Prerequisite(s): EDUC 101-3
Note: This course is a general introductory course and not part of the BEd program or Post-Degree Bachelor of Education Program.

EDUC 313-1 Interpersonal Communication An introduction to basic interpersonal communication skills applicable to teaching across the grade levels. The course focuses on developmentally appropriate and effective communication in one-to-one, small-group, and whole-class contexts when listening, imparting information, giving instructions, and facilitating discussion. Other topics include: understanding diverse perspectives, establishing equitable discourse opportunities, reflective listening, negotiation, and problem-solving.

EDUC 333-2 Learning, Development and Motivation Human social, emotional, cognitive, linguistic, and physical development and learning across the lifespan. In particular, the emphasis is children's and adolescents' development during the school years and implications for teaching and learning. Topics will include: theories of development; age-related social, behavioural, and academic expectations; developmental diversity; social, cultural, and gender bases of identity; and the teacher's role in creating developmentally appropriate, nurturing environments for learning. Students will complete a term project relevant to their educational stream (Elementary Years or Secondary Years).

EDUC 336-(3, 4)Inclusion and Exceptionalities This course focuses on understanding the exceptionalities of individual learners and inclusive education in K-12 settings. Course content includes the identification and assessment process of individuals with neurodevelopmental and physical exceptionalities based on current policy and practice. There is an examination of evidence-based inclusive pedagogy, including universal design for learning and multi-tiered systems for support. Case studies are used to explore integrating these supports into inclusive lesson planning and individual education plans. Graded on a PASS/FAIL basis.

EDUC 340-2 Curriculum Development Models Practical approaches to the development and evaluation of curricula, placed within a theoretical framework. Topics will include epistemological foundations of curriculum, curricular integration and disciplinarity, sociocultural perspectives and equity, collaborative development, evaluative purposes and approaches, curricular leadership, and the teacher as researcher. This course prepares students for curriculum and instruction pedagogy courses in specific subject areas.

EDUC 341-2 Principles of Inquiry-Based Instruction This course embeds theoretical foundations and practical applications of instructional psychology within the context of elementary and secondary school settings. The course is based on a model of professional inquiry to explore some of the contemporary theories that support student learning. It requires teacher candidates to explore inquiry-based learning within an adult context which leads student-based inquiry learning in their classrooms.

EDUC 342-2 Social Dynamics of Classrooms This course addresses the social dynamics of classrooms and introduces contemporary approaches to classroom management. Through a combination of lecture, discussion, small group activities, and case analysis, we will address the following central topics: foundations of classroom management, interpersonal relationships in classrooms, effective instruction to promote learning and motivation, classroom organization and management, and approaches to exceptional cases. Students will interrogate their own assumptions about the roles of teachers and students, and will develop practical strategies for classroom management and discipline.

EDUC 345-3 Language and Literacy Across the Curriculum In this course, Senior Years students study the role of language as a medium of teaching and learning, and develop approaches to integrating spoken and written language across subject areas to enhance learning. The course includes a substantive focus on English as a Second Language/English as a Second Dialect. Other topics include the nature of language, classroom discourse, narrative, and journals, the construction of meaning, writing and cognition, and diverse oral and literate traditions. The course includes a focus on strategies for integrating language within specific subject areas.

EDUC 346-(2, 3) Aboriginal and Indigenous Education This course provides teacher candidates with an opportunity to develop a deep understanding of the Truth and Reconciliation Commission (TRC) Calls to Action. Teacher candidates build their knowledge by embedding cultural and Indigenous and Aboriginal perspectives, and develop an understanding of oral history and the Indigenous perspectives on historical and current issues. They explore, design and examine pedagogical strategies to support learners in the classroom. Graded on a PASS/FAIL basis.

EDUC 351-(2, 3) Curriculum and Instruction: Second Language This course provides Elementary teacher candidates with curricular, instructional and assessment methods for teaching a second language. The second language offered may be French, or another provincially approved second language, such as a local Indigenous language. Teacher candidates are provided with an opportunity to develop a deep understanding of second language acquisition and development; research-informed pedagogical content knowledge; and ways to personalize classroom learning. Graded on a PASS/FAIL basis.

EDUC 356-2 Language and Literacy: Development (EY) An introduction to the nature of language and literacy, and their development prior to and during the early years of schooling. The course will focus on the components of language, how they develop in oral and written forms, and diversity among learners in language and literacy development. Students will learn the curricular expectations for grades K to 5 for listening, speaking, reading, writing, and spelling, and will be introduced to instructional strategies for oral language and emergent/early literacy.

EDUC 357-4 Language and Literacy: Reading and Writing (EY) This course examines theoretical models of reading, spelling, and writing processes during the early years. It also includes practical skills and experience in assessing reading, writing, and spelling, planning instruction in these areas, using curricular and other resources, and adapting instruction for diverse learners.

Prerequisite(s): EDUC 356-2

EDUC 358-3 Literacy Foundations in the Elementary Years This course develops the foundations to design, teach, and assess all areas of literacy (oral language, reading, and writing) during the elementary years. Teacher candidates develop an understanding of the developmental continuum of literacy and the integration of literacy skills across subject areas. The course content focuses on evidence-based theory and practice for culturally responsive and inclusive learning environments. There is a practical application of literacy-based informal and formal assessments. Graded on a PASS/FAIL basis.

EDUC 360-4 Curriculum and Instruction: Introduction (SY) Curriculum and instruction methods for the Senior Years, including accessing, selecting, and developing curricular materials; and planning, instruction, and evaluation methods pertaining to the teachable subject areas.

Pre- or Corequisite(s): EDUC 340-2

EDUC 361-(3, 4, 6) Curriculum and Instruction: Secondary Humanities This course investigates curriculum and instruction methods in English language arts and social studies in Grades 8-12. The first part of the course focuses on language and literacy with emphasis on strategies for thematic instruction, cross-curricular teaching, Canadian texts, and First Peoples' Principles across the curriculum. The second part promotes English language arts and social studies across the secondary humanities curriculum by promoting the use of Indigenous and non-Indigenous texts to explore social justice themes, First Nations history and pedagogy. Graded on a PASS/FAIL basis.

EDUC 366-2 Curriculum and Instruction: Social Studies (EY) The theory and practice of social studies education in the early years, including objectives, teaching and assessment approaches, curricular models, and resources/materials. Students will examine the nature and purposes of social studies, and will become familiarized with the BC social studies curriculum for the early years, as well as with accessing, selecting, and developing curricular materials. The course will emphasize strategies for thematic instruction, and integration of social studies themes across the curriculum.

EDUC 370-3 Numeracy Across the Curriculum (SY) An exploration of the role of numeracy in society and across disciplines. This course includes strategies for fostering quantitative literacy across Senior Years subject areas.

EDUC 372-(3, 4, 6) Curriculum and Instruction: Mathematics and Science This course is intended for Secondary teacher candidates with a Mathematics and Science specialization. Teacher candidates integrate subject-specific pedagogies, theories, practices, professional ethics and safety protocols. Themes include experiential and reflexive learning; First Peoples' Principles; and cross-curricular teaching and learning using Applied Design Skills and Technologies (ADST). Graded on a PASS/FAIL basis.

EDUC 376-(2, 3) Numeracy Foundations in the Elementary Years This course develops the foundations to design, teach, and assess all areas of numeracy (number sense, computational fluency, patterns, geometry and measurement, and data and probability) during the elementary years. Teacher candidates explore learner-centred, experiential, and inquiry-based teaching methods. Confidence in teaching mathematics is generated by integrating individual interests. Graded on a PASS/FAIL basis.

EDUC 377-2 Numeracy: Instructional Strategies (EY) Topics include accessing, selecting, and developing curricular materials; and planning, instruction, and evaluation methods pertaining to early years mathematics. Instructional strategies will emphasize problem solving, learning with manipulatives, mathematical language, group work, and other process-oriented approaches, as well as choosing and using resources such as math manipulatives and Montessori materials, print materials, computer software, videos, and calculators. Students also will explore ways to integrate numeracy across the curriculum, such as through thematic instruction.

Prerequisite(s): EDUC 376-2

EDUC 380-3 Foundations of Education Introduction to the historical, philosophical, psychological, and sociological foundations of education. Students will reflect on their beliefs about education and teaching, including their assumptions about gender, culture, race, and social class. This course will include an emphasis on the historical roots of present educational institutions and approaches, and change processes in education as applied to contemporary Canadian social and educational contexts.

EDUC 387-2 Curriculum and Instruction: Science (EY) Students will be introduced to the theory and practice of teaching children science, and the BC curriculum. The course addresses curriculum and instruction methods for the early years, including accessing, selecting, and developing curricular materials and activities; and planning, instruction, and evaluation methods pertaining to early years science. Students also will explore ways to integrate science across the curriculum, such as through thematic instruction.

EDUC 388-3 Applied Design, Skills, and Technologies in the Elementary Years This course provides teacher candidates with opportunities to explore, inquire about, and understand experiential and hands-on learning. Applied Design, Skills, and Technologies (ADST) is a component of the B.C. Curriculum that promotes cross-curricular learning, design-thinking principles, the acquisition of skills, and the application of technologies including computational thinking and digital literacy. Teacher candidates learn teaching strategies to encourage students' natural curiosity, inventiveness, and desire to use their unique ideas to create and work in practical ways. Graded on a PASS/FAIL basis.

Preclusion(s): EDUC 397-3, EDUC 398-3, EDUC 400-6

EDUC 390-3 Observational Practicum This course provides Teacher candidates with the skill sets required to better understand the complexities of teaching and learning. Teacher candidates participate in an observational practicum in K-12 classrooms and alternative education settings. Mentors guide discussions addressing ongoing practice issues to provide teacher candidates opportunities to reflect on and problem-solve real life and case study issues. This course helps teacher candidates assess current resources, address professional issues and experience the role of teacher as researcher. Graded on a PASS/FAIL basis.

EDUC 391-3 Experiential Practicum This course provides teacher candidates with the skill sets needed to participate in an experiential practicum. During their time in classrooms, teacher candidates participate in self-reflection, planning, teaching, assessing and reflecting on students' learning. Immersion in reflective practices includes participating in groups to provide ongoing mutual support and guidance as they participate in inquiry and problem-solving. Graded on a PASS/FAIL basis.

Prerequisite(s): EDUC 390-3

EDUC 392-3 Classroom Practice and Seminar: First Nations Language and Culture This three-week equivalent practicum provides teacher candidates enrolled in the Education Diploma in a First Nations Language and Culture program (Elementary Years) with supervised practical experience in a school classroom setting that offers, as part of its mandate, instruction in a First Nations Language and Culture. As part of the practicum experience, weekly seminars address ongoing practical issues confronting teachers of First Nations languages and cultures including pedagogy, classroom management, reflection, learning resources, and professional concerns. The course is graded on a PASS/FAIL basis.

Prerequisite(s): EDUC 390-3
Pre- or Corequisite(s): EDUC 333-2, EDUC 341-2, EDUC 342-2, EDUC 351-2, EDUC 356-2, EDUC 380-3, EDUC 435-2, EDUC 446-(2, 3)

EDUC 393-3 Foundations of Education This course introduces the historical, philosophical, sociological and ethical foundations of education. Teacher candidates connect the BC Teachers' Council code of practice standards to curriculum policies in public and independent schools in British Columbia and Canada in general. Teacher candidates practice and discuss critical reasoning and ethical decision-making in the professional context. Graded on a PASS/FAIL basis.

EDUC 394-3 Pedagogy, Curriculum and Teaching - Theory in Context This course provides teacher candidates with an introduction to and development of a skill set to fluently engage with BC's curriculum. Teacher candidates develop an understanding of curriculum content and competency integration, and of the importance of differentiated instruction that enables student success. Teacher candidates also integrate the cycle of assessment and evaluation to inform instruction with ways to keep students at the center of the learning. Finally, teacher candidates examine the role of teachers as researchers, learners and leaders of learning. Graded on a PASS/FAIL basis.

EDUC 397-3 Curriculum and Instruction in the Humanities K-7 using ADST This course prepares Elementary teacher candidates for the teaching of humanities. It emphasizes literacy, spoken and written language across subject areas, and social studies pedagogy, while integrating theory and practice with critical reflection. Other focuses include the development of Applied Design Skills and Technologies (ADST) and First Nations' pedagogical knowledge, along with the assessment and evaluation of diverse learners. Graded on a PASS/FAIL basis.

EDUC 398-3 Curriculum and Instruction in Math and Science using ADST Quantitative and scientific literacy are essential competencies for teacher candidates in order to educate students for the world and the future. This course focuses on literacy areas while developing and refining the skills and mindsets required for logical reasoning, analytical thought, problem solving, creative thinking, and ethical decision-making. These competencies are based on the collection, analysis and effective communication of data, in addition to problem solving in situational contexts. Graded on a PASS/FAIL basis.

EDUC 399-3 Integrating ADST as a Pedagogical Stance This course provides teacher candidates with opportunities to explore, inquire about and understand the value of experiential learning for their students. Teacher candidates begin to develop their own pedagogical stances, recognizing the importance of hands-on learning. As expressed in the BC Ministry of Education's curriculum - Applied Design, Skills and Technologies (ADST), experiential learning provides opportunities for students to build on their own natural curiosity, inventiveness, and desire to create and work in practical ways. Graded on a PASS/FAIL basis.

EDUC 400-6 Curricular Enactment in Elementary Years with a Focus on Fine Arts, Literacy and Numeracy This course introduces teacher candidates to alternate ways for students in the classroom to demonstrate learning through personal aptitudes, values, and beliefs. Teacher candidates explore a variety of skill sets involving curricular integration and enactment through fine arts, music, health, physical education, drama, dance, performance, and imagery. Teacher candidates develop representations of knowledge and skill sets through emergent and early language literacy, numeracy, wellness, sustainable health, and physical and health education. Graded on a PASS/FAIL basis.

EDUC 401-3 Career-Life Education This course develops the foundation to design, teach, and assess career education in grades 10-12. Topics include career choices, factors influencing career choice, financial literacy, cultivating networks, well-being, work-life balance, and lifelong learning. Teacher candidates learn how to apply learner-centred approaches that include community resources and promote an acceptance of diversity for career-life education. Graded on a PASS/FAIL basis.

EDUC 402-3 Diverse Classrooms This course addresses issues of diversity and equity in K-12 education. Course content includes an integration of theory and practice with an emphasis on culturally-responsive, trauma-informed, and equitable educational practices. Examples of topics are multiculturalism, religious diversity, sexual orientation and gender identity, ableism, racism, bias, and privilege. Teacher candidates examine and apply the Truth and Reconciliation Calls to Action in their local context. Lived classroom experiences of new Canadians are also analyzed. Graded on a PASS/FAIL basis.

EDUC 403-3 Mental Health and Wellness This course provides teacher candidates with the skill sets required to develop an understanding of the well-being of the self and of all members of the school community. Teacher candidates develop trauma-informed pedagogy and practice to support students' development of resilience behaviours and positive mental health. They examine the meaning of professionalism through an examination of the BC Teachers' Federation (BCTF) Code of Ethics and BC Teachers' Council (BCTC) Professional Standards. Workplace culture is examined through a lens of collaboration and an understanding of the many roles of the educator. Graded on a PASS/FAIL basis.

EDUC 405-3 Reflective Practice Through Inquiry This course is an introduction to teacher-reflective practice through transformative inquiry. Teacher candidates develop personalized professional inquiries over the first four terms of the program with a sharing cycle in the fifth term prior to the final practicum. Inquiries support teacher candidates in developing a deeper understanding of a topic, passion, or area of specialization in education relevant to their interests. Through this journey, teacher candidates engage in iterative reflection and representation of their inquiry that nurtures on-going reflexive practice. Graded on a PASS/FAIL basis.

EDUC 406-3 Fine Arts in the Elementary Years This course develops the foundation to design, teach, and assess the processes and skills in the arts curriculum (dance, drama, music, and visual arts) during the elementary years. Teacher candidates explore how to integrate art throughout the curriculum as well as nurture individual expression, motivation, imagination, and creativity while developing students' understanding of global cultures, artistic symbolism, and cultural appropriation. Graded on a PASS/FAIL basis.

EDUC 407-4 Curriculum and Instruction: Fine Arts/ Physical and Health Education (EY) Introduction to the role of music, visual arts, dance, and drama in teaching and learning during the early years. The course includes a focus on appreciating the arts of our diverse communities and understanding children's expressive development, as well as practical approaches to teaching these arts, using tools for art-making, and providing contexts for the performance arts. Strategies for incorporating music, imagery and performance across the curriculum will be emphasized.

EDUC 413-2 Counselling Skills (EY and SY) This course is an introduction to the role of the classroom teacher related to collegial work with counsellors, support personnel, school-based teams, and families. Topics include working with parents, working with the school-based team, understanding the role of the school counsellor, communicating with teaching assistants, accessing resources, and teaching Career Education K-12.

EDUC 421-3 Assessment and Motivation This course provides teacher candidates with skills in classroom assessment for all levels of ability and helps teacher candidates understand the deep connection between assessment, evaluation, student learning, motivation and behaviour. Teacher candidates explore the importance of motivation and engagement in developing classroom communities of learning. Graded on a PASS/FAIL basis.

EDUC 431-3 Educational Technology This course is intended to provide students with the understanding and skills needed to effectively integrate computer based technology in an educational setting. The topics to be covered focus on the use of technology in a school setting and include operations and concepts, curriculum plans, assessment and evaluation, productivity and professional practice, and technology issues (OS and DOC Platforms). It introduces students to the values, concepts, expectations, and responsibilities of classroom teachers with respect to technology and issues arising from its use.

EDUC 435-2 Learning and Diversity: Inclusive Classrooms This course addresses individual differences and inclusion based on the premise that all students have individual differences in their experiences, skills, knowledge, perspectives, and cultural beliefs; and that curricular materials and instruction must be selected, designed, and adapted to include all learners. Within this wider philosophical framework, particular focuses of the course will include: history of special education and contemporary approaches; working with students with physical, intellectual, or emotional/behavioural challenges or talents; individualized education plans; assessment; the team approach; and accommodating social, cultural, and linguistic diversity.

EDUC 436-2 Learning and Diversity: Learning Disabilities This course explores the theoretical bases of learning disabilities; and strategies for assessment, instruction, and coordination of resources to support learners with LD across the developmental levels. Characteristics and educational implications of Fetal Alcohol Syndrome/Effects also will be introduced, and practical instructional approaches explored.

EDUC 441-3 Innovative Community-Based Approaches to Responsive Education (SY) In this course teacher candidates research collaboratively, plan, teach, assess and reflect actively on classroom practices with real-time coaching from classroom teachers and university instructors. Teacher candidates have an opportunity to develop deep understanding of ways to embed Aboriginal and Indigenous perspectives into experiential learning, subject-based learning, and classroom organization. Teacher candidates apply teaching strategies in order to link research and theory to practice and student-led inquiry and to develop personalized pedagogical stances. Graded on a PASS/FAIL basis.

EDUC 446-(2, 3) Aboriginal and Indigenous Education: Epistemology This course emphasizes the importance of people, place and land to learning. Teacher candidates engage in experiential learning opportunities learning about current First Nations pedagogies and issues. Teacher candidates are guided to appropriately design curricula that embed First Peoples Principles of Learning and to develop curricular themes with goals in each of the four directions—Spiritual, Emotional, Intellectual and Physical. Graded on a PASS/FAIL basis.

EDUC 456-2 Language and Literacy: Across the Curriculum (EY) In this course, students will study the role of language as a medium for teaching and learning in the early years, and develop approaches to integrating spoken and written language across subject areas such as language arts, math, music, science, and social studies. The course includes a substantive focus on English as a Second Language/English as a Second Dialect. Other topics include: classroom discourse, construction of meaning, narratives and journals, writing and cognition, and diverse oral traditions. The course includes a practical focus on learning to use effective instructional language, designing thematic instruction, creating literacy-rich classroom environments, providing diverse routes to learning, and managing student discussion in whole-class and small-group contexts.

Prerequisite(s): EDUC 357-3

EDUC 460-5 Curriculum and Instruction: III (Humanities Social Sciences) Curriculum and instruction methods for the senior years, including accessing, selecting, and developing curricular materials; and planning, instruction, and evaluation methods pertaining to the teachable subject areas.

Prerequisite(s): EDUC 361-(3, 4, 6)

EDUC 471-5 Curriculum and Instruction: III (Math, Computers, and Sciences) Curriculum and instruction methods for the senior years, including accessing, selecting, and developing curricular materials; and planning, instruction, and evaluation methods pertaining to the teachable subject areas.

Prerequisite(s): EDUC 372-(3, 4, 6)

EDUC 489-(2, 3) Physical and Health Education in the Elementary Years This course develops the knowledge and experience of teacher candidates with the relationship between physical and health well-being, physical literacy, and daily active participation. The content includes an exploration of habits that support lifelong health and wellness, along with strategies for extending students' learning beyond the classroom. Graded on a PASS/FAIL basis.

EDUC 490-(3, 4) Formative Practicum This course contributes to meeting BC Teachers' Council (BCTC) practicum requirements. During the university instruction and in-situ learning of this practicum, teacher candidates develop a deeper understanding of teaching by integrating theory into practice and have a first opportunity to independently lead a classroom. Teacher candidates document the journey through continued use of e-Portfolios to demonstrate and articulate an increasing awareness of practical skill sets. This course supports a deepening awareness and facilitation of BC curriculum. Graded on a PASS/FAIL basis.

Prerequisite(s): EDUC 391-3

EDUC 491-6 Summative Practicum This course is a summative practicum that prepares teacher candidates to meet BC Teachers' Council (BCTC) practicum requirements. During the university instruction and in-situ learning of this summative practicum, teacher candidates develop the necessary experience and knowledge to advance BC curriculum and pedagogical knowledge for learners. Teacher candidates demonstrate a thorough understanding and practice of ethics, standards, and teaching as a profession. This course is graded on a PASS/FAIL basis.

Prerequisite(s): EDUC 490-(3, 4)

EDUC 492-3 Special Topics Topics to be determined by the special interests of students and the availability of faculty members to teach those topics. This course emphasizes the analysis and improvement of classroom practice in light of current literature. This course may be repeated to a maximum of 9 credit hours if the material is substantially different. This course is graded on a PASS/FAIL basis.

EDUC 493-3 Directed Readings This course provides an opportunity for students to study an educational topic relevant to their program. This course emphasizes the analysis and improvement of classroom practice in light of current literature. This course may be repeated to a maximum of 9 credit hours if the material is substantially different. This course is graded on a PASS/FAIL basis.

EDUC 592-3 Special Topics Topics to be determined by the special interests of students and the availability of faculty members to teach those topics. Special topics courses at this level will emphasize the analysis and improvement of classroom practice in light of current literature.

English (ENGL)

ENGL 100-3 Introduction to Literary Structures This course provides a comprehensive introduction to the basic structural principles and rhetorical strategies of literary texts, as well as the three major genres: poetry, prose, and drama.

Prerequisite(s): None

ENGL 104-3 Introduction to Film This course provides an introduction to the study of film through a detailed examination of a selection of films and filmmakers from a broad-based spectrum of styles, genres, historical periods, and cultures.

Prerequisite(s): None

ENGL 170-3 Writing and Communication Skills This course introduces students to the fundamentals of formal university writing, covering the research process, constructing an argument, structuring an academic essay, and oral presentation of research.

Prerequisite(s): None

ENGL 200-3 Gender and Literary Theory This course provides an introduction to current topics in gender theory and examines their applicability to textual productions cutting across cultures, race, class, and gender.

Prerequisite(s): None
Preclusion(s): WMST 220-3

ENGL 201-3 Digital Humanities This course provides an introduction to the theories, methods, and tools in the field of digital humanities. Each student is required to maintain a website and utilize a selection of common digital humanities technology platforms to reflect their understanding of the practical skills and research questions addressed in class. No previous programming experience is required.

Prerequisite(s): None

ENGL 205-3 Fiction This course examines selected trends in the development of novels or short stories, or of a particular mode or genre of representation.

Prerequisite(s): None

ENGL 209-3 Introduction to Television Studies This course introduces students to the academic study of television. Individual instructors may choose to focus on fiction or non-fiction or include both.

Prerequisite(s): None

ENGL 210-3 Women and Literature: A Survey This course is a survey of works of poetry and fiction written by women in English from the Renaissance to the present. The course considers feminist theory and criticism in relation to these works.

Prerequisite(s): None
Preclusion(s): WMST 221-3

ENGL 211-3 Survey of English Literature I This course provides a survey of literature in English from the medieval period to the 18th century. Students are introduced to a range of genres, themes, and relevant artistic, historical, and social contexts.

Pre- or Corequisite(s): ENGL 100-3 or ENGL 104-3

ENGL 212-3 Survey of English Literature II This course provides a survey of literature in English from the 18th century to the present. Students are introduced to a range of genres, themes, and relevant artistic, historical, and social contexts.

Prerequisite(s): ENGL 211-3

ENGL 220-3 Introduction to Indigenous Literatures in Canada This course offers an introduction to the study of Indigenous literatures, including drama, poetry, fiction, and nonfiction by Indigenous authors, in a Canadian context.

Prerequisite(s): None
Preclusion(s): ENGL 120-3

ENGL 260-3 A Survey of Children's Literature This course provides an introductory survey of children's literature spanning from the 18th century to the present day.

Prerequisite(s): None

ENGL 270-3 Expository Writing This course offers lectures and workshops in the study and craft of expository writing, which may include environmental writing or texts that explore the relationship between science and literature.

Prerequisite(s): None

ENGL 271-3 Introduction to Creative Writing This course offers introductory lectures and workshops in the craft of writing fiction, poetry, and/or drama.

Prerequisite(s): None

ENGL 280-3 Shakespeare This course introduces learners to Shakespeare's dramatic poetry, placing the plays in their theatrical, historical, and literary contexts.

Prerequisite(s): None

ENGL 281-3 Introduction to Early Modern Literature in English This course is an introduction to the poetry, prose, and drama of the 16th and 17th centuries (formerly referred to as the English Renaissance). The course familiarizes learners with the themes, styles, and genres arising from relevant and influential artistic, social, and philosophical contexts.

Prerequisite(s): None

ENGL 282-3 Introduction to Restoration and 18th Century Literature This course provides an introduction to selected works of poetry, prose, and drama of the Restoration and 18th century.

Prerequisite(s): None

ENGL 283-3 Introduction to Romantic Literature This course provides students with a comprehensive introduction to the study of English Romantic poetry and prose. Assigned readings survey key aspects of Romantic literary culture, including the politics of gender, race, and class, as well as the Romantics' role in the history of environmentalism and animal welfare.

Prerequisite(s): None

ENGL 284-3 Introduction to Victorian Literature This course examines selected texts from the period between 1830 and 1901, including poetry, fiction, drama, and nonfiction.

Prerequisite(s): None

ENGL 285-3 Modern British Literature This course examines Modernism in Britain, focusing on the period between 1890 and 1940.

Prerequisite(s): None

ENGL 298-3 Special Topics in Literature or Visual Media This course covers introductory-level material in areas that reflect faculty expertise. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and Department Chair if the subject matter of the course differs substantially.

Prerequisite(s): None

ENGL 300-3 The History of Literary Criticism and Theory This course examines the development of critical theory from the classical period to the early 20th century. Key themes include the status of language and literary representation, the relationship between writing and ethics, and the use of rhetoric in literary activism.

Prerequisite(s): Two lower-division English courses (excluding ENGL 170-3) or permission of the instructor

ENGL 309-3 Intermediate Studies in Film or Television This course undertakes an extensive examination of a range of film or television genres. Individual instructors may choose to focus on film or television or include both.

Prerequisite(s): Two lower-division English courses (excluding ENGL 170-3) or permission of the instructor

ENGL 320-3 Indigenous Literatures in Canada and the United States This course focuses on contemporary writing in English by Indigenous people in Canada and the United States, examining the implications of settler colonialism and the strategies that writers use to decolonize, redefine, and affirm their identities, histories, and cultures.

Prerequisite(s): Two lower-division English courses (excluding ENGL 170-3) or permission of the instructor

ENGL 331-3 Genres in Canadian Literature This course focuses on a single genre in Canadian literature such as short stories, novels, drama, poetry, or non-fiction prose.

Prerequisite(s): Two lower-division English courses (excluding ENGL 170-3) or permission of the instructor

ENGL 340-3 International Literatures in English This course is a critical introduction to the field of postcolonial and world literature studies, drawing on a selection of texts from Africa, Asia, the Americas, and Oceania, as well as their respective diasporic literatures in the Global North.

Prerequisite(s): Two lower-division English courses (excluding ENGL 170-3) or permission of the instructor

ENGL 350-3 Comparative Literary Studies This course provides an examination of works in world literature, written in English and other languages. Instructors may compare literature and other media (e.g. film, visual art).

Prerequisite(s): Two lower-division English courses (excluding ENGL 170-3) or permission of the instructor

ENGL 381-3 Early Modern Literature in English This course offers an indepth exploration of 16th- and 17th-century poetry, prose, and drama. Focusing primarily on non-Shakespearean authors, the course explores themes, styles, and genres arising from relevant and influential artistic, social, and philosophical contexts.

Prerequisite(s): Two lower-division English courses (excluding ENGL 170-3) or permission of the instructor

ENGL 382-3 Restoration and 18th Century Literature This course provides an intensive study of the literature and culture of the Restoration and long 18th century, with a focus on two or three authors or of a major genre, form, or theme from the period.

Prerequisite(s): Two lower-division English courses (excluding ENGL 170-3) or permission of the instructor

ENGL 383-3 Romantic Literature This course provides an intensive study of two or three authors or of a major genre, form, or social concern of the Romantic period.

Prerequisite(s): Two lower-division English courses (excluding ENGL 170-3) or permission of the instructor

ENGL 384-3 Victorian Literature This course provides an intensive study of two or three authors or of a major genre, form or theme of the period.

Prerequisite(s): Two lower-division English courses (excluding ENGL 170-3) or permission of the instructor

ENGL 386-3 19th Century Literature in the United States This course provides a study of American writing in its historical contexts. The course may include Colonial literature, Contact literature, literature of the American Renaissance, African-American slave narratives, and transcriptions of Native oral literatures.

Prerequisite(s): Two lower-division English courses (excluding ENGL 170-3) or permission of the instructor

ENGL 390-3 The History, Structure, and Politics of the English Language This course examines the history, structure, and politics of the English language from the early medieval period to the present. Special attention is paid to the influence of migration, technology, and cultural change.

Prerequisite(s): Two lower-division English courses (excluding ENGL 170-3) or permission of the instructor

ENGL 400-3 Contemporary Theory This course offers an array of competing constructions of text and culture, drawing on a range of contemporary critical approaches and practices, such as structuralism, poststructuralism, deconstruction, discourse analysis, postmodernism, (post-) Marxism, feminist and gender theory, psychoanalysis, postcolonialism, new historicism, and cultural studies.

Prerequisite(s): Upper-division standing or 60 credit hours or permission of the instructor

ENGL 409-3 Special Topics in Film or Television Studies This course offers an intensive examination of an area or genre of film or television. Individual instructors may choose to focus on film or television or include both. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and Department Chair if the subject matter of the course differs substantially.

Prerequisite(s): Upper-division standing or 60 credit hours or ENGL 309-3, or permission of the instructor

ENGL 410-3 Special Topics in Contemporary Women's Literature This course considers contemporary women writers and their work, emphasizing their cultural diversity and considering them in the context of feminist theory. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and Department Chair if the subject matter of the course differs substantially.

Prerequisite(s): Upper-division standing or 60 credit hours
Preclusion(s): WMST 420-3

ENGL 420-3 Special Topics in Indigenous Literatures Drawing on Indigenous theory, this course examines contemporary Indigenous literatures. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and Department Chair if the material is substantially different.

Prerequisite(s): Upper-division standing or 60 credit hours or permission of the instructor

ENGL 430-3 Special Topics in Canadian Literature This course investigates a particular aspect of contemporary Canadian literature. The focus may be on the works of a specific author or group of authors, a theme, a cultural context, or a particular social or theoretical concern. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and Department Chair if the subject matter of the course differs substantially.

Prerequisite(s): Upper-division standing or 60 credit hours or permission of the instructor

ENGL 431-3 Special Topics in Northern BC Literature This is a course in fiction and poetry by northern BC authors. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and Department Chair if the subject matter of the course differs substantially.
Prerequisite(s): Upper-division standing or 60 credit hours or permission of the instructor

ENGL 440-3 Special Topics in International Literatures in English This course undertakes an investigation of the central issues of postcolonial international literatures in English, including postcolonial nationalism, colonial mimicry, imperial versus native languages, and the political and social responsibility of the writer. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and Department Chair if the subject matter of the course differs substantially.

Prerequisite(s): Upper-division standing or 60 credit hours or permission of the instructor

ENGL 444-3 Internship This is a course that combines the academic study of a topic or area in the English curriculum (e.g. literature, creative writing or other media) with practical applications in a relevant workplace. Students are normally co-supervised by an academic instructor and a workplace supervisor. This course may be repeated for credit to a maximum of 6 credit hours with permission of the instructor and Department Chair if the subject matter of the course differs substantially.

Prerequisite(s): Upper-division standing or 60 credit hours or permission of the instructor

ENGL 450-3 Special Topics in Comparative Literary Studies This course focuses on a specific genre, theme, or period. Instructors may compare literature and other media (e.g. film, visual art). This course may be repeated to a maximum of 6 credit hours with permission of the instructor and Department Chair if the subject matter of the course differs substantially.

Prerequisite(s): Upper-division standing or 60 credit hours or permission of the instructor

ENGL 460-3 Special Topics in Children's Literature This course investigates in detail a specific theme in children's or young adult literature and culture. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and Department Chair if the subject matter of the course differs substantially.

Prerequisite(s): Upper-division standing or 60 credit hours or permission of the instructor

ENGL 470-3 Creative Writing: Poetry This course includes lectures and workshops in the craft of writing poetry. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and department Chair if the subject matter of the course differs substantially.

Prerequisite(s): Permission of the instructor

ENGL 471-3 Creative Writing: Fiction and Creative Non-Fiction This course includes lectures and workshops in the craft of writing fiction and/or creative non-fiction. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and department Chair if the subject matter of the course differs substantially.

Prerequisite(s): Permission of the instructor

ENGL 480-3 Special Topics in Science Fiction This course studies the structures and motifs of science fiction. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and Department Chair if the subject matter of the course differs substantially.

Prerequisite(s): Upper-division standing or 60 credit hours or permission of the instructor

ENGL 483-3 Special Topics in Romantic Literature This course investigates a particular aspect of Romantic literature. The focus may be on the works of a specific author or school of authors, a literary genre, or a particular social or theoretical concern. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and Department Chair if the subject matter of the course differs substantially.

Prerequisite(s): Upper-division standing or 60 credit hours or permission of the instructor

ENGL 484-3 Special Topics in Victorian Literature This course investigates a particular aspect of an author (or authors), genre, or theme in Victorian literature. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and Department Chair if the subject matter of the course differs substantially.

Prerequisite(s): Upper-division standing or 60 credit hours or permission of the instructor

ENGL 485-3 Special Topics in Modern and Contemporary Literature in the United States This course provides a study of American writing since 1900, with an emphasis on American cultural contexts. The course may focus on a specific author or authors, on a particular genre, theme, or region, or on ethnic and minority literature. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and Department Chair if the subject matter of the course differs substantially.

Prerequisite(s): Upper-division standing or 60 credit hours or permission of the instructor

ENGL 486-3 Special Topics in Literature of the Fantastic The course examines various periods and aspects of fantastic literature and may include film and graphic arts as well as literary texts. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and Department Chair if the subject matter of the course differs substantially.

Prerequisite(s): Upper-division standing or 60 credit hours or permission of the instructor

ENGL 487-3 Animals in Literature or Visual Culture This course invites students to examine the world of human-animal studies through literature or visual media. Individual instructors may choose to focus on literature or visual media (e.g., film) or both. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and Department Chair if the subject matter of the course differs substantially.

Prerequisite(s): Upper-division standing or 60 credit hours

ENGL 491-3 Special Topics in Early Modern Literature in English This course offers specialized study of 16th- and 17th-century literature in English, focusing on the works of a specific author, genre, theme, or theoretical framework. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and Department Chair if the subject matter of the course differs substantially.

Prerequisite(s): Upper-division standing or 60 credit hours or permission of the instructor

ENGL 493-3 Special Topics in Cultural Studies This course introduces students to the interdisciplinary methodologies of cultural studies, with a focus on definitions of culture and the imbrications of race, class, and gender. The course explores the themes of postmodernism, popular culture, historical cultural formations, social history, and/or the relation between politics and culture. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and Department Chair if the subject matter of the course differs substantially.

Prerequisite(s): Upper-division standing or 60 credit hours or permission of the instructor

ENGL 498-3 Special Topics in Literature, Visual Media, or Creative Writing Consult the Department Chair for details. This course may be repeated to a maximum of 6 credit hours with permission of the instructor and Department Chair if the subject matter of the course differs substantially.

Prerequisite(s): Upper-division standing or 60 credit hours or permission of the instructor

ENGL 499-3 Independent Study in Literature, Visual Media, or Creative Writing Consult the Department Chair for details.

Prerequisite(s): Upper-division standing or 60 credit hours or permission of the instructor

Engineering (ENGR)

ENGR 110-3 Technical Writing In this course, students acquire practical experience in engineering technical writing for a range of applications. The emphasis throughout is on clarity, precision, and consistency. Course content includes searching and referencing methods using scientific and technical literature, argument development, and document organization. Design scenarios provide the basis for student exercises.

Prerequisite(s): Admission to an Engineering program

ENGR 117-3 Engineering Design I This course teaches problem solving skills specific to engineering design challenges and introduces the engineering design process. Students gain experience through multiple project-based design exercises, that are complemented with relevant tours (e.g., wastewater treatment plant) and contact with the local engineering community.

Pre-requisite(s) with concurrency: ENGR 151-1, MATH 100-3, and PHYS 110-4 (or PHYS 100-4 or PHYS 115-4)

ENGR 130-4 Engineering Mechanics Statics This course is an introduction to learning and applying the principles of statics required to solve engineering mechanics problems in the fields of civil and environmental engineering. Emphasis is placed on drawing free body diagrams and procedures for analysis. Topics include, but are not limited to, the following: introduction to engineering mechanics; equilibrium of particles and rigid bodies; structural analysis of simple trusses, frames and cables; internal forces; friction; centre of gravity and centroids; and moments of inertia. Laboratory sessions provide hands-on examples.

Prerequisite(s): PHYS 100-4 with a minimum grade of B or PHYS 110-4

ENGR 151-1 Engineering Tools I This course provides an introduction to engineering problem-solving using common software tools. Case studies are used to provide relevance and serve to bind together many of the topics covered in the course.

Pre-requisite(s) with concurrency: ENGR 117-3, MATH 100-3 and PHYS 110-4 (or PHYS 100-4 or PHYS 115-4)
Preclusion(s): ENSC 151-1

ENGR 152-1 Engineering Tools II This course provides an introduction to engineering problem-solving using common software tools, focusing on CAD software. Case studies provide relevance and serve to synthesize many of the topics covered in the course.

