Course Descriptions

Engineering Stream

The following are descriptions of the courses available to ESP students in the Engineering stream for the 2022-2023 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 Engineering 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.

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

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

You participate in an unjust society with oppressive social structures that you did not create. Where did these structures come from, who created them, and why do they exist? These structures are created and reinforced by politicians, the wealthy, journalists, advertisers, and others with power. They bombard us constantly with conflicting messages about what society is, what it should be, and how you should participate—especially according to your identity.

How can you make sense of these conflicting messages and have an informed understanding of social issues? Part of the answer lies in understanding the dynamics of power, privilege, and difference. To do this, our class scrutinizes examples from politics, pop culture, research, and history. Topics covered include slang, identity, racism, consent, persuasion, privilege, equity, and allyship. We will pull apart racism, sexism, genderism, and ableism. Lastly, based on an issue of your choice, you will 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.

Assignments in this class include creating an ePortfolio, reflections, short tests, readings, and in-class games; our class will use game-based learning to introduce theories. Participating fully in this class will give you many opportunities to develop stronger academic skills to be successful in your degree program. This course is useful and important for students in any of the ESP streams during their studies and to prepare for future employment. Welcome to Carleton university and ESP!

A bit about Beth: She is a 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 around the world; 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.
Section B: Elective Courses

All elective courses listed below will be accompanied by a two hour/week ESP 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 Student Guide for a description of workshops.

General Chemistry I (Fall)
*CHEM 1001 A [0.5 credit]
Prof. David Brock
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.
  - Lectures/tutorials four hours a week, laboratory three hours every other week.

General Chemistry II (Winter)
*CHEM 1002 A [0.5 credit]
Prof. David Brock
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.
  - Lectures/tutorials four hours a week, laboratory three hours every other week.

Calculus for Engineering or Physics (Fall)
*MATH 1004 A [0.5 credit]
Prof. Angelo Mingarelli
  - Last year’s outline [link]
  - Lectures three hours a week, tutorial one hour a week.

Linear Algebra for Engineering or Science (Winter)
*MATH 1104 G [0.5 credit]
Prof. TBA
  - Last year’s outline [link]
  - Lectures three hours a week, tutorial one hour a week.