Finite Math Course Syllabus

Finite Math: MGF-1106-B51C Ref. No. 81614
Rm.: A1-328
Hours: T-TH 8:00-9:15AM
Office Hours: T-TH 12:15-02:00PM
Instructor: Lawrence Hawkins
FIU Office: AC1-304
Phone: 305 532-3845
Term: Fall 2006-(3 credits)

E-Mail: maxent31@bellsouth.net
WWW Homepage: http://www.fiu.edu/~hawkinsl


Introduction:

This course consists of a study of concepts and applications involving finite mathematical processes such as sets, logic, combinatorial techniques, discrete probability, basic statistics, linear systems, matrices, and linear programming.

Prerequisite: Math Dept. permission or working knowledge of high school algebra.

Objectives:

Upon the conclusion of this course the student should acquire adequate theoretical understanding and an applied working knowledge of the following topics:

I. Set Theory: Sets, Notation, Set Operations
II. Logic: Symbolic Logic, Truth Tables, Valid Arguments
III. Combinatorics and Probability Theory: Permutations, combinations, theoretical probability, compound events, conditional probability, Baye's theorem and conditional probability, Bernoulli trials and binomial probability, random variables and probability functions.
VI. Systems of Linear Equations and Matrices: Graphical solution of a System of Equations in Two Variables, Algebraic Solutions, Matrices and Systems of Equations in Two or More Variables.
VII. Linear Programming: Systems of Inequalities, Optimal Value, Maximum-Type and Minimum-Type Problems.
Hawkins’ Policy on Academic Misconduct

ZERO TOLERANCE FOR ANY VIOLATIONS OF THE FIU STUDENT CODE OF CONDUCT.
Mathematics Department policy mandates that any student caught cheating will receive an automatic grade of F for the course and be subject to possible further FIU sanctions. Please refer to the FIU Student Handbook for details.

Course Materials Needed

1. **Course Notebook required**, containing all homework (50%), class lectures and discussion (25%), quizzes (20%), and exam corrections (5%). Quizzes may be given at any time in class and will consist of even numbered problems selected from the course text illustrating the day’s assigned material and lecture. These quizzes will be graded with either (√ = correct) or (X= incorrect) as the student leaves the class. The notebook will be graded three times (during each of the three exams) The average of the three notebook grades (up to 10 points) will be added to each of the pre-final exams in the Final Grade Average.

2. **Scientific Calculator**: A TI-30X IIS or its functional equivalent.

3. **Time to work on the material each and every day!** Successful completion of this class is highly correlated to the analytic, computational, and problem-solving skills developed by actual problem solution using proper (long term memory inducing) study techniques. Cramming for this course is ill advised: 8 hours on a Sunday won’t make up for not looking at the material throughout the week. You need to plan on spending one to four hours every day on this material, reviewing the old ideas, working with the new problems.

**Homework Assignments**: At the beginning of each chapter, selected problems will be assigned from the above sections of the syllabus.

Student Assistance

In addition to my scheduled office hours, there is a wide variety of help available, including a solutions manual for even-numbered problems, recitation sessions, online tutoring, and live one-on-one tutoring. For a complete description and full details, visit the Math Department’s website at [http://w3.fiu.edu/math](http://w3.fiu.edu/math). Look for the sign that says “Help” in the upper right corner. Click on “Math Help”, then on “Finite Math”. If you have any questions beyond what is laid out on this webpage, call the Math Department at 305-348-2742.

Grading Methodology

After each exam redo your entire exam at home, and then return to our next class with your computation of how many correct answers you produced on your original exam. These corrections should be included in your notebook. A Test Correction Bonus (TCB) of up to 10 points will then be added as extra credit to your exam if the final class exam average is <70. Your TCB is 10 points if your grading (total number correct) of your own exam exactly matches the actual grade (total number correct). Your TCB is reduced by one point for each point that the two totals differ.
In order to monitor the progress of the students and to give a numerical evaluation of their performance, letter grades are assigned at the end of the term according to the following weighted averages: **Test Correction Bonus** worth up to 10 points added to each exam **Notebook Bonus** worth up to 10 points added to each exam. **Three Exams** each exam worth (including bonuses) up to 100 points. **Cumulative Final Exam** worth up to 100 points.

**FINAL GRADE AVERAGE** = \([2 \times \text{Final} + \text{Two best Pre-final Exams})/4\].

**Numerical Grade average and Final course grade:**

- 100 ≥ A ≥ 90
- B+ ≥ 87
- B ≥ 80
- C+ ≥ 77
- C ≥ 70
- D ≥ 60
- F ≥ 0

The Instructor reserves the right to curve a student’s course grade distribution to reflect significant student progress, end-of-course achievement, and total course mastery as demonstrated by exceptional achievement on the Final Exam, by replacing the second lowest pre-final exam with the final exam score in the FINAL GRADE AVERAGE.

**Special Needs Students:** Contact me personally and/or the FIU Office for Student Services.

**Missed Exam Policy:** Any unexcused missed exams will be given a grade of 0. Final Exam score replaces the single lowest regular exam score in the .

**Extra Help:** FIU LEARNING CENTER provides free tutoring for students. While help is occasionally available on a walk-in basis, usually students have to make an appointment to see a tutor. At University Park, the location is PC 247 and the phone number is 305-348-2180. At the North Miami campus, the location is ACI 160 and the phone number is 305-919-5927.

- **OFFICE OF MULTICULTURAL PROGRAMS AND SERVICES:** Free tutoring is available to both minorities and non-minorities. University Park students should go to GC 216 to fill out a request. North Miami campus students should go to WUC 253.
- **FIU GRADUATE STUDENTS:** Free tutoring is available for students from our graduate students. Early each semester a memo is distributed announcing the hours and site.

**Withdrawal, change to audit Date:**

Please see Academic Calendar on www.fiu.edu website.
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