Prerequisite(s): ENGR 117-3 and ENGR 151-1

ENGR 210-3 Material and Energy Balances This course provides an introduction to the analysis of environmental engineering processes using the laws of conservation of mass and energy. Material and energy balances are applied to open and closed systems, non-reacting and reacting systems, and non-steady state systems.

Prerequisite(s): Admission to an Engineering program
Pre-requisite(s) with concurrency: MATH 200-3

ENGR 211-3 Engineering Communication This course builds on key principles of written and oral engineering communication. Content complements ENGR 217 Engineering Design II and includes correspondence, meeting minutes, memoranda, proposals, executive summaries, technical reports, and oral presentations.

Prerequisite(s): Admission to an Engineering program and ENGR 110-3
Pre-requisite(s) with concurrency: ENGR 217-4

ENGR 217-4 Engineering Design II This course explores the engineering design process through project-based exercises. This course includes technical writing skills and a mandatory tutorial.

Prerequisite(s): Admission to an Engineering program; ENGR 117-3 with a minimum grade of C-; ENGR 270-3; STAT 271-3

ENGR 220-3 Engineering Chemistry This course provides an introduction to the properties and composition of natural waters. It explores gas and solid equilibria, pH, redox chemistry, complexation, corrosion treatment, acid rain, ion exchange, colloids, and microbial transformations. This course also introduces students to concepts in organic chemistry as applicable to environmental engineering.

Prerequisite(s): Admission to an Engineering program
Pre-requisite(s) with concurrency: CHEM 101-3, CHEM 121-1, and ENGR 117-3

ENGR 221-3 Thermodynamics and Heat Transfer This course is an introduction to thermodynamics and heat transfer relevant to building systems, waste treatment systems and energy systems. Topics include but are not limited to the following: energy and the first law of thermodynamics; the second law of thermodynamics; power cycles; refrigeration; conductive, convective and radiative heat transfer; and heat exchanger design.

Prerequisite(s): Admission to an Engineering program and PHYS 110-4

ENGR 240-4 Mechanics of Materials This course introduces the following advanced principles applicable to practical problems in the mechanics of materials: transformation equations for plane stress and plane strain; principal and maximum shearing stresses and strains; Mohr's circle; stresses in thin-walled pressure vessels; combined loading problems; beam deflection by integration and super-position; buckling; and Euler's equation for columns, the secant formula, and the empirical column formulas.

Prerequisite(s): Admission to an Engineering program; ENGR 130-4; MATH 101-3

ENGR 250-3 Engineering Tools III This course provides an introduction to engineering problem-solving using advanced software tools such as Matlab. Case studies provide relevance and serve to bind together many of the topics covered in the course.

Prerequisite(s): Admission to an Engineering program; ENGR 151-1; ENGR 152-1; MATH 101-3; MATH 220-3

ENGR 254-4 Fluid Mechanics I This course introduces students to fluid mechanics. The course covers the following topics: definition of fluid; fluid properties; variation of pressure in a fluid; hydrostatic forces; buoyancy; dimensional analysis; kinematics of flow; control volumes; differential equations for fluid flow; continuity equation; momentum equation; energy equation; and flow in closed conduits.

Prerequisite(s): MATH 152-3 or both of (MATH 100-3 and MATH 101-3), and PHYS 100-4 or PHYS 110-4
Preclusion(s): ENGR 350-3

ENGR 270-3 Surveying This course introduces key principles in the use and adjustments of survey equipment, including GPS, GIS and graphic communication, and the associated fieldwork and data interpretation required for engineering projects. This is a three-week course immediately following second-term final examinations.

Prerequisite(s): Admission to an Engineering program; ENGR 117-3; ENGR 151-1; ENGR 152-1

ENGR 300-3 Sustainable Principles of Engineering This course examines the implications of a finite biosphere and the complexities inherent in environmental and civil engineering decision-making, exploring the social and biophysical context of infrastructure and the impact of technologies on people, the economy, and the environment. Topics include, but are not limited to, the following: pollution prevention; cleaner production; sustainable development; and environmental impact assessment including life-cycle assessment, total cost analysis and environmental systems analysis.

Prerequisite(s): Admission to an Engineering program; ENGR 211-3; ENGR 217-4; MATH 220-3

ENGR 353-3 Open Channel Flow This course is an introduction to the analysis of open channel flow, including energy, momentum, and flow resistance. Topics include, but are not limited to, the following: energy and momentum principles in open channel flow; critical, subcritical, and supercritical flow; applications to rectangular and non-rectangular channel sections; hydraulic jump; flow resistance; uniform flow computations; non-uniform flow; longitudinal profiles; and culvert design.

Prerequisite(s): Admission to an Engineering program and ENGR 254-4

ENGR 354-3 Fluid Mechanics II This course concentrates on the behavior of compressible fluids. Topics include but are not limited to the following: the fluid medium, kinematics, and dynamics of a flow field; compressible flow; steady and unsteady flows; turbulent flows; two dimensional flow and immersed objects; velocity and pressure fields; lift and drag on cylinders and aerofoils; evaluation of wind loads on structures; pump and turbine analysis and the design of pipeline systems; and application of hydraulic engineering principles to problems of environmental concern such as pollutant transport and dispersion and mixing in rivers and lakes.

Prerequisite(s): Admission to an Engineering program and ENGR 254-4

ENGR 358-4 Water and Wastewater Systems This course introduces students to the field of water management and wastewater treatment. Topics include, but are not limited to, the following: water quality criteria and standards; treatment techniques and systems for surface water and groundwater sources; design of water storage, transmission, and distribution systems; pumps and pumping; wastewater collection; and wastewater treatment systems.

Prerequisite(s): Admission to an Engineering program; CHEM 100-3; CHEM 120-1; ENGR 254-4; completion of 60 credit hours in an Engineering program

ENGR 380-3 Engineering Economics This course examines economic issues relevant to the profession of engineering. Topics include but are not limited to the following: quantitative analysis of engineering decision-making; cash flow analysis and comparisons of alternatives; decision models, cost concepts, and accounting; depreciation and taxation; risk and uncertainty analysis; economic analysis for sustainable development; financial accounting; company structures; and public sector projects. Case studies are presented.

Prerequisite(s): Admission to an Engineering program; ENGR 211-3; ENGR 217-4

ENGR 400-6 Engineering Capstone Design Project This course is a two-semester engineering capstone design project intended to provide real-life experience as part of a design team. Working in teams, students solicit a project from an industrial sponsor, develop a full set of specifications, and complete the project. The intent is for the teams to draw upon all knowledge gained during their engineering degree.

Prerequisite(s): ENGR 217-4 with a minimum grade of C-, ENGR 300-3; ENGR 380-3
Preclusion(s): CIVE 400-3, CIVE 401-6, ENVE 400-3, ENVE 401-6, ENGR 417-6

ENGR 406-3 Environmental Modelling This course provides an understanding of the physical, chemical and biological processes that govern contaminant transport and fate in environmental media. Topics include modelling fundamentals; mass transport in aquatic ecosystems; and mathematical modelling of a wide variety of contamination issues, such as lake eutrophication, river water quality, groundwater contamination, atmospheric deposition, and climate change. Laboratory exercises complement lecture topics and focus on the development of computer-based modelling skills.

Prerequisites: 60 credit hours, MATH 152-3 or both of MATH 100-3 and MATH 101-3
Precluded: ENSC 406-3, ENSC 607-3, ENVE 421-3

ENGR 410-3 Professional Practice and Law This course prepares graduates for the roles and responsibilities of a professional engineer. Topics include but are not limited to the following: professional practice; public responsibility; registration, the Engineers Act and the Code of Ethics; licensing; law and liability; contracts, documents, and the preparation of specifications; torts and independent contractors; companies and partnerships; mechanic liens; agency; evidence; expert witness; liability; patents, copyright, and trademarks.

Prerequisites: Admission to an Engineering program and ENGR 300-3

ENGR 411-3 Project Management This course examines perspectives on project management as it relates to Civil and Environmental Engineering. The study of project management spans all phases of the project life cycle including, but not limited to, preliminary feasibility analysis, concept development, and project commissioning. Students explore key issues in project management using case studies.

Prerequisites: Admission to an Engineering program and ENGR 300-3

ENGR 412-3 Engineering Business and Project Management This course introduces topics related to working in a small engineering office and managing engineering projects. Topics include communication skills used with contractors, stakeholders and clients, and occupational health and safety.

Prerequisite(s): Admission to an Engineering program and completion of 90 credit hours in an Engineering Program

ENGR 417-6 Engineering Design V In this project-oriented course, students apply concepts and principles from environmental science and engineering fundamentals to design engineering solutions for environmental problems. The course may include group projects and working with an industry in northern and central British Columbia.

Prerequisite(s): completion of 90 credit hours in an Engineering Program, ENGR 217-4
Preclusion(s): ENSC 417-6

ENGR 421-3 Ecological Engineering and Design This course introduces fundamental principles of ecological engineering and their application to understand and assess issues related to the provision of basic urban services through nature-based solutions. Topics include the role of ecosystem services in urban processes; socio-ecological systems; sustainable and low-impact urban development; resilience-building capacities; gray, green, and blue-green infrastructure; on-site (distributed) technologies; ecological and regenerative technologies; and design for site-specific contexts.

Prerequisite(s): ENGR 217-4; ENGR 300-3 or equivalent or permission of the instructor
Preclusion(s): ENGR 621-3

ENGR 440-3 Advanced Structural Concrete Design The course presents advanced analysis and design methods for reinforced concrete members subject to torsion, as well as axial, flexure, and shear stresses. The procedures are applied to stairs and beams curved in plan. Advanced concepts of yield line analysis for slabs and strut-and-tie model for deep beams are discussed. Additional topics include design and detailing of prestressed concrete members, concrete building systems, and seismic design of concrete structures.

Prerequisite(s): CIVE 341-3
Preclusion(s): ENGR 640-3

ENGR 450-3 CAD/BIM in the Construction Industry This course focuses on industry-specific topics, including Computer-Aided Design (CAD) and Design for Manufacturing and Assembly (DfMA), with a strong emphasis on their role in Building Information Modelling (BIM) as they relate to construction and engineering. New emerging trends of parametric design are also explored and further investigated for their role in state-of-the-art projects. The roles that interoperability, data exchange, and sharing have in the industry are discussed within the BIM context.

Preclusion(s): IENG 650-3

ENGR 451-3 Groundwater Hydrology This course introduces fundamental principles of groundwater flow and their applications to solve problems related to groundwater resources evaluation, development, and management. Topics include: the role of groundwater in geological process; the occurrence and movement of groundwater; steady-state and transient well hydraulics; aquifer testing techniques, unsaturated flow theory, and groundwater modelling techniques.

Prerequisite(s): MATH 100-3 and MATH 101-3, or MATH 152-3, or permission of the instructor
Recommendation(s): ENSC 308-3

ENGR 458-3 Advanced Treatment Processes for Water and Wastewater This course extends and deepens the scope of ENGR 358-3 Water and Wastewater Systems, covering processes for removing impurities that are not effectively removed by conventional water and wastewater treatment systems, such as nutrients (e.g., nitrogen and phosphorus), residual organics, and emerging pollutants. The scope of the course extends to sludge management and resource recovery. Topics include, but are not limited to, the following: polishing ponds, media filtration, disinfection, membrane treatment systems, membrane bioreactors, adsorption, nitrogen and phosphorus removal, biofilm processes, advanced oxidative processes, sludge management, and resource recovery from biosolids.

Prerequisite(s): ENGR 358-3
Preclusion(s): ENGR 658-3

ENGR 472-3 Pavement Engineering This course introduces fundamental undergraduate-level knowledge about pavement engineering. Topics include structural pavement design, asphalt mixture design, and performance evaluation / non-destructive testing of roadway pavements. Lecture and laboratory sessions are included to perform standard Quality Control (QC) tests on pavement specimens as well as advanced performance testing to evaluate pavement resistance to distresses. Students perform analysis of testing results and present laboratory reports. In-situ data collection or site visits are arranged with industrial partners based on availability.

Prerequisite(s): CIVE 241-3 and CIVE 370-3

ENGR 498-(1-6) Engineering Special Topics The intent of this course is to provide an offering of topics that either reflect recent change in engineering, or provide supplementary material in specific topics or skills. Consequently, the topic and availability of this course varies. The course may be retaken any number of times by permission of the Chair, provided all topics are distinct.

Prerequisite(s): Permission of the Chair

Environmental Planning (ENPL)

ENPL 104-3 Planning for Transformation Planning offers the potential for transformation. Through diverse historical lenses, this course examines the successes and failures of planning. Students learn about the distinct cultural, legislative, and geographic contexts of planning in Indigenous and Western communities. The foundational course prepares students to work at local and regional scales to promote positive change in a world faced by global climate catastrophes, social inequality, and threats to ecosystem and human health.

Prerequisite(s): None

ENPL 105-3 Dynamics of Community Planning This course introduces key concepts in community planning within the Canadian context. The course emphasizes the dynamic interplay of external forces that shape communities, including economic,environmental, political, and social factors. Students gain a comprehensive understanding of how these forces influence policy development and implementation. Through experiential learning, students apply their knowledge to develop a community plan that is sustainable, equitable, and innovative.

Prerequisite(s): None
Preclusion(s): ENPL 204-3

ENPL 201-3 Land Policy in British Columbia Students are introduced to a range of land policies at all levels of government in British Columbia. Land policy guides why, who, and how we use land. Topics include major land uses such as human settlements, agriculture, forestry, mining, and recreation, and how these uses must be reconciled between statutory law and Indigenous rights and title to land.

Prerequisite(s): None
Preclusion(s): NREM 201-3

ENPL 205-3 Environment and Society Interactions between humans and their environments; societal responses to environmental change, both naturally and anthropogenically induced.

Prerequisite(s): None

ENPL 206-3 How to Shape the Future This course provides background knowledge and skills needed to craft the future. The course covers qualitative and quantitative techniques used in the fields of design, planning, public health, and resource management. Through this hands-on and applied course,students build a toolkit required to help communities anticipate, envision, and shape the future. Specific topics include criteria and indicators, population projections, scenario planning, site planning, and 3D design and visualization.

Prerequisite(s): None

ENPL 208-4 Land and Indigenous Reconciliation Studio This course lays a foundation for student understanding of culturally respectful, appreciative, and effective planning processes that bridge the demands of an industrial capitalist system with a traditional, land-based society. This course serves as an introduction to theory and practices from First Nations traditional land use planning and First Nations practices and ideas concerning resource planning. This course develops students' research, writing, and communication skills.

Prerequisite(s): FNST 100-3
Preclusion(s): FNST 249-4

ENPL 301-3 Sustainable Communities This course explores the concept of sustainability within built and natural environments, focusing on the interplay between planning and sustainable development. Students develop a comprehensive, systems-based understanding of sustainability, examining how economic, environmental, and social dimensions intersect and influence each other. This course covers the use of indicators to measure and evaluate the effectiveness of planning initiatives, equipping students with tools to assess progress towards sustainable planning outcomes.

Prerequisite(s): None

ENPL 304-4 Community Engagement and Inclusion Studio As society becomes more diverse and divided, planners and other professionals find themselves in the position of peacemaker. Planners attempt to draw together diverse and competing interests in service of the well-being of communities. This studio course supports the acquisition and practice of the theories, skills, and tools required to design and implement effective community consultation across a variety of planning scenarios. Students can expect experiential exploration and application of these valued skill sets and knowledges.

Prerequisite(s): ENPL 105-3 or ENPL 208-4 or FNST 249-4 or 60 credit hours

ENPL 305-3 Environmental Impact Assessment This course introduces students to the theory and practice of environmental impact assessment, including the history of environmental impact assessment in Canada and abroad, the methods used in environmental assessments, and the legal framework for the environmental impact assessment process in Canada and in other selected jurisdictions. The course emphasizes how the environmental assessment process accounts for the biophysical, socio-economic and health issues.

Prerequisite(s): 60 credit hours or permission of the instructor

ENPL 313-3 Rural Community Economic Development (CED) This course offers an introduction to the various theories and concepts of community economic development with specific application to northern, rural, remote and First Nations communities.

Prerequisite(s): 60 credit hours

ENPL 318-3 Professional Planning Practice This course is an overview of the professional skills required in the practice of planning. The course examines the ethical role of the planner and provides an in-depth assessment of the municipal and sectoral planning environment.

Prerequisite(s): ENPL 105-3 and 60 credit hours

ENPL 319-3 Social Research Methods This course provides an overview of social research methods used in environmental planning, social sciences, and humanities. Topics covered include research design, data collection techniques (e.g., surveys, interviews), quantitative and qualitative data analysis, and project management.

Prerequisite(s): 60 credit hours or permission of the instructor

ENPL 320-4 Land Use and Development Studio In this studio, students prepare a feasible land use plan and development scenario for a location in an urban setting at the neighbourhood scale. Students consider physical and regulatory constraints, and the influence of broader economic, environmental, political, and social forces. Students are introduced to site, market, and financial analyses; land use policy analysis; and regulatory and policy tools to support implementation.

Prerequisite(s): 45 credit hours

ENPL 333-3 Field School in Planning This field-based course provides students with a practical understanding of principles of planning in applied settings. Engagement with community members and professionals working in the field allows students to explore relevant and contemporary issues including determining a public interest. The course involves preparatory work during the regular semester, and an intensive field experience after the end of the semester.

Prerequisite(s): 60 credit hours or permission of the instructor

ENPL 401-3 Environmental Law This course covers the interpretation and application of international, national, provincial, and aboriginal environmental law. (This course is recommended for students who intend to pursue the study of law.)

Prerequisite(s): 60 credit hours

ENPL 404-3 Housing: From Concept to Construction Through a series of case studies and exercises that follow a 'concept to construction' timeline, students develop a foundational understanding of the challenges and opportunities of planning, creating, and building secure and affordable housing for middle and lower-income households. Students learn how planners and other professionals interact as visionaries, developers, and regulators, and how risks are managed.

Prerequisite(s): None

ENPL 409-4 Indigenous Planning Studio In this workshop style, community-based course, students work on a planning project that addresses Indigenous reconciliation and governance in land and water relationships. Students are expected to be able to work in off-campus settings.

Prerequisite(s): 60 credit hours, or ENPL 208-4 or FNST 249-4

ENPL 410-3 Applied Land Use Planning in British Columbia In this course, students apply knowledge of land use planning to case studies grounded in the laws and landscapes of British Columbia. Case studies cover a range of professional planning contexts, including urban, rural, and regional areas; agricultural areas; First Nation reserves; protected areas; and joint land use initiatives between the province and Indigenous governing bodies.

Prerequisite(s): 75 credit hours and ENPL 105-3 or permission of the instructor
Preclusion(s): ENPL 605-3

ENPL 411-3 Philosophy of Community Change How do we bring about change for the common good in a diverse and increasingly fragmented society? This question frustrates and animates professionals across public domains, in community development, health, planning, natural resources management, and social policy. In this course, students learn philosophies of the common good, how such philosophies interact with other forms of knowledge such as science, and how 'the good and the right' are mobilized in public argument and decisions.

Prerequisite(s): 60 credit hours and ENPL 105-3 or permission of the instructor

ENPL 415-4 Sustainable and Inclusive Design Studio This studio course engages students in an applied and hands-on site design project as they embody design thinking. Students learn and apply current concepts and principles that advance social-ecological sustainability with a strong emphasis on inclusion. Students are prepared for a professional career by learning, applying, and critically reflecting on techniques and technologies used in planning and design practice.

Prerequisite(s): 60 credit hours and ENPL 206-3

ENPL 417-4 Local Climate Action Studio This is a hands-on studio course that allows students to learn and apply knowledge and skills related to local adaptation planning. Focusing on rural and remote communities across northern Canada, students explore a range of prevalent adaptation planning approaches. The course includes a critical examination of concepts that frame local climate action, including risk, resilience, and co-benefits. Students learn how to put these concepts into action by completing a project relevant to a northern regional context.

Prerequisite(s): 60 credit hours or permission of the instructor
Preclusion(s): ENPL 617-4

ENPL 430-6 Undergraduate Thesis In this course students pursue an independent research project under the direct supervision of a faculty member from the School of Environmental Planning. Students are expected to design and implement a research methodology, analyze data, and present findings in thesis format. The final grade in this course is based in part on a written research proposal, a written thesis, a public presentation of research results, and the evaluation of the thesis by a second reader. The thesis is normally completed over the September and January semesters.

Prerequisite(s): 90 credit hours including all lower-division requirements, and permission of an Academic Supervisor and the Program Chair

ENPL 431-3 Professional Report This course allows the development of a professional report relevant to the student's theme of interest.

Prerequisite(s): 90 credit hours and permission of an approved Academic Supervisor

ENPL 440-(2-6) Internship This course allows students to gain applied knowledge in the field of planning outside the university setting. A student can take one or several internship(s) for a maximum of 6 credit hours toward the Bachelor of Planning degree.

Prerequisite(s): Permission of the instructor and Program Chair

ENPL 497-4 Special Topics Studio The intent of this course is to provide timely offering of studio-based learning that responds to changes in professional practice skills and opportunities to meet community needs.

Prerequisite(s): 60 credit hours and permission of the instructor and Program Chair

ENPL 498-(1-6) Special Topics Selected environmental topics. May be repeated for credit (maximum 6 credit hours).

Prerequisite(s): Permission of the instructor and Program Chair

ENPL 499-(1-6) Independent Study May be repeated for credit (maximum 6 credit hours).

Prerequisite(s): Permission of the instructor and Program Chair

Environmental Science (ENSC)

ENSC 111-1 Earth and Environment This course introduces students to the theory and practice of environmental science and physical geography; provides an opportunity for students to meet faculty and peers from the Department of Geography, Earth, and Environmental Sciences; and builds a foundation for their academic careers. Students are exposed to a wide range of topics through seminars, invited talks from industry professionals, short assignments, and field trips. This course is graded on a PASS/FAIL basis.

Prerequisite(s): None

ENSC 201-3 Weather and Climate This course explains the fundamental processes of weather and climate, and leads the student toward an understanding of how the atmosphere works and how to interpret the weather. Topics introduced include: atmospheric energy, solar and terrestrial radiation, the "Greenhouse Effect" and climate change, air quality and stratospheric ozone, humidity, clouds, precipitation, storms and weather systems, hurricanes and tornadoes, stability and thunderstorms, wind and atmospheric dynamics, and weather forecasting.

Prerequisite(s): None

ENSC 202-3 Introduction to Aquatic Systems Aquatic systems are central to all areas of life, and are essential for the health, wellbeing and functions of the human population. Aquatic systems are now recognized as fundamental to the regulation of atmospheric gases and therefore of our climate. This course provides a broad overview of the physical, chemical, geological, and biological aspects of freshwater and marine systems. Human perspectives focus on the conservation and exploitation of the resources found within and below lakes, rivers and oceans. Introduction to Aquatic Systems provides a foundation for students wishing to pursue advanced courses in any area of aquatic study.

Prerequisite(s): None

ENSC 250-3 Environmental and Geospatial Data Analysis This introductory course assists students in developing data science skills and visualization skills using code-based solutions. Students learn how to create, store, manipulate, analyze, and visualize different environmental and geophysical datasets. Lecture and lab topics introduce students to different environmental and geospatial dataset formats that are commonly used by data scientists working in government, academia, and the private sector. The labs emphasize developing practical skills in data analysis (statistical, time series, and spatial analysis) using R as a key programming language.

Prerequisite(s): None
Preclusion(s): GEOG 250-3

ENSC 307-3 Introduction to Geochemistry This course introduces the fundamental principles of low-temperature geochemistry and biogeochemistry, from the origin of elements to the functions of earth systems. Chemical reactions, energetics and physics are used to explain the elemental distributions within and redistribution among reservoirs of: rock, water, soils and the atmosphere over timescales from minutes to geologic eras. Geochemical and biogeochemical principles are applied to topics such as climate change; air, soil and water quality; chronology of human impacts on earth; and availability of mineral elements to the biosphere.

Prerequisite(s): CHEM 100-3, CHEM 101-3, CHEM 120-1, and CHEM 121-3

ENSC 308-3 Northern Contaminated Environments This course offers students a broad knowledge base and a sound understanding of various environmental problems in the North, with particular emphasis on the processes associated with these problems and the requirements to address them. Topics include: physical settings of the North; concepts of environmental pollution; pollutant sources and transport pathways in the North; types of pollutants (such as metals, PM2.5, POPs and petroleum hydrocarbons) in marine, freshwater and terrestrial environments; and environmental and human health risk assessment.

Prerequisite(s): 60 credit hours

ENSC 312-3 Biometeorology This course focuses on the principles of weather and climate at micro-, local, and meso-scales. It discusses the processes associated with transfers of heat, mass, and momentum, and the resulting climates near the surface. Other topics include urban and forest climates, bioclimatology, local winds, transport and dispersion of air pollution, and fog.

Prerequisite(s): ENSC 201-3

ENSC 325-3 Soil Physical Processes and the Environment This course focuses on physical principles and processes of soils that influence organisms and the environment, including retention and movement of water, heat transfer, soil strength, gas exchange, transport of solutes, and soil erosion. Examples from areas of land resource management, environmental quality, agriculture and forestry are used to illustrate principles.

Prerequisite(s): FSTY 205

ENSC 402-3 Watershed Science and Management This course provides a comprehensive overview of watershed science and the principles underpinning integrated watershed management. It provides students with an understanding of hydrological processes at the watershed scale while considering the broader context of water resource management. It covers the frameworks, policies, and regulatory drivers that affect water resource management, and the role of government agencies, communities, and Indigenous perspectives in shaping these aspects. This course integrates scientific insights with governance, regulations, and culturally relevant management strategies.

Prerequisite(s): ENSC 202-3 or GEOG 210-3, or permission of instructor
Preclusion(s): NREM 410-3

ENSC 404-3 Waste Management This course introduces environmental, technical and political aspects of non-hazardous and hazardous wastes. Topics include sources, evaluative methods, risk assessment, treatment, disposal, and current legal and management requirements.

Prerequisite(s): 3 credit hours 100-level CHEM, 3 credit hours 100-level BIOL or ENVE 222-3, and 60 credit hours
Preclusion(s): ENSC 604-3

ENSC 406-3 Environmental Modelling This course provides an understanding of the physical, chemical and biological processes that govern contaminant transport and fate in environmental media. Topics include: modelling fundamentals; mass transport in aquatic ecosystems; and mathematical modelling of a wide variety of contamination issues, such as lake eutrophication, river water quality, groundwater contamination, atmospheric deposition, and climate change. Laboratory exercises complement lecture topics and focus on the development of computer-based modelling skills.

Prerequisite(s): 60 credit hours, MATH 152-3 or both of MATH 100-3 and MATH 101-3
Preclusion(s): ENSC 607-3

ENSC 408-3 Storms This course covers the analysis and dynamics of synoptic weather systems; cyclones and cyclogenesis; fronts, thunderstorms, and jet streams; stability and thermodynamic charts; satellite and radar imagery; severe weather; and weather forecasting.

Prerequisite(s): ENSC 201-3 or 200 level MATH or PHYS
Preclusion(s): ENSC 608-3

ENSC 412-3 Air Pollution This multidisciplinary course focuses on air pollution. Topics include emissions, chemistry, air pollution meteorology and dispersion modelling, engineering and legislative controls, health effects, and airshed planning.

Prerequisite(s): ENSC 201-3
Preclusion(s): ENSC 612-3

ENSC 418-3 Environmental Measurement and Analysis This capstone course for Environmental Science and Environmental Engineering majors is focused on advanced environmental measurement and analysis of atmospheric, aquatic, and terrestrial systems. The approach is practical, integrative and problem-based. Students may examine natural and managed systems, including engineered systems (e.g., waste management) and systems impacted by anthropogenic activity (e.g., contamination).

Prerequisite(s): STAT 240-3 or STAT 371-3, 3 credit hours of 200 level CHEM or ENGR 220-3, FSTY 205-3 or GEOG 210-3, and 90 credit hours
Preclusion(s): ENSC 618-3
Recommendation(s): ENSC 201-3, ENSC 202-3

ENSC 425-3 Climate Change and Global Warming Climate change and global warming caused by human activity has become one of the most significant environmental, social and economic threats that we have faced. This course presents the science of global climate change and global warming. Emphasis is placed on scientific principles responsible for climate changes, observed evidence of global climate change and global warming, and future climate change. Course topics include climate system, greenhouse effect, El Niño, atmospheric and ocean circulation, Earth's past and present climate, climate models, future climate projection, and climate change impacts on Canada.

Prerequisite(s): ENSC 201-3
Preclusion(s): ENSC 625-3

ENSC 430-6 Undergraduate Thesis The undergraduate thesis allows students in Environmental Science or Environmental Engineering to devote time to a concentrated piece of research. The thesis may be completed over one or two semesters.

Prerequisite(s): 90 credit hours and permission of the instructor and Program Chair

ENSC 435-3 Soil Biological Processes and the Environment Processes at the interface between the biosphere, atmosphere, hydrosphere and lithosphere are critical to the regulation of environmental quality on Earth. This course provides an overview of the soil habitat from a biological perspective and of how soil organisms and the processes they mediate play critical roles in a sustainable planet.

Prerequisite(s): FSTY 205-3 and 3 credit hours of 100-level BIOL
Preclusion(s): ENSC 635-3, FSTY 455-3, NREM 655-3

ENSC 440-(2-6) Internship This course may be repeated to a maximum of 6 credit hours. This course is graded on a PASS/FAIL basis.

Prerequisite(s): 60 credit hours and permission of the instructor and Program Chair

ENSC 450-3 Environmental and Geophysical Data Analysis The focus of this course is on the principles and practicality of the most common environmental and geophysical data analysis methods, including time series analysis and multivariate statistical analysis as well as their application in the environmental and natural sciences. This course includes labs in which students are expected to apply theories and methods covered in lectures to solve practical problems using computer software for statistical data analysis.

Prerequisite(s): ENSC 250-3 or GEOG 250-3 or CPSC 100-3 or CPSC 110-3, STAT 240-3 or STAT 371-3
Preclusion(s): ENSC 650-3

ENSC 452-3 Reclamation and Remediation of Disturbed Environments This course takes an integrative approach to the remediation and reclamation of drastically disturbed environments. Understanding behavior, fate and transport of contaminants is used to place remediation within the context of use-specific risk reduction. Reclamation is examined as a way to return land to some agreed upon purpose. Societal involvement is explored as a guide to acceptable choices of goals and options. The focus is on the remediation and reclamation of terrestrial systems, but aquatic systems are also included.

Prerequisite(s): Any second year 3-credit hour CHEM course or ENGR 220-3, FSTY 205-3, and 60 credit hours
Preclusion(s): ENSC 652-3
Recommendation(s): ENSC 308-3

ENSC 454-3 Snow and Ice This course focuses on the physical processes involving snow and ice that influence the hydrometeorology of northern British Columbia and the rest of Canada including: snowpack, permafrost, lake, river and sea ice; glacier formation and ablation processes; and the characteristics of snow and ice, as well as how these evolve with climate change. Students conduct an extensive snow survey in the field.

Prerequisite(s): 60 credit hours
Preclusion(s): ENSC 654-3

ENSC 498-(1-6) Special Topics This course examines selected environmental topics, depending on student interest and faculty availability. This course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): 60 credit hours and permission of the instructor and Program Chair

ENSC 499-(1-6) Independent Study This course concentrates on particular topics agreed upon by the student and a member of the Environmental Science faculty. It may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): 60 credit hours and permission of the instructor and Program Chair

Environmental Engineering (ENVE)

ENVE 222-3 Engineering Biology This course is an introduction to concepts in biology relevant to environmental engineering. Topics include, but are not limited to, the following: biochemistry; metabolism; microbial groups; biogeochemical cycles; biological pollution control; toxicity and dose-response relationships; and applications to engineering problems.

Prerequisite(s): Admission to an Engineering program; ENGR 220-3
Pre- or Corequisite(s): ENGR 210-3

ENVE 310-3 Environmental Engineering Processes This course examines the theory and design of physical, chemical and biological unit operations within environmental engineering processes. Topics include but are not limited to the following: solid handling; solid-solid separation; solid-liquid separation; mixing, aeration, kinetics of chemical and biological reactions; and ideal and non-ideal reactor design. Design problems and case studies provide students with an opportunity to develop processes using sequences of unit operations.

Prerequisite(s): Admission to an Engineering program; ENGR 210-3; ENVE 222-3; MATH 200-3

ENVE 317-3 Engineering Design III: Municipal Engineering This course explores engineering design of municipal infrastructure. Topics include but are not limited to the following: design of water supply networks; sewers; stormwater systems; and solid waste management. The project-based design exercises require the application of sustainability principles, engineering tools and teamwork.

Prerequisite(s): Admission to an Engineering program; ENGR 211-3; ENGR 217-4
Pre- or Corequisite(s): ENGR 300-3, ENGR 358-4

ENVE 318-3 Environmental Engineering Measurement Lab This course is a quantitative laboratory- and field-based course focusing on measurement and analysis of selected parameters relevant to environmental quality. Topics include natural and anthropogenic systems. Some lab sessions are problem-oriented, requiring students to generate a working hypothesis, plan the investigation, carry out the sampling, conduct the experiments, and evaluate the results.

Prerequisite(s): Admission to an Engineering program; ENVE 222-3; FSTY 205-3 or GEOG 210-3

ENVE 351-4 Groundwater Flow and Contaminant Transport This course introduces fundamental principles of groundwater flow and their applications to solve problems related to groundwater resources evaluation, development, and management. Topics include the following: the role of groundwater in geological processes; the occurrence and movement of groundwater; steady-state and transient well hydraulics; aquifer testing techniques; unsaturated flow theory; contaminant transport processes; and mathematical models describing migration and chemical evolution of contaminant plumes.

Prerequisite(s): MATH 100-3 and MATH 101-3; or MATH 152-3; or permission of the instructor

ENVE 400-3 Environmental Engineering Capstone Design Project I This is the first course of a two-course environmental engineering capstone design project intended to provide real life experience as part of a design team. Working in teams, students solicit a project from an industrial sponsor, develop a full set of specifications, and deliver a project proposal and preliminary design report. The intent is for the teams to draw upon all of the knowledge gained during their environmental engineering degree.

Prerequisite(s): Admission to an Engineering program; ENGR 300-3; ENGR 380-3; ENVE 310-3; ENVE 317-3

ENVE 401-6 Environmental Engineering Capstone Design Project II This course is the continuation of the two-semester environmental engineering capstone design project. Working in teams, students complete the project started in ENVE 400-3 Environmental Engineering Capstone Design Project I and deliver a final design report. The intent is for the teams to draw upon all of the knowledge gained during their environmental engineering degree.

Prerequisite(s): Admission to an Engineering program and ENVE 400-3
Corequisite(s): ENGR 410-3

ENVE 421-3 Contaminant Transport in the Environment This course explores the fate and effects of environmental contaminants. Topics may include the following: contaminant transport; dispersion; phase transfer; degradation pathways; population exposure pathways; and toxicity and dose-response relationships.

Prerequisite(s): Admission to an Engineering program; ENGR 220-3; ENVE 222-3; ENVE 351-4

ENVE 430-3 Energy Systems This course explores the design of energy and resource recovery systems. Topics may include energy efficiency, solar energy, run-of-river hydroelectricity, heat recovery, anaerobic digestion, bioenergy, and waste-to-energy systems. Building on environmental engineering fundamentals, students develop sustainable energy system designs using software tools.

Prerequisite(s): Admission to an Engineering program; ENGR 300-3; ENVE 310-3; ENVE 317-3

ENVE 455-3 Engineering Hydrology This course explores hydrologic processes. Topics include, but are not limited to, the following: weather; precipitation; infiltration; evaporation; snowmelt; runoff generation; hydrograph analysis; reservoir and channel routing; statistical methods and design floods; and hydrologic modelling.

Prerequisite(s): Admission to an Engineering program and ENGR 353-3

ENVE 462-3 Geoenvironmental Engineering This course explores methods to mitigate environmental contamination. Topics may include regulatory requirements, site investigation, risk assessment, soil and groundwater remediation technologies, waste characterization, landfills and recycling.

Prerequisite(s): Admission to an Engineering program; CIVE 260-4; ENGR 300-3

Environmental and Sustainability Studies (ENVS)

ENVS 101-3 Introduction to Environmental Citizenship This course provides an introduction to the concept of "environmental citizen," and to the foundational elements of environmental studies, including social, ecological, humanistic and indigenous approaches to understanding human interactions with the natural environment. Development of skills in written communication is emphasized.

Prerequisite(s): None

ENVS 210-3 Environmental Perspectives This course explores how different worldviews – comprised of beliefs, assumptions, values, attitudes, ideas – influence human relationships with the natural environment. This exploration includes an examination of the cultural, scientific, religious, philosophical, spiritual, and economic foundations that influence how individuals or societies perceive, interact with, and transform natural environments.

Prerequisite(s): None

ENVS 230-3 Introduction to Environmental Policy This course provides an introduction to the fundamentals of the environmental policy process in Canada. Through the use of lectures, case studies, and individual research, students have the opportunity to learn about the key actors, institutions, and issues involved with the design and implementation of environmental policy, as well as the politics and power dynamics that characterize the 'real world' of policy.

ENVS 309-3 Gender, Environment and Sustainability This course is an introduction to theories, concepts and approaches for understanding relationships between gender and the environment. It considers the evolution and utility of approaches such as ecofeminism. It also examines links between gender and the following: science; environmental domains and professions; environmental management; conservation and recreation; and environmental impacts.

Prerequisite(s): None

ENVS 326-3 Public Engagement for Sustainability This course examines public engagement mechanisms and the attributes of successful engagement with respect to environmental and resource management issues. It also addresses the socio-political and legal requirements for engagement with the public, including Indigenous peoples. Exercises and critiques are used to provide students with practical experience in public engagement around environmental issues.

Prerequisite(s): None

ENVS 339-3 Low-Carbon Transitions: Theory and Practice This course offers students the opportunity to learn about the fundamentals of carbon and energy management, and the concept of 'transition' related to low-carbon energy systems and sustainability. It provides an overview of sustainability practices such as carbon accounting, policy design and implementation, community governance, financing, and environmental leadership. This course provides a combination of theoretical and experiential learning opportunities to provide students with a chance to develop a professional skillset.

Prerequisite(s): 60 credit hours or permission of the instructor

ENVS 414-3 Environmental and Professional Ethics Analysis of environmental and natural resource issues from an ethical perspective; viewpoints and value systems that determine management decisions; professional ethics in natural resource management.

Prerequisite(s): 90 credit hours or permission of the instructor
Preclusion(s): ENVS 602-3

ENVS 431-3 Global Environmental Policy: Energy and Climate This course covers practical and theoretical understandings of international environmental policy, addressing sustainability challenges and solutions that are global in scope. The course uses interconnected themes of climate and energy to explore how environmental policies are designed and implemented, how domestic energy markets intersect with issues of international governance, and to review climate change adaptation and mitigation strategies aimed at transition to a low-carbon future. This course uses multiple learning formats, including policy simulations and case studies of substantive and procedural policies.

