

**MAT 375-001**

**Introduction to Abstract Mathematics**

**Spring 2018**

**Instructor:** Professor Andrew Vogel, 313B  
Carnegie 443-1584  
[alvogel@syr.edu](mailto:alvogel@syr.edu)

**Office Hours:** MW 11-12 noon, T-Th 2-3pm and by appt

**Class Time and Room:** TTh 9:30 – 10:50 am, Room 119 Carnegie.

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

**Course Description:** Principles of symbolic logic, set theory, basic function theory, relations, and cardinality. Emphasis on developing proof-writing skills, including mathematical induction. Credit cannot be given for both MAT 375 and CIS 275.

PREREQ: [MAT 295](#)

**About This Course:** Besides learning some new mathematics that will be relevant in later classes, the main goal of this course is that the student should learn how to write and read proofs. We cover at least some parts of Chapters 1 - 7 in the text. There may be additional topics presented by the instructor. Therefore notes from the lecture will be at least as important as the text. *For this reason it will be hard to catch up if you miss class. You will need to get notes from another student – I will not provide notes for lectures that are missed.* The emphasis of the course is mastery of the material and methods rather than covering a specific list of topics. There is no set daily schedule for the course. We will proceed at the necessary pace to master the essential ideas. The work you do for the course will include solving problems with applications from the material and writing proofs of claims.

**Grading:** Your grade will be based on the following.

| <i>Category</i>   | <i>Weight</i> |
|-------------------|---------------|
| Two midterm exams | 25% each      |
| Final exam        | 25%           |
| Weekly Quizzes    | 20%           |
| Homework          | 5%            |

**Exam Dates:**

|            |   |
|------------|---|
| Exam 1     | Thursday, February 15, 2018;            |
| Exam 2     | Thursday, March 29, 2018;               |
| Final Exam | Thursday, May 3, 2018, 8:00 - 10:00 am. |

*There will be no make-up exams or quizzes. As per departmental policy any exam missed will be made up with the relevant portion of the final exam. I will drop one of the lowest quiz scores.*

**Phone, Laptop, Tablet in class policy:** Phones, laptops, and tablets are not allowed to be out during class. Students who repeatedly violate this policy will be asked to leave the room.

**Academic Integrity:** Syracuse University's Academic Integrity Policy reflects the high value that we, as a university community, place on honesty in academic work. The policy defines our expectations for academic honesty and holds students accountable for the integrity of all work they submit. Students should understand that it is their responsibility to learn about course-specific expectations, as well as about university-wide academic integrity expectations. The policy governs appropriate citation and use of sources, the integrity of work submitted in exams and assignments, and the veracity of signatures on attendance sheets and other verification of participation in class activities. The policy also prohibits students from submitting the same work in more than one class without receiving written authorization in advance from both instructors. Under the policy, students found in violation are subject to grade sanctions determined by the course instructor and non-grade sanctions determined by the School or College where the course is offered as described in the Violation and Sanction Classification Rubric. SU students are required to read an online summary of the University's academic integrity expectations and provide an electronic signature agreeing to abide by them

twice a year during pre-term check-in on MySlice. The Violation and Sanction Classification Rubric establishes recommended guidelines for the determination of grade penalties by faculty and instructors, while also giving them discretion to select the grade penalty they believe most suitable, including course failure, regardless of violation level. Any established violation in this course may result in course failure regardless of violation level. *The use of or availability of any electronic device during a midterm exam or final exam is a violation of the Academic Integrity Policy.* For more information about the policy, see <http://academicintegrity.syr.edu>.

**Religious Observances Policy:** Syracuse University's religious observances policy, found at [http://supolicies.syr.edu/emp\\_ben/religious\\_observance.htm](http://supolicies.syr.edu/emp_ben/religious_observance.htm), recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holy days according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that maybe missed due to a 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.

**Students with Disabilities:** If 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.