CISC 465 Winter 2020:
Syllabus (PRELIMINARY)

J. Dunfield

January 8, 2020

1 Calendar description

Specifying syntax and semantics; operational and denotational semantics. Lambda calculi, type systems and logical foundations. Meta-theoretic properties. Semantics of imperative languages.

2 Logistics

Course Website: [https://dunfieldlab.ca/465](https://dunfieldlab.ca/465)
Piazza: We will use Piazza (piazza.com/queensu.ca/winterterm2020/cisc865) for course discussions and to post updates.
onQ: I expect to use onQ only for posting marks.
Instructor: J. Dunfield
Email: joshuad at cs.queensu.ca (please put “465” in the subject line)
Office Hours: Goodwin 534, Thu. 14:00–15:00 + additional times TBA + by appointment

Lectures: Tue 14:30–15:30, Wed 16:30–17:30, Fri 15:30–16:30 in Goodwin 521
Attendance is neither mandatory nor tracked, but attending class is generally a good idea.

Textbook: There is no textbook. I have my own lecture notes, which I may revise or alter as the course progresses.

Software: We may use one or more of DrRacket, OCaml, Twelf, or other languages. However, much of the class work will be doing proofs on paper.

3 Assessment

The basis for your course grade will be:

50% Assignments
50% Project
  5% Proposal
  30% Report
  15% Presentation

I expect a mix of one or two “quick” assignments (due 1 or 2 days after release) and several longer assignments (due 1 to 2 weeks after release).

Assignments will involve some combination of mathematics (including proofs in a particular form) and programming (probably in the language Racket). After the first assignment (which must be done individually), you may work individually or in groups of two.
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Ideally, assignments should be typeset in LaTeX, even though it is bad. If you have had the good fortune to avoid LaTeX in the past, I will provide resources to help you learn enough of it to manage.

If you don’t use LaTeX, you may legibly hand-write your assignments. I do not recommend Word for this course—it is difficult or impossible to produce the correct symbols.

3.1 Forgiveness (assignments)

In general, I will drop your lowest assignment mark. This includes situations where you submitted nothing and thus received a zero: zero is a very low mark, so it would be dropped.

4 Additional syllabus information

4.1 Common syllabus

The School of Computing’s “Common Syllabus Information (2019–20)” is part of the 465 syllabus. Access it at the following link:


4.2 Academic integrity

For greater certainty, an excerpt from the standard syllabus’s section on “Academic Integrity” is reproduced here:

Queen’s students, faculty, administrators and staff all have responsibilities for supporting and upholding the fundamental values of academic integrity. Academic integrity is constituted by the five core fundamental values of honesty, trust, fairness, respect and responsibility (see www.academicintegrity.org) and by the quality of courage. These values and qualities are central to the building, nurturing and sustaining of an academic community in which all members of the community will thrive. Adherence to the values expressed through academic integrity forms a foundation for the “freedom of inquiry and exchange of ideas” essential to the intellectual life of the University.

Students are responsible for familiarizing themselves with and adhering to the regulations concerning academic integrity. General information on academic integrity is available at Integrity@Queen’s University, along with Faculty or School specific information. Departures from academic integrity include, but are not limited to, plagiarism, use of unauthorized materials, facilitation, forgery and falsification. Actions which contravene the regulation on academic integrity carry sanctions that can range from a warning, to loss of grades on an assignment, to failure of a course, to requirement to withdraw from the university.

5 CISC 865

The syllabus for CISC 865 is the same, except that the “Common Syllabus Information” generally does not apply to graduate courses.