Prerequisite(s): ENVS 230-3

ENVS 440-(2-6) Internship This course may be repeated for credit (maximum 6 credit hours). This course is graded on a PASS/FAIL basis.

Prerequisite(s): Permission of the instructor and Program Chair

ENVS 480-3 Environmental and Sustainability Studies Senior Seminar This seminar course serves as the 'capstone' course for the Environmental and Sustainability Studies degrees and provides multiple opportunities to synthesize and deepen the knowledge gained over the course of the degree. The course assists the student in translating knowledge into professional practice, with attention paid to governance, advocacy, policy-making, leadership, and activism. Topics, formats and activities are tailored to cohort and individual interests and goals, as appropriate.

Prerequisite(s): 90 credit hours, enrollment in the BA Major in Environmental and Sustainability Studies, BA Joint Major in Environmental and Sustainability Studies and Political Studies or the BA Joint Major in English and Environmental and Sustainability Studies

ENVS 498-(1-6) Special Topics Selected environmental topics. May be repeated for credit (maximum 6 credit hours).

Prerequisite(s): Permission of the instructor and Program Chair

ENVS 499-(1-6) Independent Study May be repeated for credit (maximum 6 credit hours).

Prerequisite(s): Permission of the instructor and Program Chair

First Nations Studies (FNST)

FNST 100-3 The Aboriginal Peoples of Canada This course is an introduction to the languages, history, culture, and enduring presence of the aboriginal people of Canada, intended to explore the range of aboriginal social formations, both past and present, and to consider the future. Oral, written, and archaeological records will be examined. Special attention will be given to the crucial economic, social, and spiritual contacts that exist within aboriginal societies, as well as to materials on the changes that have occurred since contact with Europeans.

Prerequisite(s): None

FNST 131-3 A First Nations Language: Level 1 This course provides an introduction to the conversational and written elements of one First Nations language. It may be taught in a number of different sections, each of which may focus on a different language, e.g., Gitxsanimx̲, Tlingit, Sekani, Beaver, Slavey, Tahltan, Chilcotin, or another Athabaskan language, Cree or Shushwap. Student transcripts will indicate the specific language studied.

Prerequisite(s): None

FNST 132-3 A First Nations Language: Level 2 This course develops the reading, writing, and speaking skills in a First Nations Language. It may be taught in a number of different sections, each of which may focus on a different language, e.g., Gitxsanimx̲, Tlingit, Sekani, Beaver, Slavey, Tahltan, Chilcotin, Cree or other Athabaskan language, or Shushwap. Student transcripts will indicate the specific language studied.

Prerequisite(s): FNST 131-3 or permission of the Program Chair

FNST 133-3 Dakelh / Carrier Language: Level 1 This course provides an introduction to the conversational and written elements of the Dakelh / Carrier language.

Prerequisite(s): None

FNST 134-3 Dakelh / Carrier Language: Level 2 This course develops reading, writing, and speaking skills in the Dakelh / Carrier language.

Prerequisite(s): FNST 133-3 or permission of the Program Chair

FNST 135-3 Haisla Language (X̄a'islaḵ̓ala): Level 1 This course provides an introduction to the conversational and written elements of the X̄a'islaḵ̓ala language.

Prerequisite(s): None

FNST 136-3 Haisla Language (X̄a'islaḵ̓ala): Level 2 This course develops reading, writing, and speaking skills in the X̄a'islaḵ̓ala language.

Prerequisite(s): FNST 135-3 or permission of the Program Chair

FNST 137-3 Ts'msyen Language (Sm'algyax): Level 1 This course provides an introduction to the conversational and written elements of Sm'algyax.

Prerequisite(s): None

FNST 138-3 Ts'msyen Language (Sm'algyax): Level 2 This course develops reading, writing, and speaking skills in Sm'algyax.

Prerequisite(s): FNST 137-3 or permission of the Program Chair

FNST 139-3 Nisg̲a'a Language: Level 1 This course provides an introduction to the conversational and written elements of the Nisg̲a'a language using materials from everyday life.

Prerequisite(s): None

FNST 140-3 Nisg̲a'a Language: Level 2 This course develops reading, writing, and speaking skills in the Nisg̲a'a language.

Prerequisite(s): FNST 139-3 or permission of the Program Chair

FNST 141-3 Nisg̲a'a Language Immersion: Level 1 This introductory Nisg̲a'a Immersion Language course focuses on learning the sounds and rhythms of the Nisg̲a'a language. Students learn simple language structures, communicative acts, greetings, and self-introductions. This course is immersion based, which involves learning to converse and communicate in a natural setting.

Prerequisite(s): None

FNST 142-3 Nisg̲a'a Oral Culture: Level 1 This course provides an introduction to Nisg̲a'a oral culture through engagement with Nisg̲a'a Elders, as available. This course is immersion based, which involves learning to converse and communicate on topics related to Nisg̲a'a oral culture in a natural setting.

Prerequisite(s): FNST 141-3

FNST 143-3 Gitxsanimx̲: Level 1 This course provides an introduction to the conversational and written elements of Gitxsanimx̲.

Preclusion(s): FNST 131-3 when taught as Gitxsanimx̲

FNST 144-3 Gitxsanimx̲: Level 2 This course develops reading, writing, and speaking skills in Gitxsanimx̲.

Prerequisite(s): FNST 143-3
Preclusion(s): FNST 132-3 when taught as Gitxsanimx̲

FNST 161-3 A First Nations Culture: Level 1 This course focuses on one First Nation's culture. It may be taught in a number of different sections, each of which may focus on a different culture e.g., Haida, Gitxsan, Tlingit, Sekani, Beaver, Slavey, Tahltan, Chilcotin, or other Athabaskan culture, Shushwap, or Métis. Student transcripts will indicate the specific culture studied.

Prerequisite(s): None

FNST 162-3 A First Nations Culture: Level 2 This course focuses on one First Nation's culture. It may be taught in a number of different sections, each of which may focus on a different culture e.g., Haida, Gitxsan, Tlingit, Sekani, Beaver, Slavey, Tahltan, Chilcotin, or other Athabaskan culture, Shushwap, or Métis. Student transcripts will indicate the specific culture studied.

Prerequisite(s): FNST 161-3 or permission of the Program Chair

FNST 163-3 Dakelh / Carrier Culture: Level 1 This course provides an introduction to Dakelh / Carrier culture.

Prerequisite(s): None

FNST 169-3 Nisg̲a'a Culture: Level 1 This course provides an introduction to Nisg̲a'a culture.

Prerequisite(s): None

FNST 170-3 Nisg̲a'a Culture: Level 2 This course provides advanced study of Nisg̲a'a culture.

Prerequisite(s): FNST 169-3 or permission of the Program Chair

FNST 173-3 Gitxsan Culture: Level 1 This course introduces students to Gitxsan culture.

Preclusion(s): FNST 161-3 when taught as Gitxsan culture

FNST 174-3 Gitxsan Culture: Level 2 This course develops student knowledge of selected topics in Gitxsan culture.

Prerequisite(s): FNST 173-3
Preclusion(s): FNST 162-3 when taught as Gitxsan culture

FNST 200-3 Perspectives in First Nations Studies This course provides an introduction to a variety of perspectives within the discipline of First Nations Studies. This course explores the development of First Nations Studies and the various approaches to the cultures of contemporary First Nations that have arisen from the fields of ethnography, history, education, law, etc. Woven throughout this course is a discussion of Indigenous Knowledge systems.

Prerequisite(s): FNST 100-3

FNST 203-3 Introduction to Traditional Ecological Knowledge Designed for students with an interest in traditional ecological knowledge (TEK) and Indigenous peoples, this course takes a theoretical and experiential approach to Indigenous ecological issues in British Columbia and beyond. Students explore and apply the discourse of Indigenous ecological knowledge introduced through literature, discussion, and visits by local knowledge holders. This course may have a field trip component.

Prerequisite(s): FNST 100-3

FNST 205-3 Seminar in First Nations Studies Defining questions for the discipline. Major topics in the discipline will be introduced through the study of published examples by well-known contributors.

Prerequisite(s): Registration as a major in First Nations Studies or permission of the Program Chair

FNST 206-3 First Nations Oral Literatures An introduction to oral traditions, storytelling, and the analysis of discourse structures.

Prerequisite(s): None

FNST 217-3 Contemporary Challenges Facing Aboriginal Communities This is a survey course focusing on the contemporary challenges faced by Aboriginal peoples in Canada. In this course students research and participate in seminars on the specific challenges facing Aboriginal communities today. This includes specific challenges that arise out of the broader topic areas of language and culture, land rights, economics, governance, youth, education, health, social services, violence, healing, community development, repatriation of cultural property, and decolonization.

Prerequisite(s): FNST 100-3
Preclusion(s): FNST 215-3, FNST 216-3

FNST 220-3 Introduction to Linguistics An introduction to linguistics with emphasis on aspects especially relevant to students interested in native languages of northern British Columbia.

Prerequisite(s): None

FNST 221-3 Practical Phonetics of First Nations Languages An examination of the articulatory basis of human languages with an emphasis on the sounds of the First Nations languages of northern British Columbia. Includes intensive practice in the recognition, production and description of classes of sounds and the use of a practical writing system for one or more target languages.

Prerequisite(s): None

FNST 223-3 First Nations Language Immersion* This course provides intensive immersion experience in one First Nations language to facilitate development of conversational fluency. It will be taught in a number of different sections, each of which will focus on a different language, e.g. Haida, Sm'algyax (Coast Ts'msyen), Nisg̲a'a, Gitxsanim̲x̲, Haisla, Tlingit, Sekani, Beaver, Slavey, Tahl̲tan, Wet'suwet'en, Dakelh / Carrier, Chilcotin, or another Athabaskan language, or Shushwap. Student transcripts will indicate the specific language studied.

*Prerequisite(s): None (may be offered concurrently with first and/or second level language courses). *Specific equivalent courses for each First Nations language may be substituted: e.g. FNST 231-3, 232-3, 233-3, 234-3, 235-3, 236-3, 237-3, 238-3, 239-3, 240-3*

FNST 231-3 A First Nations Language: Level 3 This course provides an introduction to the conversational and written elements of one First Nations language. It may be taught in a number of different sections, each of which may focus on a different language, e.g., Gitxsanim̲x̲, Tlingit, Sekani, Beaver, Slavey, Tahltan, Chilcotin, or another Athabaskan language, or Shushwap. Student transcripts will indicate the specific language studied.

Prerequisite(s): FNST 132-3, or equivalent, in the appropriate language

FNST 232-3 A First Nations Language: Level 4 This course provides an introduction to the conversational and written elements of one First Nations language. It may be taught in a number of different sections, each of which may focus on a different language, e.g., Gitxsanim̲x̲, Tlingit, Sekani, Beaver, Slavey, Tahltan, Chilcotin, or another Athabaskan language, or Shushwap. Student transcripts will indicate the specific language studied.

Prerequisite(s): FNST 231-3, or equivalent, in the appropriate language

FNST 233-3 Dakelh / Carrier Language: Level 3 This course focuses on the development of speaking and understanding the Dakelh / Carrier language, including reading and writing skills, at the intermediate level.

Prerequisite(s): FNST 134-3 or permission of the Program Chair

FNST 235-3 Haisla Language (X̄a'islaḵ̓ala): Level 3 This course focuses on the development of speaking and understanding the X̄a'islaḵ̓ala language, including reading and writing skills, at the intermediate level.

Prerequisite(s): FNST 136-3 or permission of the Program Chair

FNST 236-3 Haisla Language (X̄a'islaḵ̓ala): Level 4 (Advanced Intermediate) This course focuses on the development of speaking and understanding the X̄a'islaḵ̓ala language, including reading and writing skills, at level 4 (advanced intermediate).

Prerequisite(s): FNST 235-3 or permission of the Program Chair

FNST 237-3 Ts'msyen Language (Sm'algyax): Level 3 This course focuses on the development of speaking and understanding of Sm'algyax, including reading and writing skills, at the intermediate level.

Prerequisite(s): FNST 138-3 or permission of the Program Chair

FNST 238-3 Ts'msyen Language: Level 4 (Advanced Intermediate) This course focuses on the development of speaking and understanding of Sm'algyax, including reading and writing skills, at level 4 (advanced intermediate).

Prerequisite(s): FNST 237-3 or permission of the Program Chair

FNST 239-3 Nisg̲a'a Language: Level 3 The development of speaking and understanding of the Nisg̲a'a language, and reading and writing skills at the intermediate level. Materials studied include modern texts as well as tapes of elders.

Prerequisite(s): FNST 140-3 or permission of the Program Chair or grade 12 equivalent

FNST 240-3 Nisg̲a'a Language: Level 4 The development of speaking and understanding of the Nisg̲a'a language, and reading and writing skills at level 4 (advanced intermediate). Materials studied include modern texts as well as tapes of elders.

Prerequisite(s): FNST 239-3 or permission of the Program Chair

FNST 241-3 Nisg̲a'a Language Immersion: Level 2 This second level Nisg̲a'a Language Immersion course focuses on learning advanced sounds and rhythms of the Nisg̲a'a language. Students learn language structures, communicative acts, and how to conduct an interview with a fluent speaker in the Nisg̲a'a language. This course is immersion based, which involves learning to converse and communicate in a natural setting.

Prerequisite(s): FNST 141-3

FNST 242-3 Nisg̲a'a Oral Culture: Level 2 This course provides an intermediate introduction to Nisg̲a'a oral culture through engagement with Nisg̲a'a Elders, as available. This course is immersion based, which involves learning to converse and communicate on topics related to Nisg̲a'a oral culture in a natural setting.

Prerequisite(s): FNST 142-3

FNST 243-3 Gitxsanimx̲: Level 3 This course provides intermediate study of the conversational and written elements of Gitxsanimx̲.

Prerequisite(s): FNST 144-3

FNST 244-3 Gitxsanimx̲: Level 4 This course provides advanced study of the conversational and written elements of Gitxsanimx̲, at level 4 (advanced intermediate).

Prerequisite(s): FNST 243-3
Preclusion(s): FNST 232-3 when taught as Gitxsanimx̲

FNST 249-4 Land and Indigenous Reconciliation Studio This course lays a foundation for student understanding of culturally respectful, appreciative, and effective planning processes that bridge the demands of an industrial capitalist system with a traditional, land-based society. Students receive an introduction to theory and practices from First Nations traditional land-use planning and First Nations practices and ideas concerning resource planning, as well as development for their research, writing, and communication skills.

Prerequisite(s): FNST 100-3
Preclusion(s): ENPL 208-4

FNST 269-3 Nisg̲a'a Culture: Level 3 This course provides advanced study in Nisg̲a'a culture.

Prerequisite(s): FNST 170-3 or permission of the Program Chair

FNST 270-3 Nisg̲a'a Culture: Level 4 This course provides advanced study in Nisg̲a'a culture.

Prerequisite(s): FNST 269-3 or permission of the Program Chair

FNST 280-3 Aboriginal Medicines I - Harvesting and Preservation This course provides students with an understanding of the traditional health knowledge of a specific Aboriginal group. Students are expected to participate in the identification, description, and methods of harvesting and preserving plants for medicinal purposes. This course is taught in the traditional territory of a specific Aboriginal group.

Prerequisite(s): FNST 100-3

FNST 281-3 Aboriginal Medicines II - Administering and Ethics This course examines the treatment of diseases, administering of medicines and ethical practices and standards within the traditional health knowledge of a specific Aboriginal group. Students are introduced to medicine from an Aboriginal world view. This course is taught in the traditional territory of an Aboriginal group.

Prerequisite(s): FNST 280-3

FNST 282-3 Aboriginal Health Philosophy This is an introductory course that examines traditional health knowledge, Aboriginal approaches to health, connection to the land, Aboriginal world views and spirituality, family systems and the importance of traditional food to good health. Students are introduced to the traditional health teachings of a specific Aboriginal group. This course is taught in the traditional territory of an Aboriginal group.

Prerequisite(s): FNST 100-3

FNST 283-3 Métis Studies This course examines the place of the Métis in Canadian and American history and culture. It explores ways in which incorporations into Canada and the Canadian provinces and territories, as well as American states, affects the lives of the Métis. This will take place through readings, lectures, discussions, guest speakers, biographies of influential Métis and studies of Métis organizations.

FNST 298-(1-3) Special Topics in First Nations Studies This course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): Permission of the instructor and Department Chair

FNST 300-3 Research Methods in First Nations Studies Major methodologies and methods such as participant observation, archival research, questionnaires and statistical analysis are reviewed and considered in the light of other goals of the discipline. The importance of research ethics and research protocols is discussed.

Prerequisite(s): FNST 200-3

FNST 301-3 Art and Material Culture of BC First Nations A survey of major sources in the literature on First Nations art and material culture with an emphasis on contemporary forms. First Nations artists will participate in the seminar.

Prerequisite(s): Upper-division standing

FNST 302-3 First Nations Health and Healing This seminar focuses on the concepts of health and healing and includes a review of major published materials. Representatives of First Nations communities and organizations participate in the seminar.

Prerequisite(s): FNST 100-3 and upper-division standing, or permission of the Chair
Preclusion(s): NURS 205-3

FNST 303-3 First Nations Religion and Philosophy A seminar on philosophy and religion in First Nations cultures. First Nations representatives will participate in the seminar.

Prerequisite(s): Upper-division standing

FNST 304-3 Indigenous Environmental Philosophy A seminar exploring Indigenous philosophy, knowledge, contemporary issues and perspectives, this interdisciplinary course draws on literature from fields such as traditional ecological knowledge (TEK), cultural ecology, ethnoscience, and international development. Students develop research, writing and communication skills.

Prerequisite(s): Upper-division standing

FNST 305-3 Seminar in First Nations Studies This seminar course engages students in a specified topic area relevant to the discipline of First Nations Studies. Contemporary scholarly literature is used to support the seminar topic and students' learning through discussion.

Prerequisite(s): FNST 100-3 or permission of the Chair

FNST 306-3 Indigenous Women: Perspectives The purpose of this course is twofold: first, to understand how Indigenous women's lives have been shaped by colonialism; and second, to delineate the global themes in indigenous women's current political and social struggles to transcend the colonial legacy that continues to constrain them.

Prerequisite(s): FNST 100-3 or WMST 100-3 or permission of the instructor
Preclusion(s): WMST 306-3

FNST 310-3 Lisims Anadromous Summer and Fall Fisheries in Nisg̲a'a Culture and History This course provides an opportunity to study the relationship between Nisg̲a'a and anadromous summer and fall fisheries, primarily Salmonids. The course content focuses on Nisg̲a'a culture, history, environmental philosophy and knowledge of these fisheries. Course content will include a holistic discussion of the fisheries, including such topics as spirituality, politics and diplomacy, traditional science and technology, and fisheries resource management. Students already receiving credit in FNST 304-3 at WWN are not eligible to receive credit in FNST 310-3.

Prerequisite(s): FNST 100-3 or FNST 169-3 or permission of the Chair

FNST 311-3 The Spring Anadromous Fisheries of Lisims in Nisg̲a'a Culture and History This course provides an opportunity to study the relationship between Nisg̲a'a and spring anadromous fisheries. The focus will be on important fisheries of oolichan and early salmon, such as steelhead. The course content will focus on Nisg̲a'a culture, history, environmental philosophy and knowledge of these fisheries. Course content will include a holistic discussion of the fisheries, including such topics as spirituality, politics and diplomacy, traditional science and technology, and fisheries resource management. Students already receiving credit in FNST 498-(3-6) at WWN are not eligible to receive credit in FNST 311-3.

Prerequisite(s): FNST 100-3 or FNST 169-3 or permission of the Chair

FNST 312-3 Image of the Indian in Film This course explores the history of images of the Indian in film and how such images continue to influence the ongoing relationships between Indigenous and settler societies today. Included in this course is an exploration of the images presented by Indigenous filmmakers themselves.

Prerequisite(s): FNST 100-3 or permission of the instructor

FNST 320-3 The Structure of a First Nations Language An introduction to the linguistic structure of a First Nations language—words, phrases and sentences. Student transcripts will indicate the specific language studied.

Prerequisite(s): FNST 220-3

FNST 321-3 First Nations Advanced Composition and Conversation: Level 1 Advanced composition and conversation, using texts and tapes including poetry.

Prerequisite(s): Level 4 (or equivalent) in the appropriate First Nations language

FNST 322-3 First Nations Advanced Composition and Conversation: Level 2 Advanced composition and conversation, using texts and tapes including poetry.

Prerequisite(s): FNST 321-3

FNST 323-3 First Nations Advanced Translation and Transcription Translation and transcription from English to a First Nations language and back.

Prerequisite(s): Advanced knowledge of a First Nations language satisfactory to the instructor

FNST 324-3 Advanced First Nations Language Immersion* This course provides advanced intensive immersion experience in one First Nations language to extend and deepen student skills and fluency in conversation and other oral genres (public speaking, storytelling, etc.). It will be taught in a number of different sections, each of which will focus on a different language, e.g. Haida, Sm'algyax (Coast Ts'msyen), Nisg̲a'a, Gitxsanimx̲, Haisla, Tlingit, Sekani, Beaver, Slavey, Tahltan, Wet'suwet'en, Dakelh / Carrier, Chilcotin, or another Athabaskan language, or Shushwap. Student transcripts will indicate the specific language studied. May be repeated for up to three additional credit hours with permission of the program Chair; if repeated, credit may substitute for an advanced language course in the relevant language with permission of the Dean.

Prerequisite(s): FNST 223-3
**Specific equivalent courses for each First Nations language may be substituted.*

FNST 325-3 First Nations Language Mentoring* This course provides an opportunity for students of First Nations languages to work with fluent speakers in a mentoring or apprenticeship context to develop language skills. It will be available in a number of different sections, each of which will focus on a different language, e.g. Haida, Sm'algyax (Coast Ts'msyen), Nisg̲a'a, Gitxsanimx̲, Haisla, Tlingit, Sekani, Beaver, Slavey, Tahltan, Wet'suwet'en, Dakelh / Carrier, Chilcotin, or another Athabaskan language, or Shushwap. Student transcripts will indicate the specific language studied.

Prerequisite(s): FNST 220-3 or FNST 223-3
Corequisite(s): FNST 220-3 or FNST 221-3
**Specific equivalent courses for each First Nations language may be substituted.*

FNST 331-3 A First Nations Language: Level 5 This course focuses on the mastery of the conversational and written elements of one First Nations language. It may be taught in a number of different sections, each of which may focus on a different language, such as Gitxsanimx̲, Sm'algyax, X̲a'islak'ala, Tlingit, Sekani, Beaver, Slavey, Tahltan, Chilcotin, or other Athabaskan language, or Shushwap. Student transcripts indicate the specific language studied.

Prerequisite(s): FNST 232-3, or equivalent, in the appropriate language

FNST 332-3 A First Nations Language: Level 6 This course focuses on the mastery of the conversational and written elements of one First Nations language. It may be taught in a number of different sections, each of which may focus on a different language, such as Gitxsanimx̲, Sm'algyax, X̲_a'islak'ala, Tlingit, Sekani, Beaver, Slavey, Tahltan, Chilcotin, or other Athabaskan language, or Shushwap. Student transcripts indicate the specific language studied.

Prerequisite(s): FNST 331-3, or equivalent, in the appropriate language

FNST 341-3 Nisg̲a'a Language Immersion: Level 3 This third level Nisg̲a'a Language Immersion course focuses on Nisg̲a'a oral narratives with Nisg̲a'a Elders, as available. This course covers basic production, perception, physiological and acoustic descriptions of the speech sounds used in Nisg̲a'a oral narratives. This course is immersion based, which involves learning to converse and communicate in a natural setting.

Prerequisite(s): FNST 241-3

FNST 350-3 Law and Indigenous Peoples This course provides an introduction to Indigenous peoples' rights in international and domestic law and examines the key legal and political instruments and issues associated with Indigenous peoples' rights and interests. Topics may include but are not limited to the following: human rights, resource development, global pressures, intellectual property, customary law, traditional knowledge, dispute resolution, treaties and Supreme Court cases. The course is based on the methodological and theoretical foundations of comparative constitutional law, international law, Indigenous law and legal anthropology.

Prerequisite(s): FNST 100-3 or POLS 100-3
Preclusion(s): POLS 380-3

FNST 390-3 History of Indigenous People of Canada Lectures and readings examine the history of Indigenous people in Canada since the earliest times.

Prerequisite(s): Upper-division standing
Preclusion(s): HIST 390-3

FNST 400-3 Community-Based Research Project Group projects will be undertaken in partnership with a community or organization under the supervision of a faculty member.

Prerequisite(s): FNST 300-3

FNST 407-3 First Nations Perspectives on Race, Class, Gender and Power An advanced seminar in which First Nations writings regarding experience of race, class, gender, and power will be discussed in relation to contemporary theory.

Prerequisite(s): Upper-division standing or permission of the Chair

FNST 409-3 Indigenous Perspectives on Reincarnation and Rebirth This seminar will review indigenous philosophy on the subject of reincarnation and rebirth, both of humans and of the animal realm or four legged, winged and finned creatures of this earth. The importance of these philosophies will be reviewed in terms of indigenous concepts of psychology and the nature of personality, of ecological concerns, of spirit dimensions as well as of nationhood. The course will briefly compare indigenous concepts of reincarnation and rebirth with those in Africa and the Hindu and Buddhist traditions, but the emphasis is on North American indigenous thought and experience regarding returning and rebirth.

Prerequisite(s): Upper-division standing, or permission of the instructor

FNST 410-(3-6) Advanced Topics in First Nations Art and Material Culture A survey of major sources in the literature on focused topics in First Nations Art and Material Culture with an emphasis on contemporary forms. Topical focus may vary with each offering, ranging from clothing and adornment of First Nations Peoples; Northwest Coast design and carving; Métis material culture, etc. The course may cover traditional and contemporary material, sources of materials and science of artists will participate in the seminar, and students will work on projects as well as participate in seminars with the instructor, guest speakers and class members.

Prerequisite(s): FNST 301-3, or permission of the Program Chair

FNST 411-(3-6) Advanced Topics in Indigenous Religion and Philosophy Review of Indigenous philosophies on a selected topic (such as relations with animals or luck and hunting). The significance of the philosophies will be considered in the light of indigenous concepts of psychology and personality, ecological concerns, and nationhood. First Nations representatives will participate in the seminar.

Prerequisite(s): FNST 303-3, or permission of the Program Chair

FNST 416-3 Indigenous Issues in International Perspective This course is an advanced seminar in which issues such as Indigenous land rights, relations to nation states, and Indigenous socio-cultural development are examined by presenting cases from a variety of international perspectives. This course may be taught as FNST 416-3/606-3.

Prerequisite(s): FNST 100-3 or permission of the instructor

FNST 420-3 Developing Language Materials A presentation of design goals and practical considerations in the preparation of reference and pedagogical materials for poorly documented languages, with an emphasis on languages of northern British Columbia.

Prerequisite(s): FNST 220-3

FNST 421-3 First Nations Songs and Poetry A study of songs and poetry in a First Nations language.

Prerequisite(s): Level 4 (or equivalent) in the appropriate First Nations language

FNST 422-3 First Nations Speeches and Stories A study of speeches and stories in a First Nations language. Analysis of the various linguistic variations which accompany different kinds of speeches and stories.

Prerequisite(s): Level 4 (or equivalent) in the appropriate First Nations language

FNST 425-3 Oral History This course examines the foundations of oral traditions and oral history methods within academic research. It provides students with an understanding of the importance of oral research methods and an opportunity to expand and enhance this understanding through presentations by First Nations resource people, readings, assignments, online and material resources, and class discussion. This course incorporates Indigenous perspectives to examine Indigenous worlds through the lens of storytelling methods and collective narrative memory.

Prerequisite(s): FNST 100-3
Preclusion(s): HIST 425-3

FNST 440-(3-6) Internship in First Nations Studies May be repeated once for a total of 6 credit hours.

Prerequisite(s): Permission of the Program Chair

FNST 441-3 Nisg̲a'a Language Immersion: Level 4 This course is a continuation of Nisg̲a'a Language Immersion Level 3, and focuses on Nisg̲a'a oral narratives with Nisg̲a'a Elders, as available. This language immersion course covers basic grammatical structures used in Nisg̲a'a oral narratives.

Prerequisite(s): FNST 341-3

FNST 444-3 Experiential Course in First Nations Studies Students participate in an Indigenous community and/or land based experiential learning environment that provides opportunities for them to study applied knowledge relative to local and global contexts. This course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): Upper-division standing or permission of the instructor

FNST 451-3 Traditional Use Studies This course is an advanced seminar on traditional land use and occupation studies, their use, application, and development. This seminar examines methods of recording patterns of traditional use by Indigenous peoples; explores the origins and development of this field; reviews case studies; and reviews recent mapping techniques and contemporary policies. The course may have a field trip component.

Prerequisite(s): ANTH 102-3, or ANTH 213-3, or FNST 100-3 or permission of the instructor
Preclusion(s): ANTH 451-3

FNST 497-(3-6) Senior Project in First Nations Studies

Prerequisite(s): must be in final year of study and majoring in First Nations Studies; permission of the Program Chair

FNST 498-(3-6) Special Topics in First Nations Studies This course examines in detail topics selected by the instructor. This course may be repeated for credit (maximum 6 credit hours).

Prerequisite(s): Permission of the Program Chair

FNST 499-(3-6) Independent Study in First Nations Studies This course enables students to read in depth in an area of First Nations Studies not normally covered by established principal or ancillary courses in the First Nations Studies program. This course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): Permission of the Program Chair

Forestry (FSTY)

FSTY 201-3 Forest Plant Systems This course provides knowledge and understanding of classification, nomenclature and identification, morphology, phenology, range, natural history, evolutionary relationships, and basic ecology of important trees (native and exotic) and forest plant families (woody and herbaceous) in western Canada. The course also provides a survey of plant indicator potential and attributes significant to vegetation management. Each student develops a plant collection and takes part in required field trips.

Prerequisite(s): BIOL 101-4, or BIOL 103-3 and BIOL 123-1; and BIOL 102-4, or BIOL 104-3 and BIOL 124-1

FSTY 205-3 Introduction to Soil Science Chemical, physical, and biological properties of forest soils; fundamentals of soil formation; soil-water-plant relations, soil ecology and soil fertility. Field trips required.

Prerequisite(s): CHEM 100-3, CHEM 101-3, CHEM 120-1, and CHEM 121-1

FSTY 207-1 Terrestrial Ecological Classification This course explores the critical concepts and methodology of classifying terrestrial ecosystems. The course explores the historical context and attributes of several systems of ecological classification. The primary focus is Biogeoclimatic Ecosystem Classification, the standard for natural resource managers in British Columbia. The course also explores regional examples of site classification.

Prerequisite(s): BIOL 101-4, or BIOL 103-3 and BIOL 123-1; and BIOL 102-4, or BIOL 104-3 and BIOL 124-1

FSTY 209-4 Forest Biology and Silvics This course explores critical aspects of the biology of forest floor organisms and the autecology of associated regional tree species. The course also examines the biology and ecology of forest ecosystems, the structure and function of forest trees and stands, the influence of biotic and abiotic factors on tree and stand growth, interactions between forest ecosystems and ecological site conditions, and silvicultural attributes of tree species of Western Canada.

Prerequisite(s): BIOL 101-4, or BIOL 103-3 and BIOL 123-1; and BIOL 102-4, or BIOL 104-3 and BIOL 124-1; and FSTY 201-3

FSTY 305-4 Silviculture Silviculture examines forest ecology, stand dynamics, basic management practices and harvesting. Content includes stand dynamics, natural and artificial regeneration methods, site preparation, intermediate stand treatments, silvicultural systems, forest harvesting concepts and practices, and relationships of natural resource management to silviculture practices. Field trips are required.

Prerequisite(s): FSTY 201-3, FSTY 205-3, FSTY 209-4, NREM 203-3

FSTY 307-3 Disturbance Ecology and Forest Health This lecture course explores principles and concepts of disturbance ecology, including examples of fire, disease and insects. Links between anthropomorphic disturbances, fire risk and forest health problems, and approaches to forest health management are explored.

Prerequisite(s): 60 credit hours, FSTY 201-3, FSTY 207-1, FSTY 209-4

FSTY 310-3 Forest Economics Contemporary issues in the allocation of natural resources. Economic concepts and tools applied to the forestry, recreation, and other natural resource sectors.

Prerequisite(s): ECON 100-3

FSTY 317-1 Forest Disturbance Agents This laboratory course focuses on the identification of pathogens and insects of importance in forest health. The course is required for students enrolled in the Forest Ecology and Management major, and it should be taken concurrently with FSTY 307-3. Field trips are required.

Prerequisite(s): 60 credit hours
Corequisite(s): FSTY 307-3

FSTY 403-3 Timber Harvest Planning and Operations This course provides students with an understanding of operational practices in timber harvest planning and implementation. Topics focus on supply chain flow: planning (operational and strategic); field operations and permitting; operations including logging, hauling and road building; and finally manufacturing and marketing. This course has mandatory field trips.

Prerequisite(s): 60 credit hours
Preclusion(s): FSTY 498-3 (when offered as Forest Planning and Operations)

FSTY 405-3 Forest Ecosystem Modelling This course introduces students to a range of quantitative models that form the basis of modern forest management and conservation. This course includes an overview of models to evaluate forest dynamics from the scale of individual trees up to forested landscapes; models used to assess and manage forests and their ecosystem services; and models for strategic forest planning.

Prerequisite(s): FSTY 305-4 or BIOL 325-3, or permission of the instructor

FSTY 408-3 Forest Practices and Management Principles and operational practices for the management of forest land including forest estate planning, harvest scheduling, and legislative requirements.

Prerequisite(s): 90 credit hours

FSTY 415-3 Forest Soils This course examines the distinctive physical, chemical and biological properties of forest soils from an ecological perspective, emphasizing western Canadian examples. Major themes include the role of soils in forest site classifications, carbon and nutrient cycling in forests, soil determinants of forest productivity, and the responses of soils to forest management practices. Field trips and laboratory exercises provide experience in techniques used for assessing forest soil properties and management impacts.

Prerequisite(s): FSTY 205-3

FSTY 425-3 Soil Formation and Classification
Examination of soil formation with emphasis on environmental forces including human activity as a factor of soil formation; distribution and classification of soils of northern and interior British Columbia; correlation of Canadian System of Soil Classification with international systems of classification such as Soil Taxonomy and FAO/UNESCO Soil Map of the World. Field trips are required.

Prerequisite(s): FSTY 205-3 or permission of the instructor

FSTY 435-3 Soil Biological Processes Processes at the interface between the biosphere, atmosphere, hydrosphere, and lithosphere are critical to the regulation of environmental quality on Earth. This course provides an overview of the soil habitat from a biological perspective, and how soil organisms and the processes they mediate play critical roles in a sustainable planet.

Prerequisite(s): FSTY 205-3 and 3 credit hours of 100-level BIOL
Preclusion(s): ENSC 435-3

FSTY 440-(2-6) Internship May be repeated for credit (maximum 6 credit hours).

FSTY 498-3 Special Topics May be repeated for credit (maximum 3 credit hours).

FSTY 499-(1-6) Independent Study May be repeated for credit (maximum of 6 credit hours).

Geography (GEOG)

GEOG 101-3 Planet Earth This course examines pressing global issues such as how 10 billion people will live in a world of finite resources, increasing mobility, and rising inequality. Students learn about core human geography concepts as a means to make sense of humanity's place in the world. This examination includes the multifaceted ways in which human societies inhabit and transform the Earth's natural environments, the interconnectedness of places and different ways in which societies respond to widespread challenges.

Prerequisite(s): None

GEOG 102-3 Earth from Above This course explores the earth from above, through the eyes of satellites, aircraft, and drones. We have the unique ability to see our planet from different angles and perspectives. When viewed from above, patterns, processes, systems, and human/environmental change on the surface of the planet become highly visible. This course is delivered through lectures and in-class tutorials. Topics include: oceans, rivers, and lakes; landscapes, mountains, and snow and ice; forests and ecosystems; weather and climate; and urban and industrial activity.

Prerequisite(s): None

GEOG 111-1 Earth and Environment This course introduces students to the theory and practice of environmental science and physical geography; provides an opportunity for students to meet faculty and peers from the Department of Geography, Earth, and Environmental Science; and builds a foundation for their academic careers. Students are exposed to a wide range of topics through seminars, invited talks from industry professionals, short assignments, and field trips. This course is graded on a PASS/FAIL basis.

Prerequisite(s): None
Preclusion(s): ENSC 111-1 and GEOG 212-1

GEOG 200-3 British Columbia: People and Places This course provides an introduction to the biophysical and human landscapes of British Columbia with a special emphasis on the relationship of northern British Columbia to the rest of the province. The course takes a regional approach to understanding the links between the physical geography of the province and its settlement patterns, resource use and economic development.

Prerequisite(s): None

GEOG 202-3 Resources, Economies, and Sustainability Natural resources continue to play a vital role in the global economy. British Columbia is a resource-exporting economy within that global marketplace. With a focus on both renewable and non-renewable resources, this course examines economic, community, and environmental issues that complicate debates about development, conservation, and sustainability.

Prerequisite(s): None

GEOG 203-3 Canada: Places, Cultures, and Identities This course examines Canada's people and diverse environments, emphasizing dynamic identities and relationships. Students consider Indigenous and non-Indigenous identities, immigration to Canada, Canadian cultures, conflicts, symbols, and trends. We focus on patterns of changes in Canada, and future possibilities for Canadian society.

Prerequisite(s): None

GEOG 204-3 Introduction to GIS This lab-based course provides an introduction to the data management and analysis capabilities of Geographic Information Systems (GIS) and provides a foundation in GIS. Topics include: geospatial data sources, input, attributes, formats, and conversions; projections and coordinate systems; and raster and vector analysis. This course combines data and common practices from natural resource management and social sciences, and has a project component.

Prerequisite(s): None

GEOG 205-3 Cartography and Geomatics This course examines mapping techniques and thematic layers, using GIS software in the labs. Topics include coordinate systems, symbolization, terrain depiction and visualization, aerial photography, satellite images and Global Positioning Systems (GPS). It introduces students to the world of maps and to Geographic Information Systems (GIS) technology.

Prerequisite(s): None

GEOG 206-3 Social Geography This course critically examines the ways in which social relations, identities, and inequalities are produced, their spatial variation, and the role of space and place in constructing them. Geographic dimensions of various facets of identity (such as gender, ethnicity, "race," class, sexuality, and ability), and the theoretical frameworks that geographers use to analyze them are emphasized.

Prerequisite(s): None

GEOG 209-3 Migration and Development Urbanization, globalization, and international migration are dynamic processes changing our social and physical spaces. This course examines global migration processes and the settlement forms and organizations resulting from migration, refugee movements, and globalization. Analysts and policy makers often overlook the links between migration and its impacts on and potential for development. In this course, we explore these links, recognizing migrant contributions in countries of origin, transit and destination.

