Syllabus   MAT 375 - M002   Spring, 2015

Time: Monday and Wednesday 3:45-5:05.

Place: Room 114, Carnegie

Instructor: Will Wylie
    Office: 206C Carnegie
    Office hours: Tu 12-1, W 11-12, Th 10:30-11:30 or by appointment.
    Campus Phone: 315-443-1469.
    Email: wwylie@syr.edu.

Text: *Passage to Abstract Mathematics*, by Watkins and Meyer, Addison-Wesley.

Prerequisites: MAT 295

Restrictions: Credit can not be given for both CIS 275 and MAT 375.

Description: The goal of this course is to introduce the fundamental principles underlying abstract mathematics including logic, methods of proof, set theory, mathematical induction, functions, and concepts of infinity. This roughly consists of Chapters 1-7 in the text (we will leave out a handful of sections).

Last semester a student on the course evaluations noted, "This class is so different from other math courses that we have taken in the past," I think this is because this course is about reading and writing proofs, instead of learning a collection of computational techniques. Writing a proof is like explaining the solution to a puzzle, first you have to think about how to solve the puzzle, and then you have to explain the solution. Problem solving, creative thinking, and understanding will be more important in this class than in other math classes you have taken.

It will also be very hard to catch up if you miss class. I will not always follow the book or cover all of the material in the book. *If you miss class, you must get the notes from another student - I will not provide notes for missed lectures.*

Homework and Quizzes: There will be homework sets collected weekly and weekly quizzes usually given on Wednesday at the beginning of class. The lowest two quiz scores will be dropped.

The homework is designed to be challenging and you will get stuck on homework problems. As another student wrote in an evaluation, "The homework was difficult because the lecture didn't provide examples that were similar to the homework." Believe it or not, this is by design. The problems will sometimes be hard and your first idea for solving a puzzle won't always work. Developing the ability to digest and solve hard math problems is the main learning objective of this course, and you will practice this most in the homework.

When you get stuck, you should first try to think carefully about the problem on your own. This is often when we learn the most! When you get really stuck on a problem, you should seek out help from me in office hours or from other students in the class. It is also very important to *ask questions* in lecture when you don't understand because the homework is designed to test understanding of the concepts covered and won't necessarily be similar to examples done in lecture.

You may collaborate on homework but you must write up and hand in your own solutions. You may give each other hints, but collaboration does not include letting someone else copy your solution.

Exams: There will be two midterm exams and a comprehensive final exam. The midterm exams are tentatively scheduled for

Exam 1	Wednesday, February 18th
Exam 2	Wednesday, March 25th

There are no calculators or electronic devices of any kind allowed during the exam. There will be no makeup exams. Any exam missed with a legitimate written excuse will be made up by weighing the final exam extra.

The Final Exam: Tuesday, May 5 from 10:15am to 12:15 pm.
All students must take the final exam at this time to pass the course.

Grading: Your grade will be calculated as follows:

Homework	10%
Quizzes	20%
2 Exams (20% each)	40%
Final Exam*	30%

*The final exam will be given more weight if it demonstrates improved understanding.

Blackboard: Course materials and grades will be posted on Blackboard. Please check your grades on Blackboard regularly to ensure they have been recorded correctly.

Students with disabilities. If you believe that you need accommodations for a disability, please contact the Office of Disability Services(ODS), http://disabilityservices.syr.edu, located in Room 309 of 804 University Avenue, or call (315) 443-4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability-related accommodations and will issue students with documented Disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible. Related link: http://disabilityservices.syr.edu/faculty-staff/syllabus-statement/

Religious observances policy. SU religious observances policy recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to are religious observance provided they notify their instructors before the end of the second week of classes. For fall and spring semesters, an online notification process is available through MySlice (Student Services → Enrollment → My Religious Observances) from the first day of class until the end of the second week of class. Related link: http://supolicies.syr.edu/studs/religious_observance.htm

Academic Integrity. Syracuse University sets high standards for academic integrity. Those standards are supported and enforced by students, including those who serve as academic integrity hearing panel members and hearing officers. The presumptive sanction for a first offense is course failure, accompanied by the transcript notation Violation of the Academic Integrity Policy. The standard sanction for a first offense by graduate students is suspension or expulsion. Students should review the Office of Academic Integrity online resource Twenty Questions and Answers About the Syracuse University Academic Integrity Policy and confer with instructors about course-specific citation methods, permitted collaboration (if any), and rules for examinations. The Policy also governs the veracity of signatures on attendance sheets and other verification of participation in class activities. Additional guidance for

students can be found in the Office of Academic Integrity resource: What
does academic integrity mean?

Related links:

The Academic Integrity Policy:

http://academicintegrity.syr.edu/academic-integrity-policy/

Twenty Questions and Answers about the Academic Integrity Policy:

http://academicintegrity.syr.edu/faculty-resources/

What does academic integrity mean?:

http://academicintegrity.syr.edu/what-does-academic-integrity-mean/