

# University of Northern British Columbia Dual Credit Initiative

#### **Winter 2025 Semester Course Choices**

The following list is a summary of courses available for registration by UNBC Dual Credit students. All students are encouraged to access the UNBC Undergraduate Academic Calendar prior to registration to ensure they have met required prerequisites and are aware of course preclusions and other necessary course information. UNBC Student Advisors are available to help you. The Winter semester begins January 6 and ends April 17. The deadline to add or drop a course is January 20, and the deadline to withdraw is February 25.

#### **UNBC** Course Schedule:

https://selfservice.unbc.ca/StudentRegistrationSsb/ssb/term/termSelection?mode=search

UNBC Course Descriptions: https://www2.unbc.ca/calendar/undergraduate/course-descriptions

# 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 a 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.

Schedule: Monday, Wednesday 8:30am – 9:50am

Instructor: Angele Smith

Location: 7-212

#### **ASTR 121-3 Introduction to Astronomy II: The Universe**

This is a one-semester 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 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, worm holes and warped spacetime; the Milky Way; the universe of galaxies; distance scales and indicators; active galaxies and quasars; cosmology: past, present, and future of the universe, "Is 'Anyone' Out There?". ASTR 121 and ASTR 120 may be taken in either order.

**Prerequisite**: Foundations of Math 11 (50%) or Principles of Math 11 (50%) or Precalculus 11 (50%) or Principles of Math 12 or PreCalculus 12 (50%)

Prerequisite course must be completed prior to the beginning of dual credit course.

Schedule: Monday, Wednesday & Friday 2:30pm-3:20pm

Instructor: Erik Jensen Location: 8-164

## **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**: Biology 11 or Biology 12 (50%) or Biology 103 (D-)

Prerequisite course must be completed prior to the beginning of dual credit course.

Schedule: Monday, Wednesday, & Friday 10:30am – 11:20am

OR Monday, Wednesday, & Friday 11:30am -12:20pm

Instructor: Roy Rea

Location: 6-213 **OR** 7-238

Note: Students may register in the corresponding BIOL 124-1 lab; however, it is not required.

# **BIOL 124-1 Introductory Biology II Lab**

This laboratory-based course introduces students to plant and animal diversity, form and function 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.)

Schedule: Numerous 3 hour lab sections available

Instructor: TBA
Location: 8-322

#### CHEM 100-3 General Chemistry I

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**: MATH 115 Minimum Grade of D- or PreCalculus 12 (50%) or Principles of Math 12 (50%) **Prerequisite course must be completed prior to the beginning of dual credit course.** 

Schedule: Monday, Wednesday, Friday 9:30am-10:20am

Instructor: Nikhil Aravindakshan

Location: 7-152

# CHEM 101-3 General Chemistry II

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, and electrochemistry. Students requiring the first year laboratory courses in their program of study are encouraged to enroll in CHEM 121-1 concurrently.

Prerequisite: CHEM 100 (D-) and Principles of Math 12 or Precalculus 12 (50%) or MATH 115 (D-)

Prerequisite course must be completed prior to the beginning of dual credit course.

Schedule: Monday, Wednesday, & Friday 10:30 – 11:20am

*Instructor:* Todd Whitcombe

Location: 7-238

Note: Students may register in the corresponding CHEM 121-1 lab; however, it is not required

# **CHEM 121-1 General Chemistry Laboratory II**

A laboratory half-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: CHEM 120-1 (D-) and CHEM 101 (D-)

Prerequisite course must be completed prior to the beginning of dual credit course.

Schedule: Numerous 3 hours lab sections available

Instructor: Umesh Parshotam

*Location:* 8-421

#### **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.

Schedule: Tuesday 6:00pm – 8:50pm

OR Tuesday, Thursday 1:00pm - 2:20pm

Instructor: Charles Scott or Julius Bankole

Location: 8-164

## **CPSC 100-4 Computer Programming I**

This course introduces the fundamental concepts of programming from and 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.

**Prerequisite**: Precalculus 12 (50%) or MATH 115 (D-)

Prerequisite course must be completed prior to the beginning of dual credit course.

Schedule: Monday, Wednesday 4:00pm – 5:20pm

Instructor: Sajal Saha Location: 5-154

Note: There is a lab and tutorial requirement for this course (3 additional hours/week). Numerous times available.

## **CPSC 110-3 Introduction to Computer Systems and Programming**

The course provides an introduction to computer systems and programing, 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. Programing 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 will also be introduced. Students will develop small applications programs.

Prerequisite: PreCalculus 12 (50%) or MATH 115 Minimum Grade of C-

Prerequisite course must be completed prior to the beginning of dual credit course.

Schedule: Monday, Wednesday & Friday 8:30am – 9:20am

Instructor: Fan Jiang Location: 7-158

Note: There is a lab and tutorial requirement for this course (3 additional hours/week). Numerous times available.

# **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: PreCalculus 12 (50%) or MATH 115 Minimum Grade of C-

Prerequisite course must be completed prior to the beginning of dual credit course.