Prerequisite(s): None

GEOG 210-3 Introduction to Earth Science Discover the nature and formation of Earth's surface, environments, and landforms. Concepts and methods used to understand landscapes, and monitor Earth processes are demonstrated through lectures and labs. Topics include: Earth's surface materials and their interaction with the environment; landforms; weathering; slope movement; and the erosional and depositional effects of gravity, wind, water, waves, and ice.

Prerequisite(s): None

GEOG 211-3 Natural Hazards With a focus upon natural hazards, this course examines the relationship between human activity and the natural environments in which they occur. The course introduces students to the Earth's physical processes and explores why these processes create risks for people and settlements. Students identify which regions of the world are at greatest risk for a variety of natural hazard types, and how humans can mitigate the loss of life and property.

Preclusion(s): GEOG 100-3

GEOG 213-3 *Sii Aks* Volcano This course is a combined study of the physical volcanology and the Nisg̲a'a Volcano Story focusing on the *Sii Aks* Volcano in the Nass Valley of British Columbia. It is an introduction to physical volcanology through a comprehensive examination of volcanic eruptions and their consequences. The main topics covered are Nisg̲a'a history, accounts of the *Sii Aks* Volcano eruption described in Nisg̲a'a history, the physical properties of magmas and lavas, volcanic landforms, eruption dynamics, and volcano monitoring and hazard assessment. The course runs for six days and includes a full day field trip excursion to the pyroclastic cone and lava flows.

GEOG 220-3 World Regions: Latin America and the Caribbean Struggles for land, labour, and resources are central themes in Latin American and the Caribbean. We examine this diverse region as a landscape of inequality with extremes in poverty and wealth dating from the European invasion. Uneven development across time and space is characterized by growing hunger, narco-trafficking, agro-exports, resource extraction, organized crime, undocumented migration, and environmental degradation, as well as resilience and grassroots mobilization for positive change.

Prerequisite(s): None

GEOG 224-3 World Regions: Inuit Nunangat This course examines the evolution of Inuit Nunangat, the Inuit homeland in the Canadian Arctic, from its early occupation to the present. Social, economic, political, and other issues of concern to Inuit are examined. We use historical, political, ecological, and geographical approaches to understand how Inuit Nunangat came to be, and to analyze the processes that affect this unique region.

Prerequisite(s): None

GEOG 225-3 Global Environmental Change Global environmental sustainability is one of the monumental challenges of our modern world. In this course, students tackle two central questions: What is global-to-local environmental sustainability, and how can we achieve it? A problem-solving approach is emphasized, especially regarding the interaction between science and public policy. Sustainability issues are investigated theoretically and through specific case studies.

Prerequisite(s): None
Preclusion(s): ENVS 225-3, INTS 225-3, NREM 225-3

GEOG 250-3 Environmental and Geospatial Data Analysis This introductory course assists students in developing data science skills and visualization skills using code-based solutions. Students learn how to create, store, manipulate, analyze, and visualize different environmental and geophysical datasets. Lecture and lab topics introduce students to different environmental and geospatial dataset formats that are commonly used by data scientists working in government, academia, and the private sector. The labs emphasize developing practical skills in data analysis (statistical, time series, and spatial analysis) using Python as a key programming language.

Prerequisite(s): None
Preclusion(s): ENSC 250-3

GEOG 298-3 Special Topics The content of the course varies according to instructor. With permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

GEOG 300-3 Intermediate GIS This lab-based course builds on the fundamentals of GIS and covers a variety of spatial analysis and data management topics including vector and raster analysis; network analysis; data structures and formats; creation and management of personal spatial databases; and an introduction to scripting, modelling, and web mapping. A broad range of thematic areas (natural resources, earth science, urban and human environments) are covered. There is a project component to the course.

Prerequisite(s): GEOG 204-3 or GEOG 205-3 or permission of the instructor

GEOG 305-3 Political Ecology: Environmental Knowledge and Decision-Making From the local to the global, we examine geopolitics and power relations of resource use, conservation, environmental knowledge production, policy, and decision-making. Using theory and case studies from geography and political ecology, we investigate access, power, and ownership related to resource use and environmental discourses.

Prerequisite(s): 60 credit hours or permission of the instructor

GEOG 306-3 Critical Development Geographies Using examples from "the local to the global," this course investigates mainstream and critical international development theory and practice to re-think the ways in which 'development' has been understood and to highlight geographical perspectives in formulating new and more critical theoretical understandings. The course focuses on the links between the Global North and South to investigate development theory and practice. We use international case studies to provide context-specific, gender-differentiated information about global inequality, debt, foreign aid, disasters and displacement.

Prerequisite(s): 60 credit hours or permission of the instructor

GEOG 307-3 Changing Arctic: Human and Environmental Systems Climate change, energy security, globalization, pollution, and self-determination in the Arctic are major issues that confront both Arctic societies and the world at large. This course examines the cultural, economic, environmental, political and social dimensions of sustainable development in the Circumpolar North through a geographic lens.

Prerequisite(s): 60 credit hours or permission of the instructor

GEOG 308-3 Health Geography This course examines the importance of place to individual and collective experiences of health and health care.

Prerequisite(s): 60 credit hours or permission of the instructor
Preclusion(s): HHSC 421-3

GEOG 310-3 Hydrology This course is an introduction to physical hydrology. It examines the components of the hydrological cycle, and investigates the processes of water movement and storage in the environment.

Prerequisite(s): STAT 240-3 and one of ENSC 201-3 or GEOG 210-3, or permission of the instructor
Preclusion(s): NREM 410-3

GEOG 311-3 Watershed Geomorphology This course focuses on hillslope and fluvial processes in drainage basins. Laboratory exercises introduce quantitative methods to understand patterns of sediment production, movement, and storage in mountain watersheds.

Prerequisite(s): GEOG 210-3 and STAT 240-3, or permission of the instructor

GEOG 315-3 Earth's Critical Zone This course examines the Earth's critical zone, which is a dynamic and evolving system that encompasses the region of the Earth where rocks, soils, and groundwater interact with living organisms and lower atmospheric conditions to regulate life on the planet. Processes and pathways linking climatology, hydrology, soil science, ecology, and geomorphology are examined and used to evaluate natural and anthropogenic impacts (land use change, resource development, climate change) which regulate and modify conditions in the critical zone.

Prerequisite(s): GEOG 210-3 and 60 credit hours, or permission of the instructor

GEOG 324-3 Community-Based Research This course provides an intellectual and practical foundation in community-based research approaches. Using a mix of seminar and practical instruction, students will learn about the varieties of collaborative practice involving community-based partners in each stage of research from preliminary negotiations to the presentation of results. The course prepares students for the opportunities and challenges of conducting social science research in the field.

Preclusion(s): ENPL 319-3

GEOG 332-3 Community Development How can communities develop politically, economically, and socially, in ways that serve their needs and are appropriate to their environment, culture, and expectations? This course explores the nature and interpretations of community development, using experiences from Canada, the Circumpolar North, and the Asia-Pacific region.

Prerequisite(s): Upper-division standing
Preclusion(s): POLS 332-3

GEOG 333-3 Geography Field School Students apply field methods in physical and/or human geography towards an integrated study of local and global environments. Note: When this course is offered with predominantly human geography content, APEGBC will not consider it suitable for a Professional Geoscience credit.

Prerequisite(s): Upper-division standing

GEOG 357-3 Introduction to Remote Sensing This course covers digital processing of satellite imagery and integration with raster and vector GIS technology in natural resources and remote sensing of the environment. Topics include sensor platforms and data collection, pre-processing, enhancement, classification, change detection, multi-data integration and vectorization.

Prerequisite(s): GEOG 204-3 or GEOG 205-3, or permission of the instructor
Preclusion(s): GEOG 432-3

GEOG 401-3 Tenure, Conflict, and Resource Geography This course examines global resources and their role in questions of conservation and economic development. Emphasis is placed on global and international resource issues and the role of public policy.

Prerequisite(s): 60 credit hours and GEOG 101-3 or GEOG 202-3

GEOG 403-3 Indigenous Geographies of Climate Resilience This seminar course examines the resilience of Indigenous peoples to environmental change, highlighting the interconnected roles of place, agency, collective action, knowledge, and learning in adaptation. Theories of vulnerability, cultural adaptation, and resilience will be discussed, drawing on community-led case studies from Indigenous peoples globally.

Prerequisite(s): 60 credit hours or permission of the instructor
Preclusion(s): GEOG 603-3

GEOG 405-3 Fluvial Geomorphology This course investigates river channel morphometry and landforms developed by running water and focuses on the physical processes and techniques of measurement. Lectures, field trips, and laboratory sessions provide skills and methods to assess the work of rivers on the landscape.

Prerequisite(s): GEOG 210-3 or permission of the instructor
Preclusion(s): GEOG 605-3

GEOG 411-3 Glacial Geology This course examines geomorphic processes and environmental change in British Columbia during the last two million years of Earth's history. Through lectures, field trips, and laboratory exercises, students learn the Quaternary history of North America, the tools and techniques used in surficial geology research, and basic field skills.

Prerequisite(s): GEOG 210-3 or permission of the instructor
Preclusion(s): GEOG 611-3

GEOG 413-3 Advanced GIS This lab- and project-based course expands on the GIS skills acquired in GEOG 300-3. Topics include: enterprise level data management; multi-user versioning; project management; 3D geo-visualization; and web mapping. Marketable advanced GIS skills are taught through a range of subject areas, and members of the GIS community provide hands-on experience and exposure to industry practices.

Prerequisite(s): GEOG 300-3 or permission of the instructor

GEOG 416-3 Mountains With a focus on the environment and society tradition in geography, this course explores the diversity and distribution of mountain environments, the physical processes that shape them, and the role played by humans in their exploitation, modification and preservation.

Prerequisite(s): 60 credit hours or permission of the instructor

GEOG 420-3 Environmental Justice This course examines environmental injustices in North American and international contexts. We consider cases of environmental racism and responses to injustices (activism; scholarship; policy) related to the following: resource extraction; industrial processes; waste disposal; basic services and quality of life; and tourism.

Prerequisite(s): 60 credit hours or permission of the instructor

GEOG 424-3 Northern Communities Dramatic change and transition are re-shaping rural and small town communities. Drawing examples from northern British Columbia, this advanced seminar course examines a range of economic, social, and community issues, and includes a broad class-based project examining a different northern community each year.

Prerequisite(s): 60 credit hours or permission of the instructor
Preclusion(s): GEOG 624-3

GEOG 426-3 Geographies of Culture, Rights and Power This seminar examines geographical approaches to culture, rights, and power as they relate to issues of political violence experienced by Indigenous Peoples, labour organizations, and social movements. Primary geographical focus is on the Mesoamerican region, particularly Guatemala, El Salvador, and Chiapas, Mexico. Implications for Canada and the United States are explored through consideration of refugee movements, foreign policy, and grassroots solidarity organizing.

Prerequisite(s): 60 credit hours or permission of the instructor

GEOG 430-(3-6) Undergraduate Thesis Student must have completed at least 90 credit hours of study and be a Geography Major. The thesis may be taken in one or two semesters in the senior year.

Prerequisite(s): Permission of the instructor and the Program Chair

GEOG 440-(2-6) Internship May be repeated for credit (maximum 6 credit hours).

GEOG 450-3 Advanced Geospatial Analysis Students work with and analyze large geospatial remotely-sensed datasets, learning and using advanced Python functional programming. In addition to laboratory exercises, students participate in a weekly seminar to critically evaluate research on geospatial algorithms and analyses. Students work together to use geospatial analyses to solve a problem relevant to non-academic stakeholders.

Prerequisite(s): GEOG 250-3 ; or GEOG 357-3 and (CPSC 101-3 or CPSC 110-3); or permission of the instructor

GEOG 457-3 Advanced Remote Sensing This project-oriented course focuses on advanced classification procedures incorporating digital elevation data, fuzzy and object-oriented classification, and new millennium data sources including ASTER, RADAR, MODIS, LiDAR and high-resolution scenes. Repeat imagery is used to assess local and global changes in land cover, oceanic, atmospheric and/or cryospheric environments.

Prerequisite(s): GEOG 357-3 or permission of the instructor
Preclusion(s): GEOG 657-3

GEOG 498-(1-3) Special Topics May be repeated for credit (maximum 3 credit hours).

GEOG 499-(3-6) Independent Studies Concentration is on a particular topic agreed upon by a member of the faculty and the student (maximum 6 credit hours).

Prerequisite(s): Permission of the Program Chair

Health Sciences (HHSC)

Students enrolling in Health Sciences courses with prerequisites are required to have completed all prerequisite courses for those courses with a C or better, or have permission to enroll from the School of Health Sciences Chair.

HHSC 101-3 Introduction to Health Sciences I: Issues and Controversies This course provides a review of current issues and controversies with respect to individual and population health. Topics covered include infectious disease, cancer, genetic disease, behavioural determinants of health, addictive behaviour, eating behaviour and the role of nutrition in chronic disease.

Prerequisite(s): None

HHSC 102-3 Introduction to Health Sciences II: Rural and Aboriginal Issues This course will provide an overview of individual and population health, health care systems, legislation, and the roles of the various health care professions in rural and aboriginal communities. Models of interdisciplinary cooperation, models of community health, and ethical issues are also covered.

Prerequisite(s): None

HHSC 103-3 Health Care Systems This course examines health care systems from a public versus private perspective and explores how various systems impact the health and well-being of patients.

Prerequisite(s): Enrollment in the BHSc program, or permission of the instructor

HHSC 105-3 Functional Anatomy The purpose of this course is to provide a macroscopic examination of the human body. Lecture topics include musculoskeletal system and mobility, and major organ systems including cardiovascular, digestive and neurological, with emphasis on how these systems integrate for body function. A laboratory component is included. This course is appropriate for students who intend to enter health profession fields.

Prerequisite(s): Biology 12 and Chemistry 11 or Chemistry 12 or equivalent

HHSC 110-3 Basic Microbiology This course presents the basic principles of microbiology with an emphasis on the relevance of these principles to human health. A survey of the major types of microorganisms and a discussion on how they are classified and identified is addressed. An introduction to virology and bacterial metabolism, including environmental factors which affect microbial growth and survival, is presented. A laboratory component is included.

Prerequisite(s): Biology 12 and Chemistry 11 or equivalent

HHSC 111-4 Anatomy and Physiology I This course is the first half of a comprehensive survey of the structures and functions of the human organ systems. Lecture topics include cellular physiology, histology, and studies of the integumentary, skeletal, nervous and endocrine systems. A laboratory component is included. This course is appropriate for students who intend to enter health profession fields.

Prerequisite(s): Biology 12 and Chemistry 11
Recommendation(s): HHSC 105-3

HHSC 112-4 Anatomy and Physiology II This course is a continuation of HHSC 111-4. It is designed to cover the anatomy and physiology of the muscular, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. Emphasis is on the importance of homeostasis and how it is maintained by the concerted proper functioning of the body systems. A laboratory component is included.

Prerequisite(s): HHSC 111-4

HHSC 201-3 Ethics and Law in Health Care This course examines ethical and legal concepts as applied to health care and health care research. Further, students explore how new technology and therapeutic practices change the parameters of ethical and moral reasoning, and the impact this has on health law. In addition, students are exposed to ethical practices and policies that form the foundation of health related research.

Prerequisite(s): Enrollment in the BHSc program, or permission of the instructor
Preclusion(s): NURS 308-3

HHSC 305-3 Human Physiology I This course begins a comprehensive and detailed review of the mechanistic and integrative physiology of the human body. Throughout HHSC 305-3 Human Physiology I and HHSC 306-3 Human Physiology II the topics emphasized are the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, and urogenital systems, as well as relevant cell biology and histology. Physiology-related research science and animal biology are covered as appropriate. Anatomy is covered only as necessary for ensuring a complete understanding of body functions.

Prerequisite(s): HHSC 105-3, or HHSC 111-4 and HHSC 112-4, and completion of 30 credit hours
Corequisite(s): HHSC 325-1

HHSC 306-3 Human Physiology II This course continues the comprehensive and detailed review of the mechanistic and integrative physiology of the human body that was started in HHSC 305-3 Human Physiology I. Throughout HHSC 305-3 Human Physiology I and HHSC 306-3 Human Physiology II the topics emphasized are the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, and urogenital systems, as well as relevant cell biology and histology. Physiology-related research science and animal biology are covered as appropriate. Anatomy is covered only as necessary for ensuring a complete understanding of body functions.

Prerequisite(s): HHSC 305-3 and HHSC 325-1
Corequisite(s): HHSC 326-1

HHSC 311-3 Nutrition This course reviews nutrient requirements across the lifespan and physiological connections of diet to health and disease. Therapeutic aspects of parenteral nutrition (total and peripheral) and special diets in disease states are covered.

Prerequisite(s): Enrollment in the BHSc program and completion of 30 credit hours.
Preclusion(s): NURS 206-3

HHSC 325-1 Human Physiology I Lab In this laboratory course, students apply and expand on principles of human physiology covered in the HHSC 305-3 lectures. Students normally take this course concurrently with HHSC 305-3.

Prerequisite(s): HHSC 105-3, or HHSC 111-4 and HHSC 112-4, and completion of 30 credit hours
Corequisite(s): HHSC 305-3

HHSC 326-1 Human Physiology II Lab In this laboratory course students apply and expand on principles of human physiology covered in the HHSC 306-3 lectures. Students normally take this course concurrently with HHSC 306-3.

Prerequisite(s): HHSC 305-3 and HHSC 325-1
Corequisite(s): HHSC 306-3

HHSC 351-3 Research Design and Methods for Health Sciences This course examines qualitative and quantitative research methods and design in the health field and the ethical and legal issues associated with health care research.

Prerequisite(s): STAT 240-3 or ECON 205-3 and upper-level standing in the BHSc program, or permission of the instructor

HHSC 370-3 Occupational Health This course introduces students to the scientific basis of occupational health, specifically the relevant principles and concepts of injury prevention, disability management, ergonomics, toxicology, wellness and the general concepts of healthy workplaces. The nature of common occupational health hazards and their effect on humans is examined. Examples of common preventative and protective measures and controls are also reviewed.

Prerequisite(s): Upper-level standing in the BHSc program, or permission of the instructor

HHSC 401-3 Principles of Epidemiology This course applies epidemiological principles in the examination of patterns of disease and disability among populations, particularly those in northern latitudes. It introduces students to the interpretation of vital statistics, the critique of epidemiological study design and the principles of screening.

Prerequisite(s): Upper-level standing in the BHSc program or upper-level standing and enrollment in the Statistics minor
Preclusion(s): HHSC 350-3, HHSC 601-3, NURS 306-3

HHSC 405-3 Pathophysiology This lecture course examines central concepts in pathophysiology. Topics include cell-tissue biology, mechanisms of self-defense, and alterations to organs and systems, all in relation to human health.

Prerequisite(s): HHSC 306-3 and HHSC 326-1
Preclusion(s): HHSC 301-3, NURS 202-3

HHSC 421-3 Medical Geography This course examines the importance of environments of daily living to individual and collective experiences of health and health care.

Prerequisite(s): Upper-level standing in the BHSc program
Preclusion(s): GEOG 308-3

HHSC 440-(3-6) Special Topics in Health Sciences The topics for this course vary, depending on student interest and faculty availability. This course may be repeated for up to 6 credit hours total (with the permission of the instructor and Program Chair).

Prerequisite(s): Upper-level standing in the BHSc program or permission of the instructor

HHSC 445-3 Health and Human Development This seminar course provides students with an opportunity for in-depth discussions of health-related human growth and development, maturation, and ageing. Particular emphasis is placed on developmental biology, physiology, psychology, and gerontology, as well as typical Western psychosocial and cultural perspectives.

Prerequisite(s): HHSC 101-3, HHSC 105-3, PSYC 101-3, and PSYC 102-3
Preclusion(s): PSYC 211-3, PSYC 345-3, SOCW 421-3

HHSC 451-3 Health Sciences Research Project This course enables students, individually or in groups, to explore a particular health issue in depth by defining a problem, collecting, analyzing and interpreting secondary and primary data, and presenting results in written and oral formats.

Prerequisite(s): HHSC 351-3, or permission of the instructor

HHSC 471-3 Health and Chronic Disease Management This course provides students an opportunity to examine critically the current health status of special populations including Aboriginal people, rural communities, people with disabilities, and those living with chronic illness. Students are introduced to current research trends in chronic disease management, which they use to design and develop interventions that improve health and wellness in these populations.

Prerequisite(s): Upper-level standing in the BHSc program

HHSC 473-3 Health Promotion This course examines health promotion theories, principles, and underlying philosophies. Students identify and critique health promotion issues and also gain experience in developing strategies to promote health and well-being at individual, group and community levels.

Prerequisite(s): Upper-level standing in the BHSc program
Preclusion(s): HHSC 606-3

HHSC 490-6 Honours Thesis In this course students pursue an independent research project. Credit for this course is based on designing and implementing a research methodology, analyzing data and presenting findings in a thesis format. This course is a total of 6 credit hours and is normally completed over the September and January semesters.

Prerequisite(s): HHSC 351-3 and acceptance into BHSc Honours program

HHSC 495-3 Directed Readings This course concentrates on specific topics and learning experiences formally agreed upon by a student and a member of the Health Sciences faculty. Permission of the Chair is required.

Prerequisite(s): HHSC 101-3, upper-division standing in the BHSc program, and permission of the instructor

HHSC 497-3 Senior Seminar This course provides an integrative seminar on research design and methodologies for advanced students. Enrollment is restricted to fourth-year Bachelor of Health Sciences Honours students who have completed 90 credit hours.

Prerequisite(s): HHSC 351-3 and acceptance into BHSc Honours program

History (HIST)

HIST 190-3 World History to 1550 This course explores the history of Asia, Africa, Europe and the Americas from human origins to 1550. Although the course is organized chronologically, it does not cover all or even most aspects of World History during this time period. Rather, it focuses on certain themes to consider the development of various civilizations. At the same time, students work on developing their skills as historians by reading, writing and discussing primary and secondary sources through a number of different historical lenses.

Prerequisite(s): None

HIST 191-3 World History since 1550 This course examines the history of the world from the mid-sixteenth century through the end of the twentieth. The global movement of people, ideas, and economic practices receives particular attention, as do processes of imperialism and colonialism. Students are also introduced to the discipline of History and to the skills of document analysis, historical writing, and primary source research.

Prerequisite(s): None

HIST 200-3 Historical Methodology: An Introduction to the Work of the Historian This is a course in basic and essential methodology in historical analysis. Students learn how to develop research questions, identify and use sources in diverse formats, read primary and secondary sources critically, analyze and interpret evidence, and communicate the results of their research orally and in scholarly writing.

Prerequisite(s): None

HIST 205-3 Surveys in National History This course examines the political, social, and economic history in one or more specified nations and periods under study. The nation(s) under study vary according to the expertise of the instructor and may include Australian, Japanese, Chinese, or British national history. With the permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): None

HIST 210-3 Canada before Confederation Canada is still profoundly shaped by its history before 1867. This course examines the political, social and economic development of Canada from earliest times.

Prerequisite(s): None

HIST 211-3 Canada since Confederation This course examines development of Canada since 1867, with emphasis on social movements, economic development, politics and political protest, and regionalism.

Prerequisite(s): None

HIST 215-3 Global History of Indigenous People Our understanding of Indigenous history in one location can be much improved if the topic is studied in broader context. In this course, students study the history of Indigenous peoples in various places around the world.

Prerequisite(s): None
Preclusion(s): HIST 110-3

HIST 223-3 From Colony to Superpower: A History of the United States of America The history of the United States of America has had a tremendous impact on the history of Canada and the world. In this course, students gain a better understanding of the history of Canada's nearest neighbour from earliest times to the present. Lectures, readings, and assignments explore political, economic, social, cultural, and military themes.

Prerequisite(s): None
Preclusion(s): HIST 221-3 and HIST 222-3

HIST 231-3 Medieval Europe This course is an introduction to the cultural, spiritual, social and political life of Europe from the fifth to fifteenth centuries.

Prerequisite(s): None
Preclusion(s): HIST 230-3

HIST 232-3 Early Modern Europe This survey course examines the political, economic, social, religious and cultural life of Europe from 1500-1789.

Prerequisite(s): None
Preclusion(s): HIST 230-3

HIST 233-3 Europe since 1789 This course introduces students to the history of Europe from the French Revolution to the end of the Cold War. Focusing on various revolutions, industrialization, nationalism, war, and new ideologies, the course charts the shift from largely rural, agrarian societies to industrial ones and from absolutist monarchies and later dictatorships to participatory democracies.

Prerequisite(s): None

HIST 234-3 History of Islamic Civilizations This course explores the history of Islamic civilization from the earliest appearance of Islam until the Mongol invasion in the mid-thirteenth century. We consider the origins and theological development of Islam through a historical lens by examining broad themes such as law, philosophy, and literary movements while also addressing the emergence of dynastic (caliphate) polity. Lectures, readings, and assignments explore cultural, political, and social themes.

Prerequisite(s): None

HIST 240-3 The Global Age of Expansion This course studies the expansion and transformation of states, empires, knowledge, religions, economies, and technology before and during the first wave of globalization. Topics to be considered include: intercultural contact, colonization, and conflict; the unprecedented global mobility of human beings and other organisms (and its implications); the creation of maritime and land empires such as the Aztec, Ottoman, Spanish, Portuguese, Mughal, and Qing; the rise of global economies and trade; religious expansion and global missions; and the transformation of knowledge and development of science.

Prerequisite(s): None

HIST 241-3 The Age of Empire This course surveys the rise and decline of global and continental empires in the nineteenth and twentieth centuries. It surveys topics such as colonialism, industrialization, commodities, war, science, race, and sexuality. Focusing on cases such as the British, French, Japanese, German, American, Russian, or Ottoman Empires, it explores how peoples in imperial centres sought to create and maintain their supremacy in a hierarchal world order and the various strategies used by people around the world to resist and modify those ambitions.

Prerequisite(s): None

HIST 256-3 Introduction to Crime and History This course introduces students to the historic context and debate over questions of crime, punishment, and reformation. The specific emphasis depends on the instructor's expertise and the course may include examinations of police history, capital punishment, the creation of penitentiaries, or the modern phenomenon of serial murder. With the permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Preclusion(s): HIST 125-3

HIST 257-3 Public Law in Canada Public law includes the areas of law regulating the internal operations of governments and state agencies, the interactions among orders or levels of government and the interactions between state and non-state actors. Subjects covered in this course include constitutional law, administrative law, human rights law and criminal law and procedures.

Preclusion(s): POLS 257-3

HIST 258-3 Private Law in Canada Private law refers in general to the areas of law that regulate the interactions among non-state actors including citizens, corporations and non-state agencies. The course covers such areas as property law, torts, contracts, family law and commercial law in Canada.

Preclusion(s): POLS 258-3

HIST 280-3 Colonial Latin America This course is an introduction to the history of Latin America from the fifteenth century to the early nineteenth century. Topics to be discussed include Amerindian politics and empires on the eve of contact with Europe; contact, conquest, and colonization; conversion and religious adaptation; colonial imperial administration; Latin American economy in the world system; cultural conflict, resistance, and hybridization among European, African, and Aboriginal peoples; and the gradual emergence of distinctly Latin American identities.

Prerequisite(s): None

HIST 281-3 Republican Latin America This course is an introduction to the history of modern Latin America from the Wars of Independence in the early nineteenth century to the present day. Topics discussed include the Wars of Independence; personalist rule and institutional instability in the first half of the nineteenth century; class, race, gender, and Latin American identity; neocolonialism and the reintegration of Latin America into the global economy; modernity and Latin American nationalism; socialist revolution and conservative dictatorship; and neoliberalism and its discontents at the end of the twentieth century.

Prerequisite(s): None

HIST 299-3 Special Topics in History This course examines a special topic in history at the introductory level. The specific topic varies dependent upon instructor. This course may be repeated to a maximum number of 6 credit hours if the material is substantially different.

Prerequisite(s): None

HIST 300-3 Historiography: The Nature of the Historical Discipline Taken in the first semester of the third year of study, this course examines the nature of history as a discipline of study and how historians approach their craft.

Prerequisite(s): HIST 190-3 and HIST 191-3

HIST 301-3 The Canadian North This course studies the history of the provincial and territorial Canadian North with emphasis on the pre-contact period, Native-white relations, and the impacts of government on the region.

Prerequisite(s): HIST 210-3 or HIST 211-3 or permission of the instructor

HIST 302-3 The Prairie West This course considers the history of the three prairie provinces from the coming of Europeans to the present with emphasis on Native peoples, the fur trade, the development of society and the economy, political protest and regional alienation.

Prerequisite(s): HIST 210-3 or HIST 211-3 or permission of the instructor

HIST 303-3 British Columbia This course examines the history of the province from the coming of Europeans to the present, with emphasis on Native cultures, the fur trade, colonization, the development of institutions, society and the economy, as well as the growing sense of regional identity.

Prerequisite(s): HIST 210-3 or HIST 211-3 or permission of the instructor

HIST 309-3 Women in Canada This course explores the constructions of Canadian womanhood and experiences of Canadian women from early contact to the present. Themes include First Nations women, women in colonial society, women and work, women and reform, women and the state, lesbian women, and feminism.

Prerequisite(s): Upper-division standing or permission of the instructor

HIST 311-3 History of Feminism This course surveys the history of those various political, social and cultural movements (suffragism, women's liberation etc.) that have combined to create the phenomenon of feminism. Attention is also devoted to the diverse theories, ideas and values that underpin contemporary feminism.

Prerequisite(s): Upper-division standing or permission of the instructor
Preclusion(s): WMST 311-3

HIST 312-3 An Introduction to the History of Gender This course explores issues of gender in historical context using a case study approach.

Prerequisite(s): Upper-division standing or permission of the instructor
Preclusion(s): WMST 312-3

HIST 331-(3-6) Lectures in Military History This course examines military history in one or more specified nations and/or periods. The topics under study vary according to the expertise of the instructor and may include: the origins and causes of war; the impact of new technologies on tactics and strategy; military and naval innovation and resistance to innovation; the changing relationship of offense and defense; the concept of mass war; and the relationship of military institutions to society. With permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): Upper-division standing or permission of the instructor

HIST 332-(3-6) Lectures in Social History This course examines the social history in relation to regional, national, or international contexts through time in one or more specified nations and/or periods. The topics under study vary according to the expertise of the instructor and may include major social changes, the social origins of major historical events, or the history of particular social movements. With the permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): Upper-division standing or permission of the instructor

HIST 333-(3-6) Lectures in Cultural History This course examines cultural history in one or more specified nations and/or periods. The topics under study vary according to the expertise of the instructor and may include surveys in cultural events such as the Renaissance or Modernism or examination of how events such as war, economic crisis, technological change, or changing notions of gender or race have shaped culture through time or within specific periods or regions. With the permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): HIST 190-3, upper-division standing or permission of the instructor

HIST 334-3 Lectures in Legal History Legal history studies the development of law and its interactions with state, society, and culture. This course examines legal history in a variety of contexts and historical periods.

Prerequisite(s): Upper-division standing or permission of the instructor

HIST 335-3 Global History of Public Health This course explores the history of public health in a global context from the mid-nineteenth century to the present day. It examines how health has played an integral role in the creation of nation-states, debates about morality and reproduction, and ideas about race. It also provides students with new perspectives on global history and the connections that transcended the boundaries of individual countries.

HIST 360-3 An Introduction to Environmental History Environmental history examines changing relationships between humans and the environment, including how human societies have been shaped by the environment, how environments have influenced human societies, and how humans have thought about the environment. This introduction to the field includes a global perspective but emphasizes North America, particularly Canada.

Prerequisite(s): None

HIST 365-3 Medieval Spain As an overview of Iberian history from the fifth to the early sixteenth centuries, this course emphasizes the interaction of Christians, Muslims, and Jews, as well as the cultural and political distinctiveness of Castile and the Crown of Aragon during the medieval period.

Preclusion(s): HIST 333-3 when offered as Medieval Spain

HIST 390-3 History of Indigenous People of Canada Lectures and readings examine the history of Aboriginal people in Canada since the earliest times.

Prerequisite(s): HIST 210-3 or HIST 211-3, or permission of the instructor

HIST 407-(3-6) Topics in Local History/Methodology This course examines the craft of history by focusing on the history of localities in northern British Columbia. Students are expected to conduct their own research using primary sources. With the permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): HIST 300-3 or permission of the instructor

HIST 421-(3-6) Topics in Environmental History This course explores aspects of environmental history in a variety of geographic settings in various historical periods. The precise content of the course varies from year to year depending on the expertise of the instructor. With the permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): HIST 300-3 or permission of the instructor

HIST 425-3 Indigenous Oral History This course examines the foundations of oral traditions and oral history methods within academic research. It provides students with an understanding of the importance of oral research and an opportunity to expand and enhance this understanding through presentations by Indigenous knowledge holders, readings, assignments, online and material resources, and class discussion. This course incorporates Indigenous perspectives to examine Indigenous worlds through the lens of storytelling methods and collective narrative memory.

Prerequisite(s): Upper-division standing
Preclusion(s): FNST 425-3

HIST 440-(3-6) Internship in History This is an academic course delivered in relevant workplaces (museums, archives, etc.). Students are supervised in a manner that enables them to integrate their academic skills with practical application. This course may be repeated once for a total of 6 credit hours.

Prerequisite(s): History interns must be History majors who have completed 60 credit hours. Permission of the Chair of History is required for registration.

HIST 453-(3-6) Topics in the History of Gender This course studies the gendered experience of men and women in various contexts. With permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): HIST 300-3 or permission of the instructor

HIST 454-(3-6) Topics in Women's History This course examines the diversity of women's experience in various contexts. With permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): HIST 300-3 or permission of the instructor

HIST 456-(3-6) Topics in Cultural Encounters Students examine cross-cultural relations in different parts of the world. With permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): HIST 300-3 or permission of the instructor

HIST 458-(3-6) Topics in Law, Order, and Society This course explores the historical interrelationships of law, authority, and social ordering in several geographic contexts. With permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): HIST 300-3 or permission of the instructor

HIST 492-(3-6) Topics in Cultural History This course examines various themes in the history of culture. Topics might include major developments in the history of culture such as the Renaissance or Modernism and the ways in which major historical events such as the Reformation or the First World War have reshaped culture or particular cultural movements such as classicism of 1960s counter-culture. With permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): HIST 300-3 or permission of the instructor

HIST 493-(3-6) Topics in Social History This course examines various themes in social history. Topics might include major social changes such as the Industrial Revolution or Canadian urbanization and the social origins of major historical events such as the Reformation or the Russian Revolution or particular social movements such as socialism or utopianism. With permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): HIST 300-3 or permission of the instructor

HIST 494-(3-6) Topics in Aboriginal History In seminars and intensive primary and secondary research, students examine particular aspects of aboriginal history in Canada. With permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): HIST 300-3 or permission of the instructor

HIST 498-(3-6) Topics in International History Students examine particular aspects of international history as selected by the instructor. With permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): HIST 300-3 or permission of the instructor

HIST 499-(3-6) Independent Study Offered by special arrangement between student and instructor, this course enables students to read in-depth in an area of history not normally covered in established courses. With the permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): HIST 190-3, HIST 191-3, and HIST 300-3, or permission of the instructor

HIST 500-3 Honours Historiography: Contemporary Theories and Methods This course traces the development of modern historical thought.

Prerequisite(s): HIST 300-3 and admission to the History Honours Program or permission of the instructor

HIST 501-3 Honours Directed Readings This course consists of specialized readings developed in consultation with, and supervised by, a faculty member in the History Department.

Prerequisite(s): Admission to the History Honours Program

HIST 505-6 Honours Thesis The Honours Thesis consists of a specialized research project developed in consultation with, and supervised by, a faculty member in the History Department. Credit is based on the presentation of research results in a formal paper of 7,500 to 10,000 words, and defended in an oral examination (the examining committee to consist of the supervisor and a minimum of three additional History Faculty members).

Prerequisite(s): HIST 500-3, HIST 501-3, and maintenance of a minimum GPA of 3.33

HIST 545-3 Historical Methods and Approaches Historical methods and research techniques are examined in this seminar. Students learn about research design and prepare thesis proposals.

Prerequisite(s): Admission to the History Honours Program

Global and International Studies (INTS)

INTS 100-3 Introduction to Global Studies This foundation course introduces students to the study of international and global structures, actors, processes, ideas, issues, and events with the aim of understanding and explaining large-scale change in our world. The course is organized around four "great domains" of global studies: environment and sustainability; culture and diversity; politics, security and social justice; and economy and international development.

Prerequisite(s): None
Preclusion(s): INTS 205-3

INTS 121-3 Beginning Japanese I This introductory Japanese language course focuses on the four basic linguistic skills of listening, speaking, reading, and writing. Students learn typical daily vocabulary and are introduced to Japanese culture through the language. Students learn two phonetic alphabets, hiragana and katakana, as well as approximately 60 kanji (Chinese characters)

Prerequisite(s): This course is designed for students who have no prior knowledge of the Japanese language. It is not open to native speakers. Permission of the instructor is required for students who have completed Grade 10 Japanese or equivalent courses, or who have at least one Japanese-speaking parent.

INTS 122-3 Beginning Japanese II INTS 122-3 is a continuation of INTS 121-3. Students continue to develop their Japanese language skills in listening, speaking, reading, and writing. They are also given a deeper introduction to Japanese culture. This course is more grammar intensive than INTS 121-3, strengthening the foundations set up in that course. Sixty additional kanji are introduced (for a cumulative total of 120).

Prerequisite(s): This course is not open to native speakers. Students must achieve a minimum grade of C in INTS 121-3 or obtain permission of the instructor to continue. Permission of the instructor is also required for students who have completed Grade 11 Japanese, or who have prior knowledge of Japanese or who have at least one Japanese-speaking parent.

INTS 151-3 Beginning International Language I (International language not regularly offered at UNBC.) An introduction to conversational and written elements of the language using materials from everyday situations.

Prerequisite(s): None

INTS 171-3 Beginning French I This introductory French language course focuses on the four basic linguistic skills of listening, speaking, reading, and writing. Practice of good pronunciation is stressed. Students learn typical daily vocabulary and are introduced to French culture through the language.

Prerequisite(s): This course is designed for students who have no prior knowledge of the French language. It is not open to native speakers. Permission of the instructor is required for students who have completed Grade 10 French or equivalent courses.

INTS 172-3 Beginning French II INTS 172-3 is a continuation of INTS 171-3. Communication abilities continue to be emphasized, along with application of grammatical rules in short compositions. Students acquire a deeper knowledge of the French culture.

Prerequisite(s): This course is not open to native speakers. Students must achieve a minimum grade of C in INTS 171-3, or obtain permission of the instructor to continue. Permission of the instructor is also required for students who have completed Grade 11 French, or some French immersion education.

