Course Descriptions & Schedule: Science Stream

Please read carefully!

This document provide the descriptions and schedules for the Seminar Courses (Section A) and Elective Courses available to ESP students in the Science stream for the 2024-2025 academic year. Please read the descriptions carefully before selecting your course preferences on your ***Course Selection Form***. Please note: All courses are subject to cancellation and/or change.

- All ESP students must register for one credit in a first-year seminar (see Section A below).
- All ESP students must register in two Elective Courses (see descriptions below in Section B)
  - Students registered in the Science stream have set electives; according to requirements for this program (see your *Course Selection Form*).
  - Each elective will be supported by an ESP Workshop. See the *Course Schedule* for times.

Each elective course has a corresponding ESP workshop that will appear on your schedule as ESPW 1000.

Half-credit courses are marked with an asterisk (*) and are worth 0.5 credits and run during either the Fall or Winter semester. Full-credit courses are worth 1.0 credits and run during the entire Fall/Winter session. With each of your Elective Courses (Section B), you will also attend a two-hour weekly ESP Workshop. See the Student Guide for information about Workshops.

A Guide to Reading the Schedules

Course:	Name of the course and how many credits it's worth.
Code/Semester:	The course code and its semester. Some courses are full credits (Fall/Win) and run from Sept-Apr. Others are half credits and run in either the Fall (Sep-Dec) or Winter (Jan-Apr) sessions. For the First Year Seminars, some course codes are different for the same class. This is indicated by the / and you are welcome to select either course section based on your preferred day/time.
Day/Time:	M=Mon, T=Tues, W=Wed, **R=Thurs**, F=Fri. Classes may be held once per week for 3 hours or two times per week for 1.5 hours, or once per week for 2 hours plus a discussion group of 1 hour. For example, courses listed **MW are offered both Mon and Wed**, and classes **listed TR are offered Tues and Thurs** at the times listed. As well, the / represents two different times for different course codes (see above notes). Please read the times carefully.
Instructor:	Name of the Instructor/Professor.
Time Tutorial/Labs:	Some courses (usually those that have two hours per week for the lecture time) have discussion groups for 1 hour per week. These are led by Teaching Assistants assigned to the course and are a graded component of your courses. Groups are often offered at different times. We'll register you in just one of the discussion groups listed (one that has space available and works with your other course).
ESP Workshop:	This is the ESP Workshop assigned to the course with its day/time listed. It's there to help you succeed in the course and is an important and mandatory part of our program.
Facilitator:	Name of facilitator who runs the corresponding ESP workshop.

Course and Workshop Schedules

Section A. First Year Seminars (1.0 Credits)

Course: **The Creative Self**
Code/Semester: FYSM 1900 A Fall/Winter
Day/Time: M 14:35-17:25
Instructor: Devron Colley
**Please note that you cannot take FYSM 1900 A if you decide to take NEUR 1203 B in the Winter*

Course: **Privilege, Power, Difference and Communication: Creating Social Change**
Code/Semester: FYSM 1900 C Fall/Winter
Day/Time: TR 10:05-11:25
Instructor: Beth Hughes

Course: **Selected Topics in Popular Culture**
Code/Semester: FYSM 1900 F / G Fall/Winter
Day/Time: W 11:35-14:25 / T 14:35-17:25
Instructor: Susan Burhoe
**Please note that if you choose FYSM 1900 G, you must choose ESPW 1000 ZC as your workshop for MATH 1007 B (Fall)*

Course: **Access to Legal Justice**
Code/Semester: FSYM 1900 I Fall/Winter
Day/Time: R 18:05-20:55
Instructor: Kory Smith

Section B. Science Stream Courses (2 .0 Credits)

Course: **General Chemistry I**
Code/Semester: CHEM 1001 B Fall
Day/Time: TR 11:35- 12:55
Instructor: Benjamin Warnes
In Person Labs*: A1 M 18:05-20:55 A2 T 18:05-20:55 A3 M 13:35-16:25
A4 T 8:35-11:25 A6 W 8:35-11:25
ESP Workshop: ESPW 1000 Y | F 14:35-17:25
Facilitator: Sumaya Ahmed

Course: **Elementary Calculus I**
Code/Semester: MATH 1007 B Fall
Day/Time: WF 8:35-9:25
Time Tutorial/Labs: BT F 11:35-12:25
Instructor: Brandon Fodden
ESP Workshop: ESPW 1000 W | T 14:35-17:25
OR
ESPW 1000 ZC | W 18:05-20:55
Facilitator: Jada O'Brien

Course: **Linear Algebra I**
Code/Semester: MATH 1107 B Winter
Day/Time: TR 13:05-14:25
Time Tutorial/Labs: BT R 15:35-16:25
Instructor: Daniel Panario
ESP Workshop: ESPW 1000 W | F 8:35-11:25
Facilitator: Jada O'Brien

AND CHOOSE 1 OF THE FOLLOWING:

Course: **General Chemistry II**
Code/Semester: CHEM 1002 B Winter
Day/Time: TR 11:35- 12:55
Instructor: Saud Ayed
In Person Labs*: A1 M 18:05-20:55 A2 T 18:05-20:55 A3 M 13:35-16:25
A4 T 8:35-11:25 A6 W 8:35-11:25
ESP Workshop: ESPW 1000 V | F 14:35-17:25
Facilitator: Sumaya Ahmed

Course: **Neuroscience of Mental Health and Neurological Disease**
Code/Semester: NEUR 1203 A Winter

Day/Time: TR 10:05-11:25
Instructor: Matthew Holahan
ESP Workshop: ESPW 1000 S | M 14:35-17:25
Facilitator: Aurora Tracy

Course and Workshop Descriptions

Section A. First Year Seminars (1.0 Credits)

All First Year Seminars are titled: "Selected Topics in the Study of Academic Discourse" but have different selected topics.

The Creative Self
FYSM 1900 A (1.0 Credit) Fall/Win
Instructor: Devron Colley

This course is designed for people who are curious about identities, enjoy creative and thought-provoking activities in a relaxed atmosphere, and who are open-minded and interested in artistic expression. We will take an arts-based approach to teaching and learning, enabling you to express yourself through fun and creative activities. This blend of art and academics aims to teach you to identify and analyse scholarly articles related to exploration of identity. In addition to using reading and writing as ways of learning, we will watch and listen to videos of talks, poetry, music, and films. This course is based in identity theory and examines what identities are, the formation and evolution of identity and the importance of identity. We will also analyze identity-related topics through an artistic lens. By the end of the course students will also develop a research paper and an art project based on identity-related topics. The possibilities for art projects are endless and open to the artist's desired expression! Final art projects will be presented at a student-organized exhibit.

Privilege, Power, Difference and Communication: Creating Social Change
FYSM 1900 C (1.0 Credit) Fall/Win
Instructor: Beth Hughes

This course is about learning how to be successful in university by exploring ideas of social justice. Where did social injustices come from, who created them, and why do they exist? How can you make sense of conflicting media messages to have an informed understanding of social issues? How can you make change!

Unjust, oppressive social structures are created and reinforced by politicians, the wealthy, journalists, advertisers, news media and others with power. They bomb you constantly with conflicting messages about what society is, what it should be, and how you should participate—especially according to your identity, who you are as a person.

Part of the answer lies in understanding power, privilege, and difference. Our first "lit" class of the year examines slang and how it changes with social ideas. Other ideas covered include identity, racism, consent, addiction, disability, privilege, equity, power, and allyship. We will critique deeply racism, sexism, genderism, and ableism. Lastly, you get to choose a social issue of your choice: you get to analyze the power of individual action and social movements to communicate and create social change. Our class will go step-by-step, taking a thoughtful and planned approach to how all these ideas fit together.

So, join this class! The ideas are engaging, and you will have many opportunities to understand and develop strong academic skills that are important for any university student:

- academic writing, revising and editing,
- critical thinking and making arguments,
- researching and reading to understand,
- time management, including procrastination,
- early career exploration, and much more.

As L. Hansberry wrote (1959), I didn't make this world. It was given to me this way! Even so, transformation happens with the understandings and subsequent actions that come from education.

A bit about Beth: She is an award-winning founding member of both the Centre for Initiatives in Education and the Enriched Support Program. She is a scholar of language and culture who has extensive experience teaching at Carleton and in Asia and a particular interest in how language expresses and shapes social relations of power. Her innovative and playful teaching motivates students to think critically and collaboratively about social justice.

Selected Topics in Popular Culture
FYSM 1900 F / G (1.0 Credit) Fall/Win
Instructor: Susan Burhoe

In this course we will explore how modern popular culture both reflects and shapes our experience of the world around us. You will be introduced to basic cultural theory and learn how scholars approach cultural "texts". How do we "read" a music video, an ad, or a TV crime show? How do the cultural products we consume influence our idea of what's normal? What's up with our fascination with zombies? Why do we care what celebrities do? What is our relationship to brand names? How does advertising influence our tastes and self-concept? What do our musical tastes "say" about our world view, who we are, what we identify with, and how we see ourselves?

We'll look at some of the debates around pop culture and analyze how they relate to competing social values and hierarchies. We will examine the stories that popular culture circulates with particular attention to ideas about race, gender, sexuality, and class. We'll explore the ways in which cultural "anxiety" about social change is reflected in debates about pop culture. Our emphasis will be on examining how various "entertainments" have shaped our ideas about ourselves and the world in the 20th and 21st centuries.

Weekly Topics may include:

- Diamonds are a Girl's Best Friend: Hollywood Glamour
- "Oh… the HORROR!": Comic Books and Moral Panic in the 50s
- I cast "detect evil": Dungeons & Dragons and Moral Panic
- Fight the Power: Music, Race, and Culture
- Apocalypse Now: Zombies, Contagion, and End-of-the-World Narratives
- Conspiracy Theories and Celebrity on Social Media
- Got Beef? Interpreting Hip Hop Feuds

We'll explore this material in lectures accompanied by film, TV, music, magazine, and internet clips, as well as through group discussion and activities. You will be graded on written reflections, test/exams, and a cumulative project that will ask you to analyze a popular culture topic of your choosing.