Schedule: Tuesday, Thursday 12:30pm-1:50pm

Instructor: Liang Chen

Location: 5-173

#### **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.

Schedule: Monday, Wednesday 11:30am – 12:50pm

Instructor: Liam Kelly Location: 8-166

#### **ECON 101-3 Macroeconomics**

The determinants of unemployment, inflation and growth focusing on Canada's macroeconomics performance.

Schedule: Tuesday, Thursday 10:00am – 11:20am

Instructor: TBA Location: 8-164

# **ENGL 100-3 Introduction to Literary Structures**

This course provides an introduction to the reading of the three major genres: poetry, fiction, and drama. The course introduces the students to the basic structural principles and rhetorical strategies of literary texts by observing structural and rhetorical theory applied to specific poems, fictions, and plays.

Schedule: Tuesday, Thursday 2:00pm-3:20pm

Instructor: TBA Location: 7-212

# **ENGL 170-3 Writing and Communication Skills**

Students will be taught how to construct an argument, and how to assemble and present an academic essay. There will be regular practice in writing well. The course includes library research and an oral presentation, and may also include computer skills.

Schedule: Monday, 8:30am-11:20 am Online

OR Monday, Wednesday 4:00pm-5:20pm OR Tuesday, Thursday 9:00am – 10:20am OR Tuesday, Thursday 2:30pm-3:50pm **OR** Monday, Wednesday, Friday 5:30pm-6:20pm

Instructor: Monica Mattfeld or Christine Campana or TBA

Location: Online or 10-4520 or 5-174

# 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.

Schedule: Monday, Wednesday, Friday 2:30pm – 3:20pm **OR** 

Monday, Wednesday 10:00am-11:20am

Instructor: Daniel Sims or Tannis Reynolds

Location: 8-166 or 7-212

#### **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.

Schedule: Monday & Wednesday 3:30pm-4:50pm

OR Monday, Wednesday 3:30pm-4:50pm Online

Instructor: Adam Hawkins

Location: 8-166

#### HHSC 102-3 Introduction to Health Sciences II: Rural and Aboriginal Issues

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.

Schedule: Monday, Wednesday 10:00am-11:20am

*Instructor:* Mamdouh Shubair

Location: 5-177

Note: Some seats in this section are reserved for Health Science majors.

#### **HHSC 105-3 Functional Anatomy**

This introductory anatomy course provides a macroscopic examination of the human body. Lecture topics include musculoskeletal system and mobility, 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: Biology 12 and (Chemistry 11 (50%) or Chemistry 12 (50%))

Prerequisite courses must be completed prior to the beginning of dual credit course.

Schedule: Tuesday, Thursday 4:00pm-5:20pm

Instructor: TBA
Location: 8-164

Note: There is a lab requirement for this course (1 hour/week). Numerous times available.

# 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.

Schedule: Monday, Wednesday 10:30am – 11:20am

Instructor: Sara Farhan

*Location:* 7-150

Note: There is a required one-hour tutorial each week. Numerous times available.

#### **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). 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.

Prerequisite: INTS 121 (C)

Prerequisite course must be completed prior to the beginning of dual credit course.

Schedule: Tuesday & Thursday 11:30am – 12:50pm

Instructor: Ami Hagiwara

Location: 5-313

Note: There is a one-hour language lab each week associated with this course. Numerous times available.

# INTS 122-3 Beginning French II

INTS 172 is a continuation of INTS 171. Communication abilities continue to be emphasized, along with application of grammatical rules in short compositions. Students acquire a deeper knowledge of the French culture. This course is not open to native speakers. Students must achieve a minimum grade of C in INTS 171, or obtain permission of instructor to continue. Permission of instructor is required for students who have completed grade 11 French, or some French immersion education.

Prerequisite: INTS 171 (C)

Prerequisite course must be completed prior to the beginning of dual credit course.

Schedule: Tuesday, Thursday 6:00pm-7:20pm

Instructor: TBA
Location: 5-175

Note: There is a one-hour language lab each week associated with this course. Numerous times available.

#### MATH 100-3 Calculus I

This course is an introduction to the calculus of one variable, primarily for majors and students in the sciences. Functions of one variable, rules for differentiation, differentiability, the mean value theorem, the differential as a linear functional, L'Hopital's rule, Newton's method, area between curves, applications of Integration and integration by substitution are discussed. All sections of this course are taught using Maple software.

Prerequisite: Principles of Math 12 or Precalculus 12 (67%) or MATH 115 Minimum Grade of C-

Prerequisite course must be completed prior to the beginning of dual credit course.

Schedule: Monday, Wednesday, Friday 5:30pm-6:20pm

Instructor: TBA Location: 10-4034

Note: There is a one-hour lab each week associated with this course. Numerous times available.