INTS 181-3 Beginning Spanish I This introductory Spanish language course focuses on the four basic linguistic skills of listening, speaking, reading, and writing. Students are also introduced to Spanish culture through the language.

Prerequisite(s): This course is designed for students who have no prior knowledge of the Spanish language. It is not open to native speakers. Permission of the instructor is required for students who have prior knowledge of Spanish or who have completed Grade 10 Spanish or equivalent courses.

INTS 182-3 Beginning Spanish II INTS 182-3 is a continuation of INTS 181-3. This course introduces more complex grammatical structures, along with broader vocabulary. Students also explore cultural aspects of the Spanish-speaking world.

Prerequisite(s): This course is not open to native speakers. Students must achieve a minimum grade of C in INTS 181-3, or obtain permission of the instructor to continue. Permission of the instructor is also required for students who have prior knowledge of Spanish.

INTS 208-3 Japanese Culture and Society This course explores the culture and society of Japan at an introductory level. All readings are in English, and no knowledge of the Japanese language is required.

Prerequisite(s): None

INTS 210-3 Globalizations Globalization is a defining phenomenon of our time. This course is a survey of interdisciplinary perspectives on the processes, actors, and dynamics of globalization.

Prerequisite(s): None

INTS 211-3 Contemporary Economic Issues This course provides an introduction to contemporary economic issues. Issues examined vary by year and may be related to trade, finance, demographic change, regional economic development, Aboriginal economic development, energy, and various aspects of government policy and behaviour. This course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Preclusion(s): ECON 204-3

INTS 218-3 Introduction to Folklore and Cultural Heritage This course is designed for students who have an interest in cultures. It develops student research and communication skills by examining policies and best practices in conservation, cultural heritage, folklore research methods, and cultural and linguistic safeguarding. This course may have a field trip or experiential-learning component.

Prerequisite(s): None
Preclusion(s): ANTH 218-3

INTS 221-3 Intermediate Japanese I INTS 221-3 is a continuation of INTS 122-3. This course is designed to enhance students' functional skills in the Japanese language and to deepen their knowledge of Japanese culture. Students learn to communicate and express themselves more effectively and with greater confidence on familiar topics. In addition, this course begins to emphasize writing in Japanese. Sixty additional kanji are introduced (for a cumulative total of 180).

Prerequisite(s): This course is not open to native speakers. Students must achieve a minimum grade of C in INTS 122-3, or obtain permission of the instructor to continue. Permission of the instructor is also required for students who have prior knowledge of Japanese or who have at least one Japanese speaking parent.

INTS 222-3 Intermediate Japanese II INTS 222-3 is a continuation of INTS 221-3. Students continue to acquire and deepen their understanding of Japanese language and culture through the further development of listening, speaking, and reading skills. In addition, this course continues to emphasize writing, encouraging students to develop their own style of expression. Sixty additional kanji are introduced (for a cumulative total of 240).

Prerequisite(s): This course is not open to native speakers. Students must achieve a minimum grade of C in INTS 221-3 or obtain permission of the instructor to continue. Permission of the instructor is also required for students who have completed Grade 12 Japanese or who have a least one Japanese-speaking parent.

INTS 225-3 Global Environmental Change This course studies the social drivers of global environmental change and examines how influential governance organizations work in response. Specific attention is given to the causes of environmental change and its implications for people and the places they call home.

Prerequisite(s): None
Preclusion(s): ENVS 225-3, NREM 225-3

INTS 234-3 Introduction to Islamic Civilizations This course explores the history of Islamic civilization from the earliest appearance of Islam until the Mongol invasion in the mid-thirteenth century. We consider the origins and theological development of Islam through a historical lens by examining broad themes such as law, philosophy, and literary movements while also addressing the emergence of dynastic (caliphate) polity. Lectures, readings, and assignments explore cultural, political, and social themes.

Prerequisite(s): None
Preclusion(s): HIST 234-3

INTS 240-3 Contemporary Circumpolar North This is an interdisciplinary survey of the Circumpolar North and its peoples. The course explores the geographical, environmental, historical, social, economic, political, and cultural features of the countries that make up the region.

Prerequisite(s): None
Preclusion(s): NORS 101-3

INTS 271-3 Intermediate French I INTS 271-3 is a continuation of INTS 172-3. Instruction is conducted primarily in French. Students enhance their functional skills in the French language. This course is appropriate for students with prior exposure to French who want to refresh and expand their language skills. Appreciation of French culture through the language continues.

Prerequisite(s): This course is not open to native speakers. Students must achieve a minimum grade of C in INTS 172-3, or obtain permission of the instructor to continue. Permission of the instructor is required for students who have had French immersion education and those who have completed Grade 12 French.

INTS 272-3 Intermediate French II INTS 272-3 is a continuation of INTS 271-3. Students acquire the skills to express themselves in debate and discussion on a wide variety of topics and aspects of French culture. Elements of French literature are also introduced. This course is conducted in French, and is appropriate for students who have recently completed Grade 12 French. It also provides French Immersion students an opportunity to review their grammar.

Prerequisite(s): This course is not open to native speakers. Students must achieve a minimum grade of C in INTS 271-3, or obtain permission of the instructor to continue. Permission of the instructor is required for students who have had French immersion education.

INTS 281-3 Intermediate Spanish I INTS 281-3 is a continuation of INTS 182-3. This course reviews and expands on the essential points of grammar covered in the first year, while introducing new concepts that enhance the proper use of the language. Students deepen their insights into the history, culture, and literature of the Spanish world.

Prerequisite(s): This course is not open to native speakers. Students must achieve a minimum grade of C in INTS 182-3, or obtain permission of the instructor to continue. Permission of the instructor is required for students who have prior knowledge of Spanish or those who have completed Grade 11 or 12 Spanish.

INTS 298-3 Special Topics in Global Studies This course is a detailed examination and analysis of contemporary issues in global studies. It is designed to address timely topics in a rapidly changing world. This course may be repeated to a maximum of 6 credit hours if the material is substantially different. To register in subsequent distinct offerings in excess of 6 credit hours, permission of the Program Chair is required.

Prerequisite(s): None

INTS 300-3 International Organization How is our world organized and governed? This course is an investigation of the actors, dynamics, and processes of global governance, including the United Nations, other intergovernmental institutions, non-governmental organizations and private actors.

Prerequisite(s): INTS 100-3 and INTS 210-3, or permission of the instructor

INTS 304-3 International Development International development is critical to global well-being but is a complex and contested process. This course examines approaches to and problems of economic, social and political development from a global perspective. The role of the state, international development institutions, and global civil society are explored.

Prerequisite(s): INTS 100-3 and INTS 210-3, or permission of the instructor
Preclusion(s): GEOG 306-3

INTS 306-3 Human Rights "All human beings are born free and equal in dignity and rights" (Article 1 of the United Nations Universal Declaration of Human Rights, 1948). This course examines human rights issues and problems from a global perspective, including environmental, cultural, social, political, civil, and economic rights. The roles of international institutions and transnational advocacy networks in promoting and enforcing human rights are explored.

Prerequisite(s): INTS 100-3 and INTS 210-3, or permission of the instructor

INTS 308-3 Gender and International Studies
Understanding gender is essential for understanding how our world thinks and functions. This course offers a critical analysis of the role of gender in global affairs.

Prerequisite(s): INTS 100-3 and INTS 210-3, or permission of the instructor
Preclusion(s): WMST 313-3

INTS 311-3 Russian Politics and Society This course introduces students to Russian politics and society, focusing on the organization and historical development of the Russian political system as well as the contemporary challenges facing the Russian Federation.

Prerequisite(s): Upper-division standing
Preclusion(s): INTS 200-3, POLS 311-3

INTS 312-3 Chinese Politics and Society This course introduces students to Chinese politics and society, examining Chinese political and social development with a primary focus on comparing past and present in areas such as state building, economic development and social change.

Prerequisite(s): Upper-division standing
Preclusion(s): INTS 204-3, POLS 309-3

INTS 314-3 European Politics and Society This course introduces students to European politics and society, focusing on the historical development and political structure of the European Union as well as the contemporary challenges facing Europe.

Prerequisite(s): Upper-division standing
Preclusion(s): POLS 314-3

INTS 315-3 American Politics and Society This course introduces students to American politics and society, focusing on the organizational and historical development of the American political system as well as the contemporary challenges facing the United States of America.

Prerequisite(s): Upper-division standing
Preclusion(s): POLS 305-3

INTS 320-3 The Global and the Everyday The global and the everyday are connected in a multitude of ways. This course explores the ways in which global processes and practices manifest in the everyday and the way in which the everyday may influence the global. Sites of the everyday may include popular cultures, fashion, climate migration, gendered violence, and everyday objects. This course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): INTS 100-3 and INTS 210-3, or permission of the instructor

INTS 321-3 Japanese Conversation and Composition I INTS 321-3 is a continuation of INTS 222-3. Students begin to acquire advanced skills in listening, speaking, reading, and writing in order to communicate effectively and sensitively in a variety of social contexts. Students are expected to actively participate in discussions and interactive presentations, and to write in a variety of styles. Sixty additional kanji are introduced (for a cumulative total of 300).

Prerequisite(s): This course is not open to native speakers. Students must meet a minimum grade of C in INTS 222-3 or obtain permission of the instructor to continue. Permission of the instructor is also required for students who have prior knowledge of Japanese or who have at least one Japanese-speaking parent.

INTS 322-3 Japanese Conversation and Composition II INTS 322-3 is a continuation of INTS 321-3. This course is designed to further develop and reinforce the practical use of the Japanese language in different social contexts by facilitating the development of conversational fluency and various writing skills. Students learn an additional 60 kanji (for a cumulative total of 360).

Prerequisite(s): This course is not open to native speakers. Students must meet a minimum grade of C in INTS 321-3 or obtain permission of the instructor to continue. Permission of the instructor is also required for students who have prior knowledge of Japanese or who have a least one Japanese-speaking parent.

INTS 324-3 Gender and Global Crisis This course examines contemporary issues concerning gender and global crises in the context of global and international studies. It aims to provide gender and intersectional perspectives to help students understand global crises such as disasters, emergencies, violence, and conflicts.

Prerequisite(s): INTS 100-3 and INTS 210-3, or permission of the instructor
Preclusion(s): WMST 324-3

INTS 325-3 Film and Global Society This course is an exploration of our globalizing world through the medium of film. This course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): None

INTS 328-3 African Politics and Society This course introduces students to a range of political, economic, and social issues in Africa, focusing on themes such as historical dynamics and processes, anti-colonial and decolonization movements, post-colonial politics, environmental politics, regional relations and institutions, international roles and relations, and contemporary social movements and social change.

Prerequisite(s): INTS 100-3 and INTS 210-3, or permission of the instructor
Preclusion(s): POLS 328-3

INTS 340-3 Changing Arctic: Human and Environment Systems This course studies the human dimensions of climate change in the Arctic, emphasizing the relationships between Arctic societies and the environment, and how these are changing.

Prerequisite(s): INTS 100-3 and INTS 210-3, or permission of the instructor
Preclusion(s): GEOG 307-3, NORS 331-3

INTS 360-3 Global Sports Sports have gone global. This course tells you how and why. It surveys the role of sports in mass global culture, including an examination of professional sports and mega-sporting events such as the Olympics and the FIFA World Cup.

Prerequisite(s): INTS 100-3 and INTS 210-3, or permission of the instructor

INTS 377-3 Redefining Security What is security? This course reviews the evolution of the notion of security from traditional definitions associated with the military and the state to more recent definitions of (human) security which include gender, economics, and the environment.

Prerequisite(s): INTS 100-3 and INTS 210-3, or permission of the instructor

INTS 402-3 Pacific Affairs This seminar explores contemporary issues and relations between Asia and Pacific peoples, cultures, and states.

Prerequisite(s): INTS 100-3 and INTS 210-3, or permission of the instructor

INTS 407-3 Global Economy and Development This course analyzes the evolution and assesses competing theories of the global economy. The prospects for developing countries within the global economy are examined.

Prerequisite(s): ECON 100-3, ECON 101-3 and ECON 311-3, or permission of the instructor
Preclusion(s): ECON 401-3, ECON 601-3, INTS 607-3

INTS 412-3 Critical Perspectives on Climate Change and Security This course examines the relationships between climate change and (in)security, drawing on critical, multidisciplinary theoretical and methodological perspectives. Considering (in)security in broad terms, from violent conflict to displacement to everyday experiences, topics include definitions of (in)security, historical and structural roots of climate-related vulnerabilities and insecurities, responses to climate-related risks and insecurities, and possible climate and security futures, considering dynamics of climate change and (in)security at local, national, regional, international, and global scales.

Prerequisite(s): INTS 100-3 and INTS 210-3, or permission of the instructor
Preclusion(s): INTS 612-3

INTS 414-3 Gender, Peace, and Security This course critically examines contemporary issues of gender, peace, and security (GPS) and unpacks complexities of the GPS agenda in Global North and Global South settings. It equips students with a critical understanding of GPS theories, debates, and perspectives and enables them to use this knowledge in their projects and everyday practices.

Prerequisite(s): INTS 100-3 and INTS 210-3, or permission of the instructor
Preclusion(s): GNDR 614-3, INTS 614-3, WMST 414-3

INTS 421-3 The Political Economy of Natural Resource Extraction This course examines the political economy/ecology of natural resource extraction by examining issues such as the socio-economic, political, human and environmental dimensions of extractive activities. Specific global case studies are used to explore the concepts of sustainable livelihoods, vulnerability and adaptation, community well-being and governance at both domestic and global levels.

Preclusion(s): INTS 621-3

INTS 423-(3-9) Global Studies Field School This course allows students to learn about the application of global studies in specific contexts through field schools or other forms of experiential learning such as internships. Course location varies with instructor and year taken.

Prerequisite(s): INTS 100-3 and INTS 210-3, or permission of the instructor

INTS 425-3 Sustainability Problem Solving Can we fix it? This course focuses on critical, strategic, and lateral-thinking skills. Global sustainability issues are explored in dynamic and future contexts using analytical and management systems involving the interaction of environmental processes and human spatial activity.

Prerequisite(s): INTS 225-3
Preclusion(s): INTS 625-3

INTS 440-(3-6) Internship

Prerequisite(s): INTS 100-3 and INTS 210-3, or permission of the instructor

INTS 460-3 Issues in Canadian Foreign Relations This course is a detailed examination of selected problems in Canada's foreign relations.

Prerequisite(s): INTS 100-3 and INTS 210-3, or permission of the instructor

INTS 490-3 Global Capstone This course is required for all Global and International Studies majors in their final year before graduation. Students will engage in research projects that express their cumulative learning in global studies.

Prerequisite(s): INTS 100-3 and INTS 210-3

INTS 498-3 Special Topics in Global Studies This is a detailed examination of contemporary issues in global studies. This course may be repeated to a maximum of 6 credit hours if the material is substantially different. To register in subsequent distinct course offerings in excess of 6 credit hours, permission of the Program Chair is required.

Prerequisite(s): INTS 100-3, INTS 210-3, and 60 credit hours, or permission of the instructor

INTS 499-(3-6) Independent Study

Prerequisite(s): INTS 100-3 and INTS 210-3, or permission of the instructor and the Department Chair

International Exchange (INTX)

INTX 288-(1-18) International Exchange Program Undergraduate students register in this course when they have been accepted to participate in a formal international exchange program at one of UNBC's partner institutions. This course is graded on a PASS/FAIL basis.

Prerequisite(s): completion of 30 credit hours of coursework or permission of the academic advisor and the Exchange Student Selection Committee. At least 24 of these credit hours must be completed at UNBC. A student may register in this course more than once for a maximum of 30 credit hours unless special permission is granted to complete additional credit hours.

INTX 488-(1-18) International Exchange Program Undergraduate students register in this course when they have been accepted to participate in a formal international exchange program at one of UNBC's partner institutions. This course is graded on a PASS/FAIL basis.

Prerequisite(s): completion of 60 credit hours of coursework or permission of the academic advisor and the Exchange Student Selection Committee. At least 24 of these credit hours must be completed at UNBC. A student may register in this course more than once for a maximum of 30 credit hours unless special permission is granted to complete additional credit hours.

Mathematics (MATH)

Note that BC Introductory Mathematics 11, Applications of Mathematics 11, Essentials of Mathematics 11, Workplace Mathematics 11, Applications of Mathematics 12, Apprenticeship Mathematics 12, and Essentials of Mathematics 12 are not considered prerequisites for any MATH courses.

A student may enroll in any MATH course with permission of the Department Chair. Unless otherwise stated, students enrolling in any MATH courses with prerequisites are required to have completed all prerequisite courses for that course with a C- (60%) or better, or have permission to enroll from the Department Chair. If the prerequisite course is a BC high school course, the minimum required grade is a C (60%).

MATH 100-3 Calculus I This course is an introduction to the calculus of one variable, primarily for majors and students in the sciences. Topics include functions of one variable; inverses; limits; continuity; the difference quotient and derivatives; rules for differentiation; differentiability; the mean value theorem; the differential; derivatives of trigonometric, logarithmic and exponential functions; l'Hôpital's rule; higher derivatives; extrema; curve sketching; Newton's method; antiderivatives; definite integrals; the fundamental theorem of calculus; integrals of elementary functions; area between curves; and applications of integration.

Prerequisite(s): Pre-calculus 12 minimum grade (67%) or MATH 115-3
Preclusion(s): MATH 105-3, MATH 152-3

MATH 101-3 Calculus II This course focuses on integral calculus for a single variable. The course covers the definition of the natural logarithm as an integral and the exponential function as its inverse, integration by parts, techniques of integration, volumes by slicing and shell techniques, improper integrals, numerical integration, and applications of integration (e.g., computing arc lengths, surface areas, moments and centres of mass), calculus of parametric curves and polar curves with special emphasis on applications of integration in computing areas and arc lengths in polar coordinates. It also covers sequences, numerical series, power series, and Taylor's theorem.

Prerequisite(s): MATH 100-3

MATH 115-3 Precalculus This course examines algebraic manipulation, solutions of algebraic equations, functions, inverses, graphing, and analytic geometry. This course includes a mandatory tutorial.

Prerequisite(s): Pre-calculus 11 (C or 60%) or Foundations of Math 12 (B or 73%) or UNIV 113-3 (C or 63%) or all of UNBC Continuing Studies XMAT 161-1 and XMAT 162-1 and XMAT 163-1 with a minimum grade (C- or 60%) in each
Preclusion(s): Students who have taken Pre-calculus 12, MATH 100-3, MATH 150-3, MATH 152-3 or equivalents require permission of the Chair

MATH 150-3 Finite Mathematics for Business and Economics This course is offered primarily for students in programs offered by the School of Business and the Department of Economics. The course covers functions and graphs, linear systems of equations, matrix notation and properties, matrix inversion, linear programming, sets, counting and probability, and an introduction to actuarial mathematics. This course may not be used for credit towards a major, or joint major, in Mathematics or Computer Science.

Prerequisite(s): Pre-calculus 12 or MATH 115-3

MATH 152-3 Calculus for Non-majors This course covers limits, the derivative, techniques of differentiation, exponential functions and exponential growth, maxima and minima, introductory curve sketching, introduction to definite and indefinite integrals and their properties, integration by substitution, partial derivatives, and optimization of functions of several variables, with applications in the social and physical sciences. Applications may vary among sections, depending on students' disciplines. This course is not open to MATH or CPSC majors.

Prerequisite(s): Pre-calculus 12 or MATH 115-3
Preclusion(s): MATH 100-3, MATH 105-3

MATH 190-4 Mathematics for Elementary School Educators This course develops an understanding of mathematical concepts and relationships used in the elementary school curriculum. The content focus is on numbers and number systems, patterns and relations, shapes and space, and statistics and probability. Problem solving and deductive reasoning are stressed throughout the course.

Prerequisite(s): Foundations of Math 11 (C or 60%) or Pre-calculus 11 (C or 60%)
Preclusion(s): MATH 100-3, MATH 105-3, MATH 152-3. Students who have taken MATH 100-3, MATH 105-3, MATH 152-3 or equivalents require permission of the Chair.

MATH 200-3 Calculus III This course emphasizes the calculus of vector-valued functions of several variables. Topics include: vectors in two- and three-dimensional space; dot and cross products; lines and planes in space; cylindrical and spherical co-ordinates; curves given parametrically; surfaces and curves in space, directional derivatives, the gradient, tangent vectors and tangent planes, the chain rule; the topology of Euclidean space; optimization problems for functions of several variables; vector fields; line integrals; surface integrals; the theorems of Green, Gauss, and Stokes; potential functions; and conservative fields.

Prerequisite(s): MATH 101-3
Preclusion(s): MATH 202-3

MATH 202-3 Multivariable Calculus I This course focuses on functions of several variables, analytic geometry, and their utility. It starts with a review of area and arclength in polar coordinates, and lines and planes in space. The course covers cylindrical and spherical coordinates, quadric surfaces, vector-valued functions, and arclength and curvature of space curves. Topics in this course also include differentiation of functions of several variables, tangent planes and linear approximations, the chain rule, minima/maxima, and Lagrange multipliers. Lastly, the course covers double and triple integrals, applications, and change of variables in multiple integrals.

Prerequisite(s): MATH 101-3
Preclusion(s): MATH 200-3

MATH 204-3 Multivariable Calculus II This course focuses on vector calculus and power series. The course consists of two major parts. The first part addresses Green's theorem, Stokes's formula and the divergence theorem (Gauss's formula), including vector fields, line integrals, conservative vector fields, divergence and curl, parametric surfaces, and surface integrals of vector or scalar fields. Applications include computing the mass flow rate, the surface area of a parametric surface and the volume of a three-dimensional body via Stokes's or Gauss's formula. The other part of the course deals with power series, their convergence, and their use in approximating functions via Taylor's theorem.

Prerequisite(s): MATH 202-3
Preclusion(s): MATH 200-3

MATH 220-3 Linear Algebra This course covers systems of linear equations, matrix algebra, determinants, vector geometry, vector spaces, eigenvalues and diagonalization.

Prerequisite(s): MATH 100-3 or MATH 105-3 or CPSC 141-3

MATH 224-3 Foundations of Modern Mathematics This course develops the essential components of Zermelo-Fraenkel set theory and from these ideas constructs the standard number systems. Topics include basic logic and methods of proof, axioms of set theory, mathematical induction, the natural numbers, the integers, and the rational, real, and complex number systems, epsilon-delta arguments, and rigorous development of the theorems of elementary calculus.

Prerequisite(s): MATH 100-3 or MATH 105-3
Recommendation(s): MATH 101-3

MATH 230-3 Ordinary Differential Equations and Boundary Value Problems This course introduces basic theory and application of ordinary differential equations and boundary value problems. Topics include: first order differential equations (separable, linear, homogeneous, Bernoulli and exact equations); linear second order and higher order equations (linear independent solutions, method of undetermined coefficients and variation of parameters); linear systems of ordinary differential equations; basic numerical methods (Euler and Runge-Kutta methods); and solutions to linear partial differential equations (heat, wave, Laplace's equation) using separation of variables and Fourier series.

Prerequisite(s): MATH 200-3 or MATH 202-3
Corequisite(s): MATH 220-3

MATH 301-3 Introduction to Complex Analysis This course is an introduction to complex analysis. Topics include complex numbers and topology of the complex plane, theory of analytic functions, precise definition of limit and continuity, harmonic functions, contour integration, Cauchy's integral theorem and integral formula, bounds for analytic functions and applications, Taylor and Laurent expansions of analytic functions, zeros and singularities of analytic functions, and residue theory.

Prerequisite(s): MATH 200-3 or MATH 202-3
Preclusion(s): MATH 201-3

MATH 302-3 Introductory Mathematical Analysis This course develops the essential components of metric space topology and the related ideas of convergence including convergence of sequences and series of functions. Topics include open, closed, bounded and compact sets in a metric space, the Bolzano-Weierstrass and Heine-Borel Theorems, continuous and uniformly continuous functions, and uniform convergence.

Prerequisite(s): MATH 101-3 and MATH 224-3

MATH 320-3 Survey of Algebra This course introduces the standard algebraic structures, their properties and applications. Topics include: equivalence relations, elementary group theory, finite groups, cyclic groups, permutation groups, group homomorphisms, group products, the fundamental theorem of finite Abelian groups, Sylow theorems, elementary ring theory, ring homomorphisms, ring products, and construction of new algebraic structures from known structures.

Prerequisite(s): MATH 220-3, and one of CPSC 141-3 or MATH 224-3

MATH 326-3 Advanced Linear Algebra Topics include abstract treatment of vector spaces, linear transformations, the Cayley-Hamilton theorem, inner product spaces, Gram-Schmidt orthogonalization, rational and Jordan canonical forms, and the spectral theorem.

Prerequisite(s): MATH 220-3
Preclusion(s): MATH 226-3

MATH 335-3 Introduction to Numerical Methods This course introduces basic theory and application of numerical methods for solving fundamental computational problems in science and engineering. Topics include floating point numbers and error analysis; root finding; interpolation; numerical differentiation and integration; numerical methods for ordinary differential equations; and numerical methods for solving linear systems. This course involves programming and mathematical analysis of numerical methods.

Prerequisite(s): MATH 101-3, MATH 220-3, and CPSC 100-4 or CPSC 110-3 (or equivalent programming experience)
Pre- or Corequisite(s): MATH 230-3

MATH 336-3 Intermediate Differential Equations This course is a continuation of MATH 230-3 and is designed to increase the depth and breadth of students' knowledge pertaining to differential equations. Topics include existence and uniqueness theory for ordinary differential equations, series solutions of differential equations, linear system theory, phase plane analysis and stability, boundary value problems review of Fourier Series, with additional applications to boundary value problems for the Heat Equation, Wave Equation and Laplace's Equation.

Prerequisite(s): MATH 220-3 and MATH 230-3

MATH 402-3 Functional Analysis This course deals with analysis on structures varying from metric spaces to normed and Hilbert spaces. Topics include the contraction mapping principle, applications of fixed-point theorems to differential equations, bounded linear operators between normed vector spaces, Banach spaces, duality, Riesz representation theorem, and compact linear maps and their spectra. The course also covers the Fourier transform and shows some of its applications in thermodynamics and diffusion.

Prerequisite(s): MATH 302-3 or permission of the instructor

MATH 403-3 Measure Theory and Integration This course focuses on the development and properties of Lebesgue measure and the Lebesgue integral, with generalization to integration in abstract measurable spaces. Topics include outer measure, measurable sets and Lebesgue measure, measurable functions, differentiation of integrals, and the extension of these concepts to more general settings.

Prerequisite(s): MATH 302-3

MATH 405-3 Topology Open and closed sets, Hausdorff and other topologies, bases and sub-bases, continuous functions connectivity, product and quotient spaces, the Tychonoff and Urysohn lemmas, metrization, compact spaces.

Prerequisite(s): MATH 302-3
Preclusion(s): MATH 321-3

MATH 409-3 Mathematical Methods in Physics This course surveys the methods and techniques involved in the formulation and solutions of physics problems. Topics include matrix algebra and group theory, eigenvalue problems, differential equations, functions of a complex variable, Green's functions, Fourier series, integral equations, calculus of variations, and tensor analysis.

Prerequisite(s): Permission of the instructor
Preclusion(s): PHYS 409-3

MATH 420-3 Structure of Groups and Rings Advanced course in group theory and ring theory. Homomorphism theorems for groups, rings and R-modules, Sylow theorems, short exact sequences, chain conditions.

Prerequisite(s): MATH 320-3

MATH 421-3 Field Theory Topics discussed will include: fields, field extensions, splitting fields, automorphism group, Galois Theory.

Prerequisite(s): MATH 320-3

MATH 435-3 Numerical Methods for Partial Differential Equations This course introduces the theory and application of numerical methods for partial differential equations for science and engineering. Programming and mathematical analysis of numerical methods are emphasized. Topics include methods for solving linear and nonlinear systems (direct and iterative methods), initial value problems, and boundary value problems (finite difference, spectral, finite volume, and finite element methods).

Prerequisite(s): MATH 335-3

MATH 436-3 Partial Differential Equations 1 This is an introductory course on partial differential equations (PDE). The main focus is on PDE models of first and second order equations arising from various disciplines. The course introduces analytic techniques related to three classical types of PDE: elliptic, parabolic and hyperbolic. Topics include: method of characteristics; Sobolev spaces; distributional derivatives; variational methods; maximum principle; Harnack inequalities; and qualitative properties of solutions to certain models.

Prerequisite(s): MATH 336-3, or MATH 230-3 and MATH 302-3, or permission of the instructor

MATH 450-3 Combinatorics This course is an introduction to combinatorics. Topics include counting principles, principle of inclusion and exclusion, generating functions, graph theory and applications, combinatorial structures, combinatorial optimization and applications.

Prerequisite(s): MATH 101-3 and MATH 220-3
Recommendation(s): CPSC 141-3 or MATH 224-3

MATH 455-3 Graphs and Algorithms This course is an introduction to graphs and algorithms. Topics include basic graph concepts, flows and connectivity, trees, matchings and factors, graph colouring, scheduling, planar graphs, and algorithms.

Prerequisite(s): MATH 224-3 or CPSC 141-3 or CPSC 142-3

MATH 480-3 Number Theory This course is an introduction to number theory. Topics include the integers, divisibility, Euclidean algorithm, primes, unique factorization, congruences, systems of linear congruences, Euler-Fermat Theorem, multiplicative functions, quadratic residues and reciprocity, nonlinear Diophantine equations.

Prerequisite(s): MATH 220-3 or MATH 224-3

MATH 481-3 Analytic Number Theory This is a first course in analytic number theory. This course covers the following topics, with other topics as time permits: arithmetic functions and their average orders; prime counting functions; elementary theorems on the distribution of prime numbers; Dirichlet characters; Dirichlet theorem on primes in arithmetic progressions; Dirichlet series and Euler products; analytic properties of the Riemann zeta function and Dirichlet L-functions; the prime number theorem; and the prime number theorem in arithmetic progressions.

Prerequisite(s): MATH 201-3 or MATH 301-3, MATH 302-3 and MATH 480-3

MATH 499-3 Special Topics in Mathematics The topic for this course will vary, depending on student interest and faculty availability. May be taken any number of times provided all topics are distinct.

Prerequisite(s): Permission of the instructor

MATH 530-(3,6) Undergraduate Thesis This undergraduate thesis allows students to examine and research a topic in the field of mathematics. Students must have completed at least 90 credit hours and be a Mathematics major. This thesis may be taken in one or two semesters. MATH 530 is normally taken over two semesters and requires that a student find an Undergraduate Thesis research supervisor. Therefore, students are encouraged to apply to potential supervisors well in advance of completing 90 credit hours. This course is taken for a total of 6 credit hours.

Prerequisite(s): Honours standing and permission of the instructor and Department Chair
Preclusion(s): STAT 530-(3, 6)

Northern Studies (NORS)

NORS 101-3 Introduction to the Circumpolar North This course is an introduction to the physical, biological and human environments of the Arctic and Subarctic regions, and their interactions and relations to the global system. It provides an overview of northern environments, cultures, historical and economic development processes, political systems, and international cooperation.

Prerequisite(s): None

NORS 311-3 Lands and Environments of the Circumpolar North 1 This course provides an in-depth understanding of the lands and environments that define the Circumpolar North, and the key issues arising from the relationships of humans and the environment.

Prerequisite(s): NORS 101-3 or permission of the instructor

NORS 312-3 Lands and Environments of the Circumpolar North 2 This course provides an in-depth understanding of the lands and environments that define the Circumpolar North, and its physical, biological and ecological processes.

Prerequisite(s): NORS 101-3; 60 credit hours or permission of the instructor
Preclusion(s): ENSC 308-3

NORS 321-3 Peoples and Cultures of the Circumpolar World 1 This course provides an introduction to the traditional and contemporary peoples and cultures of the Circumpolar North, with interdisciplinary exposure to anthropology, sociology, history, cultural studies, and literature.

Prerequisite(s): NORS 101-3 and 60 credit hours, or permission of the instructor
Preclusion(s): ANTH 305-3

NORS 322-3 Peoples and Cultures of the Circumpolar World 2 This is an interdisciplinary course looking at the relationships among primary, secondary and tertiary societies in the Circumpolar North, as well as cultural change, Indigenous peoples' movements and international/intercultural cooperation and communications.

Prerequisite(s): NORS 321-3 and upper-division standing
Preclusion(s): ANTH 404-3

NORS 331-3 Contemporary Issues of the Circumpolar North 1 This course is an introduction to the important structures and forces affecting the sustainability of circumpolar communities, including population trends, natural resource use and economic development.

Prerequisite(s): NORS 101-3 and 60 credit hours, or permission of the instructor
Preclusion(s): INTS 340-3

NORS 332-3 Contemporary Issues of the Circumpolar North 2 This course deals with questions relating to governance and politics, social issues, education and knowledge systems, and global issues in the Circumpolar North.

Prerequisite(s): NORS 101-3 and 60 credit hours, or permission of the instructor
Preclusion(s): POLS 315-3

NORS 498-3 Special Topics in Northern Studies This is a special topics course in northern studies as selected by an instructor.

Prerequisite(s): NORS 101-3 and upper-division standing

NORS 499-(3-6) Independent Research/Directed Reading in Northern Studies This course involves a concentration on a particular topic as agreed upon by a member of the faculty and a student.

Prerequisite(s): NORS 101-3 and upper-division standing

Natural Resources Management (NREM)

NREM 100-3 Field Skills This course introduces contemporary and traditional field skills in the natural resources including field navigation, outdoor survival, plant and tree identification, basic natural resource measurements, use of GPS, and air photo interpretation. Extensive fieldwork is required.

Prerequisite(s): None
Note: Applications for exemption from NREM 100-3 must be made within the first year of study in any program that requires NREM 100-3

NREM 101-3 Introduction to Natural Resources Management and Conservation This course introduces past, present and future issues in natural resources management and conservation. Guest speakers share their professional experiences working in various fields of natural resources management. Students learn to think critically about the multidisciplinary nature of resource management and they provide solutions to complex, real-world problems.

Prerequisite(s): None

NREM 110-3 Food, Agriculture, and Society In this course, students examine a range of choices, values, and uses associated with global and local food systems from social, economic, environmental, health, political and other perspectives. Students gain a broad understanding of how food and agriculture shape society and can contribute to a more sustainable future. Topics include global and local food systems with an emphasis on understanding the nature of current problems and exploring potential solutions.

Prerequisite(s): None

NREM 201-3 Land Policy in British Columbia Students are introduced to a range of land policies at all levels of government in British Columbia. Land policy guides why, who, and how we use land. Topics include major land uses such as human settlements, agriculture, forestry, mining, and recreation, and how these uses must be reconciled between statutory law and Indigenous rights and title to land.

Prerequisite(s): None
Preclusion(s): ENPL 201-3

NREM 203-3 Resource Inventories and Measurements This course introduces multiple resource inventories, designed to provide an understanding of how natural resources are sampled and quantified. Emphasis is placed on the measurement of forest attributes, and the analysis of forest resource data. Students learn how to make graphical and numerical summaries of their datasets and to generate descriptive statistics such as measures of central tendency and dispersion. This foundational course prepares students for future courses and careers in natural resource management, by providing them with a set of basic field skills and techniques. Field trips are required.

Prerequisite(s): NREM 100-3

NREM 204-3 Introduction to Wildlife and Fisheries Introduction to principles of habitat and population biology and management, and human dimensions of wildlife management. Lectures will introduce the life requisites of individual species and compare aquatic and terrestrial systems, and provide an overview of the characteristics needed to estimate parameters of fish and wildlife populations. Labs will emphasize quantification of fish and wildlife habitats.

Prerequisite(s): BIOL 102-4, or BIOL 104-3 and BIOL 124-1; NREM 100-3

NREM 209-3 The Practice of Conservation This course introduces the foundations of conservation thought and practice through environmental and social sciences and humanities. It examines the various actors involved in conservation, approaches to conservation, and ways of acting for conservation. Students develop skills in conservation practice including informing policy, conducting citizen science, and active restoration activities. Students learn diverse scientific approaches, and reflect on multiple social critiques of the movement, and come to understand political counter arguments and the ways in which they might respond as scholars, citizens and advocates.

Prerequisite(s): None

NREM 225-3 Global Environmental Change: Sustainability This course provides both social and natural science students with a common vocabulary and trans-disciplinary understanding of the environmental changes that we are currently facing from local and global scales. We take this enhanced holistic understanding of the problems and, together, discover and propose new ways for humans to live more sustainably on the planet.

Prerequisite(s): None
Preclusion(s): INTS 225-3 and ENVS 225-3

NREM 303-3 Aboriginal Perspectives on Land and Resource Management This course examines Aboriginal cultural perspectives and operational approaches to land and resource management, including existing and emerging realities about Aboriginal rights, title and consultation.

Prerequisite(s): 60 credit hours

NREM 306-3 Society, Policy and Administration This course addresses social views of natural resources and the management processes by which these views and policies are developed and expressed. Social conflict and its resolution over natural resource policies are also discussed.

Prerequisite(s): Upper-division standing
Preclusion(s): POLS 334-3 and POLS 344-3

NREM 333-3 Field Applications in Resource Management This field-based course provides students with a practical understanding of principles of integrated resource management. The course focuses on the many values on a landbase through modularized lessons and an authentic case study approach. Meeting with various stakeholders and professionals working in the field allows students to explore relevant and contemporary issues in natural resource management.

Prerequisite(s): Permission of the instructor

NREM 400-4 Natural Resources Planning This course focuses on the development and application of planning frameworks, government policy, and legislation from the perspective of natural resources management in British Columbia and Canada. Students are exposed to contemporary approaches for natural resources planning, the history and current application of policy and legislation in British Columbia, and a variety of tools for engaging the public and stakeholders.

Prerequisite(s): 90 credit hours or permission of the instructor

NREM 409-3 Conservation Planning Conservation planning is concerned with the theory and techniques to improve the scientific basis of conservation decisions and the cost-effectiveness of conservation and management actions. Students learn to apply the basic tools of conservation planning to real and complex conservation problems, including systematic conservation planning, multi-criteria decision analysis, and risk assessment.

Prerequisite(s): BIOL 201-3 or NREM 209-3

NREM 410-3 Watershed Management Principles and practices of forest management for protection, maintenance and improvement of water resource values. Effects of land management on quality, quantity and timing of water flow. Field trips required.

Prerequisite(s): GEOG 210-3

NREM 413-3 Agroforestry This course introduces students to agroforestry concepts, strategies and practices (systems). Discussions include ecological, economic, and social circumstances under which a landowner lives and makes decisions about whether or not to practice agroforestry. Both temperate and tropical approaches to agroforestry systems are addressed in the course. Special attention is given to agroforestry research and development in British Columbia.

Prerequisite(s): Upper-division standing
Preclusion(s): NREM 613-3

Natural Resources and Environmental Studies (NRES)

NRES 100-3 Communications in Natural Resources and Environmental Studies This course will provide a basic understanding of human behavioural responses as well as develop learning skills in oral and written communications. Emphasis will be on determining the nature of an audience, accessing appropriate material, report writing, oral presentation and literature relevant to natural resources and environmental disciplines.

