MAT 305: Basic Concepts of Mathematics I

Fall 2026

Course Schedule

Day-by-Day Schedule

The contents of this schedule are subject to change; changes will be announced in class and on Canvas. **Demo Day** meetings feature a mathematical task or structured exploration — come ready to think, no pre-reading required. **Deeper Day** meetings discuss and unpack the section based on the textbook section as well as the task experience from the previous day. You will be expected to read the section before class (see course policies). Assignments appear in the **Homework** column on the day they are assigned: the Task Reflection is due by midnight on Demo Day; the Lesson Guide and Lesson Quiz are due before Deeper Day class begins (this services the pre-reading); the homework set (HW) is due by midnight on the *next* section's Demo Day (except each chapter's last section, whose HW is due before that chapter's Celebration of Knowledge). Celebrations of Knowledge are taken outside regular class time and are available **only Tuesday–Thursday, 4:00–10:00pm**, on the dates noted below. Practice Tests are distributed in class and should be completed before your Celebration of Knowledge.

Day	Date	§	Type	Class Activity	Homework	Notes
	Aug 26 W	—		Orientation		
	Aug 28 F	—		Setup		
Chapter 1 Problem Solving						
1	Aug 31 M	1.1	Demo	*The Handshake Problem (Task)*	Lesson Guide & Quiz	
2	Sep 2 W	1.1	Deeper	Introduction to Problem Solving	HW 1.1	
3	Sep 4 F	1.2	Demo	*Growing Trains (Task)*	Lesson Guide & Quiz	
	Sep 7 M	—		No Class — Labor Day		
4	Sep 9 W	1.2	Deeper	Patterns and Problem Solving	HW 1.2	Practice Test distributed
5	Sep 11 F	—		Test Prep		
Ch 1 Celebration of Knowledge Sep 15–16 (Tue–Thu, 4–10pm)						
Chapter 2 Sets and Reasoning						
6	Sep 14 M	2.1	Demo	*Sorting the Attribute Set (Exploration)*	Lesson Guide & Quiz	
7	Sep 16 W	2.1	Deeper	Sets and Venn Diagrams	HW 2.1	
8	Sep 18 F	2.2	Demo	*Locked Case: The Pica-Centro Deduction Game (Exploration)*	Lesson Guide & Quiz	
9	Sep 21 M	2.2	Deeper	Introduction to Deductive Reasoning	HW 2.2	Practice Test distributed
Ch 2 Celebration of Knowledge Sep 23–24 & Sep 29–30 (Tue–Thu, 4–10pm)						
Chapter 3 Whole Numbers						
10	Sep 23 W	3.1	Demo	*The Trading Machine (Task)*	Lesson Guide & Quiz	
11	Sep 25 F	3.1	Deeper	Numeration Systems	HW 3.1	
12	Sep 28 M	3.2	Demo	*The $600 Goal (Task)*	Lesson Guide & Quiz	

Day	Date	§	Type	Class Activity	Homework	Notes
13	Sep 30 W	3.2	Deeper	Addition and Subtraction	HW 3.2	
14	Oct 2 F	3.3	Demo	*The Patio Problem (Task)*	Lesson Guide & Quiz	
15	Oct 5 M	3.3	Deeper	Multiplication	HW 3.3	
16	Oct 7 W	3.4	Demo	*The Assembly Chairs (Task)*	Lesson Guide & Quiz	
17	Oct 9 F	3.4	Deeper	Division and Exponents	HW 3.4	Practice Test distributed
18	Oct 12 M	—		Test Prep		
Ch 3 Celebration of Knowledge Oct 13–15 (Tue–Thu, 4–10pm)						
Chapter 4 Number Theory						
19	Oct 14 W	4.1	Demo	*Arrays, Primes, and the Sieve (Exploration)*	Lesson Guide & Quiz	
20	Oct 16 F	4.1	Deeper	Factors and Multiples	HW 4.1	
21	Oct 19 M	4.2	Demo	*Packing Bags, Matching Bunches (Exploration)*	Lesson Guide & Quiz	
22	Oct 21 W	4.2	Deeper	GCF and LCM	HW 4.2	Practice Test distributed
Ch 4 Celebration of Knowledge Oct 21–22 & Oct 27–28 (Tue–Thu, 4–10pm)						
Chapter 5 Integers and Fractions						
23	Oct 23 F	5.1	Demo	*The Skeptical Classmate (Task)*	Lesson Guide & Quiz	
	Oct 26 M	—		No Class — Fall Break		
24	Oct 28 W	5.1	Deeper	Integers	HW 5.1	
25	Oct 30 F	5.2	Demo	*Same Bar, Different Names (Task)*	Lesson Guide & Quiz	
26	Nov 2 M	5.2	Deeper	Introduction to Fractions	HW 5.2	
27	Nov 4 W	5.3	Demo	*How Many Are In…? (A Fraction Division Progression) (Task)*	Lesson Guide & Quiz	
28	Nov 6 F	5.3	Deeper	Operations with Fractions	HW 5.3	Practice Test distributed
29	Nov 9 M	—		Test Prep		
Ch 5 Celebration of Knowledge Nov 10–11 (Tue–Thu, 4–10pm)						
Chapter 6 Decimals: Rational and Irrational Numbers						
30	Nov 11 W	6.1	Demo	*Sorting Fractions — Which Decimals Terminate? (Exploration)*	Lesson Guide & Quiz	
31	Nov 13 F	6.1	Deeper	Decimals and Rational Numbers	HW 6.1	
32	Nov 16 M	6.2	Demo	*Grid Investigations: Why Multiplication Doesn't Line Up (Exploration)*	Lesson Guide & Quiz	
33	Nov 18 W	6.2	Deeper	Operations with Decimals	HW 6.2	
34	Nov 20 F	6.3	Demo	*The Orange Juice Task (Task)*	Lesson Guide & Quiz	
35	Nov 23 M	6.3	Deeper	Ratio, Percent, and Scientific Notation	HW 6.3	

Day	Date	§	Type	Class Activity	Homework	Notes
	Nov 25 W	—		No Class — Thanksgiving		
	Nov 27 F	—		No Class — Thanksgiving		
36	Nov 30 M	6.4	Demo	*The Tilted-Square Investigation (Exploration)*	Lesson Guide & Quiz	
37	Dec 2 W	6.4	Deeper	Irrational and Real Numbers	HW 6.4	Practice Test distributed
38	Dec 4 F	—		Test Prep		
Ch 6 Celebration of Knowledge Dec 8–10 & Dec 15 (Tue–Thu, 4–10pm)						
Final Lesson Plan						
39	Dec 7 M	—		Final Lesson Plan Workshop (peer feedback)		
40	Dec 9 W	—		Final Lesson Plan Presentations		
Final Lesson Plan presentations continue + Eval & Survey Finals week, Dec 10–15						

AI was used in the development and editing of this document.