

MAT 593 – History of Mathematics – Fall 2012

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Office Hours: Su-Mo-Tu-We-Th 3:30–4:30 pm. You can also see me at other times by appointment, or whenever the office door is open.

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Catalog Description: Mathematical concepts in their historical perspective. Character and contributions of the great mathematicians and relation of mathematics to other sciences.

Prerequisites: for undergraduate students, **MAT 397 and at least two 500-level math courses.**

Textbook: "Mathematics and Its History" by John Stillwell, 3rd edition, ISBN 9781441960528

Class Time and Location: TuTh 12:30–1:50 in Carnegie 313.

Grading: The grades will be based on homework (20%), quizzes (5%), two midterm exams (20% each), term paper (10%) and final exam (25%). The grading curve will be no stricter than

A 93-100	A- 90-92	B+ 87-89	B 83-86	B- 80-82
C+ 77-79	C 73-76	C- 70-72	D 60-69	F 00-59

Homework will be collected at the beginning of class on the days posted on the class webpage. No late homework will be accepted. You are encouraged to discuss the homework problems with your classmates and to work together, but submitted assignments must be written up individually. Two lowest homework scores will be dropped.

Quizzes will be given on the same days when homework is collected, and will cover the same topics as homework. They will mostly consist of True/False questions. Two lowest quiz scores will be dropped.

Midterm Exams will be given in class on **September 27** and **November 8**. The cumulative **Final Exam** is scheduled for **Thursday, December 13, 3:00–5:00 PM**. There will be no make-ups: a missed exam counts as zero unless you present a valid excuse from a physician or the Dean's office. If the absence is excused, your grade on the relevant portion of the final will be used to replace the missed exam.

Term Paper: Each student must write a term paper on some subject in the history of mathematics. The paper must be at least 6 pages long and contain a nontrivial amount of mathematical notation. Typesetting in LaTeX is strongly recommended: two popular (free) software packages are TeXshop for Mac, <http://pages.uoregon.edu/koch/texshop/> and MiKTeX

for Windows, <http://miktex.org>. The student must obtain approval from the instructor of the subject of the term paper no later than **Thursday November 1**. The term paper is to be submitted as a PDF file via Blackboard by **Thursday November 29**.

Learning outcomes:

- ✓ Students will be able to use and understand the usage of mathematical notation
- ✓ Students will understand the historical development of mathematical ideas and their relation to other sciences
- ✓ Students will be able to do hand calculations accurately and appropriately
- ✓ Students will understand the nature and role of deductive reasoning in mathematics
- ✓ Students will be able to engage in mathematical discourse

Tips for success in this course:

- It is absolutely essential that you understand how to solve all the assigned problems. Once you understand how to solve a problem, write your solution down neatly and in full detail with explanations that make your reasoning clear.
- Don't fall behind. If you are having difficulties keeping up with the material, see me immediately to discuss the problem.
- Take advantage of office hours (or of instant messaging for quick questions).
- Discussing problems with a classmate is very useful.
- Questions in class are strongly encouraged.
- Expect to work hard. Don't get discouraged if you find some of the material difficult. Be persistent and patient.

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/>