Prerequisite(s): None

NRES 421-1 Professional Writing This course provides a structured environment in which students learn and apply skills in professional report writing. Topics include development of a research question or problem statement, accessing and properly citing information and references, synthesis and organization of information, report structure and formatting.

Prerequisite(s): At least 90 credit hours or permission of the instructor

NRES 422-2 Undergraduate Report This course enables students to develop a professional report under the supervision of a faculty member. Students work independently, but are provided guidance on a one-on-one basis by the faculty member. The professional report requires definition of a problem statement or research question, and synthesis and integration of information from a multitude of sources.

Prerequisite(s): NRES 421-1 and permission of Faculty Supervisor and Program Chair

NRES 430-6 Undergraduate Thesis An undergraduate thesis offers students substantial research experience, which may be helpful for proceeding to postgraduate studies. The course requirements include conducting supervised research, writing a thesis, and presenting the results orally. Students taking this course would normally be majoring in Biology, Environmental and Sustainability Studies, Forest Ecology and Management, Conservation Science and Practice, Wildlife and Fisheries, or Nature-Based Tourism Management. NRES 430 is normally taken over two semesters and requires that a student find an Undergraduate Thesis research supervisor. Students are encouraged to apply to potential supervisors well in advance of completing 90 credit hours.

Prerequisite(s): 90 credit hours and permission of an Academic Supervisor and a Program Chair

NRES 498-(3-6) Special Topics in Natural Resources and Environmental Studies This course covers selected topics related to Natural Resources and Environmental Studies. This course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Nursing (NRSG)

NRSG 300-4 Fundamentals of Nursing This course introduces students to the registered nursing profession and the fundamentals of nursing practice. Students engage with the professional and practice standards, gain basic knowledge of the Canadian health care system, and learn to utilize the nursing process. Foundational concepts and principles for safe patient care, therapeutic communication, documentation, and basic psychomotor skills are incorporated through individual and group learning and laboratory practice.

Major Restriction: Restricted to students in the NBNP

NRSG 301-3 Health Assessment This course provides students with theory and hands-on laboratory practice required to engage in comprehensive health assessment of diverse populations across the lifespan. Students practice history-taking and assessment that combine knowledge of systems-based physiological concepts, and psychosocial and cultural factors affecting health. Case-based approaches provide opportunities for informed clinical decision-making. Awareness of cultural safety and trauma-informed practice are introduced.

Major Restriction: Restricted to students in the NBNP

NRSG 302-3 Pathophysiological Concepts This course builds on students' knowledge of anatomy and physiology, using a conceptual approach to the examination of pathological mechanisms that affect human health by altering functioning and homeostasis. Topics include the etiology and sequelae of these alterations across the lifespan. Selected exemplars are studied.

Major Restriction: Restricted to students in the NBNP

NRSG 303-3 Pharmacology This course introduces students to evidence-based principles of pharmacology including drug classification, pharmacodynamics and pharmacokinetics, and safe medication administration. In addition, opportunity is provided for students to explore complementary healing techniques that meet patients' needs by using a variety of approaches.

Major Restriction: Restricted to students in the NBNP

NRSG 304-3 Ethics and Law for Nursing Practice This course examines ethical reasoning, ethical theory, nursing codes of ethics and personal values as they apply to nursing practice situations and decisions. Health care law and the ways in which it informs and shapes the scope and standards of nursing practice are explored.

Major Restriction: Restricted to students in the NBNP

NRSG 305-3 Concepts for Evidence-Informed Nursing This course introduces students to the development of nursing knowledge and the mobilization of evidence for nursing practice. An empirical approach to knowledge and theory development is taken through a review of research methodologies and the appraisal of evidence. Students are also introduced to the philosophical paradigms that underpin the science and art of nursing.

Major Restriction: Restricted to students in the NBNP

NRSG 310-3 Introduction to Nursing Practice In this course, students examine principles and practices of caring for adults and older adults with stable health issues in a variety of settings. Building on nursing fundamentals, health assessment, pathophysiology and pharmacology, students will have the opportunity to integrate theory and skills required for the provision of safe clinical nursing care. This course is graded on a PASS/FAIL basis.

Pre- or Corequisite(s): NRSG 300-4, NRSG 301-3, NRSG 302-3 and NRSG 303-3
Major Restriction: Restricted to students in the NBNP

NRSG 311-7 Medical and Surgical Nursing Practice 1 This course offers theoretical, laboratory and clinical practice learning with a focus on medical and surgical nursing of adults and older adults. The course builds on previously introduced principles and concepts and provides students with opportunities to engage in clinical decision-making and therapeutic interventions with patients exhibiting complex and/or less stable health issues.

Prerequisite(s): NRSG 310-3
Pre- or Corequisite(s): NRSG 300-4, NRSG 301-3, NRSG 302-3, NRSG 303-3 and NRSG 304-3
Major Restriction: Restricted to students in the NBNP

NRSG 400-3 Nursing Leadership for Quality Care This course introduces students to the RN leadership role at multiple levels and in various contexts within the health care system. Concepts of organizational structure and culture, leadership style, power dynamics, and change agency and processes are introduced with a focus on action for equity and quality improvement in health care.

Prerequisite(s): NRSG 300-4, NRSG 301-3, NRSG 302-3, NRSG 303-3, NRSG 304-3, NRSG 305-3, NRSG 310-3 and NRSG 311-7
Major Restriction: Restricted to students in the NBNP

NRSG 410-7 Professional Practice: Mental Health This course focuses on the knowledge and skills needed to care for individuals experiencing common mental health issues and substance use disorders. Theoretical and clinical approaches draw on concepts related to holistic and relational practice including cultural safety, trauma-informed practice and advanced therapeutic communication. Use of exemplars and case-based learning prepare students to interact with and care for patients in acute, community, and primary care settings.

Prerequisite(s): NRSG 304-3 and NRSG 311-7
Major Restriction: Restricted to students in the Northern Baccalaureate Nursing Program (NBNP)

NRSG 411-7 Professional Practice: Community Health Nursing This course introduces and reinforces key concepts of community health nursing with a focus on primary health care, the social determinants of health, and epidemiology of rural and northern populations. Students explore various community nursing roles with individuals, families and communities, including the RN role in integrated primary care teams. Opportunities are provided to engage in community-focused approaches to health promotion, disease and disability prevention, and support of those living with chronic conditions.

Prerequisite(s): NRSG 304-3 and NRSG 311-7
Major Restriction: Restricted to students in the NBNP

NRSG 412-7 Professional Practice: Perinatal Health and Care of the Childbearing Family This course takes a strengths-based, family-centered approach to the care of the birthing person and childbearing families. Topics include normal pregnancy, birth, and child development, as well as selected common and high-risk conditions and illnesses encountered in childbearing and pediatric populations. Students integrate and extend previous learning in clinical practice experiences with families in both acute and community settings.

Prerequisite(s): NRSG 304-3 and NRSG 311-7
Major Restriction: Restricted to students in the NBNP

NRSG 415-7 Medical and Surgical Nursing Practice 2 This course consolidates previous learning by focusing on the care of adults and older adults with high acuity conditions and complex health issues. Students have opportunities to extend their clinical reasoning, decision-making, and co-ordination of patient care within an interdisciplinary acute care environment.

Prerequisite(s): NRSG 300-4, NRSG 301-3, NRSG 302-3, NRSG 303-3, NRSG 304-3, NRSG 305-3, NRSG 310-3, and NRSG 311-7
Pre- or Corequisite(s): NRSG 410-7, NRSG 411-7, NRSG 412-7
Major Restriction: Restricted to students in the NBNP

NRSG 420-8 Community Health Nursing This course provides the opportunity for students to increase their understanding of the theories, roles and practices required for community health nursing in evolving primary health care systems in northern and rural settings. Emphasis is placed on a population- and community-focused approach to nursing care, including the promotion of health and prevention of disease and disability. An extended clinical practicum emphasizes the nurse as a partner within the community. Students contribute to services and programs by integrating theory, evidence and practice.

Prerequisite(s): NRSG 410-7, NRSG 411-7, NRSG 412-7, and NRSG 415-7
Preclusion(s): NURS 420-(6-8)
Major Restriction: Restricted to students in the NBNP

NRSG 421-8 Rural Health and Nursing This course focuses on rural health and nursing. It provides students with the opportunity to increase their knowledge and skills, and to extend their ability to conduct comprehensive health assessments with diverse client populations across the lifespan. Students learn to safely utilize the NNPBC Decision Support Tools for RN First Call practice. Students learn to identify health concerns and risks, taking into account culture, ethnicity and health beliefs to make informed clinical judgements. This course features a skills-building laboratory/workshop and a clinical practicum in a rural acute care or primary health care facility. Upon successful completion, students may apply for BCCNM RN First Call Practice Certification.

Prerequisite(s): NRSG 410-7, NRSG 411-7, NRSG 412-7, and NRSG 415-7
Preclusion(s): NURS 451-3, NURS 458-6, NURS 461-(6, 8)
Major Restriction: Restricted to students in the NBNP

NRSG 422-8 Indigenous Health and Nursing This course focuses on theories, roles and practices required by nurses in Indigenous communities. Topics include: the theoretical and practical exploration of the impact of colonization on health; effects of rapid cultural change; nursing management of specific health issues; culturally sensitive approaches to nursing care; the health transfer process; and special topics related to health. In the extended clinical practicum, students integrate theory and evidence to contribute to services and programs in Indigenous communities or agencies that primarily serve Indigenous clients.

Prerequisite(s): NRSG 410-7, NRSG 411-7, NRSG 412-7, and NRSG 415-7
Preclusion(s): NURS 422-(6, 8), NURS 457-3
Major Restriction: Restricted to students in the NBNP

NRSG 423-8 Nursing Practice in Mental Health and Substance Use This course focuses on nursing practice related to mental health and substance use and the integration and application of relevant theoretical and clinical knowledge. In a rural and northern context, nursing care incorporating holistic patient assessment, cultural safety and humility, trauma-informed practice, advanced therapeutic communication and therapeutic use of psychotropic drugs are emphasized. Utilizing both seminars and clinical practice, students apply theoretical understandings and evidence to practice, considering various clinical settings. The NCBNP requires the 8-credit-hour course. Post-Diploma BScN requires the 6-credit-hour course.

Prerequisite(s): NRSG 410-7, NRSG 411-7, NRSG 412-7, and NRSG 415-7
Preclusion(s): NURS 432-(6, 8)
Major Restriction: Restricted to students in the Northern Baccalaureate Nursing Program (NBNP)

NRSG 424-8 Acute Care Nursing This course examines the knowledge, skills and attitudes required to provide holistic, person-centred care in the acute setting and explores the concepts and practices of acute care nursing with various patient populations. Students consolidate and extend their knowledge and clinical ability in the acute care setting. Problem solving, complex patient situations and expanding the professional role of the nurse are central themes of the course.

Prerequisite(s): NRSG 410-7, NRSG 411-7, NRSG 412-7, and NRSG 415-7
Preclusion(s): NURS 426-(6, 8)
Major Restriction: Restricted to students in the NBNP

NRSG 425-8 Pediatric Nursing This course examines the theory and practice of neonatal and/or pediatric nursing in detail, with particular attention to rural and northern nursing practice. Consideration is given to ethical issues, culture, and the impact of social determinants of health on child health and development and long-term outcomes. The practicum addresses and consolidates theoretical concepts and evidence-based practice approaches relevant to pediatric nursing in hospital, community, and mental health care contexts.

Prerequisite(s): NRSG 410-7, NRSG 411-7, NRSG 412-7, and NRSG 415-7
Preclusion(s): NURS 435-(6, 8)
Major Restriction: Restricted to students in the NBNP

NRSG 497-8 Specialty Focus in Nursing This course comprises both theory and clinical practicum experience in a particular specialty area of nursing practice. The specialty area varies depending on the students' interests and the opportunities available.

Prerequisite(s): NRSG 410-7, NRSG 411-7, NRSG 412-7, and NRSG 415-7, or permission of the Chair
Preclusion(s): NURS 497-(6, 8)
Major Restriction: Restricted to students in the NBNP

Nursing (NURS)

NURS 101-3 The Art and Science of Nursing This course introduces the student to the dimensions of professional nursing practice. Through group and individual learning activities, students are introduced to professional nursing practice and concepts, issues and trends in both nursing and the Canadian health care system. Students are introduced to foundational nursing skills in the laboratory and are provided the opportunity to apply these skills in the clinical setting with adults.

Major Restriction: Restricted to students in the NCBNP

NURS 102-3 Communication Theory and Practice This course provides a foundation for therapeutic communication in nursing practice. Communication skills are fundamental in any relationship to facilitate the health and well-being of clients. Students have the opportunity to increase self-awareness and explore perceptions, attitudes, and values via a variety of communication methods applied to multicultural and multi-generational cohorts. Students are given the opportunity to practice foundational communication skills in the laboratory setting.

Major Restriction: Restricted to students in the NCBNP

NURS 201-4 Introduction to Health Assessment This course provides the basis to gather a health history and to assess the functioning of individuals through the proper use of physical examination techniques. Psychosocial and cultural assessment is included. The emphasis is on recognition and identification of normal findings.

Prerequisite(s): all 100 level nursing courses; HHSC 111-4 and HHSC 112-4, or BIO 111-3 and BIO 112-3 at CNC, or BIOL 131-3 and BIOL 132-3 at CMTN, or equivalent
Major Restriction: Restricted to students in the NCBNP

NURS 202-3 Pathophysiological Concepts This course uses a conceptual approach to examine pathological mechanisms of altered states in human physiology. Topics include the etiology, cellular metabolism, tissue alterations, functional changes, and age-related differences involved in each process.

Prerequisite(s): HHSC 110-3 and HHSC 111-4 and HHSC 112-4; or BIO 105-3 and BIO 111-3 and BIO 112-3 at CNC; or BIOL 131-3 and BIOL 132-3 and BIOL 133-3 at CMTN; or equivalent
Major Restriction: Restricted to students in the NCBNP

NURS 203-3 Health Promotion in Families This course introduces theory related to families across the lifespan within the context of primary health care in the North. Emphasis is on family assessment skills and working in partnership with families in the development of health promotion and illness and injury prevention strategies. Holistic care of families during transitions such as normal childbearing, child rearing, and caring for an elderly parent is included.

Pre- or Corequisite(s): NURS 101-3, NURS 102-3
Major Restriction: Restricted to students in the NCBNP

NURS 204-3 Healing Modalities This course provides an overview of healing modalities currently used by nurses and other experts in practice in British Columbia. Principles of pharmacology and pharmacodynamics are addressed. Opportunity is provided for students to explore various complementary healing techniques.

Pre- or Corequisite(s): HHSC 111-4 and HHSC 112-4, or BIO 111-3 and BIO 112-3 at CNC, or BIOL 131-3 and BIOL 132-3 at CMTN, or equivalent
Major Restriction: Restricted to students in the NCBNP

NURS 205-3 Introduction to First Nations Health This course provides an overview of First Nations health, factors influencing health status, and issues arising from northern and remote living. Historical events and their impact on health are introduced. Current barriers to health, along with culturally sensitive nursing implications, are explored.

Pre- or Corequisite(s): ANTH 213-3, or ANTH 101-3 at CNC, or ANTH 102-3 at CMTN, or equivalent. Admission for non-nursing students by permission of the instructor

NURS 206-3 Basic Nutrition This course examines the nutritional needs of specific client groups throughout the lifespan and in various states of wellness and illness. The course reviews the physiology of carbohydrate, fat, protein, and energy metabolism. Topics include enteral and parenteral nutrition, trends and issues in nutritional practice, and the psychosocial and cultural aspects of food and eating behaviours.

Major Restriction: Restricted to students in the NCBNP

NURS 215-8 Nursing Care of the Adult This course examines principles and practices of nursing adults with health problems. The focus is on the acquisition and application of knowledge in planning, implementing and evaluating the nursing care of clients requiring medical and surgical intervention. Holistic health care of individuals is highlighted. The course includes laboratory instruction in psychomotor skills. The clinical practicum enables the student to integrate theory and skills needed to provide nursing care.

Prerequisite(s): NURS 101-3, NURS 102-3; HHSC 110-3, HHSC 111-4, and HHSC 112-4, or BIO 111-3 and BIO 112-3 and BIO 105-3 at CNC, or BIOL 131-3, BIOL 132-3, and BIOL 133-3 at CMTN, or equivalent
Corequisite(s): NURS 201-4, NURS 202-3
Major Restriction: Restricted to students in the NCBNP

NURS 220-5 Extended Clinical Practicum I This practicum provides the opportunity for consolidated clinical nursing practice with adults who have health problems. This course builds on previous clinical practice with the adult and occurs in various settings in northern British Columbia. This course is graded on a PASS/FAIL basis.

Prerequisite(s): All required 100 and 200 level NURS and HHSC courses (or equivalent) in the NCBNP
Major Restriction: Restricted to students in the NCBNP

NURS 304-3 Introduction to Nursing Knowledge This course provides an overview of the types of knowledge or theory in the profession, and how such knowledge is developed. It encourages a critical analysis of trends in knowledge development and highlights the crucial relationship of knowledge to practice.

Prerequisite(s): NURS 220-5 or permission of the Chair

NURS 306-3 Introduction to Epidemiology This course applies epidemiological principles in the examination of patterns of disease and disability among populations, particularly those in northern latitudes. It introduces students to the interpretation of vital statistics, the critique of cross-sectional, case-control and cohort design, and the principles of screening.

Prerequisite(s): NURS 220-5 or permission of the Chair
Preclusion(s): HHSC 350-3, HHSC 401-3

NURS 308-3 Ethics and Law in Nursing This course examines ethical reasoning and the use of ethical theory in nursing practice decisions, as well as health care law as it relates to nursing practice. Special focus is placed on the meaning and use of relevant legislation and case law, professional standards of practice, and the Canadian nursing code of ethics.

Prerequisite(s): NURS 220-5, or permission of the Chair

NURS 317-5 Nursing Theory and Practice: Maternity This course takes a women- and family-centred, strengths-based approach to caring for individuals and families of diverse and multicultural backgrounds in the childbearing experience. Emphasis is placed on the integration and application of evidence-based theory, standards for nursing practice, effective communication, critical thinking and use of the nursing process to optimally prepare nurses as caregivers and collaborators with childbearing women, neonates, families, and the health care team. Students must be registered in NURS 328-(1, 2) in order to participate in a Year 3 combined theory and practice course.

Prerequisite(s): NURS 220-5 or permission of the Chair
Preclusion(s): NURS 321-2.5

NURS 318-5 Nursing Theory and Practice: Pediatrics This course emphasizes the health of infants, children, and their families, with a focus on health promotion, risk reduction, disease prevention and common health problems with particular attention to northern populations and First Nations. Information and clinical practice relating to acute and chronic conditions and medical/surgical interventions are included. Clinical experiences occur in acute pediatric and selected community settings, providing opportunities to apply pediatric nursing knowledge. Students must be registered in NURS 328-(1, 2) in order to participate in a Year 3 combined theory and practice course.

Prerequisite(s): NURS 220-5 or permission of the Chair
Preclusion(s): NURS 322-2.5

NURS 323-5 Nursing Theory and Practice: Older Adult This course focuses on health-promoting, person-centred nursing practice with older persons in rural communities. Assessment focuses on the physical and mental health of older persons within the context of their everyday experience and their families and/or cultures. Students have an opportunity to extend knowledge, skills and the application of therapeutic approaches with this population in the community and clinical settings. Students must be registered in NURS 328-(1, 2) in order to participate in a Year 3 combined theory and practice course.

Prerequisite(s): NURS 220-5 or permission of the Chair
Preclusion(s): NURS 313-3, NURS 316-2.5, NURS 453-3

NURS 326-5 Nursing Theory and Practice: Mental Health This course provides knowledge and skills required to care for people living with common mental health and addiction issues encountered in rural nursing practice. A holistic, relational nursing focus allows students to apply concepts to a variety of health challenges and to intervene appropriately. Students have an opportunity to further develop mental health nursing knowledge and skills in the clinical setting. Students must be registered in NURS 328-(1, 2) in order to participate in a Year 3 combined theory and practice course.

Prerequisite(s): NURS 220-5 or permission of the Chair
Preclusion(s): NURS 312-3, NURS 315-2.5, NURS 456-3

NURS 328-(1, 2) Nursing Laboratory This course provides instruction and practice in the psychomotor and critical thinking skills necessary to provide safe and effective nursing care in the clinical environment. Through case-based scenarios, simulation, short assignments, quizzes, videos and hands-on practice, students engage with and apply new knowledge and skills that build on learning from Years 1 and 2 of the curriculum. Students must successfully complete 2 credit hours of NURS 328-(1, 2), either as two 1-credit hour courses or one 2-credit hour course (minimum 36 hours of structured laboratory practice), no more than eight months prior to undertaking the NURS 329-1 Year 3 Objective Structured Clinical Examination. This course is graded on a PASS/FAIL basis.

Prerequisite(s): NURS 220-5. Students must successfully complete the September semester of NURS 328-1 before progressing to the January semester of NURS 328-1 and subsequent Year 3 combined theory and practice courses.

NURS 329-1 Year 3 Objective Structured Clinical Examination This course requires students to successfully complete a number of Objective Structured Clinical Examination (OSCE) scenarios as a prerequisite to commencing NURS 330-4 Extended Clinical Practicum II. An OSCE measures whether specific practice performance expectations are met, and evaluates students' clinical judgement and integration of theory and practice in standardized situations of simulated patient care. Students must successfully complete 2 credit hours of NURS 328-(1, 2), either as two 1-credit hour courses or one 2-credit hour course (minimum 36 hours of structured laboratory practice), no more than eight months prior to undertaking the NURS 329-1 Year 3 Objective Structured Clinical Examination. This course is graded on a PASS/FAIL basis.

Prerequisite(s): All required 300-level Nursing courses in the NCBNP

NURS 330-4 Extended Clinical Practicum II This course provides the opportunity for consolidated clinical nursing practice with clients who have multiple health care needs. Previous clinical practice experience is considered when determining placement. The practicum occurs in various health care settings in northern British Columbia. Students must successfully complete NURS 328-(1, 2) (2 credit hours) and NURS 329-1 no more than eight months prior to undertaking NURS 330-4. This course is graded on a PASS/FAIL basis.

Prerequisite(s): NURS 329-1
Preclusion(s): NURS 320-5

NURS 393-3 Introduction to Oncology This course aims to provide learners with an introduction to oncology, ensuring they become familiar with the needs of cancer patients across diverse healthcare settings. Topics include cancer biology and pathophysiology, treatment modalities, safe handling of hazardous materials, symptom and side effect management, cancer survivorship, and end-of-life care. Students gain an appreciation of the role of different healthcare professions, particularly nursing, in optimizing clinical care, supporting patient decision-making, and improving patient outcomes.

Prerequisite(s): NURS 220-5 or permission of instructor

NURS 403-3 Introduction to Nursing Research This course covers the empirical approach to the development of nursing knowledge and reviews aspects of quantitative and qualitative methods.

Prerequisite(s): NURS 304-3, STAT 240-3 or ECON 205-3, or permission of the Chair

NURS 408-3 Nursing Leadership This course discusses nursing as a profession within the health care delivery system. Theory regarding organizational structure, leadership, change, power, accountability and decision-making processes is included and is related to a specific clinical setting.

Prerequisite(s): NURS 330-4, or permission of the Chair

NURS 412-3 Women and Health This course examines women's health issues from a holistic perspective through a feminist lens, with emphasis on social determinants of health. Students use health research evidence and sources from social sciences and humanities to explore women's health experiences as well as specific health concerns across the lifespan.

Prerequisite(s): NURS 220-5, or permission of the Chair
Preclusion(s): NURS 612-3

NURS 415-3 Introduction to Community Health and Nursing This course provides an introduction to the concepts of community and nursing in the community and builds upon previous experiences in community health nursing practice. Nursing theory and practice of working with individuals, families, and population groups in health and in illness are addressed. The trend to more community care in British Columbia is explored.

Prerequisite(s): NURS 304-3 and NURS 306-3, or permission of the Chair
Preclusion(s): NURS 418-7

NURS 418-7 Introduction to Community Health and Nursing This course provides an introduction to the concepts of community, primary health care, and nursing in the community and builds upon previous experiences in community health nursing practice. The theory and practice of working as a nurse in the community with individuals, families, and population groups are addressed through the integration and application of community nursing and primary health care theory in nursing practice in northern communities.

Prerequisite(s): NURS 330-4, or permission of the Chair
Preclusion(s): NURS 415-3, NURS 416-4

NURS 420-(6, 8) Community Health Nursing This course provides the opportunity for students to increase their understanding of the theories, roles and practices required for community health nursing in evolving primary health care systems in northern and rural settings. Emphasis is placed on a population- and community-focused approach to nursing care, including the promotion of health and prevention of disease and disability. An extended clinical practicum emphasizes the nurse as a partner within the community. Students contribute to services and programs by integrating theory, evidence and practice. The NCBNP requires the 8-credit hour course.

Prerequisite(s): NURS 418-7, or permission of the Chair for 8-credit hour course
Preclusion(s): NRSG 420-8, NURS 440-(3, 5, 8)

NURS 422-(6, 8) Indigenous Health and Nursing This course focuses on theories, roles and practices required by nurses in Indigenous communities. Topics include: the theoretical and practical exploration of the impact of colonization on health; effects of rapid cultural change; nursing management of specific health issues; culturally sensitive approaches to nursing care; the health transfer process; and special topics related to health. In the extended clinical practicum, students integrate theory and evidence to contribute to services and programs in Indigenous communities or agencies that primarily serve Indigenous clients. The NCBNP requires the 8-credit hour course.

Prerequisite(s): NURS 418-7, or permission of the Chair for 8-credit hour course
Preclusion(s): NRSG 422-8, NURS 441-(3, 5, 8), NURS 457-3

NURS 426-(6, 8) Acute Care Nursing This course examines the knowledge, skills and attitudes required to provide holistic, person-centred care in the acute setting and explores the concepts and practices of acute care nursing with various patient populations. Students consolidate and extend their knowledge and clinical ability in the acute care setting. Problem solving, complex patient situations and expanding the professional role of the nurse are central themes of the course. The NCBNP requires the 8-credit hour course.

Prerequisite(s): NURS 330-4, or permission of the Chair for 8-credit hour course
Preclusion(s): NRSG 424-8, NURS 443-(3, 5, 8)

NURS 432-(6, 8) Nursing Practice in Mental Health and Substance Use This course focuses on nursing practice related to mental health and substance use and the integration and application of relevant theoretical and clinical knowledge. In a rural and northern context, nursing care incorporating holistic patient assessment, cultural safety and humility, trauma-informed practice, advanced therapeutic communication and therapeutic use of psychotropic drugs are emphasized. Utilizing both seminars and clinical practice, students apply theoretical understandings and evidence to practice, considering various clinical settings. The NCBNP requires the 8-credit hour course.

Prerequisite(s): NURS 330-4, or permission of the Chair for 8-credit-hour course
Preclusion(s): NRSG 423-8, NURS 444-(3, 5, 8)
Major Restriction(s): Post-Diploma BScN students or permission of the Chair for 6-credit-hour course

NURS 435-(6, 8) Pediatric Nursing This course examines the theory and practice of neonatal and/or pediatric nursing in detail, with particular attention to rural and northern nursing practice. Consideration is given to ethical issues, culture, and the impact of social determinants of health on child health and development and long-term outcomes. The practicum addresses and consolidates theoretical concepts and evidence-based practice approaches relevant to pediatric nursing in hospital, community, and mental health care contexts. The NCBNP requires the 8-credit hour course.

Prerequisite(s): NURS 330-4, or permission of the Chair for 8-credit hour course
Preclusion(s): NRSG 425-8, NURS 434-3, NURS 445-(3, 5, 8)

NURS 451-3 Health Assessment and RN First Call This course provides students with the knowledge and skills needed to extend their ability to conduct a thorough health assessment for diverse client populations throughout the lifespan. It prepares students to safely utilize the NNPBC Decision Support Tools for RN First Call practice. Students conduct age-appropriate comprehensive health histories and physical examinations, identify health concerns and risks, taking into account culture, ethnicity and health beliefs, and make informed clinical judgements. This course features one or more mandatory extended skills-building laboratory/workshop sessions. Upon successful completion students may apply for BCCNM RN First Call Practice Certification.

Preclusion(s): NRSG 421-8, NURS 458-6, NURS 461-8
Major Restriction: Rural Nursing Certificate Program or permission of the Chair

NURS 453-3 Nursing Practice with Older Persons This course focuses on health-promoting, person-centred practice for nurses working with older persons in rural communities. Assessment focuses on the physical and mental health of older persons within the context of their everyday experience and their families and/or cultures. Particular attention is paid to the strengths of the individual as well as the presenting health challenges. Nurses explore strategies to prevent and/or address common health issues experienced by older persons.

Preclusion(s): NURS 323-(5, 5.5)
Major Restriction: Rural Nursing Certificate Program or permission of the Chair

NURS 454-(6, 8) Perinatal Care This course spans the antenatal, intrapartum and post-partum continuum focusing on the perinatal skills and competencies required for nurses to support women and their families through low-risk, normal pregnancies. Students learn to recognize and take action in abnormal situations and make sound, informed clinical judgements in emergency situations in rural settings. This course involves a workshop and practicum, which are both mandatory. Prior to the practicum, RNCP students must provide proof of certification in the Neonatal Resuscitation Program (NRP) and the Fetal Health Surveillance course (FHS). The NCBNP requires the 8-credit hour course. RNCP students complete the 6-credit hour course.

Prerequisite(s): NURS 330-4, or permission of the Chair for 8-credit hour course
Preclusion(s): NURS 434-3, NURS 445-(3, 5, 8)
Major Restriction: Rural Nursing Certificate Program, or permission of the Chair, for 6-credit hour course

NURS 455-(6, 8) Foundations in Emergency and Trauma Nursing This course provides students with evidence-informed knowledge and skills to identify clients with critical conditions and to intervene effectively in situations of adult, geriatric, and pediatric emergency and trauma encountered in rural practice. The course includes a mandatory lab experience and practicum. Prior to the practicum, RNCP students must provide proof of successful completion of the Canadian Triage and Acuity Scale (CTAS) within 24 months prior to the practicum commencing. The RNCP requires the 6-credit hour course. The NCBNP requires the 8-credit hour course.

Prerequisite(s): For the 6-credit hour course, a minimum of one full-time year of acute care practice within the past five years for RNCP students. For the 8-credit hour course, NURS 330-4, or permission of the Chair
Recommendation(s): NURS 451-3
Major Restriction: Rural Nursing Certificate Program or permission of the Chair for the 6-credit hour course

NURS 456-3 Mental Health and Addictions This course provides knowledge and skills required to care for people living with common mental health and addiction issues encountered in rural nursing practice. A holistic relational nursing focus allows students to apply concepts to a variety of health challenges and to intervene appropriately. Nursing approaches to clinical decision-making with clients who have specific mental health problems such as psychotic, mood, anxiety and personality disorders are highlighted. Nursing practice approaches to addictions, substance use, and crisis intervention, including aggression and suicide attempts, are addressed.

Preclusion(s): NURS 326-(5, 5.5)
Major Restriction: Rural Nursing Certificate Program or permission of the Chair

NURS 457-3 Living and Working in a Rural Community This course enables students to gain an understanding and appreciation of the unique challenges facing nurses who live and work in rural communities. Confidentiality, anonymity, cultural safety, inter-professional relationships, population health, and maintaining competence are addressed. Students gain greater knowledge and sensitivity in the provision of ethical and effective health care for First Nations populations.

Prerequisite(s): NURS 330-4, or Rural Nursing Certificate Program, or permission of the Chair
Preclusion(s): NRSG 422-8, NURS 422-(6, 8)

NURS 458-6 Remote Nursing Certified Practice This course focuses on Remote Nursing Certified Practice competencies. Topics include history and physical assessment, advanced clinical reasoning, informed judgement and pharmacotherapeutics for the management of specified common and predictable health conditions, and dispensary management and medication dispensing functions. Content and course evaluation are based on a body-systems approach and incorporate the NNPBC Decision Support Tools for Remote Nursing Certified Practice. A mandatory extended workshop focusing on nursing practice in remote communities is included. Upon successful completion, students may apply for Remote Nursing Practice Certification through BCCNM.

Preclusion(s): NRSG 421-8, NURS 451-3, NURS 459-3, NURS 461-8, NURS 498-3 when offered as Remote Nursing Clinical Reasoning
Major Restriction: Restricted to the Rural Nursing Certificate Program, and by permission of the Chair

NURS 459-3 Remote Nursing Clinical Reasoning This course expands on the knowledge and skills obtained from NURS 451-3 and prepares students to safely utilize the NNPBC Decision Support Tools for RN Remote Certified Practice. Students conduct developmentally appropriate comprehensive health histories and physical examinations, identify health concerns and risks, and make informed clinical judgements. Topics include history and physical assessment, advanced clinical reasoning, informed judgement, and pharmacotherapeutics for the management of specified common and predictable health conditions.

Prerequisite(s): Completed within 36 months with a grade of B+ or better: NRSG 421-8 or NURS 451-3 or NURS 461-8
Preclusion(s): NURS 458-6, NURS 498-3 when offered as Remote Nursing Clinical Reasoning
Major Restriction: Restricted to the Rural Nursing Certificate Program, or by permission of the Chair

NURS 460-3 Health, Justice, and the Environment This course explores the health impacts of pressing ecological crises including pollution, climate change, and biodiversity loss, and the equity dimensions of these crises. A systems-thinking approach is taken to explore both social and ecological determinants of health. The equity focus considers environmental racism in northern British Columbia and the need to develop environmental and climate health justice praxis in Canadian nursing and health professions. Students gain an appreciation of the complexity of wicked problems in the context of health, justice, and the environment in Canada.

Prerequisite(s): NURS 220-5 or permission of the instructor
Preclusion(s): NURS 660-3

NURS 461-8 Rural Health and Nursing This course focuses on rural health and nursing. It provides students with the opportunity to increase their knowledge and skills, and to extend their ability to conduct comprehensive health assessments with diverse client populations across the lifespan. Students learn to safely utilize the NNPBC Decision Support Tools for RN First Call practice. Students learn to identify health concerns and risks, taking into account culture, ethnicity and health beliefs to make informed clinical judgements. This course features a skills-building laboratory/workshop and a clinical practicum in a rural acute care or primary health care facility. Upon successful completion, students may apply for BCCNM RN First Call Practice Certification.

Prerequisite(s): NURS 330-4, or permission of the Chair
Preclusion(s): NRSG 421-8, NURS 442-(3, 5, 8), NURS 451-3, NURS 458-6

NURS 462-3 Chronic Disease Management and Wound Care This course focuses on management and care of people with chronic disease and/or multimorbidity in rural community settings. Learners use evidence-based principles to care for people with chronic disease through relational, team-based, and shared decision-making approaches. Strategies that support patient and family-centred care and effective self-management are emphasized. Three weeks of this course are dedicated to learning how to assess and manage wounds for people at home in rural settings.

Prerequisite(s): NURS 330-4, or Rural Nursing Certificate Program, or permission of the Chair
Preclusion(s): NURS 452-6, NURS 652-3

NURS 463-3 Palliative Care This course equips students with knowledge and skills to provide palliative nursing care for people living in rural communities. Students are provided with a foundation to support people and family at the end of life and serious illness management, using principles of palliative care and palliative approaches including pain and symptom management; loss, grief, and bereavement; person- and family-centred care; comfort and quality of life; culturally safe care; ethical decision-making; and effective communication. Students explore issues particular to serious illness management, oncology, geriatric, and pediatric populations, as well as perspectives on death and dying in the context of culture.

Prerequisite(s): NURS 330-4, or Rural Nursing Certificate Program, or permission of the Chair
Preclusion(s): NURS 452-6, NURS 652-3

NURS 493-(1-6) Field School In this experiential learning course, students are immersed in a specific global health context where they actively engage in developing and applying global health knowledge related to health promotion, social capital and community sustainability. The field school provides opportunities to develop new knowledge, skills, attitudes, reflective approaches, and perspectives through interaction with people and communities from other cultures. It is open to students from all disciplines. This course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): Permission of the Instructor
Preclusion(s): NURS 763-(1-6)

NURS 497-(6, 8) Specialty Focus in Nursing This course comprises both theory and clinical practicum experience in a particular specialty area of nursing practice. The specialty area varies depending on the students' interests and the opportunities for specialty education available.

Prerequisite(s): NURS 330-4, and permission of the Chair for 8-credit hour course
Major Restriction: Permission of the Chair for 6-credit hour course

NURS 498-(1-6) Special Topics in Nursing This course explores a special topic in nursing. The topic varies, depending on student interest and faculty availability. No more than 6 credit hours in Special Topics courses may be applied towards a BScN degree.

Prerequisite(s): Upper-division standing in Nursing, permission of the instructor, and permission of the Chair

NURS 499-(1-6) Independent Study in Nursing This course explores a selected topic in nursing based on readings and learning experiences directed by an instructor. The course format and requirements are based on a formal contract with the instructor. No more than 6 credit hours in Independent Study courses may be applied towards a BScN degree.

Prerequisite(s): Upper-division standing in Nursing, permission of the instructor, and permission of the Chair

Outdoor Recreation and Tourism Management (ORTM)

ORTM 100-3 Foundations of Outdoor Recreation and Tourism This course introduces the foundations of outdoor recreation and tourism from the perspective of both the natural and social sciences. Content includes the history and philosophy of the concept of leisure, the role of leisure, recreation and tourism in students' lives and Western culture, outdoor recreation and tourism in integrated resource management, and current delivery systems.

ORTM 200-3 Sustainable Outdoor Recreation and Tourism This course focuses on policy and planning for recreation and tourism as part of a sustainable resource management strategy. The course examines the management of the supply side aspects of sustainable resource management from agriculture to forestry to understand how to plan and manage for recreation and tourism. A broad array of sustainable recreation and tourism policies and planning tools in different political, geographical and economic contexts is reviewed, including the relationship of recreation and tourism to integrated land use planning and design.

ORTM 202-3 Ecotourism and Adventure Tourism This course provides students with an understanding of ecotourism and adventure tourism along with other related types of tourism (e.g., nature-based, alternative, green tourism). The course covers the history and origins of ecotourism and adventure tourism; definitional debates surrounding the terms; principles of ecotourism; the application of ecotourism and adventure tourism in northern British Columbia, Canada and the world; and planning and management aspects of ecotourism and adventure tourism.

ORTM 205-3 Outdoor Skills and Leadership This course focuses on the development of outdoor skills and leadership used in providing travel and recreation experiences in natural settings. Students develop skills in planning and managing outdoor activities. Typical topics include communication, risk management, group dynamics, coaching, leadership styles, and environmental ethics. Students are expected to come with basic personal equipment and outdoor clothing suitable to the season.

