Syllabus: Math 4050 History of Math, Spring 2016

Course   MATH 4050 meets MWF 2:10-3:00 in RH 204
Course web page `http://mathcs.slu.edu/~clair/history`

Instructor   Dr. Bryan Clair
`bryan@slu.edu`
Ritter Hall 110, 977-3043

Office Hours   M 10-11, W 3-4, Th 11-12, or by appointment.

Stop by my office anytime, and if I'm around I can usually help you.

Textbooks   We will use many sources in this course, including some photocopied and some which are freely available on the web. You will need to purchase the following texts:

- *Mathematics and Its History* (3ed), John Stillwell.
- *The Crest of the Peacock* (3ed), George Gheverghese Joseph.
- *Quicksilver*, Neal Stephenson
- *Logicomix*, Apostolos Doxiadis and Christos Papadimitriou

In addition, you will need a compass (for drawing circles). I recommend a quality compass with a screw mechanism.

Homework   Written homework will be due weekly. Your work should be neat and legible, with plenty of blank space on your pages so I have room to write comments. Staple your homework!

I encourage you to work together on homework, but write up results separately.

Late written homework is always accepted for half credit, but I will not write comments.

Presentations   At three points during the semester, you will develop a topic in the history of mathematics and present it to the rest of the class. These presentations will most likely be done in pairs or small teams.

Exams   I give makeup exams only for severe and *documented* reasons.

Exam 1 Wednesday, February 24
Exam 2 Friday, April 8
Final Exam Wednesday, May 4, 2:00-3:50

Grading   Grading is on a straight scale (uncurved), with 90%,80%,70%,60% guaranteeing A,B,C,D respectively. Grading is weighted as follows:

Homework: 15%
Presentations: 30%
Exam 1: 15%
Exam 2: 15%
Final Exam: 25%

Course Topics
These are topics we will certainly cover, probably in this order, though much may change.

Greek geometry. Euclid's *Elements*.
Ancient number and calendar systems.
Number theory.
Polynomial equations and complex numbers.
Calculus and numerical analysis.
Non-Euclidean geometry.
Set theory, logic, and computation.

Honesty
Students are expected to be honest in their academic work, as per the Honesty Policy of the College of Arts & Sciences, available on the internet at

`http://www.slu.edu/college-of-arts-and-sciences-home/undergraduate-education/academic-honesty`

You are allowed to use any and all outside resources to help you complete your homework. Students who work together must write up results separately.

For exams and quizzes, no notes or outside help is allowed. In cases when two or more students collaborate on an exam, all will be subject to penalties.

Disabilities
In recognition that people learn in a variety of ways and that learning is influenced by multiple factors (e.g., prior experience, study skills, learning disability), resources to support student success are available on campus. Students who think they might benefit from these resources can find out more about Course-level support (e.g., faculty member, departmental resources, etc.) by asking your course instructor. University-level support (e.g., tutoring/writing services, Disability Services) by visiting the Student Success Center (BSC 331) or by going to http://www.slu.edu/success. Students who believe that, due to a disability, they could benefit from academic accommodations are encouraged to contact Disability Services at 314-977-8885 or visit the Student Success Center. Confidentiality will be observed in all inquiries. Course instructors support student accommodation requests when an approved letter from Disability Services has been received and when students discuss these accommodations with the instructor after receipt of the approved letter.