Math 370 – Senior Seminar Fall 2013

Instructor – Dr. Fraboni Office: PPHAC 221 Phone: x1605 mfraboni@moravian.edu Office hours: Mon 1-2; Tue/Thu 9-10:30, or by appointment

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.

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.

We will spend some time in class talking about writing mathematical papers in LaTeX. All papers for this course must be written in LaTeX.

- 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.
- Calculus Review, week of Sept 3 (15%) You will prepare a presentation to review a topic from the calculus sequence. Your lesson for our class should come complete with a homework assignment.
- My Favorite Theorem, week of Sept 17 (15%) You will be asked to choose your favorite theorem from your courses so far, then give a presentation and write a short paper discussing its history and significance.
- Important Problems, week of Oct 8 (15%)
 You will have the opportunity to choose a problem of historical significance in mathematics from a list I will provide. You will then prepare a presentation and short paper discussing its history and significance.
- Mathematical Resume, Oct 29 (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.

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 should contact the assistant director of Academic and Disability Support in the Academic Support Center, Monocacy Hall, lower level (extension 1510). Accommodations cannot be provided until authorization is received from the Academic Support Center.
- Mathematics Department Academic Honesty Policy The Mathematics Department supports and is governed by the Academic Honesty Policy of Moravian College as stated in the Moravian College Student Handbook. The following statements will help clarify the policies of members of the Mathematics Department faculty.

In all at-home assignments which are to be graded, you may use your class notes and any books or library sources. When you use the ideas or thoughts of others, however, you must acknowledge the source. You also may not use a solution manual or the help (orally or in written form) of any individual other than your instructor. If you receive help from anyone other than your instructor or if you fail to reference your sources, you will be violating the Academic Honesty Policy of Moravian College. You may work with your fellow students on homework which is not to be graded. You are responsible for understanding and being able to explain the solution of all assigned problems, both graded and un-graded.

All in-class or take-home tests and quizzes are to be completed by you alone without the aid of books, study sheets, or formula sheets unless specifically allowed by your instructor for a particular test.