Math 1711 – Finite Mathematics – Course Syllabus

Spring 2016

Administrative Details

Math 1711 Finite Mathematics L1–L3
Lectures: MWF 9:05–9:55am Boggs B6A

Instructor: Emma Cohen
Email: ecohen32@math.gatech.edu
Office Hours: MW 10:00–11:30am Skiles 152 or by appointment

Recitation Sections and TAs: TR 9:05–9:55am

Section L1 – College of Computing 52
Ethan Smith
esmith91@gatech.edu
OH: TR 10-11 Skiles 230

Section L2 – Skiles 269
Qiqin Xie
qxie7@math.gatech.edu
OH: TR 10-11 Skiles 146B

Section L3 – Skiles 271
Joseph Moravitz
jmoravitz3@math.gatech.edu
OH: M 3-5, R 4:30-6 Skiles 149

Course Resources

Course Website: This syllabus can be found at

All items on this syllabus are tentative and subject to change. More course resources can be found on the course’s T-Square page.

Textbook: The required textbook for this course is Goldstein, Schneider and Siegel *Finite Mathematics & its Applications, 11th Edition*.

MyMathLab: We will be using the MyMathLab software for homework assignments. MyMathLab is required and contains an electronic version of the textbook as well as many additional study tools. You can register for the course “Math 1711, Spring 2016” using the following course ID:

MyMathLab Course ID: cohen65508

Detailed instructions on registering for MML can be found at

When signing up for MyMathLab, it will be immensely helpful for me (for grading purposes) if you will set your STUDENT ID to your USERID for the GT system (e.g., “gburdell3”).

MyMathLab comes with an entire electronic version of the textbook; it is your choice if you would also like to own the textbook in print. You may purchase a MyMathLab code either from the bookstore or on-line while registering at http://www.mymathlab.com. If you prefer to own a hard copy of the text, the bookstore offers packages of MyMathLab combined with a loose-leaf or hardcover version of the textbook that is less expensive than purchasing the text and access code separately.
At the conclusion of *Finite Mathematics* it is expected that students:

- Can work various types of counting and probability problems, including probability using counting, conditional probability, and binomial probability.
- Have learned basic statistics, including measures of dispersion and the normal distribution.
- Understand basic matrix operations, and can apply matrices to solving systems of linear equations.
- Can apply knowledge of the above topics to business, economics, and finance.
- Can use probability and matrix operations to for applications such as Markov chains and game theory.

**Course Organization and Participation**

This course will consist of three lectures and two recitations each week. You are required to attend all scheduled sessions at all times.

As your instructor, my role is to facilitate the lectures, coordinate with the teaching assistants to link lecture to recitation, provide you with ample assignments to gauge your understanding and knowledge of the subject matter, provide feedback on your performance, and be available for assistance when needed.

As students, you are expected to take your responsibility seriously, attend and participate in all of the class discussions, behave in a respectful manner to your instructor, TA, and fellow students at each class meeting, complete all assignments in a timely and professional manner, study the subject matter outside of class time, and ask for help when necessary.

**Course Requirements and Grading**

**Homework.** Homework will be assigned on-line and will consist of exercise problems on MyMathLab. You are expected to understand all homework problems for the tests and quizzes. In order to increase the effectiveness of recitation, you should attempt the problems before the recitation sections. Exercises on MyMathLab will be due every Tuesday and Friday at 11:59pm (except during class recesses or as announced in class.) *No late homework will be accepted.*

**Participation.** Class participation will be based on your attendance in the lectures. In each lecture a short attendance assessment will be handed out, to be returned by the end of class.

**Quizzes and Tests.** We will have five 20-minute quizzes and four 50-minute tests during the term. Quizzes will be given during the first 20 minutes of recitation and tests will last for the entire recitation period. Quizzes and tests will be administered on the following days:

- 1/21: Quiz 1
- 2/4: Test 1 – Counting (Ch. 5)
- 2/16: Quiz 2
- 2/25: Test 2 – Probability (Ch. 6)
- 3/8: Quiz 3
- 3/17: Test 3 – Statistics (Ch. 7)
- 4/5: Quiz 4
- 4/14: Test 4 – Matrices and Linear Programming (Chs. 2-3)
- 4/21: Quiz 5
- 4/29: Final exam – All of the above, plus Markov Processes and Game Theory (Chs. 8-9)

Unless otherwise specified, no books, notes, calculators, cell phones, or other electronic devices are allowed during quizzes, tests, or the final exam.
**Final Exam.** The final exam will cover all course materials and will be administered on **Friday, April 29** from 11:30am–2:20pm. Students who have an overall course average of **95%** or higher after the last quiz, where all quizzes and tests are counted and no extra credit has been applied, may exempt the final exam.

Your final numerical grade will be computed as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation</td>
<td>5%</td>
</tr>
<tr>
<td>Homework</td>
<td>10%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>20% or 25% (5% each (may drop lowest))</td>
</tr>
<tr>
<td>Tests</td>
<td>40% or 35% (10% each (may drop half of lowest))</td>
</tr>
<tr>
<td>Final</td>
<td>25%</td>
</tr>
</tbody>
</table>

Either the lowest quiz score or half of the lowest test score (but not both) will be dropped, whichever is in the student’s best interest.

