

MAT118: Mathematical Thinking
Summer Session 2021 – Asynchronous Lecture
COURSE SYLLABUS

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Overview: In this course, we will explore various applications of mathematics. Such topics as determining the outcomes of elections, finding efficient routes, and studying population growth will be covered.

Learning Objectives (Mathematical Thinking):

1. Develop problem-solving abilities.
2. Explore real-life mathematical problems.
3. Develop ability to conceptualize various concepts via the study of concrete, modern applications.

Learning Objectives (QPS):

1. Interpret and draw inferences from mathematical models such as formulas, graphs, tables, or schematics.
2. Represent mathematical information symbolically, visually, numerically, and verbally.
3. Employ quantitative methods such as algebra, geometry, calculus, or statistics to solve problems.
4. Estimate and check mathematical results for reasonableness.

Pre-requisite: C or better in MAP 103 or level 2+ or higher on the mathematics placement examination.

Textbook: There is no textbook to purchase for the course. The ebook, *Excursions in Modern Mathematics, 9e* by Peter Tannenbaum, will be included with the homework platform.

Blackboard: You are expected to use [Blackboard](#) throughout the course to access course documents, lecture recordings, Zoom links, upload exam submissions, view grades as well as announcements. My contact information is under *Faculty Information* on the menu. *MyLab* will be accessed through Blackboard as well (see below). Use your NetID to log into Blackboard (get your NetID and set password in SOLAR).

Lecture: All lecture videos are pre-recorded. It is expected that you will watch them at the pace set on the Curriculum. It doesn't matter what time of day you watch them but it's in your best interest to watch them towards the beginning of the week so you can ask lecture and homework questions during the Q&A sessions (see below). This is a condensed course – expect to spend ~6 hours per week watching the videos as I highly recommend that you pause and take notes as if you were in a live lecture.

Q&A Sessions: Held twice per week Tu/Th 1:30pm ET (not held on review or exam days). This is your opportunity to get clarification on lectures as well as homework help. Q&A sessions are *optional* to attend (although you are required to attend on exam days) and will last ~45 minutes depending on how many questions are asked. Sessions are not recorded.

Calculators: You may use any calculator for homework and the exam however strive to fully understand the mechanics of the problems.

Grading Policy: Your course grade will be determined from the following items:

Midterm = 35% of course grade (held during lecture time slot)

Final Project = 35% of course grade

Homework = 30% of course grade

Midterm is short answer with partial credit given where appropriate.

Midterm is open-notes but not open-browser. Exams containing solutions that appear to have been obtained from an outside source or, if there appears to be collaboration, will be reported for academic dishonesty (see below). Exams will be accessed/submitted through Blackboard during a fixed time frame.

Midterm: See Curriculum for exam date. Midterm will be made available during the lecture time slot and proctored remotely over Zoom with video on, without a virtual background – NO exceptions. You are also expected to provide identification (see below). You must remain on Zoom until you have confirmed that all your solutions have been submitted and are visible by you. Exams modified after you have logged out of Zoom will be scored with a 0.

** Note the exam dates/times on the Curriculum. Clear your schedule for these dates as it is not an acceptable excuse to miss an exam because of work conflicts, trips, etc.

Identification: During exams, you will be expected to take a picture of yourself with a **photo** ID next to your face. It's preferable that the photo ID be your college ID card otherwise it can be any other standard form of photo identification such as license, permit, passport, visa, high school ID. You may block out an address by putting your finger over it (don't cover your name) or using photo edit tools.

Make-ups will not be given under any circumstances. If the midterm is missed due to a documented emergency, the final project score will double as the midterm score. If the absence is not excused, your score will be zero.

Final Project: This is a multi-part project; final submission to be handed in at the beginning of Week 6. More info will be posted on Blackboard towards the end of the semester. Be mindful of the **multiple deadlines** so as to not lose needless points.

MyLab will be used for web-based homework assignments and will be accessed from the menu on [Blackboard](#) - you will not need a course key or login. Note: access to MyLab is free for the first two weeks of the semester but then must be purchased. **Don't purchase the access if you might drop the course** since Pearson doesn't give refunds.

Homework:

1. In general, assignments will become available Fridays at 4pm ET and will be due the following Friday at 11:59pm ET.
2. Expect to spend ~2 hours per week completing homework assignments.
3. Answering the problems correctly will not be sufficient to prepare you for the exams. It is crucial to *understand* all of the workings of each problem so you are able to recognize when to use which concept in an application problem.
4. By design, the level of difficulty for some of the homework questions is higher than the lecture examples. Expect to need help completing the assignment. You can ask questions during the Tu/Thu Q&A sessions (see above) and/or at the [Math Learning Center](#).

Concerns: I truly want you to succeed in this course. If you have ANY problem related to the course, please feel free to discuss it with me *in a timely fashion*. e.g., don't wait until after the final to tell me that you needed to get a C in the course in order to graduate

Americans with Disabilities Act: If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact the Student Accessibility Support Center, 128 ECC Building, (631) 632-6748, or at sasc@stonybrook.edu. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

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 is required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & 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/commcms/academic_integrity/index.html

Critical Incident Management: Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.

Student Absences Statement: Students are expected to attend every class, report for examinations and submit major graded coursework as scheduled. If a student is unable to attend lecture(s), report for any exams or complete major graded coursework as scheduled due to extenuating circumstances, the student must contact the instructor as soon as possible. Students may be requested to provide documentation to support their absence and/or may be referred to the Student Support Team for assistance. Students will be provided reasonable accommodations for missed exams, assignments or projects due to significant illness, tragedy or other personal emergencies. Please note, all students must follow Stony Brook, local, state and Centers for Disease Control and Prevention (CDC) guidelines to reduce the risk of transmission of COVID. For questions or more information [click here](#).