Math 1553

Sections D1-D4
Georgia Tech Spring 2020
Dan Margalit

Download the Piazza app now if you can!
Me
About Me

DOB 03/06/1976
Sex M
Eyes HAZ
Hgt 5’-10”
Wgt 150 lb
Donor
More About Me
More About Me

Winning
More About Me

I like...
More About Me

I like...
• Cake
More About Me

I like...
• Cake
  • Chocolate
More About Me

I like...
- Cake
  - Chocolate
  - Double Chocolate
More About Me

I like...
• Cake
  • Chocolate
  • Double Chocolate
  • Death by Chocolate
Textbook
Textbook

Interactive Linear Algebra
Dan Margalit & Joe Rabinoff

The textbook is free and online.

Lay & MyMathLab are resources you can buy. I will not use them.
Web sites
Web Sites

• Math 1553 Master Course Web Site
  • Run by course coordinator
  • Contains: common syllabus, practice exams, worksheets, advice, etc.

• Math 1553 D Course Web Site
  • Run by me
  • Contains: office hours, TAs, studio, slides, quiz solutions...

• Canvas
  • Contains: Grades
  • Links to WebWork (homework) & Piazza (discussion)
  • Front page has links to everything else mentioned above
Math 1553 D Course Web Site

Math 1553
Introduction to Linear Algebra
Spring 2020 — Sections D1 - D4

For most course information, including the course calendar, see the Math 1553 Master Site:

Master Course Website

This is the master syllabus:

Syllabus

The textbook:

Interactive Linear Algebra

A complete set of slides (not the slides I use in class):

Math 1553 Slide Deck

For WebWork, Piazza, Grades, etc. see Canvas:

Canvas

For online discussions and polls you can go directly to Piazza:

Piazza

For on-line access to the supplementary textbook see MyMathLab (course id: jankowski450035):

MyMathLab
Math 1553 D Course Web Site

Instructor

Professor: Dan Margalit
Lecture time: MW 9:05-9:55
Lecture location: Gilbert Hillhouse Boggs Building B5
Office: Skiles 234
Email: margalit@math.gatech.edu
Office hours: Mon 3-4, Wed 2-3, and by appointment

Teaching Assistants

Studio time: F 9:05 - 9:55
Studios:
D1: Skiles 289, Isabella Bowland
D2: Skiles 170, Kyle Jiang
D3: Clough 246, Kalen Patton
D4: Skiles 156, Sidharth Raman

TA Office Hours: Isabella Bowland, tba
Kyle Jiang, tba
Kalen Patton, tba
Sidharth Raman, tba

Textbook

The textbook for the course is Interactive Linear Algebra, by Dan Margalit and Joe Rabinoff. Click on the icon below.
Other resources
Here is a slide deck that can be used as a reference for the whole course.
Here is a reference sheet containing most theorems and definitions that you will learn and be responsible for knowing over the course of the semester. It will be tweaked as we cover the material.
Here is the interactive row reducer.
The master course web site has supplementary materials for each studio on the calendar there.

Homework
Homework will be assigned through WebWork, an online homework delivery platform accessible via Canvas. The due dates can be found on WebWork itself or on the course calendar on the master course web site.

Course Calendar and Materials

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Materials</th>
<th>WebWork</th>
<th>Quiz/Exam</th>
</tr>
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<tbody>
<tr>
<td>M Jan 6</td>
<td>Overview</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W Jan 8</td>
<td>1.1 Systems of linear equations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F Jan 10</td>
<td>Studio: through 1.1</td>
<td>Warmup</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M Jan 13</td>
<td>1.2 Row reduction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W Jan 15</td>
<td>1.2 (continued) and 1.3 Parametric form</td>
<td>1.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F Jan 17</td>
<td>Studio: 1.2 and 1.3</td>
<td></td>
<td></td>
<td>Quiz: 1.1</td>
</tr>
<tr>
<td>M Jan 20</td>
<td></td>
<td>Martin Luther King Jr. Holiday, No Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W Jan 22</td>
<td>2.1 and 2.2: Vectors, vector equations, and spans</td>
<td>1.2 and 1.3</td>
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<tr>
<td>F Jan 24</td>
<td>Studio: 2.1 and 2.2</td>
<td></td>
<td></td>
<td>Quiz: 1.2 and 1.3</td>
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<tr>
<td>M Jan 27</td>
<td>2.3 Matrix equations</td>
<td></td>
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<td></td>
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<tr>
<td>W Jan 29</td>
<td>2.4 Solution sets and 2.5 Linear independence</td>
<td>2.1+2.2</td>
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Math 1553 Master Web Site

Welcome to Math 1553!

Use the tabs at the top of the page to navigate this site, which will serve as a master site containing many of the common policies for Math 1553 in Spring 2020.

