

Math 370 – Senior Seminar
Fall 2014

Instructor – Dr. Michael Fraboni

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Office hours: Tuesday and Thursday 9:30-11

Course Goals – The goal of this course is to serve as a capstone for your mathematical work here at Moravian. The successful student will gain a perspective on several fields of mathematics and how they interact, and will learn how to read professional mathematical writing.

Course Materials – There are two required texts: *Proofs from The Book* by , and *Beyond Innumeracy* by Paulos.

Evaluation and Grading – Below is the list of assignments with their weights in your final grade. More detailed descriptions will be given out as the semester progresses.

- Presentations from *Proofs from The Book* (10% each)
You will work in pairs to present sections from our text to the class. You will each present four times and we will cover the majority of the book. Approximate dates for these presentations are:

Number Theory: Sept 5-12
Geometry: Sept 29 - Oct 8
Analysis: Oct 24 - 31
Graph Theory: Nov 17 - 24

- Selling a Course, Sept 22 (10%)
You will work in groups of two or three to prepare a presentation about a math class you have taken at Moravian. Your job will be to convince the rest of the class that yours is the most important class ever and they should all want to take it.
- Mathematical Resume, Oct 31 (5%)
For this assignment you will prepare a resume and cover letter suitable for a mathematical career.
- Some Research Mathematics, last two weeks of class (25%)
Prepare a presentation and a short paper on either independent research or a summary of a research article. For this assignment you will choose articles from a math journal such as the American Mathematical Monthly, Mathematics Magazine, the College Math Journal, or the Pi Mu Epsilon journal. The research you do or paper you choose should require you to learn some new mathematics and represent significant effort on your part.

- Readings (15%)

Throughout the semester there will be readings assigned from Paulos' book. You will be asked to keep a journal with your thoughts on and reactions to these readings.

- Class Participation (10%) This course will rely heavily on presentations from your classmates. Class participation includes paying close attention during these presentation as well as asking questions when the talks are over. You will be asked to come with questions prepared for the presentations from our textbook.

Attendance – Any absences will negatively impact your class participation score.

Disclaimers – This syllabus is subject to change through the semester. Any updates to the syllabus will be announced in class. The instructor reserves the right to apply qualitative judgment in determining final grades for the course.

Learning Disability Accommodations – Students who wish to request accommodations in this class for a disability must contact Ms. Elaine Mara, assistant director of academic support services for academic and disability support, at the lower level of Monocacy Hall, or by calling 610-861-1401. Accommodations cannot be provided until authorization is received from the Academic Support Center.