

Syllabus

MAT 551

Spring, 2014

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

Place: Room 115, Carnegie

Description: Geometry is a branch of mathematics that has many applications in the “real world” and in other areas of mathematics. Much of modern mathematics was developed to answer geometric questions. This course will concentrate on building geometric intuition in 2- and 3-dimensional euclidean space, understanding how rigorous mathematical notions can be developed from this intuition, and developing an understanding of two non-euclidean geometries: spherical geometry and projective geometry.

Prerequisites: MAT 275 and MAT 331. The course will assume that the students can read and write proofs and have a good understanding of the vector space \mathbf{R}^n for $n = 2$ and 3 . At a few points you’ll also need to recall some basic facts from calculus.

Text: *Modern Geometry with Applications* by George A. Jennings. We will cover chapters 1 and 2 and parts of 3 and 4.

Instructor: Will Wylie

Office: 206C Carnegie

Office hours: M 12-1, W 1:45-3:45. I am usually round my office on Monday thru Thursday from at least 10-4. Feel free to stop by (please knock if door is closed). If you want to make sure I will around you can email me beforehand.

Campus Phone: 315-443-1469.

Email: wwylie@syr.edu.

The Final Exam: Tuesday, May 6 from 5:15pm to 7:15pm.

ALL STUDENTS MUST take the final exam at this time!

Grading: There will be several problem sets, projects and reports, three tests and a comprehensive final exam. These items will be weighted as follows:

| | |
|-------------------------------------|-----|
| Problem sets, reports and projects: | 40% |
| 3 Tests (15% each) | 45% |
| Final Exam* | 15% |

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

Equipment: You will need a pair of compasses and a straight edge for the constructions on the problem sets and the tests. A calculator may also be useful, but will not be required for the exams.

Cell Phones: All electronic devices other than the calculator should be turned off and put away during class. Calculators on cell phones are not to be used on tests or quizzes.

Getting Help on Projects and Problem Sets: If you get stuck on the projects and problem sets, you should get help from me or from other students in the class. However, you must write up your own solutions and include the names of any people that you worked with or consulted.

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

Course Calendar: A course calendar will be maintained as a public google calendar and will also be linked on Blackboard. Tentatively, the course will be broken in to the following units:

- **Chapter 1:** 7 Lectures: Jan. 13 - Feb. 5., Exam: Feb 10
- **Chapter 2:** 8 Lectures: Feb 12 - Mar 17., Exam: March 19
- **Chapters 3&4:** 10 Lectures: Mar 24 - April 23., Exam: April 28
- **Final Exam:** May 6 : 5:15-7:15.

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/>