Mathematics 3810H − Ancient and classical mathematics

Instructor

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fall hours: Tuesday, Wednesday, and Thursday 12:00-12:50,
    and Friday 11:00-11:50, or by appointment, or just drop by!
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    [E-mail sent to my Trent address all too often fails to arrive. If it's important, send it to both.]
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Department of Mathematics

Academic Administrative Assistant
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Prerequisite

Prerequisite: Mathematics 1100Y
Recommended: Mathematics 2200H or Mathematics 2350H
Exclusions: Mathematics 380 and Mathematics 381H

Text

The Historical Roots of Elementary Mathematics, by Lucas N.H. Bunt, Phillip S. Jones, & Jack D. Bedient, Dover Publications, New York, 1988, ISBN 0-486-25563-8.

We will also make some use of the following book:

A Short Account of the History of Mathematics (4th Edition), by W. W. Rouse Ball, 1908. Available free from Project Gutenberg at: www.gutenberg.org/etext/31246

Additional readings will be assigned from other sources available online. Please see the handout *Readings & Schedule* for a tentative week-by-week schedule.

Meetings

Lectures: Tuesday 13:00-13:50 in SC W2, Wednesday 10:00-10:50 in SC W2, and
        Friday 12:00-12:50 in ECC 212.
Seminar: Wednesday 11:00-11:50 in SC W2.

Marking Scheme

There will be at least six fortnightly assignments, a project (including a proposal), and a take-home final examination. The assignments will be handed out and collected every other week, the project proposal will be due on 18 October, and the project itself will be due at the end of the examination period on 20 December. The final examination will be distributed on 22 November, two weeks before the last day of classes, and will be due on 20 December. The final mark will be calculated as follows:

Best 5 assignments (7% each) 35%	Project	30%
Project proposal	4%	Final Examination	31%

Assignments will not normally be accepted after the due date. Students who miss any work for reasons beyond their control should contact the instructor as soon as possible. While there is no attendance requirement *per se*, the consequences of missing classes are ultimately each student's responsibility to deal with.

This scheme may be modified for students in exceptional circumstances. Any such modification will require the agreement of both the student and the instructor.

Content

We will survey the historical development of some important parts of mathematics. In particular, we will focus on the development of number systems and algebra, and the evolution of proofs and abstraction. We will consider mathematics in:

1. Prehistory (*i.e.* the – speculative! – origins)
2. Ancient Egypt and Mesopotamia
3. Classical Greece and Rome

Additional material may be covered on the assignments and projects.

Honour & Help

The obligatory statement concerning **academic integrity** reads as follows:

Academic dishonesty, which includes plagiarism and cheating, is an extremely serious academic offence and carries penalties varying from a 0 grade on an assignment to expulsion from the University. Definitions, penalties, and procedures for dealing with plagiarism and cheating are set out in Trent University's Academic Integrity Policy. You have a responsibility to educate yourself – unfamiliarity with the policy is not an excuse. You are strongly encouraged to visit Trent's Academic Integrity website to learn more – `www.trentu.ca/academicintegrity`

For clarity, the following guidelines will apply in MATH 3810H:

You are permitted and encouraged to work together and ask anyone willing (especially the instructor!) for explanations, hints, and suggestions on the assignments and projects, and to consult whatever sources you wish, with the exception that **you may not consult anyone who has taken a similar course recently or their work**. However, **all work submitted for credit must be written up entirely by you** (with the exception of group projects)**, giving due credit to all relevant sources of help and information**. The take-home final exam will have more restrictive conditions that will be spelled out on the exam.

Aids: Except as noted on particular questions on the assignments and final exam, and with the general restriction noted above, you may use whatever aids you wish. Note that "personal response systems" such as clickers will not be used in MATH 3810H.

In some circumstances students may also be eligible for special help or accommodation. The obligatory statement concerning **access to instruction** reads as follows:

It is Trent University's intent to create an inclusive learning environment. If a student has a disability and/or health consideration and feels that he/she may need accommodations to succeed in this course, the student should contact the Student Accessibility Services Office (SAS), (BH Suite 132, 748 1281 or e-mail `accessibilityservices@trentu.ca`*). For Trent University in Oshawa Student Accessibility Services Office contact 905-435-5102 ext. 5024. Complete text can be found under* Access to Instruction *in the* Academic Calendar.

MATH 3810H Web Page

Up-to-date information about the course and copies of all assignments and other handouts to date (in pdf) can be found at: `http://euclid.trentu.ca/math/sb/3810H/` The course will make only very minimal use of Blackboard/LearningSystem, if any.

Miscellaneous

The last date to drop Fall half-courses without academic penalty is Tuesday, 5 November.