

CO 480 Course Outline – Spring 2011

Overview

This course will examine a few of the people, places and problems that are historically significant in mathematics. The course is taught through a series of vignettes complemented with readings. Each of the vignettes looks at a particular person working on a particular problem in a particular historical and geographical place. There will, of course, be many connections to other people, other problems and other places.

Hopefully, this story telling approach will illuminate the interactions between mathematics and society in the past, in the present, and in your experience.

Section and Instructor Information

Section 001, 09:30 MWF, MC 4059

Steven Furino, MC 5095, scfurino@uwaterloo.ca

Office Hours: Monday and Wednesday, 10:30, or by appointment.

Course Website

We will be using UW-ACE/ANGEL this term as our course website. All course related information will be posted there.

Textbook

The course text is *The History of Mathematics*, 7th edition by David Burton and published by McGraw-Hill. The text is available as an e-book and instructions for purchasing it are available on the course website.

Course Work

The course work to be submitted is in three parts: assignments, two end of term tests, and a project based on a mathematician born after 1550. There is no midterm test and no final exam.

Assignments Assignments have two parts. The first part consists of brief historical essays. Marks will be awarded for quality and detail of historical information, and for quality of exposition. The second part is a collection of mathematical problems. There are four assignments each worth 5%.

Tests There will be one in-class test covering the history portion of the course and a second in-class test covering the mathematics. Both will be very straightforward. Each test is worth 12.5%. You must pass both of the tests to pass the course.

Project The project will be modeled on the vignettes presented in class. Each vignette will have three components. The first component is a description of the *place*, the geographical and historical setting. The second component is a description of the *person*, a biography of your chosen mathematician. The final component is a mathematical exposition of the *problem* related to the person and place. The project can be done in groups of size one to four. The vignette will be submitted in five parts.

1. The *Project Outline* identifies the group members, the person, the place and the problem. You will be asked to provide a detailed outline and identify source material. (3%)
2. The *Annotated Bibliography* provides content summaries of of at least five sources, only one of which may be on the web. (12%)
3. The *First Edition* is a complete version of your project. No lectures, reading or assignments are due during the week prior to the deadline. A second, revised edition will be required later. Use the quality of the course mini-documentaries and the textbook prose as standards. For detailed expectations see the document *Project Marking Scheme.pdf*. Some sample projects are available in the “Projects” folder. (20%)
4. The First Edition will be randomly and anonymously distributed to other students in the class. You will be expected to edit the writing, verify the mathematics and fact-check the history. Expectations are contained in the document *Editorial Guidelines.pdf*. Marks will be assigned for the quality of editing. Your editorial remarks will be returned, anonymously, to the authors. (10%)
5. The *Final Edition* should take into account editorial suggestions, additional research and your own revisions. (10%)

On submitting the project, you allow its future use by the University of Waterloo, with credit given to your group.

Work	Due Date	Weight
Assignment 1	Wednesday, May 11	5%
Project Proposal	Monday, May 16	3%
Assignment 2	Wednesday, May 25	5%
Annotated Bibliography	Monday, May 30	12%
Assignment 3	Monday, June 6	5%
No classes	June 13 – 17	
First Edition	Monday, June 20	20%
Assignment 4	Monday, June 27	5%
Editorial Review	Wednesday, July 6	10%
Final Edition	Monday, July 18	10%
In class test (scope: history)	Friday, July 22	12.5%
In class test (scope: mathematics)	Monday, July 25	12.5%

Cheating Policy

The reputation of the University and the integrity of your degree rests on the assumption that all work submitted is your own. Discussion related to the assignments is acceptable and encouraged, but you are expected to write up the assignments on your own. Copying or paraphrasing a solution from some fellow student or old solutions qualifies as cheating.

All students suspected of cheating will automatically be referred to the Undergraduate Associate Dean. Students who are unsure whether an action constitutes an offence, or who need help in learning how to avoid offences should seek guidance from the instructor. For information on categories of offences and types of penalties, students should refer to Policy 71, Student Academic Discipline, <http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm>. Students who believe that they have been wrongfully or unjustly penalized have the right to grieve; refer to Policy 70 Student Grievance, <http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm>.