Course Descriptions
Science Stream

The following are descriptions of the courses available to ESP/IESP students in Science stream for the 2019-2020 academic year.

Please read the descriptions carefully before selecting your Seminar preferences on your Course Selection Form.

Please note: courses are subject to change.

- All ESP/IESP students must register for one First Year Seminar (Section A, below)
- First-year IESP students enroll in FYSM 1900 E
- All ESP/IESP 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 (refer to the Course Selection Form).
  - Each elective will be supported by an ESP/IESP Workshop. See the Course Schedule for times.

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.

Section A: First Year Seminars

All First Year Seminars are titled: “Selected Topics in the Study of Academic Discourse” but have different selected topics. See the descriptions below:

First-Year Enriched Support Program Students should choose from these Seminars:

Selected Topic: Power, Culture and Communication
FYSM 1900 B or H (1.0 Credit) Fall/Win
Instructor: Beth Hughes

The world is in a lot of trouble when you consider issues of power, privilege and difference in our society, and you participate in a society that you did not create. Prominent cultural icons, such as politicians, musicians, journalists, advertisers and other influencers, bombard you constantly with conflicting messages about what the world is, what it should be and how you should participate in it.

What can you do to have the potential to effect meaningful change? Part of the answer lies in understanding communication, privilege, power and difference. The class draws examples from politics, pop culture, research and social media to analyze. Topics covered include slang, identity, memes, persuasion, argumentation, privilege, equity and inclusiveness. We will analyze racism, sexism, ageism and ableism, and others, in texts to consider how the use of power also creates and promotes inequality and oppression. Throughout the year, we will use gamification, “meaningful play,” for learning to explore these ideas. Lastly, class activities include strategies for creating meaningful social change.

This course draws on sociology, communications, linguistics and other disciplines. This content aims to help you develop a deeper understanding of culture and power, as well as provide opportunities to develop strong academic tools: reading, listening, arguing, researching, analysis and writing. This course is useful for any of the ESP streams, encouraging skills that are valuable for university and well beyond.
Welcome to Carleton University and congrats on becoming a Raven! You have officially taken a first step toward achieving your academic and career goals. In order to help you reach those goals this course explores lots of research aimed at understanding and improving memory, learning, motivation, self-regulation, emotion regulation, career management, and more. Although we will be discussing lots of theory and research, there is a very practical purpose to this course — to help you achieve your academic goals. So, if you decide to take this class, embrace the ideas and practice the methods we discuss, you will be taking another step toward your goals. Along the way, you will also develop your research skills, writing skills, citation skills, test-taking skills and presentation skills — all essential for your continued success at university. Even though I can’t guarantee your success, I can definitely say that if you decide to take this seminar you will learn some very interesting and useful information — and that’s not a bad thing.

One last thing - you should know a bit about the grading before you commit. Your final grade will be most likely based on the following three core elements:

1) attendance & participation (15% of the overall grade);
2) testing (50% of the overall grade, consisting of four tests & one exam, you will be given all of the questions for each test and exam); and
3) research (35% of the overall grade, you will pick a psychology-based topic, find and summarize several research articles, write a review paper based on the summaries, and give a 3-minute thesis presentation (based on your topic).

In closing, if you are a procrastinator, I know your “pain” because I am an inherent, recovering procrastinator who has and still does apply the ideas discussed in this course. Have a great frosh year. Best of luck, AKB.

First-Year IESP Students choose:

Selected Topic: Indigenous Studies
FYSM 1900 E (1.0 Credit) Fall/Winter
Instructor: Sheila Grantham

Aanii Kinawiya! (Hello Everyone!)

This seminar prioritizes narration and storytelling. Storytelling in an Indigenous context emphasizes the oral nature of language and speaks to many areas from which Indigenous knowledge systems are drawn, including stories of tricksters, the land, ceremonies, relationships, and clan systems. Storytelling can also be relayed through fiction and comics. Stories can take the form of a personal narrative and reveal personal and communal experiences that speak to the Indian Act, gender, education and child welfare. Within this course, we will draw upon a variety of literature, as well as oral teachings that privileges storytelling as a medium to relay Indigenous lived experiences, knowledge, research methods, and theories.

This course is a requirement for students in the Indigenous Enriched Support Program and is therefore reserved for IESP students.
Section B: Elective Courses

All elective courses listed below will be accompanied by a three hour/week ESP/IESP Workshop (this will appear on your schedule as ESPW 1000). Please see the Class and Workshop Schedule for day and time information; and read the ESP/IESP Student Handbook for a description of workshops.

Chemistry: General Chemistry I (Fall)
*CHEM 1001 E [0.5 credit]
Prof. TBA

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.

- There is no outline currently available for this course.
- Lecture three hours/week plus a lab three hours/week and a discussion group one hour/week.

Chemistry: General Chemistry II (Winter)
*CHEM 1002 E [0.5 credit]
Prof. TBA

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.

- There is no outline currently available for this course.
- Lecture three hours/week plus a lab three hours/week and a discussion group one hour/week.

Math: Elementary Calculus I (Fall)
*MATH 1007 A [0.5 credit]
Prof. TBA


- The course outline below is an example from a previous year. Note: outline may be different this year: https://carleton.ca/math/wp-content/uploads/MATH-1007H-W15.pdf
- Lecture three hours/week plus tutorial one hour/week.

Math: Linear Algebra I (Winter)
*MATH 1107 C [0.5 credit]
Prof. Ramon Cova

Systems of linear equations; vector space of n-tuples, subspaces and bases; matrix transformations, kernel, range; matrix algebra and determinants. Dot product. Complex numbers (including de Moivre’s Theorem, and n-th roots). Eigenvalues, diagonalization and applications.

- The course outline below is an example from a previous year. Note: outline may be different this year: https://carleton.ca/math/wp-content/uploads/MATH-1107C-W16.pdf
- Lecture three hours/week plus tutorial one hour/week.