Description

This course is designed to provide a thorough introduction to the foundations and paradigms of programming languages. In particular, we will use the typed functional programming language OCaml to understand **general programming concepts** such as: local and global bindings; higher-order functions; continuations; effects; reasoning about computation; static typing including type inference and subtyping; structuring and maintaining software using modules. We will also discuss some basic concepts regarding the syntax and semantics of a programming language.

Lectures

This course has two sections; each section covers the same material, the same homeworks, and the same exams.

Section 001: We / Fr 2:35 PM - 3:55 PM, **Maass Chemistry Building 112 (Prof. B. Pientka)**

Section 002: We / Mo 4:05 PM - 5:25 PM, **McConnell Engineering Building 13 (Prof. B. Pientka)**

Instructors

- [Prof. Brigitte Pientka](#) (`bpientka@cs.mcgill.ca`), ENGMC 107N

    - **Office Hours COMP 302 001/002 :** Friday: 9:30am - 11:00am

Teaching Assistants

TAs are holding office Hours are in Trottier 3090.

Day	Time			Name	Email
Wed	10:00	-	12:00	Akshal Aniche	`akshal.aniche@mail.mcgill.`
Tue	12:30	-	2:30	Wilson Cheang	`wilson.cheang@mail.mcgill.`
Mo	2:00	-	4:00	Jacob Errington	`jacob.errington@mail.mcgil`
Thu	4:30	-	6:30	Aliya Hameer	`aliya.hameer@mail.mcgill.c`
Thu	2:30	-	4:30	Ivan Miloslavov	`ivan.miloslavov@mail.mcgil`
Mo	10:00	-	12:00	Kelvin Tagoe	`kelvin.tagoe@mail.mcgill.c`
Tue	2:30	-	4:00	Benjamin Willets	`benjamin.willetts@mail.mcg`

Required Reading

- Course notes (will be available online)

Supplementary Reading

There are many resources available about OCaml. Here are some I highly recommend:

- OCaml - Everything you ever wanted to know
- Books on OCaml

The following is a more advanced book regarding the design of programming language which is on reserve in the Schulich library.

- B. C. Pierce: "Types and Programming Languages". MIT Press, 2002.

Evaluation

- 10% homework assignments
- 25% midterm
- 65% final

Assignments

There will be 10 small homework assignments. Each assignment is worth 1%. Assignments complement the material taught in the class. They must be completed and submitted via the LearnOCaml platform. The LearnOCaml platform allows you to automatically check and grade your code and provides immediate feedback on the correctness of your solution. You will be able to check your work against our test suite as often as you like before the deadline.

The **submitted solutions must represent your own effort.** Copying solutions for assignments, midterms or finals from any source, completely or partially is in violation with the Code of Student Conduct and Disciplinary Procedures. Allowing others to copy your work, deliberately or inadvertedly, will not be tolerated. You must protect your own work.

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Midterm: Oct 4 (Thursday) 18:05pm - 20:55pm

- ADAMS AUD:
- LEA 219:
- LEA 26:

- MAASS 10:

Closed book. Cheat sheet (one page) allowed.

We will announce which room each person has to be in later in the semester.

Final

To be announced. Closed book. Cheat sheet (one page) allowed.

Language Rights

In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

Academic Integrity

McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offenses under the Code of Student Conduct and Disciplinary Procedures (see http://www.mcgill.ca/integrity/ for more information). Most importantly, work submitted for this course must represent your own efforts. Copying assignments or tests from any source, completely or partially, or allowing others to copy your work, will not be tolerated.