Prerequisite(s): None

ORTM 206-3 Recreation and Leisure Programming Students explore and gain practice in the development, delivery, and evaluation of recreation and leisure programming and services. The course focuses on crafting and facilitating outdoor experiences that operate in socially and environmentally responsible ways. Within this context, the course introduces theory and practice related to inclusion, meaning, access, constraints, and benefits across abilities, life stages, and segments of the population. Systems and goals for delivering recreation, leisure, travel services, and opportunities for citizens and visitors are explored. The course involves field activities outside of scheduled class time.

Prerequisite(s): None

ORTM 298-(1-6) Special Topics This is a special topics course offered to lower-division students. The course may not be offered every year, and may be repeated to a maximum of 6 credit hours.

ORTM 300-3 Recreation and Tourism Impacts This course reviews the identification, monitoring and mitigation of ecological, economic and socio-cultural impacts of outdoor recreation and tourism activities. Through labs, fieldwork and analysis of the literature, students examine the origin and management of impacts of resource-based recreation and tourism.

Prerequisite(s): BIOL 110-3 or BIOL 201-3

ORTM 305-3 Protected Area Planning and Management This course examines historical, social, cultural, and ecological considerations in the establishment, planning, and management of protected areas. The focus of the course is generally on Canadian parks, though international examples are also included. Emphasis is placed on the historic and contemporary cultural roles of protected areas, understanding park legislation and policies, natural resource management issues, and current issues and trends facing contemporary protected areas.

Prerequisite(s): Any 200 level ORTM, BIOL, or NREM course

ORTM 307-3 Land Relations and Communities in Recreation and Tourism This course weaves together Indigenous and socio-cultural perspectives to examine land relations and communities in the context of recreation and tourism. The course draws connections between recreation, broader social forces, and community development, with a conceptual focus on complexity, intersectionality, and justice, and a practical emphasis on representation, education and programming. The goal is to develop learning skills that facilitate personal and collective reflection on important issues, with a view to imagining and creating better futures.

Prerequisite(s): Any 200 level ORTM course or FNST 100-3
Preclusion(s): ORTM 407-3

ORTM 332-3 Outdoor, Environmental, and Experiential Education This course explores the historical, theoretical, and practical foundations of outdoor, environmental, and experiential education. It focuses on conventional and innovative applications and models of these techniques and philosophies for personal, social, and environmental learning.

Prerequisite(s): Upper-division standing

ORTM 333-3 Field School This is an experiential course designed to enable ORTM students to focus on theoretical and practical skills involved in the field. Each field experience is designed to incorporate the theories, models and other concepts introduced in the classroom and bring them into greater clarity by examining them in a real world setting. The course integrates outdoor recreation and tourism perspectives. This field course applies principles of integrated resource management. This course may be repeated with the permission of the instructor if the subject matter and course location differ substantially Note: ORTM 333 is typically a spring/summer course and therefore the ORTM Program encourages students to take this course in their 2nd or 3rd year, prior to the fall semester of their 4th year. If a student chooses to take ORTM 333 in the spring of their 4th year there is no guarantee they will be able to graduate in May of that year.

Prerequisite(s): Permission of the instructor

ORTM 401-3 The Culture of Adventure This course explores how social, cultural, political, and economic dimensions affect our travel and sporting opportunities, but also how adventurous activities influence our understandings of the environment and society. The focus of the course is on adventure sport and tourism, which include a variety of activities from rock climbing to mountain biking to BASE jumping. Emphasis is placed on how adventure can reproduce and/or challenge inequities.

Prerequisite(s): ORTM 100-3 and upper-division standing

ORTM 405-3 Leadership Praxis Students explore leadership theories and practices in depth as applied to work and institutions in outdoor and adventure recreation, education, travel, and conservation. Topics include leadership theories (e.g. servant leadership, culturally-appropriate leadership), group dynamics and management, decision-making, team and public communication, coalition building, and advocacy. The course engages with leadership as ethical and socio-ecologically engaged practice. It explores ways that privilege, gender, race, and social discourses intersect outdoor and conservation leadership, participant experiences, and professional careers. Students develop repertoires of practice through leading and mentoring experiences outside of scheduled class.

Prerequisite(s): Upper-division standing and at least one of: ORTM 200-3, ORTM 205-3, ORTM 332-3, or NREM 209-3

ORTM 409-3 Critical Approaches to Outdoor Recreation Activities This seminar course critically questions and creatively reconsiders the nature of outdoor recreation activities as related to contemporary, and interrelated, social and environmental issues. The course is firmly grounded in recreation and leisure studies literature offering anthropological, critical, historical, and socio-ecological interpretations of particular activities (e.g., canoeing, rock climbing, mountaineering), and involving concepts such as identity, place, skill, and community. The course may involve practical experiences and field trips to inform academic content, but these are not the focus.

Prerequisite(s): ORTM 100-3 and any 300 level ORTM course, or permission of the instructor

ORTM 415-3 Conservation, Culture, and Society This course explores the applications and implications of conservation social science. The course highlights how diverse systems of power, knowledge, affect, and belief are entangled with ecological stewardship. Students examine case studies from around the globe to understand how methods and theory from the social sciences can be applied to understand the social institutions, cultural values, and knowledge regimes which shape conservation success.

Prerequisite(s): Upper-division standing

ORTM 433-(1-6) Field School II This senior-level experiential course provides a combination of theoretical and practical skills in the field. The course integrates outdoor recreation and nature-based tourism perspectives, and is based in various locations in British Columbia, and worldwide. ORTM 433 may be offered in conjunction with ORTM 333; in some years enrollment may be required in both. Note: ORTM 433 is typically a spring/summer course and therefore the ORTM Program encourages students not to take ORTM 433 in the spring of their 4th year. If a student chooses to take ORTM 433 in the spring of their 4th year there is no guarantee they will be able to use the credit for graduation in May of that year.

Prerequisite(s): Permission of the instructor

ORTM 440-(2-6) Internship May be repeated for credit (maximum 6 credit hours).

ORTM 498-(1-3) Special Topics May be repeated for credit (maximum 3 credit hours).

ORTM 499-(1-6) Independent Study May be repeated for credit (maximum 6 credit hours).

Philosophy (PHIL)

PHIL 202-3 Comparative Religion An introductory course exploring issues related to the religious traditions of the world, e.g., Native spirituality, Hinduism, Judaism, Buddhism, Christianity, Shintoism, Islam, Paganism and Atheism. Basic questions to be considered include the existence of God, freedom and immortality, nature of spirituality, religious experience and religious language in people's life and world view.

Prerequisite(s): None

PHIL 205-3 Introduction to the History of Philosophy This course is an introductory survey of Western philosophy from the ancient Greeks to the late medieval period, including such thinkers as Pythagoras, Parmenides, Plato, Aristotle, Augustine and Aquinas. The course provides an overview of philosophical topics including ontology, epistemology and ethics.

Prerequisite(s): None
Preclusion(s): POLS 270-3

PHIL 302-3 Philosophy of Religion This course examines religion from a philosophical perspective using classical and modern texts. Topics include the nature of religion, faith and reason, arguments for the existence of God and responses to them, and the relationship between religion and morality. Additional topics may include the relationship between religion and science, and non-Western philosophies of religion.

Prerequisite(s): Upper-division standing or permission of the instructor

PHIL 305-3 History of Philosophy: Early Modernity to Post-Modernity This course traces the history of Western philosophy from early modernity to the early twentieth century. Thinkers discussed may include Aquinas, Ockham, Descartes, Hobbes, Locke, Hume, Kant, Schopenhauer, Rousseau, Fichte, Hegel, Marx, Nietzsche and Heidegger.

Prerequisite(s): Upper-division standing or permission of the instructor
Preclusion(s): POLS 370-3

PHIL 400-3 Classics in Philosophy This course provides a close analysis of a classic treatise in philosophy. Texts vary yearly.

Prerequisite(s): PHIL 205-3, POLS 270-3, PHIL 305-3 or POLS 370-3, or permission of the instructor

PHIL 472-3 Philosophical Research Seminar This is a participatory seminar in which students are guided through the process of conducting a research project in philosophy. Topics are chosen according to students' interests.

Prerequisite(s): PHIL 205-3, POLS 270-3, PHIL 305-3, or POLS 370-3, or permission of the instructor

Physics (PHYS)

PHYS 100-4 Physics for Life Sciences I This course is the first part of an algebra-based introductory physics course sequence for majors in life and environmental sciences. Topics include physics and measurement, motion in one and two dimensions, Newton's laws of motion, energy, linear momentum and collisions, rotational motion and gravitation, rotational equilibrium and dynamics, fluids and solids, and elements of thermal physics.

Prerequisite(s): Physics 11 or Physics 12 or PHYS 115-4

PHYS 101-4 Physics for Life Sciences II This course is the second part of an algebra-based introductory physics course sequence for majors in life and environmental sciences. Topics include oscillations and waves, sound, electric forces and fields, electrical energy and capacitance, current and resistance, direct-current circuits, magnetism, electromagnetic induction, reflection and refraction of light, mirrors and lenses, and elements of modern physics.

Prerequisite(s): PHYS 100-4 or PHYS 110-4

PHYS 110-4 Introductory Physics I: Mechanics This course is the first part of the calculus-based physics sequence for majors in physical and mathematical sciences. Topics include vectors, measurement, motion in one and two dimensions, the laws of motion, application of Newton's laws, work and energy, potential energy, conservation of energy, linear momentum and collisions, rotation of rigid bodies, rolling motion, angular momentum, static equilibrium, and elasticity.

Prerequisite(s): Physics 12 or PHYS 115-4, and Principles of Math 12 or Pre-calculus 12 or MATH 115-3
Corequisite(s): MATH 100-3 or MATH 105-3

PHYS 111-4 Introductory Physics II: Waves and Electricity This course is the second part of the calculus-based physics sequence for majors in physical and mathematical sciences. Topics include universal gravitation, elements of thermodynamics, fluid dynamics, oscillatory motion, wave motion, sound waves, superposition and standing waves, electric field, Gauss's law, electric potential, and capacitance and dielectrics.

Prerequisite(s): PHYS 110-4; or PHYS 100-4 with a grade of B or better
Corequisite(s): MATH 101-3

PHYS 115-4 General Introduction to Physics This is an algebra-based introductory physics course for students without Grade 12 Physics. Topics include physics and measurement, motion in one and two dimensions, forces and Newton's laws of motion, circular motion, work and energy, electric forces and fields, electric potential, electric circuits, and magnetic forces and fields. Students with credit in Physics 12 require permission of the Program Chair.

Prerequisite(s): At least one of Pre-calculus 11 or Pre-calculus 12 or Foundations of Math 11 or Foundations of Math 12 or UNIV 113-3 or MATH 115-3 or permission of the instructor. UNIV 113-3 or MATH 115-3 may be taken concurrently.
Preclusion(s): Physics 12, PHYS 100-4, and PHYS 110-4

PHYS 150-3 Physics for Future Leaders This course examines the physics and technology underlying modern society and issues of global concern. The course introduces basic physics themes such as motion and energy, atoms and heat, gravity and force, electricity and magnetism, light and electromagnetic waves, and radioactivity and nuclear reactions. Using these concepts, the course provides a basic scientific understanding of topics such as climate change, alternative energy, nuclear power and nuclear weapons, medical technology, atmospheric pollution, earthquakes, satellites, and telecommunication. This course requires no scientific or mathematical background and is accessible to students in any discipline.

Prerequisite(s): None

PHYS 200-3 Thermal Physics This course covers thermodynamics and introductory statistical mechanics. Topics include temperature, reversible processes and work, the first law of thermodynamics, the second law of thermodynamics, entropy, the third law of thermodynamics, engines and refrigerators, free energy and chemical potential, phase transformations, and Boltzmann statistics.

Prerequisite(s): PHYS 111-4
Corequisite(s): MATH 202-3

PHYS 202-4 Electromagnetism and Optics Topics in this course include Gauss's law, current and resistance, direct-current circuits, magnetic fields and forces, sources of magnetic fields, Faraday's law, inductance, alternating-current circuits, electromagnetic waves, the nature of propagation of light, geometric optics, and interference.

Prerequisite(s): PHYS 111-4
Corequisite(s): MATH 202-3

PHYS 205-3 Modern Physics I This is the first part of a two-semester course in modern physics introducing the theories of relativity and quantum mechanics and their applications. Topics include Lorentz transformations, relativistic kinematics, relativistic dynamics, foundations of quantum theory, quantum theory of light, particle and wave nature of matter, wave function and the uncertainty principle, the Schrödinger equation in one dimension, and tunneling phenomena.

Prerequisite(s): PHYS 111-4

PHYS 206-4 Modern Physics II This is the second part of a two-semester course in modern physics introducing the theories of quantum mechanics and relativity and their applications. Topics include quantum mechanics in three dimensions, atomic structure and spectroscopy, statistical physics and quantum statistics, molecular structure and spectroscopy, the solid state of matter, structure of crystals, semiconductors and superconductors, properties and structure of nuclei, radioactivity, nuclear reactions, applications of nuclear physics, and elementary particles.

Prerequisite(s): PHYS 205-3

PHYS 300-3 Classical Mechanics This course covers topics in analytical mechanics including Newtonian mechanics, motion in non-inertial reference frame, calculus of variations, Lagrangian formalism, central force motion, Hamiltonian formalism, canonical transformations, Hamilton-Jacobi theory, linear oscillators, and theory of small vibrations.

Prerequisite(s): PHYS 111-4 and MATH 220-3

PHYS 302-3 Quantum Mechanics I This course is the first part of a two-semester course in quantum mechanics. Topics include quantum phenomena, the wave function and the Schrödinger equation, physical quantities and measurements, quantization of energy in simple systems, principles of quantum mechanics, commutation of observables, the Stern-Gerlach experiment, angular momentum, description of atoms, spin-1/2 and magnetic resonance, addition of angular momenta, and identical particles.

Prerequisite(s): PHYS 205-3 and MATH 230-3
Preclusion(s): CHEM 303-3

PHYS 305-4 Electronics This course is an introductory electronics course for science majors. The course is offered in an integrated laboratory-lecture environment and requires an electronics design project. Topics include DC circuits, Kirchhoff's laws, Thevenin's and Norton's theorems and equivalent circuit models, AC circuits and filters, diodes, transistors, operational amplifiers, feedback, and noise in electrical systems.

Prerequisite(s): PHYS 202-4 and PHYS 206-4, or permission of the instructor

PHYS 310-3 Classical Electromagnetism I This is the first part of a two-semester course in classical electromagnetism. Topics include the electric field and the scalar potential, Coulomb's and Gauss's laws, Poisson's and Laplace's equations, boundary-value problems in electrostatics, electric multipoles, electrostatic energy and forces, dielectric materials and continuity conditions, the magnetic field and the vector potential, Ampere's law, magnetic fields in matter and magnetic materials, magnetic energy and forces, Faraday's law and electromagnetic induction, electrodynamics, and Maxwell's equations.

Prerequisite(s): MATH 204-3 and PHYS 202-4

PHYS 351-3 Optics and Photonics I This is an introductory course in geometrical and physical optics. Topics include mathematics of wave motion, electromagnetic theory of light, photons, laws of geometrical optics, aberrations in optical systems, optical instruments, superposition of waves, interference, polarization, diffraction, and elements of holography.

Prerequisite(s): PHYS 202-4

PHYS 390-3 Advanced Physics Laboratory This is a course on advanced laboratory methods involving experiments in a range of foundational areas of physics. Topics covered vary but include electromagnetism, solid state physics, optics and photonics, and atomic and nuclear physics.

Prerequisite(s): PHYS 202-4 and PHYS 206-4

PHYS 400-3 Quantum Mechanics II This course is the second part of a two-semester course on quantum mechanics. In this second course, the following topics are covered: identical particles, Langrangian and Hamiltonian formalisms, Lorentz force in quantum mechanics, symmetries, time-independent perturbation theory, variational methods, time-dependent perturbation theory, scattering processes, and quantum entanglement.

Prerequisite(s): PHYS 302-3

PHYS 401-3 Seminar on Contemporary Topics in Physics This is a seminar course designed to expose students to current active topics of research in various fields of physics and applied physics. The course revolves around seminar presentations given by invited speakers from UNBC and other research institutions, as well as presentations given by the students enrolled in the course.

Prerequisite(s): Permission of the instructor

PHYS 402-(1-6) Physics Research Project This course requires students to conduct a project under the supervision of a faculty member. Students are normally required to submit a written report on the outcome of the project and deliver a presentation to the department. Project topics are usually chosen in an area of theoretical or experimental physics that matches the area of expertise of the faculty member supervising the student. This course may be repeated to a maximum of 6 credit hours.

Prerequisite(s): Upper-division standing in a Physics degree and permission of the instructor

PHYS 404-3 Solid State Physics This course covers physics of the solid state of matter including: theories of metals, crystal lattices, reciprocal lattice, periodic potentials, electron dynamics, band structures, conduction in metals, phonons in metals, semiconductors, superconductivity and diamagnetism and paramagnetism.

Prerequisite(s): PHYS 202-4 and PHYS 206-4

PHYS 406-3 Subatomic Physics This course is an introduction to the fields of nuclear and particle physics. Topics include properties and structure of nuclei, the shell model, radioactivity, nuclear reactions, fission and fusion, elementary particles and fundamental interactions, fermions, bosons, Feynman diagrams, quantum electrodynamics and the electromagnetic force, quarks and hadron spectroscopy, meson exchange potentials, color charge and quantum chromodynamics, the weak gauge bosons and the electroweak force, symmetries and conservation laws, and the standard model.

Prerequisite(s): PHYS 206-4

PHYS 407-3 Statistical Mechanics This course covers kinetic theory of gases, laws of thermodynamics, probability theory, probability distributions, equilibrium statistical ensembles, ideal gases, phase transitions, critical phenomena and quantum statistics.

Prerequisite(s): PHYS 200-3

PHYS 409-3 Mathematical Methods in Physics This course surveys the methods and techniques involved in the mathematical description of physical systems. Topics include matrix algebra and group theory, eigenvalue problems, differential equations, functions of a complex variable, Green's functions, Fourier series, integral equations, calculus of variations, and tensor analysis.

Prerequisite(s): Permission of the instructor
Preclusion(s): MATH 409-3

PHYS 410-3 Classical Electromagnetism II This is the second part of a two-semester course in classical electromagnetism. Topics include conservation laws in electrodynamics, electromagnetic wave equation, electromagnetic waves and their properties, wave polarization, electromagnetic waves in linear media and in conductors, wave guides, transmission lines, resonant cavities, electromagnetic potentials, electric dipole radiation, magnetic dipole radiation, multipole radiation, radiation by a single charge, relativity, relativistic electrodynamics, four vectors, and relativistic formulation of Maxwell's equations.

Prerequisite(s): PHYS 310-3

PHYS 499-3 Advanced Topics in Physics This course examines advanced topics in contemporary physics. Topics depend on instructor and student interest and normally focus on material not dealt with in other courses. This course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): Permission of the instructor

Political Science (POLS)

POLS 100-3 Contemporary Political Issues An introduction to the basic concepts of political science through an examination of contemporary political issues: local, provincial, national and international.

Prerequisite(s): None

POLS 200-3 Canadian Government and Politics This course examines how Canadians organize their joint efforts to govern themselves at local, provincial, and federal levels. Attention is directed towards the political culture and its realization in constitutional rules of the game, in different institutions, and in the varied ways of influencing what governments do.

Prerequisite(s): None

POLS 202-3 Canada in Comparative Perspective This course compares the political, economic and social development of Canada with that of other industrial democracies and with that of developing and transitional countries throughout the world. The course focuses on several themes including democratic development and institutional growth, the role of government in society, citizen participation and engagement, and regional politics.

Prerequisite(s): 30 credit hours or permission of the instructor

POLS 230-3 International Relations This course is an introduction to classical and contemporary theories of international relations as a traditional sub-discipline of political science. These theories are explained using historical and modern examples of politics at the international level.

Prerequisite(s): None

POLS 255-3 Introduction to Law in Canada This course is an introduction to the Canadian legal system and the practice of law in Canada. Topics include an overview of the legislative and judicial processes as well as a survey of the major areas of law. The course also introduces students to the role of the lawyer within the legal system.

Prerequisite(s): None

POLS 257-3 Public Law in Canada Public law includes the areas of law regulating the internal operations of governments and state agencies, the interactions among orders or levels of government and the interactions between state and non-state actors. Subjects covered in this course include constitutional law, administrative law, human rights law and criminal law and procedures.

Preclusion(s): HIST 257-3

POLS 258-3 Private Law in Canada Private law refers in general to the areas of law that regulate the interactions among non-state actors including citizens, corporations and non-state agencies. The course covers such areas as property law, torts, contracts, family law and commercial law in Canada.

Preclusion(s): HIST 258-3

POLS 270-3 Political Philosophy: Antiquity to Early Modernity This course is a survey of political philosophy from the Greeks to the 15th century tracing the development of contending conceptions of political order in the context of the philosophical ideas of the time.

Prerequisite(s): None
Preclusion(s): PHIL 205-3

POLS 298-3 Special Topics in Political Science The content of this course varies according to the instructor and student requests. With permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): None

POLS 302-3 How Government Works This course enables students to navigate the political and bureaucratic structures and processes that shape our lives on a daily basis. It also provides students with practical skills to pursue careers in government at the local, provincial and federal levels.

Prerequisite(s): POLS 100-3 and upper-division standing, or permission of the instructor

POLS 303-3 Democracy and Democratization This course examines the theoretical and institutional foundations of democracy, the causes and consequences of democratization and democratic decay, and the complex relationship between democracy and human development.

Prerequisite(s): Upper-division standing

POLS 305-3 American Politics and Society This course introduces students to American politics and society, focusing on the organizational and historical development of the American political system as well as the contemporary challenges facing the United States of America.

Prerequisite(s): Upper-division standing
Preclusion(s): INTS 315-3

POLS 309-3 Chinese Politics and Society This course introduces students to Chinese politics and society, examining Chinese political and social development with a primary focus on comparing past and present in areas such as state building, economic development, and social change.

Prerequisite(s): Upper-division standing
Preclusion(s): INTS 204-3, INTS 312-3

POLS 311-3 Russian Politics and Society This course introduces students to Russian politics and society, focusing on the organization and historical development of the Russian political system as well as the contemporary challenges facing the Russian Federation.

Prerequisite(s): Upper-division standing
Preclusion(s): INTS 200-3, INTS 311-3

POLS 314-3 European Politics and Society This course introduces students to European politics and society, focusing on the historical development political structure of the European Union as well as the contemporary challenges facing Europe.

Prerequisite(s): Upper-division standing
Preclusion(s): INTS 314-3

POLS 315-3 Contemporary Issues in the Circumpolar World This course provides opportunities for students to gain an in-depth understanding of a variety of issues in the Canadian and Circumpolar Arctic, including governance and politics, Indigenous peoples and self-government, education, the environment and resource development, gender, health, and Arctic security and sovereignty.

Prerequisite(s): Upper-division standing or NORS 101-3 or INTS 240-3
Preclusion(s): NORS 332-3

POLS 316-3 Municipal Government and Politics This course is an introduction to the study of local government, with special attention to citizen participation, and administrative structure in municipal politics.

Prerequisite(s): Upper-division standing

POLS 320-3 Canadian Politics and Policy This course provides an introduction to the concepts, goals and methods of policy analysis, with applications to current policy issues in Canada, British Columbia, and the North. Topics include public opinion surveys and the statistical analysis of policy preferences.

Prerequisite(s): Upper-division standing or permission of the instructor

POLS 321-3 The Charter of Rights and Freedoms in Canada This course examines the development of Canada's Constitutional Charter of Rights and Freedoms and how its entrenchment and invocation have changed the political opportunity structure in Canada. The Charter has been controversial since it was first proposed and debated and continues to be a source of controversy. At the same time, the Charter has become increasingly significant in the way social movements organize, frame, and pursue their claims for social change. This course considers the politics of Indigenous rights, group rights and social movements under the Charter. Students also explore how the Charter of Rights and Freedoms has changed democracy in Canada and whether this change has been for the better.

Prerequisite(s): Upper-division standing or permission of the instructor

POLS 327-3 Leadership and Ethics in Local Government This course examines the principles and practices of ethical leadership with a particular focus on local government.

Prerequisite(s): None

POLS 328-3 African Politics and Society This course introduces students to a range of political, economic, and social issues in Africa, focusing on themes such as historical dynamics and processes, anti-colonial and decolonization movements, post-colonial politics, environmental politics, regional relations and institutions, international roles and relations, and contemporary social movements and social change.

Prerequisite(s): INTS 100-3 and INTS 210-3, or permission of the instructor
Preclusion(s): INTS 328-3

POLS 332-3 Community Development How can communities develop politically, economically and socially, in ways that serve their needs and are appropriate to their environment, culture and expectations? This course explores the nature and interpretations of community development, using experiences from Canada, the Circumpolar North and the Asia-Pacific region.

Prerequisite(s): Upper-division standing or permission of the instructor

POLS 333-3 Politics and Government of BC This course surveys the many faces and challenges of BC politics, with specific attention to political culture and parties, the political economy, government and administration, and contemporary issues.

Prerequisite(s): Upper-division standing or permission of the instructor

POLS 344-3 Society, Policy and Administration of Natural Resources This course on natural resource and environmental management explores the ways in which ideas and interests are articulated and conflicts are resolved within the policy process.

Prerequisite(s): Upper-division standing or permission of the instructor
Preclusion(s): NREM 306-3 and POLS 334-3

POLS 350-3 Law and Municipal Government This course examines the legislation, regulations and court decisions relevant to municipal governments in British Columbia.

Prerequisite(s): Upper-division standing or permission of the instructor
Preclusion(s): POLS 250-3

POLS 351-3 Local Services and Public Policy This course examines local government services and the challenges involved in their delivery to local communities. Topics include public works, protective services, refuse collection, recreation and cultural services, health and social services and environmental protection.

Prerequisite(s): Upper-division standing or permission of the instructor
Preclusion(s): POLS 251-3

POLS 353-3 Project Management in Local Government This course teaches students how to plan, implement and manage projects in and for municipal and local governments. Students are taught how to design project plans and how to bring complex projects to fruition. Skills learned by students include scheduling, budgeting, communication, personnel management and the management of change.

Prerequisite(s): None

POLS 360-3 Local Government Finance This course examines budgeting with a particular focus on local government. Topics include assessment, taxation collection, the development of local budgets, provincial and federal government transfers, and long-term financial planning.

Prerequisite(s): Upper-division standing or permission of the instructor
Preclusion(s): POLS 260-3

POLS 370-3 Political Philosophy: Early Modernity to Post-Modernity This course traces the history of Western political thought, in the wider context of the history of philosophy, from early modernity to the early twentieth century. Thinkers discussed may include Aquinas, Ockham, Descartes, Hobbes, Locke, Hume, Kant, Schopenhauer, Rousseau, Fichte, Hegel, Marx, Nietzsche and Heidegger.

Prerequisite(s): Upper-division standing or permission of the instructor
Preclusion(s): PHIL 305-3

POLS 372-3 Theories of Justice This course introduces students to the study of justice in contemporary political theory and practice. Specific topics include justice in the liberal and libertarian traditions, justice as impartiality, justice and the politics of difference, justice as a universal or culturally bound norm, reconciliation and transitional justice, and questions surrounding historic injustice and its contemporary redress. Case studies from Canada and around the globe are used to highlight the challenges associated with implementing the requirements of justice in concrete political settings.

Prerequisite(s): Upper-division standing or permission of the instructor

POLS 377-3 Politics of Climate Change This course introduces students to some of the most intractable political obstacles impeding efforts to address the global climate emergency, and investigates creative political strategies for navigating those obstacles at the local, national, and global levels. Topics include the domestic drivers of national climate change policies; realpolitik and national self interest in international climate negotiations; inequality and the burdens of climate change adaptation; climate politics as a source of conflict and partisan polarization; and the political psychology of climate passivity and climate change denial.

Prerequisite(s): Upper-division standing or permission of the instructor

POLS 380-3 Law and Indigenous Peoples This course provides a critical introduction to the constitutional law of Indigenous rights and its impact on the distribution of power, resources, and jurisdictional space amongst Indigenous, federal, and provincial governments in Canada. Topics include the evolution of the Supreme Court of Canada's section 35 Aboriginal rights jurisprudence, Indigenous legal traditions, law and the politics of reconciliation, Indigenous resistance and direct action, the impact of the United Nations Declaration on the Rights of Indigenous Peoples, and the British Columbia Treaty Process.

Preclusion(s): FNST 350-3

POLS 403-3 Social and Health Policy and Administration This course examines the evolution of social and health services in Canada in a comparative context. This includes the provision of public services, federal-provincial relations and the development of community health and social services.

Prerequisite(s): 90 credit hours or permission of the instructor

POLS 413-3 Democracy and Diversity This course is an exploration of the politics of ethnic, racial and religious diversity and its impact on the theory and practice of democracy in the 21st Century. Theoretical concepts and models are examined in relation to case studies drawn from Canada and around the globe.

Prerequisite(s): 90 credit hours or permission of the instructor
Preclusion(s): POLS 613-3

POLS 414-3 Comparative Federalism This seminar course examines the theories, concepts and issues that influence politics and policy-making in federal countries around the world.

Prerequisite(s): 90 credit hours or permission of the instructor

POLS 415-3 Comparative Northern Development This seminar course examines the strategies and challenges of northern development in Canada, Russia and other parts of the Arctic region.

Prerequisite(s): 90 credit hours or permission of the instructor

POLS 416-3 Gender and Politics This course examines gender, understood as a hierarchical, binary opposition of masculinity and femininity, and its intersection with power relations, understood as an expression of politics. The course examines how gender hierarchy is a system of differential power that intersects with various systems of oppression and privilege. A significant amount of time is spent on the topic of intersectionality in politics from a variety of standpoints within our ever-changing socio-economic context, including Indigenous feminisms, eco-politics, Black social movements, disability, LGBTQ movements, and various iterations of masculinity.

Prerequisite(s): Upper-division standing or permission of the instructor
Preclusion(s): GNDR 616-3, POLS 616-3, WMST 416-3

POLS 425-3 The Politics of Polarization This seminar examines political polarization, understood as extremes in opinions and/or the erosion of a more moderate political centre, and its impact(s) on power relations ranging from citizen interactions to domestic and international politics. We explore how polarization develops and how it shapes political identities, discourses, and ways of thinking and acting. We also spend a significant amount of time considering how polarization intersects with developments in media, information technology, and artificial intelligence. This course may be repeated up to a maximum of 6 credit hours with permission of the Department Chair.

Preclusion(s): POLS 625-3

POLS 427-3 Ethics and Public Affairs This course is an exploration of the ethical foundations of domestic and foreign policy making in contemporary democratic states. Special emphasis is placed on the tension that frequently arises between moral idealism and political realism in the conduct of public affairs.

Prerequisite(s): Upper-division standing or permission of the instructor

POLS 434-3 Resource Communities in Transition This course examines the issues facing rural, remote and northern resource communities across Canada. It compares issues across Canada's provincial north as well as has a specific focus on northern British Columbia. Issues discussed include, among other things, the economic realities of globalization, the issues of identity for resource communities, and the effects of urban policy decision processes on rural, remote and northern regions.

Prerequisite(s): Upper-division standing
Preclusion(s): POLS 634-3

POLS 440-3 Internship I An internship allows students to receive credit while gaining practical experience in a professional workplace under the guidance of a workplace supervisor and a UNBC instructor. Students with proposals for an internship should consult the Department Chair well in advance.

Prerequisite(s): Upper-division standing and permission of the Department Chair

POLS 441-3 Internship II This course allows students to continue an internship begun in POLS 440-3 or to begin a new internship. Students with proposals for a continuation or for a new internship should consult the Department Chair well in advance.

Prerequisite(s): Upper-division standing and permission of the Department Chair

POLS 472-3 Seminar in Political Philosophy This seminar guides students through the process of conducting a research project in political philosophy. Topics are chosen according to students' interests. With permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): Upper-division standing

POLS 498-3 Special Topics in Political Science The content of this course varies according to the instructor and needs of the students. This course may be repeated up to a maximum of 6 credit hours with permission of the Department Chair.

Prerequisite(s): Upper-division standing and permission of the Department Chair

POLS 499-3 Independent Study The content of this course varies according to the instructor and the needs of students. With permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): Upper-division standing

Psychology (PSYC)

PSYC 101-3 Introduction to Psychology I This course provides an introduction to the science of psychology. Topics may include the following: scientific thinking and research methods; biological psychology; sensation and perception; consciousness; the unconscious; learning; memory; language; and evolutionary psychology.

Prerequisite(s): None

PSYC 102-3 Introduction to Psychology II This course provides a further introduction to the science of psychology. Topics may include the following: intelligence; human development; emotion and motivation; stress; coping; health; social psychology; personality; and psychological disorders and interventions.

Pre- or Corequisite(s): PSYC 101-3

PSYC 207-3 Social Psychology This course introduces the impact of social and situational factors on human thinking and behaviour. Topics may include the following: self-esteem; prejudice and discrimination; conformity; interpersonal attraction; and prosocial behaviour.

Prerequisite(s): PSYC 101-3 and PSYC 102-3
Preclusion(s): PSYC 301-3

PSYC 211-3 Lifespan Development This course examines the introductory theories and research in the field of developmental psychology. Emphasis is on the physical, cognitive, and psychosocial aspects of development from conception to death.

Prerequisite(s): PSYC 101-3 and PSYC 102-3
Preclusion(s): PSYC 345-3 and SOCW 421-3

PSYC 212-3 The Psychology of Learning This course provides an introduction to the study of learning. Topics may include the following: classical conditioning; operant conditioning; and cognitive and observational models of learning.

Prerequisite(s): PSYC 101-3 and PSYC 102-3
Preclusion(s): PSYC 320-3

PSYC 215-3 Research Design and Methodology in Psychology This course examines the quantitative, empirical and research methods used by psychologists. Students have hands-on experience in designing, collecting data and writing and critically evaluating research reports.

Prerequisite(s): PSYC 101-3 and PSYC 102-3

PSYC 221-3 Biopsychology This course introduces the study of the biological roots of behavior, and examines the structure and function of the nervous system and its role in psychological process including perception, emotion, motivation, cognition, memory, and behavior.

Prerequisite(s): PSYC 101-3 and PSYC 102-3
Preclusion(s): PSYC 317-3

PSYC 303-3 Introduction to Abnormal Psychology This course introduces the study of abnormal behavior. Topics may include the following: the history of psychopathology; definitions of abnormality; classification and assessment; models of psychopathology; and an introduction to the specific syndromes of abnormal behaviour.

Prerequisite(s): PSYC 101-3, PSYC 102-3 and a total of 30 credit hours successfully completed

PSYC 306-3 Theories of Personality This course introduces the study of influential personality theories and theorists. Topics may include the following: individual differences in personality; how much of personality is inherited and how much is learned; and how the mind and the body interact.

Prerequisite(s): PSYC 101-3, PSYC 102-3 and a total of 30 credit hours successfully completed
Pre- or Corequisite(s): PSYC 207-3 or PSYC 211-3

PSYC 309-3 Introduction to Health Psychology This course introduces the field of health psychology. Topics may include the following: theories of health and health behaviour; social and environmental determinants of health; health protecting and damaging behaviours; health communication and promotion; stress and coping; and pain and psychoimmunology.

Prerequisite(s): PSYC 101-3, PSYC 102-3 and a total of 30 credit hours successfully completed

PSYC 314-3 Emotion and Motivation This course introduces theories regarding the nature, structure, and mechanisms of emotion and motivated behaviours.

Prerequisite(s): PSYC 221-3 and a total of 30 credit hours successfully completed
Preclusion(s): PSYC 307-3

PSYC 315-4 Analysis of Psychological Research This course examines analysis of psychological research. Topics may include the following: displaying data; central tendency and variability; z-scores and normal distributions; hypothesis testing; statistical significance; single sample t-tests; dependent sample t-tests; independent sample t-tests; one-way between-subjects analysis of variance; correlation; and regression.

Prerequisite(s): PSYC 215-3 and a total of 60 credit hours successfully completed

PSYC 318-3 Sensation and Perception This course examines the psychology and neuroscience of human perception and action. Topics may include the following: vision; audition; taste; olfaction; and somatic senses. These topics are taught within the context of the physiological methods that give rise to knowledge in this field.

Prerequisite(s): PSYC 212-3 or PSYC 221-3 and a total of 30 credit hours successfully completed

PSYC 319-3 Philosophy of Mind This course introduces fundamental issues in the philosophy of mind including the nature of the mind, the relationship between the mind and the body, and the nature of our thoughts and perceptions, with an introduction to the works of some of the leading philosophers in the field.

Prerequisite(s): PSYC 101-3, PSYC 102-3 and a total of 30 credit hours successfully completed
Preclusion(s): PSYC 202-3

PSYC 322-3 Positive Psychology This course provides an introduction to the field of positive psychology, or the study of human potential, human strengths, and well-being. Emphasis is on the history, theories, and research findings of "first-wave positive psychology," which focused on positive emotions, motivation, and character strengths leading to happiness.

Prerequisite(s): PSYC 215-3 and a total of 30 credit hours successfully completed

PSYC 332-3 Cognition This course examines research and theories of human mental processes and the psychological and neuroscientific methods used to study them. Topics may include the following: attention; memory; concepts; language; reasoning; judgement and choice; and consciousness.

Prerequisite(s): One of PSYC 212-3 or PSYC 221-3 and a total of 30 credit hours successfully completed
Preclusion(s): PSYC 330-3

PSYC 403-3 Patterns of Psychopathology and Their Treatment This course examines major syndromes of abnormal behaviour, introduces students to the major biological and experiential theories of their origins, and explores approaches to their treatment.

Prerequisite(s): PSYC 215-3 and PSYC 303-3

PSYC 405-3 Clinical Psychology This course examines the contemporary practice of clinical psychology. Topics may include the following: the role of the clinical psychologist; psychological assessment; the conduct of psychological therapies; and ethical issues.

Prerequisite(s): PSYC 215-3 and PSYC 303-3
Pre- or Corequisite(s): PSYC 403-3

PSYC 407-3 Advanced Social Psychology This course examines advanced issues in human behaviour in its social context.

Prerequisite(s): PSYC 207-3 and PSYC 215-3
Preclusion(s): PSYC 401-3

PSYC 408-3 Environmental Problems and Human Behaviour Many environmental problems have their origin in human behaviour. As such, this course examines factors that give rise to unsustainable lifestyles, and examines approaches to environmental conservation that take human psychology and well-being into consideration.

Prerequisite(s): Upper-division standing
Recommendation(s): PSYC 102-3, PSYC 207-3

PSYC 409-3 Advanced Health Psychology This course examines advanced issues in the field of health psychology such as the intricate relationships between psychological and physical health, and their determinants, including cognitive processes, lifestyle, and health-related behaviour.

Prerequisite(s): PSYC 215-3 and PSYC 309-3
For BHSc students only: PSYC 309-3 and HHSC 351-3

PSYC 411-3 Advanced Developmental Psychology This course examines advanced topics in developmental psychology. Topics may include the following: development of self-identity and gender identity; emotional development across the lifespan; marital and family relationships; and successful aging.

