

MATH 1001, Mathematics for Liberal Arts Students
Winter 2012
Toby Kenney

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| Instructor: | Toby Kenney Department of Mathematics and Statistics Chase Building, Room 251 email: tkenney@mathstat.dal.ca |
| Course Website: | www.mathstat.dal.ca/~tkenney/1001/2012 |
| Office Hours: | Monday, Wednesday & Friday 11:30-12:30 |
| Lectures: | MWF: 10:30-11:30 302 Dunn Building |
| Topics (provisional) | What is Mathematics? What is the role of Mathematics? |
| Textbook: | What is modern Mathematics? None |

Course Work and method of assessment

This course is intended for students with a variety of different backgrounds and interests. There is therefore a lot of flexibility in what is covered and how. The details following are therefore provisional, and could be changed to cater to individual needs.

There will be a midterm exam and a final exam. The midterm will be held in class on Monday 13th February. The final exam will be scheduled by the Registrar's Office during the examination period: Monday 9th to Monday 23rd April.

There will also be biweekly essays, which must be handed on Wednesdays in the lecture. **No credit can be given for late essays.** The overall homework mark will be made up of an average of the marks on each essay, with the exception of the worst mark for each student.

There will also be a project. Typically, I would expect each student to give a 15 minute presentation of their project in class, but it is possible to present the work in another way if this is more appropriate. The topic of the project should be some aspect of mathematics, to be chosen by the student. Feel free to discuss ideas for these projects/presentations with me.

Grades will be determined by performance in the exams and the weekly homeworks. The midterm exam counts for 20%, the final counts for 30%, the essays count for 20% and the project counts for the remaining 30%.

Weekly Readings

We will be reading a variety of different sources throughout the course. I will send out materials or links for people to read/look at/watch/... beforehand, and we will then discuss these in the lecture. Students are welcome, and indeed encouraged, to search for other materials, and share these with the rest of the class.

Topics Covered

There is some flexibility about the exact topics covered, depending on particular interests of the students. However, the plan for the course is to address the following questions:

1. What is mathematics?

We will discuss how we determine which subjects should be considered part of mathematics. We also discuss how we classify mathematics among other subjects — is it an art or a science (or both or neither)? We will also discuss how our classification and perception of mathematics compares with classifications in various societies throughout history.

2. What is the role of mathematics?

There are many aspects to this question. What is the benefit to society of supporting mathematics research? What is the benefit to society of having many people mathematically trained? What is the personal benefit of an education in mathematics? What aspects of society are influenced by mathematics?

3. What is modern mathematics?

We will describe some of the range of topics that constitute modern mathematics, and some of the main relations between these topics. We will also discuss the history of these subjects.

Students with disabilities

Students with disabilities are encouraged to register as quickly as possible at the Student Accessibility Services if they want to receive academic accommodations. To do so, please phone 494-2836, email access@dal.ca, drop in at the Killam, G28, or visit our website at www.studentaccessibility.dal.ca.

Plagiarism

Plagiarism is a serious academic offense which may lead to loss of credit, suspension or expulsion from the university. Please read the Policy on Intellectual Honesty contained in the Calendar or on the Dalhousie web site at: <http://www.registrar.dal.ca/calendar/ug/UREG.htm#12>.