EVERYTHING on this master site is subject to modification before the beginning of the Spring 2020 semester.

The common syllabus contains course policies for math 1553.

Your instructor’s additional details (office hours, specific regrade policy, TA information, etc.) will be posted by them on their Canvas site or their website, so please carefully read any such additional resources.
Intro to Linear Algebra - MATH-1553-D

The website for Math 1553 Section D is here.
Welcome to Piazza!

Piazza is a Q&A platform designed to get you great answers from classmates and instructors fast. We've put together this list of tips you might find handy as you get started:

1. Ask questions!

The best way to get answers is to ask questions! Ask questions on Piazza rather than emailing your teaching staff so everyone can benefit from the response (and so you can get answers from classmates who are up as late as you are).

2. Edit questions and answers wiki-style.

Think of Piazza as a Q&A wiki for your class. Every question has just a single students' answer that students can edit collectively (and a single instructors' answer for instructors).

3. Add a followup to comment or ask further questions.

To comment on or ask further questions about a post, start a followup discussion. Mark it resolved when the issue has been addressed, and add any relevant information back into the Q&A above.

4. Go anonymous.

Shy? No problem. You can always opt to post or edit anonymously.

5. Tag your posts.

It's far more convenient to find all posts about your Homework 3 or Midterm 1 when the posts are tagged. Type a "#" before a key word to tag. Click a blue tag in a post or the question feed to filter for all posts that share that tag.

6. Format code and equations.

Adding a code snippet? Click the pre or tt button in the question editor to add pre-formatted or inline teletype text. Mathematical equation? Click the $\LaTeX$ button to access the $\LaTeX$ editor to build a nicely formatted equation.

7. View and download class details and resources.

Average Response Time: Special Mentions: There are no special mentions at this time.
WeBWorK Under Assignments In Canvas. It will work on your second attempt.
Your first assignment
Mathematical Autobiography

The first assignment is to post a mathematical autobiography on Piazza, due Fri.

The folder is bio and the subject is your name.

Include:
• A recognizable photo of you
• Preferred nickname
• Your major
• Anything about you that you’d like to share
• About your relationship with Math
Assessment

Grades!
90% is an A, etc. Target scores may be moved in your favor.

If you score higher on the Final than your lowest Midterm then the Final is worth 37.5%...
# Exams

<table>
<thead>
<tr>
<th>Exam</th>
<th>Date</th>
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<tbody>
<tr>
<td>Midterm 1</td>
<td>Feb 7</td>
</tr>
<tr>
<td>Midterm 2</td>
<td>Mar 6</td>
</tr>
<tr>
<td>Midterm 3</td>
<td>Apr 10</td>
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<tr>
<td>Final Exam</td>
<td>Apr 28 @ 6pm</td>
</tr>
</tbody>
</table>

Notify me *ASAP* if you have a conflict.
Quizzes

- There are 7 quizzes, on Fridays.
- Lowest quiz grade dropped
- Typical timing:

<table>
<thead>
<tr>
<th></th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
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<tbody>
<tr>
<td>Week N</td>
<td></td>
<td>Class</td>
<td>Class</td>
<td>HW due on Week N-1</td>
<td>Quiz on Week N-1</td>
</tr>
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<td></td>
<td></td>
<td>Class</td>
<td>HW due on Week N-1</td>
<td></td>
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<tr>
<td>Week N+1</td>
<td>Class</td>
<td></td>
<td>Class</td>
<td>HW due on Week N</td>
<td>Quiz on Week N</td>
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Homework

• WeBWorK
• Generally due on Wed at 11:59 pm
• Normally as many tries as you want, but there are a handful of problems with a limited number of tries. The problem will say.
  • One you get told your answer is correct, you are done with that problem.
• Two lowest scores dropped
Polls

• Piazza polls during class
• Lowest three dropped
• Graded only for participation
• To get credit you must sign in to Piazza with your Gtid
• To get credit you must press “Save my response”
• Answering a poll from any place other than the lecture hall is considered a breach of the academic honor code.
Advice, etc.
Soak Zone!

The first 5 rows of the lecture hall are in our Soak Zone. If you are sitting in the Soak Zone, prepare to get completely soaked by linear algebra knowledge.
Office Hours

• Skiles 234
• Mon 3-4, Wed 2-3
• You should come!
• Ok if you don’t have questions
Laptop Free Zone

Laptops are not permitted in lecture, unless authorized by me.
Some Things that Make Me Happy

• Advance notice if you need to come late / leave early

• Not using your phone in class

• Energy

• Email / online etiquette

• Saying hi if I see you out and about

• When you ask/answer a question
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• When you ask/answer a question
Asking questions

• Please ask questions!

• Ok if your answers are not correct

• Will answer as many questions as I can
After the first exam, definitions will become fundamentally important!
Good luck!