Prerequisite(s): PSYC 211-3, PSYC 215-3
Preclusion(s): PSYC 415-3

PSYC 416-4 Advanced Analysis of Psychological Research This course examines advanced analysis of psychological research. Topics may include the following: conducting follow-up tests for one-way between-subjects analysis of variance; one-way repeated-measures analysis of variance; factorial analysis of variance; chi-square tests; regression and multiple regression; and an introduction to Bayesian analysis.

Prerequisite(s): PSYC 315-4 and a total of 60 credit hours successfully completed

PSYC 418-3 Advanced Issues in Sensation and Perception This course examines advanced questions in the study of perception and action. Building on an understanding of fundamental neural mechanisms, this course provides further exploration of the mechanisms of perception and the manner in which perceptual processes are integrated with other psychological processes such as memory and problem solving.

Prerequisite(s): PSYC 215-3, PSYC 318-3

PSYC 421-3 Advanced Biopsychology This course examines advanced issues in biological psychology. Topics may include the following: neural plasticity; behavioural epigenetics; neuroendocrinology; neuroimmunology; and the gut-brain connection.

Prerequisite(s): PSYC 215-3, PSYC 221-3
Preclusion(s): PSYC 419-3

PSYC 422-3 Advanced Positive Psychology This course deals with contemporary issues in the field of psychology. Emphasis is on the research under the umbrella of "second-wave positive psychology", which focuses on how individuals flourish and make meaning through desirable and undesirable experiences.

Prerequisite(s): PSYC 315-4 and PSYC 322-3

PSYC 427-3 Cross-Cultural Psychology This course examines psychology through the study of people's beliefs, attitudes, behaviours in cross-cultural contexts, and cultivate cross-cultural awareness and sensitivity, preparing students for multicultural environments.

Prerequisite(s): PSYC 207-3 or PSYC 315-4, or permission of the instructor

PSYC 432-3 Advanced Cognition This course examines advanced issues in research and theories of human mental processes and the psychological and neuroscientific methods used to study them. Topics may include the following: attention; memory; concepts; language; reasoning; judgement and choice; and consciousness.

Prerequisite(s): PSYC 332-3
Preclusion(s): PSYC 430-3

PSYC 436-3 Psycholinguistics This course deals with contemporary issues in the field of psycholinguistics, a branch of cognitive science. Emphasis is on the theories and research related to the structure of language, language acquisition, speech perception and production, sentence processing, reading, language and the brain, language disorders, bilingualism, and language and culture/technology. The course applies psycholinguistic theory and research to practical examples.

Prerequisite(s): PSYC 315-3, and students must achieve a minimum grade of C in either PSYC 318-3 or PSYC 332-3, or obtain the permission of the instructor

PSYC 475-3 The Evaluation of Social Programs This course examines the methods and processes of program evaluation. Topics may include the following: needs assessment; formative and summative evaluation; and ethical issues regarding evaluation and reporting of evaluation results.

Prerequisite(s): Upper-division standing Psychology major, or permission of the instructor

PSYC 490-3 Honours Thesis I In this course, students pursue an independent research project. This course is designed to allow students to develop the introduction and proposed methodology for their project.

Prerequisite(s): Upper-division standing Psychology major

PSYC 495-3 Honours Thesis II In this course, students pursue an independent research project. This course is designed to allow students to report the results and implications of the project.

Prerequisite(s): Upper-division standing Psychology major

PSYC 498-(3-6) Special Topics in Psychology This course focuses on a special topic delivered in a lecture or seminar format. With permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): PSYC 215-3 and upper-division standing and permission of the instructor

PSYC 499-(3-6) Independent Study The course format and requirements are based on a formal contract with the instructor. No more than 6 credit hours may be applied toward a major in Psychology.

Prerequisite(s): PSYC 215-3 and upper-division standing Psychology major and permission of the instructor

Social Work (SOCW)

SOCW 200-3 Introduction to Social Work Practice This course provides an overview of Social Work practice including the historical, political, philosophical, and practical bases in Canadian society. It introduces students to the values, concepts, and the relevant Social Work Codes of Ethics. There is also an overview of current social problems and related fields of practice.

Prerequisite(s): None

SOCW 201-3 Introduction to Social Welfare Introduces students to the welfare state in Canadian society. It examines historical, ideological, and contemporary issues in the Canadian welfare state and reviews some of the major programs, policies, and concerns confronting policy makers, social workers, and client groups.

Prerequisite(s): None

Note: Social Work required courses at the 300 and 400 levels may be taken only by those students admitted into the program. Social Work elective courses may be taken by other UNBC students depending on space and permission of the Program Chair, School of Social Work. The elective courses may be of particular interest to students in Nursing, Education, Psychology, Political Science, Women's Studies and Public Administration. Priority is given to admitted Social Work students.

SOCW 300-6 Introduction to Counselling and Assessment Skills This course aims to increase skills that are appropriate to social work among Indigenous and remote, northern and rural communities. Learning to recognize people's experiences and to maximize the possibilities, resources and strengths in their lives are critical aspects of a social worker's practice. This course emphasizes the integration of interpersonal and analytical skills. Students learn effective helping strategies within a structural framework that acknowledges the influence of class, race and gender in shaping personal and social well-being. This course includes a skills laboratory.

Prerequisite(s): Enrollment is limited to students admitted to the School of Social Work

SOCW 301-3 Critical Social Work Practice This course critically examines the historical origins, values, methods and applications of various social work practice approaches. With an emphasis on structural, feminist, and Indigenous social work strategies, the course includes the application of these approaches to women, minority groups, Indigenous peoples and residents of northern and remote communities. These approaches will be contrasted with other models of social work practice including general systems theory, ecological theory, and case management.

Prerequisite(s): Enrollment is limited to students admitted to the School of Social Work

SOCW 302-6 Social Work Field Education I An initial three-day per week field placement, which includes a bi-weekly integrative seminar, is required of all students. Students are involved in a wide range of practice roles and responsibilities at the individual, family, group and community levels. The course provides an initial opportunity for students to link social work concepts and theory with practice skills. It also introduces students to the structure, goals and operation of different human service agencies. Field practice objectives and details are worked out among the student, the agency supervisor and the faculty field instructor. This course is graded on a PASS/FAIL basis.

Prerequisite(s): SOCW 300-3, SOCW 301-3, SOCW 310-3 and SOCW 320-3; enrollment is limited to students admitted to the School of Social Work

SOCW 310-3 Social Work and Indigenous Peoples This course examines methods of developing an anti-racist social work practice in the context of Indigenous peoples' experiences. Particular emphasis is placed on understanding emerging models and structures within Indigenous communities. The course explores the development of these models and analyzes the impact of the colonial experience. Students are introduced to alternative methods, including some of the healing strategies and organizational structures in Indigenous communities.

Prerequisite(s): Enrollment is limited to students admitted to the School of Social Work
Preclusion(s): SOCW 410-3

SOCW 320-3 Critical Social Policy This course examines the development of social policy in Canada, including current debates, from conventional and critical perspectives inviting students to consider the relationship between research, policy and social work practice. The course will review ideologies of social welfare policy, its formulation and implementation and consequences for people in need. Policy formulation will be analyzed from a critical perspective that examines the role of power and privilege in the construction of social policy. Alternative social arrangements and models of policy and practice will be explored.

Prerequisite(s): Enrollment is limited to students admitted to the School of Social Work

SOCW 330-3 Social Work Research/Policy/Practice This course introduces research methods and analysis techniques that are used to examine issues in the policy and practice of social work and social welfare. It reviews qualitative and quantitative approaches with an emphasis on community needs research, participatory research and the development of interview schedules and questionnaires. The methods examined in this course will be linked to substantive policy and practice issues that reflect the economic, social and personal circumstances of people and communities in northern, remote and Indigenous communities.

Prerequisite(s): Enrollment is limited to students admitted to the School of Social Work

SOCW 336-3 Social Work Philosophy and Ethics This course critically assesses the ethical issues involved in carrying out the tasks of Social Work practice, policy and research. Using the relevant Social Work Codes of Ethics as a starting point, these practice, policy and research roles are considered in the context of northern and remote Social Work. The course reviews different theoretical approaches to Social Work.

Prerequisite(s): Enrollment is limited to students admitted to the School of Social Work

SOCW 401-3 Northern/Remote Social Work Practice Northern and Remote Social Work Practice builds on the structural approach examined in SOCW 301-3. Critical generalist practice is explored within a place-based context of current and emerging client populations. The course aims to develop a critical awareness/analysis of aspects of social work in northern and remote communities, including environmental and ecological sustainability.

Prerequisite(s): All 100-, 200-, and 300-level required courses in Social Work

SOCW 402-15 Social Work Field Education II This field placement requires students to perform in a social work role or organizational setting five days per week throughout the term. Field education provides undergraduate students with an opportunity to enhance and refine their social work skills. As much as possible, the assigned field education setting broadly matches the particular type of social work experience that the student wishes to pursue. The course includes three one-day seminars as part of the field education placement. This course includes a portfolio constructed across students' 3rd and 4th years of studies. This course is graded on a PASS/FAIL basis.

Prerequisite(s): All upper-division requirements in Social Work; enrollment is limited to students admitted to the School of Social Work

SOCW 420-3 Family/Child Welfare Policy This course focuses on feminist and Indigenous critiques of child welfare policy and social work intervention. It critically examines assumptions in family and child welfare policy including notions of family, substitute care, conceptions about violence and neglect, and the implications of family and child welfare policy for social work practice in northern communities.

Prerequisite(s): SOCW 320-3; enrollment is limited to students admitted to the School of Social Work

SOCW 421-3 Human Growth and Development This course examines human growth and development with an emphasis on social processes from birth to death. The course follows a life cycle approach and addresses the influence of issues such as culture, class, gender and sexual orientation. Linkages are drawn between individual human development and health and social welfare policy, particularly as it effects residents of northern British Columbia. Note: students who have not taken a human growth and development course must take this course prior to graduating with a BSW. If students have previously taken a human growth and development course, they must check with a Student Advisor to ensure that the course meets the Human Growth and Development requirement.

Prerequisite(s): Enrollment is limited to students admitted to the Health Sciences, Nursing, Psychology and Social Work, or with permission of the Social Work Chair.
Preclusion(s): PSYC 345-3 and PSYC 211-3

SOCW 422-3 Child Welfare Practice This course examines child maltreatment from the perspective of social work practice in the field of child welfare. The course looks at various forms of child maltreatment including methods of assessing maltreatment and the cultural and structural factors that must be considered in assessing issues such as risk. Intervention strategies are also examined along with the legal procedures and responsibilities carried by child welfare social workers.

Prerequisite(s): SOCW 301-3; enrollment is limited to students admitted to the School of Social Work

SOCW 426-3 Current Issues in Child Welfare Practice This course facilitates the knowledge and skill development relevant to current policy and social practice in child welfare settings. Contemporary western and Indigenous social work practices with children and families are analyzed and critically reflected upon. Various forms of child maltreatment and the responsibilities performed by child welfare workers, and effective interventions for engaging with families and children at risk are explored.

Prerequisite(s): Upper-division standing or permission of the Social Work Chair

SOCW 437-3 Social Work with Groups and Communities This course examines the historical evolution of group work and the role that Social Work has played within this context. Different types of group approaches and experiences are discussed, including professionally led groups and self-help groups. Students consider the operation of groups through analysis of group norms, roles, values, goals and decision making from a perspective that is both theoretical and experiential.

Prerequisite(s): Upper-division standing or permission of the Social Work Chair

SOCW 439-3 Social Work/Law and the Justice System This course examines various areas of the Canadian legal system: constitutional documents and conventions, the court system, provincial legislative powers, rights of Indigenous peoples, the Charter of Rights and Freedoms, and provincial legislation. It also examines the practice of social work in court settings. The course provides a basic understanding of the rights and interests of children, rules of evidence, and the roles of various interveners. Court writing skills are introduced and court visits are arranged.

Prerequisite(s): Upper-division standing or permission of the Social Work Chair

SOCW 440-3 Social Work in Mental Health This course examines policy and practice issues pertaining to the understanding and delivery of Social Work services to people with a psychiatric disability. Although the content will explore many ideas that are international and national in scope, the primary focus is on the policies and practices that are relevant to people in northern British Columbia. Students will examine assessment and intervention methods as well as analyze the impact of current trends and changes in the health and social welfare system pertaining to people who require mental health services. The nature and impact of psychiatric disability are viewed from both an individual level as well as a structural level of analysis. The major emphasis is on practice and policy issues relating to people who are sometimes described as "psychiatric survivors."

Prerequisite(s): Upper-division standing or permission of the Social Work Chair

SOCW 441-3 Social Work and Substance Use This course examines alcohol and other drugs in terms of their effects on individuals, families and society. It also looks at different roles of social workers and human service workers in helping people deal with and understand alcohol and drug use.

Prerequisite(s): Upper-division standing or permission of the Social Work Chair

SOCW 442-3 Social Work with Victims of Abuse Social Work with Victims of Abuse examines physical, emotional and sexual abuse and violence perpetrated on less powerful individuals. The roles played by the helping professions in this context are also examined.

Prerequisite(s): Upper-division standing or permission of the Social Work Chair

SOCW 443-3 Social Work and Health Care This course focuses on the knowledge, attitudes and skills workers need to practice effectively in health care settings. Case studies are used to demonstrate different methods of intervention in this context.

Prerequisite(s): Upper-division standing or permission of the Social Work Chair

SOCW 444-3 Social Work Critical Issues in Aging Critical Issues in Aging, Social Work Practice and Research examines the physical, social and psychological needs of the elderly. Adaptation of generic social work skills in effective intervention with and on behalf of the aged is also examined.

Prerequisite(s): Upper-division standing or permission of the Social Work Chair

SOCW 450-3 Social Work and Family Practice Social Work and Family Practice through the application of family systems theory, will examine current approaches to working with families in community counselling settings. Completion of a family assessment, as well as a critical examination of power dynamics in families, and their connection with the larger society will be undertaken. Issues of gender, race, age, class, sexual preference, and so on, will be analyzed in this context.

Prerequisite(s): Upper-division standing or permission of the Social Work Chair

SOCW 453-3 Social Work Practice and Spirituality This course provides a forum for the critical exploration of the impact and influence of religious thought and practices on human service work. The historical roots of this work are based in religious movements, aspects of which still affect today's practice/policy. In an increasingly multicultural environment, students must have a fundamental understanding of religion and spirituality in order to practice effectively.

Prerequisite(s): Upper-division standing or permission of the Social Work Chair

SOCW 454-3 Disability Issues This course involves students in an examination of perspectives on disability, as well as a critical analysis of current theories, policies, and practice. The course begins with an examination of common assumptions about disability and provides opportunities to challenge and critique interpretations of the nature and meaning of disability.

Prerequisite(s): Upper-division standing or permission of the Social Work Chair

SOCW 455-3 Indigenous Governance and Social Policy Family values and standards of Indigenous peoples form the basis of the study on Indigenous policy development and its relationship to self-governance for Indigenous communities. Topics include: self-determination from an Indigenous perspective, its impact on Canadian social policy, and the necessity to address child and family social needs with regard to self-governance and planning. The course focuses on examples within British Columbia communities. The course explores the need for social work practitioners to become skilled advocates who influence policy and laws affecting Indigenous peoples and family systems.

Prerequisite(s): Upper-division standing or permission of the Social Work Chair

SOCW 456-3 Indigenous Wellness: Individuals, Families, and Communities This course develops an understanding of Indigenous wellness. Topics explored include Indigenous world-views; the impact of colonialism on the current realities of Indigenous peoples; and Indigenous perspectives on wellness, traditional family systems, and community. Contemporary social work practices with Indigenous children and families is critically reflected upon, including an emphasis on self-care.

Prerequisite(s): Upper-division standing or permission of the Social Work Chair

SOCW 457-3 Individual and Community Wellness for Indigenous Peoples This course develops an understanding of the role that wellness plays in the life of Indigenous individuals and communities. Topics explored include: the definition of healing and wellness; the role that historical events have played in the development and current socio-economic situation of Indigenous peoples; and the role that social workers can play in the future development of health and wellness of Indigenous individuals and communities. Self-care and self-management for Indigenous peoples and the social workers who may work in high stress situations are explored.

Prerequisite(s): Upper-division standing or permission of the Social Work Chair

SOCW 498-(3-6) Special Topics Special topic courses may be offered from time to time. These courses are available to permit faculty to offer courses in areas that fall within their particular areas of research and expertise in Social Work practice and policy. With permission of the Chair of the School of Social Work, students may repeat the course for credit.

Prerequisite(s): Upper-division standing or permission of the Social Work Chair

SOCW 499-3 Directed Readings Students can undertake a directed reading course in order to fulfill a particular learning need and area of interest. Directed readings are dependent upon the availability of faculty resources.

Statistics (STAT)

A student may enroll in any STAT course with permission of the Department Chair. Unless otherwise stated, students enrolling in any STAT courses with prerequisites are required to have completed all prerequisite courses for that course with a C- (60%) or better, or have permission to enroll from the Department Chair.

STAT 100-3 Statistical Reasoning for Everyday Life This course is an introduction to the role random chance plays in our life, and how to evaluate statistical evidence in support of the assessment of risk, decision-making or discovering new knowledge. Students gain a working knowledge of the framework of statistical reasoning and apply graphical techniques to assess variability. Students learn to assess the strength and validity of a statistical argument and learn to develop a statistical reasoning framework in simple situations. Examples situations include lotteries, political polls, risk, incorporating prior knowledge and meeting your long-lost relative in an airport. This course requires no mathematical background and is accessible to students in any discipline.

Prerequisite(s): None
Preclusion(s): Students who have taken or are taking STAT 371-3 require permission from the Department Chair

STAT 240-3 Basic Statistics This course is an introduction to the basic principles of statistics and procedures for data analysis. Topics include gathering data, displaying and summarizing data, examining relationships between variables, probability models, sampling distributions, estimation and significance tests, inference for means and proportions in one and two sample situations, contingency tables, and simple linear regression. Students register in a computer lab corresponding to their area of interest.

Preclusion(s): MATH 240-3, MATH 371-3, and STAT 371-3

STAT 271-3 Statistical Reasoning for Engineers This course is an introduction to statistical reasoning for engineers. Students gain a working knowledge of statistical reasoning, the probability and statistical theory underlying many common statistical techniques, and the application of these statistical techniques to real engineering problems. Students learn to critically assess the strength and validity of a statistical argument for many common engineering problems. Topics covered include basic probability, common statistical distributions used in engineering, fitting basic statistical models and assessing the fit of these models, and statistical inference including classical parametric and Monte Carlo techniques.

Prerequisite(s): MATH 101-3
Preclusion(s): Students who have taken STAT 371 require permission from the Department Chair. Students can take STAT 371 after STAT 271 and get credit for both.

STAT 371-3 Probability and Statistics for Scientists and Engineers This course is a calculus-based introduction to the theory and application of probability and statistics. Topics covered include concepts of probability, events, populations, probability theorems, the concept of a random variable, continuous and discrete random variables, joint probability distributions, distributions of functions of a random variable, moments, Chebyshev's inequality, the de Moivre-Laplace theorem, the central limit theorem, sampling and statistical estimation theory, hypothesis testing, simple regression analysis, and an introduction to the design of experiments.

Prerequisite(s): MATH 101-3
Preclusion(s): MATH 371-3

STAT 372-3 Mathematical Statistics This course introduces the theory of statistical inference. Topics covered from likelihood theory are maximum likelihood estimation, sufficiency, and the likelihood ratio test. Topics covered from frequentist theory are point estimation, unbiasedness, consistency, efficiency, confidence intervals, small sample and large hypothesis tests. Topics covered from Bayesian theory are risk, point estimation and credible intervals.

Prerequisite(s): MATH 371-3 or STAT 371-3
Preclusion(s): MATH 372-3

STAT 471-3 Linear Models This course discusses the estimation of parameters in the multiple linear regression model by the least-squares method. Topics covered include the statistical properties of the least-squares estimators, the Gauss-Markov theorem, estimates of residual and regression sums of squares, distribution theory under normality of the observations, assessment of normality, variance stabilizing transformations, examination of multicollinearity, variable selection methods, logistic regression for a binary response, log-linear models for count data, and generalized linear models.

Prerequisite(s): One of MATH 150-3 or MATH 220-3; and one of ECON 205-3, MATH 240-3, MATH 371-3, PSYC 315-4, STAT 240-3 or STAT 371-3
Preclusion(s): MATH 471-3, MATH 499-3 when offered as Regression

STAT 472-3 Survey Sampling Design and Analysis This course discusses the planning and practice of sample surveys. Topics covered include simple random sampling, unequal probability sampling, stratified sampling, cluster sampling, multistage sampling, cost-effective design, analysis and control of sources of sampling and non-sampling error, ratio estimation, model-based regression estimation, resampling, and replication methods.

Prerequisite(s): One of MATH 240-3, MATH 371-3, ECON 205-3, PSYC 315-4, STAT 240-3, or STAT 371-3
Preclusion(s): MATH 472-3, MATH 499-3 when offered as Design of Sample Surveys

STAT 473-3 Experimental Design and Analysis This course discusses experimental designs and analyses. Topics covered include basic principles and guidelines for designing experiments, simple comparative designs, single factor analysis of variance, block designs, factorial designs, response surface methods and designs, nested and split plot designs, and the analysis of covariance.

Prerequisite(s): One of MATH 150-3 or MATH 220-3; and one of MATH 240-3, MATH 371-3, ECON 205-3, PSYC 315-4, STAT 240-3, or STAT 371-3
Preclusion(s): MATH 473-3, MATH 499-3 when offered as Design of Experiments

STAT 475-3 Methods for Multivariate Data This course discusses practical techniques for the analysis of multivariate data. Topics covered include estimation and hypothesis testing for multivariate means and variances; partial, multiple and canonical correlations; principal components analysis and factor analysis for data reduction; multivariate analysis of variance; discriminant analysis for classification; and cluster analysis.

Prerequisite(s): One of MATH 150-3 or MATH 220-3, and one of MATH 471-3 or STAT 471-3
Preclusion(s): MATH 475-3, MATH 499-3 when offered as Applied Multivariate Analysis

STAT 499-(1-3) Special Topics in Statistics The topic for this course varies, depending on student interest and faculty availability. The course may be taken any number of times provided that topics are distinct.

Prerequisite(s): Permission of the instructor

STAT 530-(3,6) Undergraduate Thesis This undergraduate thesis allows students to examine and research a topic in the field of statistics. Students must have completed at least 90 credit hours and be a Mathematics major. This thesis may be taken in one or two semesters. STAT 530 is normally taken over two semesters and requires that a student find an Undergraduate Thesis research supervisor. Therefore, students are encouraged to apply to potential supervisors well in advance of completing 90 credit hours. This course is taken for a total of 6 credit hours.

Prerequisite(s): Honours standing and permission of the Instructor and the Department Chair
Preclusion(s): MATH 530-(3, 6) Undergraduate Thesis

University (UNIV)

UNIV 101-3 Introduction to Higher Education This course is most appropriate for students who are in their first year of study at a university. It offers an introduction to the university as an institution of higher learning, an explanation of the various methods of inquiry employed therein, and demonstrations of the study skills and learning strategies that are required for academic success. Students will be encouraged and assisted to apply the information presented in this course to other courses that they are completing concurrently.

Prerequisite(s): None

UNIV 103-3 Introduction to Indigenous Studies, Social Sciences, and Humanities This course is a foundations course for students entering university who plan to go into a program in Indigenous studies, social sciences, and/or humanities. It provides an introduction to academic inquiry, focusing on the development of critical thinking, reading, and university writing including foundational study skills and learning strategies. This course also introduces university services and resources available to support student success. It is organized around a specific theme which changes dependent upon the instructor.

UNIV 113-3 University Mathematics Preparation This course combines foundational mathematical skills and mathematics-related study skills in preparation for both the content and competencies needed in future mathematics courses. Mathematical topics include real numbers, the language of algebra, solving linear equations and inequalities, expanding and factoring both polynomials and rational expressions, basic graphing, roots and radicals, quadratic equations, and functions. Interwoven with the mathematics are an assessment of current study skills and techniques for improving anxiety management and time management as well as effective techniques for structuring study activities, goal setting, and using learning objectives.

Prerequisite(s): Foundations of Math 11, or permission of the Chair of Mathematics and Statistics
Preclusion(s): Pre-calculus 11, Pre-calculus 12, MATH 100-3, MATH 115-3, MATH 150-3, MATH 152-3
Equivalencies: The full UNBC Continuing Studies XMAT 161-1, XMAT 162-1, and XMAT 163-1 sequence

Visiting Research Student (VRES)

VRES 450-0 Visiting Research Student: Undergraduate All undergraduate Visiting Research Students who are at UNBC under approved undergraduate student research agreements must register in this course. This course may be repeated but degree program requirements may limit the number of times students may take external courses and apply them to a degree. Current UNBC undergraduate students are not eligible to register for this course. This course is graded on a PASS/FAIL basis.

Women's Studies (WMST)

WMST 100-3 Introduction to Women's Studies A study of past and present women's positions in and contributions to society from a multidisciplinary perspective. Specific topics may include an historical overview of politics, law and the family, productive roles, health and illness, science, culture and philosophy.

Prerequisite(s): None

WMST 103-3 Introduction to Gender Studies This course explores the ways in which human beings think about and structure gender. Topics include ideologies of masculinity and femininity, gender and psychology, gendered language, the relationship between gender and sexuality, and gender in popular culture and media.

Prerequisite(s): None

WMST 209-3 Gender and Cultural Studies: An Introduction This course introduces students to questions of gender, media representation, and technology. Students examine the construction of femininity and masculinity in such visual technologies as advertising, video, television, and film.

Prerequisite(s): None

WMST 220-3 Gender and Literary Theory This course provides an introduction to critical analyses of gender and their implications for literature. Students gain an overview of some current topics in gender theory and apply these to contemporary texts.

Preclusion(s): ENGL 200-3

WMST 221-3 Women and Literature: A Survey This course is a survey of works of poetry and fiction written by women in English from the Renaissance to the present. The course considers feminist theory and criticism in relation to these works.

Preclusion(s): ENGL 210-3

WMST 298-3 Special Topics in Women's and Gender Studies This course examines special topics related to women, gender, and/or sexuality. Themes studied in the course may vary from year to year. With the permission of the Chair, this course may be repeated to a maximum of 6 credit hours if the material is substantially different.

Prerequisite(s): None

WMST 302-3 Women and the Contemporary World This course examines the role of women in the contemporary world through a comparative examination of different societies. Topics to be addressed will include such issues as legal status, health, family, work, sexuality and violence.

Prerequisite(s): WMST 100-3

WMST 303-3 Lesbian and Bisexual Lives This course introduces students to lesbian and bisexual women's studies from an historical perspective as well as focusing on contemporary contexts and issues. Students will study the diversity of political perspectives among lesbian and bisexual women and how sexuality intersects with race, class, ability and cultural differences.

Prerequisite(s): None

WMST 306-3 Indigenous Women: Perspectives The purpose of this course is twofold: first to understand how Indigenous women's lives have been shaped by colonialism and secondly, to delineate the global themes in Indigenous women's current political and social struggles to transcend the colonial legacy that continues to constrain them.

Prerequisite(s): FNST 100-3 or WMST 100-3 or permission of the instructor
Preclusion(s): FNST 306-3

WMST 307-3 Qualitative Research Methods This course introduces students to a variety of research practices, including oral history, interviews, case studies, archival and library research, survey/content analysis, and field work.

Prerequisite(s): WMST 100-3 or permission of the instructor

WMST 311-3 History of Feminism This course surveys the history of those various political, social and cultural movements, e.g. suffragism, women's liberation, etc., which have combined to create the phenomenon of feminism. Attention is also devoted to the diverse theories, ideas and values that underpin contemporary feminism.

Prerequisite(s): WMST 100-3 or permission of the instructor
Preclusion(s): HIST 311-3

WMST 312-3 An Introduction to the History of Gender This course explores issues of gender in historical context using a case study approach.

Preclusion(s): HIST 312-3

WMST 313-3 Gender and International Studies Understanding gender is essential for understanding how our world thinks and functions. This course offers critical analysis of the role of gender in global affairs.

Prerequisite(s): INTS 100-3, WMST 100-3, or permission of the instructor
Preclusion(s): INTS 308-3

WMST 324-3 Gender and Global Crisis This course examines contemporary issues concerning gender and global crises in the context of global and international studies. It aims to prepare students for an understanding of global crises such as disasters, emergencies, violence, and conflicts through gender and intersectional perspectives.

Prerequisite(s): WMST 100-3 and INTS 210-3, or permission of the instructor
Preclusion(s): INTS 324-3

WMST 409-3 Advanced Feminist Social Science Methodology The goal of this course is twofold: first to cover current debates in feminist methodology and second to develop appropriate research strategies for an independent research project.

Prerequisite(s): WMST 311-3 or permission of the instructor

WMST 411-3 Contemporary Feminist Theories This course examines various themes and debates in recent feminist theories from an interdisciplinary perspective. Topics will vary from year to year.

Prerequisite(s): WMST 311-3 or permission of the instructor

WMST 413-(3-6) Topics in Aboriginal Women's Studies This course explores topics relating to aboriginal women's studies in both Canadian and international contexts. Topics may vary from year to year. This course may be repeated for credit (maximum 6 credit hours).

Prerequisite(s): WMST 100-3 or FNST 100 and permission of the instructor
Preclusion(s): FNST 413-3

WMST 414-3 Gender, Peace, and Security This course critically examines contemporary issues of gender, peace, and security (GPS) and unpacks complexities of the GPS agenda in Global North and Global South settings. It equips students with a critical understanding of GPS theories, debates, and perspectives and enables them to use this knowledge in their projects and everyday practices.

Prerequisite(s): WMST 100-3 and INTS 210-3, or permission of the instructor
Preclusion(s): GNDR 614-3, INTS 414-3, INTS 614-3

WMST 416-3 Gender and Politics This course examines gender, understood as a hierarchical, binary opposition of masculinity and femininity, and its intersection with power relations, understood as an expression of politics. The course examines how gender hierarchy is a system of differential power that intersects with various systems of oppression and privilege. A significant amount of time is spent on the topic of intersectionality in politics from a variety of standpoints within our ever-changing socio-economic context, including Indigenous feminisms, eco-politics, Black social movements, disability, LGBTQ movements, and various iterations of masculinity.

Prerequisite(s): Upper-division standing or permission of the instructor
Preclusion(s): GNDR 616-3, POLS 416-3, POLS 616-3

WMST 420-3 Contemporary Women's Literature This course considers contemporary women writers and their work, emphasizing their cultural diversity and considering them in the context of feminist theory. Writers may include: Nadine Gordimer, Joy Kogawa, Amy Tan and Louise Erdrich.

Prerequisite(s): Two lower-division ENGL courses excluding ENGL 170-3 or 45 credit hours or permission of the instructor
Preclusion(s): ENGL 410-3

WMST 498-(3-6) Selected Topics in Women's Studies The course examines in detail topics selected by the instructor. This course may be repeated for maximum of 6 credit hours.

Prerequisite(s): Permission of the instructor

WMST 499-3 Independent Study in Women's Studies This course enables students to read in depth in an area of women's studies not normally covered by established principal or ancillary courses in the Women's Studies program.

Prerequisite(s): Permission of the Program Chair

Index

A

Academic Breadth Requirement 49
Academic Structure 48

C

Certificate
Aboriginal Community Resource Planning 131
Aboriginal/Indigenous Health and Healing 131
Business Administration Fundamentals 73
First Nations Language 132
First Nations Public Administration 132
General First Nations Studies 133
Local Government Administration 160
Métis Studies 133
Nisg̲a'a Language Fluency 133
Nisg̲a'a Studies 134
Rural Nursing 180
Traditional Ecological Knowledge 134
Course Descriptions
Anthropology (ANTH) 197
Arts (ARTS) 202
Astronomy (ASTR) 202
Biochemistry and Molecular Biology (BCMB) 203
Biology (BIOL) 204
Chemistry (CHEM) 207
Civil Engineering (CIVE) 210
Commerce (COMM) 212
Co-operative Education (COOP) 218
Computer Science (CPSC) 218
Economics (ECON) 223
Education (EDUC) 226
English (ENGL) 232
Engineering (ENGR) 236
Environmental Planning (ENPL) 240
Environmental Science (ENSC) 242
Environmental Engineering (ENVE) 245
Environmental and Sustainability Studies (ENVS) 246
First Nations Studies (FNST) 247
Forestry (FSTY) 254
Geography (GEOG) 256
Global and International Studies (INTS) 267
Health Sciences (HHSC) 260
History (HIST) 263
International Exchange (INTX) 272
Mathematics (MATH) 272
Northern Studies (NORS) 275
Natural Resources Management (NREM) 276
Natural Resources and Environmental Studies (NRES) 278
Nursing (NRSG) 278
Nursing (NURS) 281
Outdoor Recreation and Tourism Management (ORTM) 287
Philosophy (PHIL) 289
Physics (PHYS) 290
Political Science (POLS) 292
Psychology (PSYC) 296
Social Work (SOCW) 299
Statistics (STAT) 302
University (UNIV) 304
Visiting Research Student (VRES) 304
Women's Studies (WMST) 304

D

Diploma
Aboriginal/Indigenous Health and Healing 129
Education Diploma in a First Nations Language and Culture (Elementary Years) 97
First Nations Language 130
Nisg̲a'a Language Fluency 130

H

Honours
BA
History 157
Nature-Based Tourism Management 167
BComm
BComm Honours 66
BHSc
Health Sciences Honours 156
BSc
Biochemistry and Molecular Biology 59
Biology 63
Chemistry 75
Computer Science 80
Conservation Science and Practice 84
Environmental Science 118
Forest Ecology and Management 137
Mathematics 162
Physical Geography 146
Physics 182
Psychology 187
Wildlife and Fisheries 192

J

Joint Majors
Anthropology and English (BA) 54
Anthropology and First Nations Studies (BA) 54
Anthropology and Geography (BA) 55
Anthropology and Political Science (BA) 56

Chemistry and Computer Science (BSc) 75
Chemistry and Mathematics (BSc) 76
Chemistry and Physics (BSc) 77
Computer Science and Mathematics (BSc) 80
Computer Science and Physics (BSc) 81
Economics and Global and International Studies (BA) 87
Economics and Mathematics (BSc) 88
Economics and Political Science (BA) 87
English and Environmental and Sustainability Studies (BA) 107
English and History (BA) 108
English and Political Science (BA) 109
English and Women's Studies (BA) 110
Environmental and Sustainability Studies and Political Science (BA) 124
First Nations Studies and Women's Studies (BA) 128
Geography and History (BA) 140
Geography and Political Science (BA) 141
Global and International Studies and Political Science (BA) 151
History and Political Science (BA) 158
History and Women's Studies (BA) 158
Mathematics and Physics (BSc) 162
Political Science and Women's Studies (BA) 185

M

Majors
Accounting 66
Anthropology 53
BA (General) 50
Biochemistry and Molecular Biology 58
Biology 61
Biomedical Studies 153
BSc (Integrated) 51
  Coast Mountain College Degree Completion Program 52
Chemistry 74
Civil Engineering 101
Community and Population Health – Aboriginal and Rural Health 154
Community and Population Health – Environmental Health 155
Computer Science 79
Conservation Science and Practice – Wildland Conservation and Recreation 83
Conservation Science and Practice – Landscape Conservation and Management 85
Economics 86
Education
  Elementary (Grades K-7) 92
  Secondary (Grades 8-12) 95
English 106
Environmental Engineering 102
Environmental Engineering (UNBC/UBC) 104
Environmental Science 117
Environmental and Sustainability Studies 121
Finance 67
First Nations Planning 114
First Nations Studies 127
Forest Ecology and Management 136
General Business 68
Geography (BA) 139
Geography (BSc) 145
Global and International Studies 150
History 157
Human Resources Management 69
International Business 69
Management Information Systems 70
Marketing 71
Mathematics 161
Natural Resources Planning 115
Nature-Based Tourism Management 164
Nisga'a Language Fluency 169
Northern and Rural Community Planning 113
Northern Studies 170
Nursing
  Northern Collaborative Baccalaureate Nursing Program 176
  Northern Baccalaureate Nursing Program 178
Physics 182
Political Science 184
Psychology 187
Public Administration and Community Development 141
Social Work 189
Wildlife and Fisheries 191
Women's Studies 193

Minors
Anthropology
  Anthropological Archaeology 56
  Biological Anthropology 57
  General Anthropology 57
  Sociocultural Anthropology 57
Aquatic Science 118
Atmospheric Science 119
Biochemistry and Molecular Biology 59
Biology 63
Biology and Conservation 64
Chemistry 77
Computing 82
Earth Sciences 147
Economics 88
English 111
Environmental Science 119
Environmental and Sustainability Studies 125

First Nations Studies 129
Forest Recreation 137
General Business 72
Geomorphology 147
GIS (Geographic Information Systems) 148
Global and International Studies 152
Global Environmental Change 125
Global Sustainability 152
History 159
Human Geography 149
Indigenous Ecological Knowledge 129
International Development Studies 89
Japanese Language and Culture 152
Management Information Systems 72
Mathematics 163
Natural Resources Planning and Operations 138
Northern Studies 171
Outdoor Recreation and Tourism Management 168
Philosophy 181
Physical Geography 148
Physics 183
Planning 116
Political Science 186
Psychology 188
Social Dimensions of Natural Resources Management 126
Soils and the Environment 120
Statistics 163
Women's Studies 194

P

Programs

Anthropology (BA Program) 53
BA (General) 50
BSc (Integrated) 51
Biochemistry and Molecular Biology (BSc Program) 58
Biology (BSc Program) 61
Business (BComm Program) 65
Chemistry (BSc Program) 74
Computer Science (BSc Program) 79
Conservation Science and Practice (BSc Program) 83
Co-operative Education 44
Economics (BA and BSc Programs) 86
Education (BEd Program) 90
Engineering (BASc Program) 99
English (BA Program) 106
Environmental Planning (BPl Program) 112
Environmental Science (BSc Program) 117
Environmental and Sustainability Studies (BA Program) 121
First Nations Studies (BA Program) 127
Forest Ecology and Management (BSc Program) 136
Geography (BA and BSc Programs) 139
Global and International Studies (BA Program) 150
Health Sciences (BHSc Program) 153
History (BA Program) 157
International Exchange Program 45
Local Government Administration Certificate Program 160
Mathematics and Statistics (BSc Program) 161
Nature-Based Tourism Management (BA Program) 164
Nisga'a Language Fluency (BA Program) 169
Northern Studies (BA Program) 170
Northern Transitions Program 46
Nursing (BScN Program) 172
Philosophy 181
Physics (BSc Program) 182
Political Science (BA Program) 184
Psychology (BSc Program) 187
Social Work (BSW Program) 189
Wildlife and Fisheries (BSc Program) 191
Women's Studies (BA Program) 193