

Math 3265 Spring 2018

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Office Hours: Wednesday 12:15-2:00 and Thursday 1:15-3:00. There may be several Wednesdays when I need to shift my office hours.

Grading: You will be graded on homework (25%), two midterm exams (25% each) and a final exam (25%).

Homework: There will be roughly 6-8 homework assignments and some of the problems will involve proving mathematical statements. It is important that you express your mathematical thoughts in clear and complete sentences. You will do mathematical calculations and use mathematical notation, but the sentences explaining the reasoning connecting your steps are often the most important. You should write your explanations as though they were for another student in the class. You should also work through your mathematical thoughts on scratch paper first and rewrite the results in a clean and concise way when you hand it in.

Outline of content: There are three main themes we will study in this course. First, we will study classical, modal and intuitionistic propositional logic using tableaux proof systems and Kripke frame semantics (except for classical logic). Second, we will define two models for computation (register machines and partial recursive functions) and use these models to study several undecidable problems. Third, we will study well orderings and cardinal numbers and learn to use transfinite recursion to do mathematical constructions.

Textbook: There is no assigned textbook for this course. We will use handouts from different sources for each section of the course.

Midterm Exams: The midterm exams are tentatively set for **Friday February 23** and **Friday March 30**. However, I may move the exams depending on how long it takes us to move through the material. The first exam will cover classical, modal and propositional logic. The second exam will cover computation and undecidability.

Office Hours and Additional Help: This course moves quickly and I recommend visiting me in office hours if you find yourself having difficulties with the material. If you cannot make it to my office hours, let me know and I am happy to schedule a meeting at an alternate time.

Academic Integrity: Instances of academic dishonesty are taken very seriously at UConn. Please read www.community.uconn.edu/student_code_appendixa.html. If you ever have a question about whether certain behavior constitutes academic dishonesty, you should ask!