

Contacting Me (Justin W-G)

Please email me directly at [immortal@umd.edu \(mailto:immortal@umd.edu\)](mailto:immortal@umd.edu) - please do not message me through Canvas, I will not get those messages.

If we've never met before and you'd like a bit of get-to-know-me, I was on a bitcamp podcast in early 2024:

<https://www.youtube.com/watch?v=MNPfSpJORzQ>  (<https://www.youtube.com/watch?v=MNPfSpJORzQ>)



(<https://www.youtube.com/watch?v=MNPfSpJORzQ>)

Basics

The basics are as follows, more details are below!

- Watch the videos and/or read the handwritten notes and/or read the Latex notes.
- You can ask questions either in office hours or on Piazza.
- Turn in the homework on time.
- Take the exams on time.

Justin W-G's Office Hours

My office hours will vary from week-to-week. Some hours will be in-person and some will be online. All times are 24-hour to avoid confusion. If Zoom asks for a password, use: iheart351

Week 1: Finished!

Week 2: Finished!

Week 3: Finished!

Week 4: Finished!

Week 5: Finished!

Week 6: Finished!

TA Office Hours





Important - always check the previous night's "T'Was the Night Before" on Piazza in case there have been any one-off adjustments to TA office hours!

All hours below are on Zoom. All links are below the table. All times are 24-hour to avoid confusion.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
07:00-08:00						Elizabeth
08:00-09:00		Sijing	Sijing	Elizabeth	Sijing	Elizabeth
09:00-10:00		Sijing	Sijing	Sijing	Sijing	Sijing
10:00-11:00		Kasra	Justin R	Justin R	Justin R	Justin R
11:00-12:00		Kasra	Justin R	Justin R	Justin R	Justin R
12:00-13:00		Kasra				
13:00-14:00		Kasra	Kasra	Fiona	Fiona	Fiona
14:00-15:00			Kasra	Fiona	Fiona	Fiona
15:00-16:00			Kasra	Fiona	Fiona	
16:00-17:00			Kasra			
17:00-18:00						
18:00-19:00						
19:00-20:00	Elizabeth		Elizabeth			
20:00-21:00	Elizabeth		Elizabeth			
21:00-22:00	Elizabeth					



For each - note that TAs are free to conduct office hours as they wish:

- Kasra (drop-in): <https://umd.zoom.us/my/ktorsh>  (<https://umd.zoom.us/my/ktorsh>)
- Elizabeth (sign-up): Finished!
- Fiona (sign-up): <https://bit.ly/fmckeeoh>  (<https://bit.ly/fmckeeoh>)
- Justin Reese (drop-in): <https://umd.zoom.us/j/4397139442?omn=99562897874>  (<https://umd.zoom.us/j/4397139442?omn=99562897874>)
- Sijing (drop-in): <https://umd.zoom.us/j/5881497713>  (<https://umd.zoom.us/j/5881497713>)


Policy on Using AI

As a department we are well aware that generative AI does a reasonable job of answering some questions which arise in this course. You are encouraged of course to use anything, including AI, as part of the learning process - however if we believe that you have used AI to answer homework or exam questions we will immediately file a report with the Office of Student Conduct requesting that you be removed from the class with no warning or exception. We are quite serious about this!



Official Class Material

There is a variety of resources. The "official notes" are more formal. The handwritten notes are created as I'm doing the videos so I'm posting those as well - meaning the handwritten notes and the videos go together in the obvious way - see the filenames!

- The official notes for the class may be found here
<https://www.math.umd.edu/~immortal/CMSC351/>  (<https://www.math.umd.edu/~immortal/CMSC351/>)
You are only responsible for the subset covered in the recordings and in the handwritten notes.
- The handwritten notes (created as part of the recordings) can be found in the Files Section as I create them.
- The videos can be found in the Panopto Recordings Section as I create them.

Submitting Homework and Written Exams

In order to allow us (me +5 TAs) to get homework and exam graded quickly all homework and written exams will be on templates. You'll need to fill in the homework template and upload the resulting document. You will NOT be able to write on separate paper. There are essentially three ways to do this:

- Print the document, write the answers, scan (phone is fine) and upload.
- Download the document to a tablet, fill it in, upload.
- Fill the answers in using Latex - we will provide raw latex code for each document.

