Math 310: History of Mathematics  
Spring 2010

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Section 1  
MWF: 3–3:50  
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Course Description. From the catalog: Surveys the development of mathematics from the Ishango Bone (6000 BC) to Newton and Leibniz (17th century). Emphasizes major mathematical concepts, the cultural contexts in which they were discovered and the solving of related mathematical problems. Prerequisite: Mathematics 211 or 221.

Course Objectives. This course is a survey of the history of mathematical development; as such, we will be limited to how deeply we can study many topics. We will essentially cover the development of numeration, arithmetic, geometry and trigonometry—all topics found in the standard high school curriculum. We will see how different mathematical ideas developed over time, the contributions of different cultures to the development, and what difficulties were encountered and how these were resolved. We will also practice applying these techniques to solve problems (this is a math class, so there will be math!). Students will gain a broader understanding of mathematics, the connection between mathematics and cultural needs and preferences, and the interaction (or lack thereof) between different cultures. In the process, students will improve their research and writing skills in mathematics, as well as their ability to read technical mathematical writing.

Instruction. The primary mode of instruction will be discussion, not lecture. Therefore, you will be expected to read the assigned sections prior to class and be prepared to discuss both the historical facts and mathematical ideas. We will work on problems in class; solutions will be presented at the board.


Office Hours. I will be in my office from 9–10 AM and 1–3 PM on Monday, Wednesday and Friday and 4–5 PM on Friday; additional times can be arranged by appointment.

Exams. There will be two exams, worth 100 points each; dates will be announced in class, at least two weeks prior to the exam. A cumulative final, worth 100 points, will be given on Monday, May 3 at 2:45 PM.

Research Paper. There will be one research paper this semester worth 125 points, divided among a topic proposal, annotated bibliography, outline, draft, final paper, and a brief in-class presentation of your topic. Details will follow. The final paper will be due Monday, April 19.

Essays and Quizzes. There will be periodic writing assignments and quizzes over the reading. In total, these will be worth 100 points.
**Homework.** Exercises will be assigned to accompany the material. Some of these problems will be collected and graded; some will not. We will work on some problems in class, both individually and in small groups. You may be called upon to present solutions to assigned problems at the board. You are responsible for the techniques covered by all of the assigned problems. Test questions will bear a striking resemblance to the assigned exercises. Homework will count for 100 points of your final grade.

**Participation.** Active participation is expected during classroom discussions and problem sessions. Twenty-five points of your final grade will be based on your participation, including, but not limited to, regular attendance, presenting solutions to homework problems, and contributions to the discussions.

**Attendance.** Since this class will be driven by your discussion, you are expected to attend class regularly. You are responsible for any information (including announcements) that you miss. The course website will have up-to-date information. Arriving late or leaving early, reading the newspaper, text-messaging, etc., disrupts the class and is rude and unprofessional.

**Course Grades.** Your grade in the course will be based on the 650 points described above. The class will be graded on a ten point scale; pluses and minuses will be influenced by such factors as attendance and participation.

**Make-up Policy.** An opportunity to make up a missed exam will only be granted in the event of a documented emergency or illness. A make-up will not be granted, if I am not contacted prior to the exam. If you anticipate a conflict with an announced exam, speak with me as soon as possible. Quizzes missed because of University excused absences or documented emergencies will be handled on an individual basis. Make-ups will not be granted, regardless of the circumstances, to students will excessive absences.

**Extra Credit.** There will be no extra credit assignments.

**Academic Honesty.** Cheating will not be tolerated. We will follow the University’s honor code, which reads “I will neither give nor receive unauthorized aid, nor will I tolerate an environment which condones the use of unauthorized aid.” Collaboration on homework assignments and projects is encouraged; note that work to be submitted for a grade should be your own and not copied from a fellow student.

**Students with Disabilities.** It is the policy and practice of the University to make reasonable accommodations for students with properly documented disabilities. Written notification to faculty from the Office of Counseling and Health Education is required for any academic accommodations. If you are eligible to receive an accommodation and would like to request it for this course, please discuss it with me and allow two weeks notice. If you have questions about services for students with disabilities or procedures for requesting services, you may contact the Office of Counseling and Health Education at 488-2663.

**Disclaimer.** I reserve the right to change the dates and policies outlined above at my discretion. Any changes will be announced well in advance.