The standard 10-point scale will be used to assign letter grades. *Do not expect any deviation from the following scale:*

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>[0%, 60%)</td>
</tr>
<tr>
<td>D</td>
<td>[60%, 70%)</td>
</tr>
<tr>
<td>C</td>
<td>[70%, 80%)</td>
</tr>
<tr>
<td>B</td>
<td>[80%, 90%)</td>
</tr>
<tr>
<td>A</td>
<td>[90%, ∞%)</td>
</tr>
</tbody>
</table>

**Course Policies**

**Attendance.** You are expected to come prepared and actively participate in every lecture and recitation session. Attendance in lecture will be taken using in-class assessments, which should be handed in at the end of class. In the event of an absence you are responsible for all missed materials, assignments, and any additional announcements or schedule changes given in class.

Class disruptions of any kind will not be tolerated and may result in your removal from the classroom and/or loss of participation points for that day.

Please show courtesy to your fellow classmates and instructor by adhering to the following class rules:

- Come to class on time and stay for the entire class period.
- Refrain from conversing with your fellow students.
- Put away any reading materials (including electronic devices) unrelated to the course.

**Academic Honesty.** All students are expected to comply with the [Georgia Tech Academic Honor Code](https://www.gatech.edu/academic-honor-code). Any violations must be reported directly to the Dean of Students. Cheating includes, but is not limited to:

- Using a calculator, book, or any form of notes on tests.
- Copying directly from *any* source, including friends, classmates, tutors, internet sources (including Wolfram Alpha), or a solutions manual.
- Allowing another person to copy your work.
- Taking a test, quiz, or attendance assessment in someone else’s name, or having someone else take a test, quiz, or attendance assessment in your name.
- Asking for a regrade of a paper that has been altered from its original form.
- Having another student complete your attendance assessment or completing another student’s attendance assessment.

**Regrading.** If a problem on your test has been graded in error, you must submit a regrade request to me (not your TA!) *in writing* no more than one week after the graded tests have been returned in class. Regrade requests may be submitted via email—look for a confirmation to be sure that I have received your request. All graded assignments will be scanned and saved upon submission, so you need not return the paper itself. Please check your answers against the posted solutions *before* submitting a regrade request.
**Make-up Exams.** In an emergency situation I may allow a make-up test if I am notified prior to the exam and provided with a reasonable, written confirmation of your absence. If you will miss a test due to a university-sponsored event or athletics, please provide me with the official documentation in advance. Any make-ups must be completed before the corresponding test has been graded and returned to other students.

**Learning Disabilities and/or Special Accommodations.** It is the right of any student with a certified learning disability to request necessary accommodation. Such requests must be made well in advance of the time that the accommodation is required, ideally in the first or second week of class, and a letter of documentation from the ADAPTS office must be presented at the time of any request.

**Calculators.** While you may want to use a scientific calculator for help with some of the homework problems, calculators will not be permitted on quizzes, tests, or the final exam. You are encouraged to show as much work as possible and to leave your answers unsimplified, particularly when simplification requires arithmetic or obscures the reasoning behind your answer (for example, $12 \cdot 11 \cdot 10 \cdot \left(\frac{2}{3}\right)$ is probably a more illuminating answer for a grader than $110880$ or $1.1 \times 10^5$).

**Announcements.** I will frequently update the class pages with information and materials. You are responsible for obtaining any announcements or materials placed on T-Square or MyMathLab.

**Additional Help.** *Asking questions is a key to success!* Please stop by my office hours or the office hours of any course TA. Free walk-in help is also available Monday–Thursday in the Math Lab, located on the second floor of Clough Commons in room CULC 280. The math lab is staffed by math graduate students and is open at the following times:

- Mondays and Wednesdays, 11:00am–5:00pm
- Tuesdays and Thursdays, 12:00noon-5:00pm

**Tentative schedule of topics and test dates**

**Important dates**

- 1/18: MLK Holiday (no class)
- 1/21: Quiz 1
- 2/4: Test 1
- 2/16: Quiz 2
- 2/19: Progress reports posted
- 2/25: Test 2
- 3/8: Quiz 3
- 3/16: Withdrawal deadline
- 3/17: Test 3
- 3/21 – 25: Spring Break (no class)
- 4/5: Quiz 4
- 4/14: Test 4
- 4/21: Quiz 5
- 4/29: Final exam

**Topics**

- 1/11 – 2/1: Ch. 5 – Counting.
- 2/3 – 2/22: Ch. 6 – Probability
- 2/24 – 3/11: Ch. 7 – Statistics
- 3/14 – 4/1: Ch. 2 – Matrices
- 4/4 – 4/8: Ch. 3 – Linear Programming
- 4/11 – 4/15: Ch. 8 – Markov Processes
- 4/18 – 4/22: Ch. 9 – Game Theory
- 4/25 – Review