Point Total and Grading

Homework = 100

Exams = 5 (*) x 50 = 250

Total = 350

(*) Due to the exam 1 mishap.

If the overall course average is below 75% there will be a curve. Just to be honest - historically this has never happened. Borderline grades may be bumped.

Exams

For the purposes of exams the course is divided into three two-week periods. At the end of each two-week periods there will be a written exam which will be submitted via Gradescope and a multiple-choice/numerical-answer exam which will be done directly on Canvas. Think of each two-week period having one exam divided into two parts:

- Exam 1 covers the material on homeworks 1,2,3.

Exam 1 opens at 00:01 on Friday July 19 and closes at 23:59 on Sunday July 21.

- The written part will be downloadable from Gradescope. **Once you download it you have two hours to complete it and upload your solutions back to Gradescope. You must submit before the exam closes!**
- The multiple-choice/numerical-answer part will be available on Canvas. **Once you start it you will have two hours to complete it and it will be graded automatically once you finish. You must finish before the exam closes!**

- Exam 2 covers the material on homeworks 4,5,6,7.

Exam 2 opens at 00:01 on Friday August 2 and closes at 23:59 on Sunday August 4.

- Same details as above.

- Exam 3 covers the material on homeworks 8,9,10,11.

Exam 3 opens at 00:01 on Friday August 16 and closes at 23:59 on Sunday August 18.

- Same details as above.

Homework

There will be eleven homework assignments and we will count your highest ten. Homework will be submitted on Gradescope. Homework due dates and contents will be as follows:

Itemization	Due Date	Topics
homework 1	Thu 11 July at 23:59	sum review, coin changing, complexity
homework 2	Mon 15 July at 23:59	complexity, maximum contiguous sum, bubble sort, selection sort
homework 3	Thu 18 July at 23:59	insertion sort, binary search, recurrence relations and digging down
Exam 1 Covers Homeworks 1,2,3		
homework 4	Wed 24 July at 23:59	recurrence trees, master theorem, merge sort
homework 5	Sat 27 July at 11:59	heaps and heap sort, quick sort

homework 6	Mon 29 July at 23:59	counting sort, radix sort, karatsuba
homework 7	Thu 1 August at 23:59	intro to graphs, shortest path algorithm, breadth and depth-first traverses
Exam 2 Covers Homeworks 4,5,6,7		
homework 8	Tue 6 August at 23:59	dijkstra's algorithm and floyd's algorithm
homework 9	Fri 9 August at 23:59	spanning trees, prim's algorithm and kruskal's algorithm
homework 10	Mon 12 August at 23:59	minimax algorithm and huffman coding
homework 11	Thu 15 August at 23:59	p, np, reductions
Exam 3 Covers Homeworks 8,9,10,11		

Topic List and Recording Status

Topic	Recorded?
coin changing algorithm	yes
introduction to asymptotic analysis - big-O	yes
big- Ω and big- Θ , big limit theorems	yes
rigorous time analysis of pseudocode	yes
maximum contiguous sum	yes
sorting overview and definitions	yes
bubble sort	yes
selection sort	yes
insertion sort	yes
binary search	yes
recurrence relations and digging down	yes
exam 1 covers from coin changing to digging down	
recurrence trees	yes
the master theorem	yes
merge sort	yes

heaps and heap sort	yes
quick sort	yes
counting sort	yes
radix sort	yes
karatsuba's algorithm	yes
intro to graphs	yes
shortest path algorithm	yes
breadth first traverse	yes
depth first traverse	yes
exam 2 covers from recurrence trees to bft and dft	
dijkstra's algorithm	yes
floyd's algorithm	yes
spanning trees	yes
prim's algorithm	yes
kruskal's algorithm	yes
minimax algorithm	yes
huffman's algorithm	yes
p and np part 1	yes
p and np part 2	yes
p and np part 3	yes
exam 3 covers from dijkstra to p and np	

