

MAT 118 SYLLABUS - SUMMER 2015

MARLON GOMES

1. COURSE DESCRIPTION

1.1. Course Goal. The aim of the course is to develop of logical and quantitative thinking and problem solving abilities through a selection of mathematical topics: logic and reasoning; game theory and decision making; graph theory; growth and change; financial mathematics; geometry; statistics; combinatorics and probability.

Most of the material on the course is composed of modern mathematics (and yet will be quite accessible). The approach will be based on down-to-earth examples, most of which will be interdisciplinary. Prerequisites are standard high-school mathematics.

Due to the lack of prerequisites assumed known, focus will be on presenting several instances where mathematical thinking can be applied, rather than making a detailed description of a few. The latter is done on the appropriate courses in each field where these ideas apply.

Through their engagement in problem solving, students will develop an appreciation of the intellectual scope of mathematics and its connections with other disciplines.

1.2. Textbook. The required textbook is *Excursions in Modern Mathematics*, by P. Tannenbaum, 8th edition, Prentice Hall. It can be acquired from the campus bookstore and a variety of other sources (renting is a particularly cheap one).

Please note that there will be reading assignments every week, so having your own copy is important.

1.3. Important Times and Dates.

- Lectures: Tuesdays and Thursdays, 1:30-4:55, on Library E4310.
- Research project: Due on June 30th.
- Final Exam: July 2nd, 1:30-4:55, on Library E4310.

1.4. Assignments. The homework assignments will be posted on the course webpage:

http://www.math.stonybrook.edu/~mgomes/current_teaching

Assignments will be submitted through blackboard. Typing is not necessary, you can scan your handwritten copy at any of the SINC sites on campus. Please be aware that the responsibility for checking your submission is yours

only. Any missing pages, corrupted files or similar problems will affect your grade.

Late homework will not be accepted, since problems will be discussed on the lecture on the due date. Partial solutions will be posted on the course webpage on the due date, after the lecture.

In addition to homework assignments, we will have a research project for the course. This will consist of a short essay about one of the projects available on the chapters we will cover. The essay must be typed. It should have no more than 5 pages of content (this restriction is imposed in order to assure enough time to grade). The project will be submitted through Blackboard. A detailed description of the format will be available on the website.

1.5. **Grades.** Your grade will be calculated in the following way:

- (1) Each HW: 5%.
- (2) Research project: 25%.
- (3) Final Exam: 50%.

2. CONTACT

My office hours will be held in the Math Learning Center (Math Tower, S-240A), on Tuesdays 12:00-1:00, and Thursdays, 11:00-1:00. E-mail is the best form of communication besides lectures and office hours. My address is

mgomes@math.stonybrook.edu.

3. DSS NOTICE

If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact Disability Support Services at (631) 632-6748 or at

<http://studentaffairs.stonybrook.edu/dss/>.

They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential. Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the following website: <http://www.sunysb.edu/>

4. ACADEMIC INTEGRITY

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology and Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine

are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at

<http://www.stonybrook.edu/uaa/academicjudiciary/>

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