Note: this course precludes additional credit for CIED 1001; it is reserved for students who have not taken CIED 1001 previously.

Access to Legal Justice
FYSM 1900 I (1.0 Credit) Fall/Win
Instructor: Kory Smith

In Canada, almost half of adults will experience a serious legal issue over the course of a three-year period. Yet, many of these individuals lack meaningful access to legal justice. Barriers related to financial cost, time, complexity, lack of information, and availability of legal services result in legal problems going unaddressed. Vulnerable and marginalized populations experience further barriers to accessing legal justice. Timely access to legal justice will help support the well-being of individuals and communities.

This interdisciplinary first-year seminar will provide you with theoretical and methodological tools to help you understand and respond to access to legal justice issues. You will explore questions from legal, sociological, historical, philosophical, and political perspectives. Questions that will be addressed include: What is justice? What is legal justice? What is access to legal justice? What are the causes and consequences of unmet legal needs? What are the experiences of justice system participants? What is the relationship between access to legal justice and inequality and oppression? What are some potential solutions to access to legal justice problems?

This course is designed to be as experiential as possible. Methods of instruction include interactive lecturing, class discussion, student presentations, field trips (COVID-permitting), and guest speakers. Assignments and in-class activities will be used to help you develop the following academic skills: studying, research, writing, and oral communication. Your grade in the course will be based on several different types of evaluation: attendance and participation, weekly journal entries, an essay proposal and annotated bibliography, an essay, and a presentation and presentation reflection.

Welcome to Carleton University and the Enriched Support Program! I wish you the best in your first year of university studies.

A bit about Kory: He is a settler lawyer practicing in the areas of Aboriginal and Indigenous law, constitutional law, and human rights law. He holds a Ph.D. and B.A from Carleton university and a law degree from the University of Ottawa.

Section B. Science Stream Courses (2.0 Credits)

General Chemistry I (Fall)
CHEM 1001 B [0.5 credit]
Prof. Benjamin Warnes

This math-intensive course covers an introduction to solution chemistry, acids and bases, thermodynamics, and kinetics. Specialist course for students intending to take second year chemistry.

- Information on the course can be found on the Department of Chemistry website: https://carleton.ca/chemistry/current-students/undergraduate/#courseinfo
- Lectures/tutorials four hours a week, laboratory three hours every other week.

General Chemistry II (Winter)
CHEM 1002 B [0.5 credit]
Prof. Saud Ayed

This math-intensive course covers introduction to periodicity, gas laws, equilibrium, bonding, electrochemistry, and organic chemistry. This is a specialist course for students intending to take second year chemistry.

- Information on the course can be found on the Department of Chemistry website: https://carleton.ca/chemistry/current-students/undergraduate/#courseinfo
- Lectures/tutorials four hours a week, laboratory three hours every other week.

**Please note that if you take CHEM 1002 A in the Winter, you cannot take NEUR 1203 B in the Winter*

Neuroscience of Mental Health, and Neurological Diseases (Winter)
NEUR 1203 A [0.5 credit]
Prof. Matthew Holahan

Clinical symptoms of neurological disease, including biological, developmental, experiential and environmental factors that contribute to disease. Topics may include stroke, multiple sclerosis, migraine, seizure disorder, Parkinson's disease, ALS, chronic pain, Alzheimer's disease and concussion.

- Information about the course can be found on the Neuroscience Department website: https://carleton.ca/neuroscience/
- Lectures three hours a week

**Please note that if you take NEUR 1203 B in the Winter you cannot take CHEM 1002 A in the Winter*

Elementary Calculus I (Fall)
MATH 1007 A [0.5 credit]
Prof. Saban Alaca

Limits. Differentiation of the elementary functions, including trigonometric functions. Rules of differentiation. Applications of differentiation: max-min problems, curve sketching, approximations. Introduction to integration: definite and indefinite integrals, areas under curves, fundamental theorem of calculus.

- An example of a course outline from Fall 2022: https://carleton.ca/math/wp-content/uploads/MATH-1007A-F22.pdf
  - Please note that this course outline is subject to change for the current academic year
- Lectures three hours a week, tutorial one hour a week.

Linear Algebra I (Winter)
MATH 1107 B [0.5 credit]
Prof. Daniel Panario

This is an introductory course in linear algebra, with the focus on calculations and applications. It includes basic topics in linear algebra. The students will have the opportunity to develop their mathematical skills and their communication skills.

- An example of a course outline from Fall 2022: https://carleton.ca/math/wp-content/uploads/MATH-1107E-F22.pdf

    - Please note that this course outline is subject to change for the current academic year
- Lectures three hours a week, tutorial one hour a week.