#### MATH 101-3 Calculus II

This course is a continuation of Math 100. Areas of study Include the definition of the natural logarithm as an integral and of the exponential function as its inverse, integration by parts, miscellaneous techniques of integration, improper integrals, volumes by slicing and by shell techniques, the trapezoidal rule and Simpson's rule, infinite sequences and series, Taylor series, masses, volumes, moments, centre of mass, first order linear

differential equations, definition of partial derivatives. All sections of this course are taught using Maple software.

Prerequisite: MATH 100 (C-) or MATH 105 Minimum Grade of C-

Prerequisite course must be completed prior to the beginning of dual credit course.

Schedule: Monday, Wednesday & Friday 1:30pm – 2:20pm

Instructor: Alia Hamieh

Location: 8-166

Note: There is a 1-hour lab each week associated with this course. Numerous times available.

#### **MATH 115-3 Precalculus**

This course examines algebraic manipulation, solutions of algebraic equations, functions, inverses, graphing, and analytic geometry.

**Prerequisite:** PreCalculus 11 (60%) or Foundations of Math 12 (73%) or India Math 10 (70%) or Principles of Math 11 (60%)

Prerequisite course must be completed prior to the beginning of dual credit course.

Schedule: Monday, Wednesday & Friday 1:30pm – 2:20pm and Tuesday 11:30am – 12:20pm

Instructor: Jennifer Hyndman

Location: 8-164

# **MATH 150-3 Finite Mathematics for Business and Economics**

This course is offered primarily for students in the School of Business and the Economics Program. 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.

Prerequisite: MATH 115 Minimum Grade of C- or Principles of Math 12 or Precalculus 12 (60%)

Prerequisite course must be completed prior to the beginning of dual credit course.

Schedule: Monday, Wednesday & Friday 11:30am – 12:20pm

*Instructor:* Erin Beveridge

*Location:* 10-4034

# MATH 152-3 Calculus for Non-majors

Limits, the derivative, techniques of differentiation, exponential functions and exponential growth, maxima and minima, curve sketching, first order linear differential equations, definite and indefinite integrals, partial derivatives, optimization of functions of several variables, Lagrange multipliers, with applications in the social and physical sciences. Applications may vary somewhat from section to section, depending on student's discipline. Not open to mathematics or computer science majors.

Prerequisite: Principles of Math 12 or Precalculus 12 (60%) or MATH 115 Minimum Grade of C-

Prerequisite course must be completed prior to the beginning of dual credit course.

Schedule: Monday, Wednesday & Friday 1:30pm-2:20pm

Instructor: Erin Beveridge

Location: 7-158

## **MATH 190-4 Math for Elementary 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 relationships, shapes and space, and statistics and probability. Problem solving and deductive reasoning are stressed throughout the course. Students who have taken MATH 100, MATH 105, MATH 152 or equivalent require permission of the Chair.

Prerequisite: Foundations of Math 11 or Precalculus 11 (60%)

Prerequisite course must be completed prior to the beginning of dual credit course.

Schedule: Tuesday, Thursday 4:30pm – 5:50pm and Monday 4:30pm – 5:20pm

Instructor: Jean Bowen

Location: 10-4044 and 5-175

**NOTE:** Lab requirement for this course (1 hour/week) is offered on Mondays at 4:30pm – 5:20pm.

# 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.

Schedule: Tuesday & Thursday 10:00am-11:20am

OR Monday & Wednesday 8:30am-9:50am

Instructor: TBA
Location: 5-184

# 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.

Schedule: Tuesday & Thursday 1:00pm-2:20pm

Instructor: Jonathan Cale

Location: 8-166

#### **PHYS 100-4 Physics for Life Sciences**

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: PHYS 115 Minimum Grade of D- or Physics 11 or Physics 12 (50%)

Prerequisite course must be completed prior to the beginning of dual credit course.

Schedule: Monday, Wednesday & Friday 8:30am – 9:20am

Instructor: Ian Hartley Location: 7-150

Note: There is a 3 hour lab/week associated with this course. Numerous times available.

# 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: PHYS 100 or PHYS 110 (D-)

Prerequisite course must be completed prior to the beginning of dual credit course.

Schedule: Monday, Wednesday & Friday 8:30am-9:20am

Instructor: Elie Korkmaz

Location: 8-164

Note: There is a 3 hour lab/week associated with this course. Numerous times available.

# **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.

Schedule: Tuesday, Thursday 2:00pm – 3:20pm

Instructor: Jason Lacharite

Location: 5-178

Note: There is a 1 hour tutorial associated with this course. Numerous times available.

## **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.

Schedule: Monday & Wednesday 11:30am – 12:50pm

Instructor: Nick Reid Location: 6-213

# **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.

Prerequisite: PSYC 101 (D-)

Prerequisite course must be completed prior to the beginning of dual credit course.

Schedule: Monday, Wednesday & Friday 8:30am-9:20am

Instructor: TBA
Location: 6-213

# 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. Example 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.

Schedule: Tuesday, Thursday 8:30am-9:50am

Instructor: Dan Ryan Location: 8-164

# **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.

Schedule: Tuesday & Thursday 2:30pm – 3:50pm

Instructor: TBA
Location: 8-164