Instructor: Prof. Leopoldo Bertossi  
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Course web page: http://www.scs.carleton.ca/~bertossi/complog/index.html

Office hour: Room Herzberg 5125A. Tuesdays 13:30-15:00.

Lectures: Tuesday and Thursdays 8:30-10:00. Room: SA 303.

Prerequisites: COMP 1805.

This course is intended to be a third year elective course. Being this the first time it is offered, for calendar/scheduling reasons, it has been exceptionally assigned the 4900 code. This course combines well with courses on artificial intelligence, knowledge representation, data management, algorithms, and formal methods in software engineering, but none of them is a prerequisite.

Description:
This course is about using different kinds of applications of symbolic logic, in particular classical predicate logic, to: (a) represent knowledge, (b) model computational problems, and (c) solve them by means of automated reasoning.

Special emphasis is placed on logical descriptions of possibly hard combinatorial and computational problems. Some automated reasoning systems will be used to model problems and compute from their logical representations, among them: Otter/Prover9/Mace, Prolog, DLV, Datalog.


The course emphasizes concepts, techniques, and applications rather system issues. Programming of the usual kind is not considered for this course.

Assessment: Assignments, some of them about experimenting with reasoners not presented in class (60%), two midterm tests taken in class, one of during the last lecture time slot (20% each).

Reading Material (mandatory):

1. Lecture notes posted after every lecture on the course web page.

2. Relevant survey and research papers will be posted for reading.