

Day	Date	Activity	Details
1-T	8/30	<i>Discuss:</i>	Logistics, course overview, L <sup>A</sup> T <sub>E</sub> X <i>Preview:</i> 1.1: Sets / 1.2: Set Operations <i>Exercises:</i> 1.1: 3, 5, 8, 9 / 1.2: 2, 4, 5, 6, 14.
1-R	9/1	<i>Hand in:</i>	L <sup>A</sup> T <sub>E</sub> X assignment <i>Discuss:</i> 1.1, 1.2 <i>Preview:</i> 1.3: Partitions <i>Exercises:</i> 1.3: 2, 5, 6, 9, 12.
2-T	9/6	<i>Hand in:</i>	1.1, 1.2 <i>Discuss:</i> 1.3 <i>Preview:</i> 1.4: Logic and Truth Tables / 1.5: Quantifiers <i>Exercises:</i> 1.4: 3, 4, 5, 6, 10, 12, 13 / 1.5: 2, 3, 4, 5.
2-R	9/8	<i>Hand in:</i>	1.3 <i>Discuss:</i> 1.4, 1.5 <i>Preview:</i> 1.6: Implications <i>Exercises:</i> 1.6: 1, 4, 6, 8, 10, 11a.
3-T	9/13	<i>Hand in:</i>	1.4, 1.5 <i>Discuss:</i> 1.6 <i>Preview:</i> 2.1: Proof Techniques <i>Exercises:</i> 2.1: 1, 4, 11, 13, 15, 16, 17, 18.
3-R	9/15	<i>Hand in:</i>	1.6 <i>Discuss:</i> 2.1 <i>Exercises:</i> 2.1: 19, 20, 21, 24, 28, 29, 30.
4-T	9/20	<i>Hand in:</i>	2.1, part 1 <i>Discuss:</i> 2.1 <i>Preview:</i> 2.2: Mathematical Induction <i>Exercises:</i> 2.2: 2adg, 4, 5, 6, 11, 12, 14, 15.
4-R	9/22	<i>Hand in:</i>	2.1, part 2 <i>Discuss:</i> 2.2 <i>Preview:</i> 2.3: The Pigeonhole Principle <i>Exercises:</i> 2.3: 2, 4, 6, 9, 11, 15, 16.
5-T	9/27	<i>Hand in:</i>	2.2 <i>Discuss:</i> 2.3 <i>Review:</i> Review for Test I
5-R	9/29	<i>Hand in:</i>	2.3 <i>Exam:</i> <b>Test I</b> (covering sections 1.1–2.3) <i>Preview:</i> 4.1: Getting from Point <i>A</i> to Point <i>B</i> <i>Exercises:</i> 4.1: 1, 4, 6, 7, 9, 10.

Day	Date	Activity	Details
6-T	10/4	<i>Hand in:</i>	Resubmit your lowest HW <i>Discuss:</i> 4.1 <i>Preview:</i> 4.2: Fund. Principle of Counting / 4.3: Formula for Binomial Coefficients <i>Exercises:</i> 4.2: 1, 4, 6, 7, 8. / 4.3: 4, 5, 6, 7, 9.
6-R	10/6	<i>Hand in:</i>	4.1 ( <i>we did a proof resubmit instead</i> ) <i>Discuss:</i> 4.2, 4.3 <i>Preview:</i> 4.4: Combinatorics with Indistinguishable Objects <i>Exercises:</i> 4.4: 1bd, 2, 3, 4, 6, 9, 10, 14.
7-T	10/11	<i>Hand in:</i>	4.2, 4.3 <i>Discuss:</i> 4.4 <i>Preview:</i> 5.1: Relations <i>Exercises:</i> 5.1: 2, 3, 4, 5, 7, 11, 15, 17.
7-R	10/13	<i>Hand in:</i>	4.4 <i>Discuss:</i> 5.1 <i>Preview:</i> 5.2: Equivalence Relations <i>Exercises:</i> 5.2: 1, 2, 3, 4, 5, 8.
8-T	10/18	<i>Hand in:</i>	5.1 <i>Discuss:</i> 5.2 <i>Preview:</i> 5.3: Partial Orders <i>Exercises:</i> 5.3: 2, 3, 7, 8, 13, 16, 18.
8-R	10/20	<i>Hand in:</i>	5.2 <i>Discuss:</i> 5.3 <i>Preview:</i> 6.1: Functions <i>Exercises:</i> 6.1: 2, 3, 5, 9, 10, 11, 12, 13, 19.
9-T	10/25	<i>Hand in:</i>	5.3 <i>Discuss:</i> 6.1 <i>Review:</i> Review for Test II
9-R	10/27	<i>Exam:</i>	<b>Test II</b> (covering sections 4.1–4.4, 5.1–5.3, and 6.1) <i>Preview:</i> 6.2: Inverse Relations and Inverse Functions <i>Exercises:</i> 6.2: 3, 4, 5, 8, 9, 12, 15.
10-T	11/1	<i>Hand in:</i>	6.1 <i>Discuss:</i> 6.2 <i>Preview:</i> 9.1: Pascal's Triangle <i>Exercises:</i> 9.1: 1, 5, 7, 8, 9, 10, 19.
10-R	11/3	<i>Hand in:</i>	6.2 <i>Discuss:</i> 9.1 <i>Preview:</i> 9.2: The Fibonacci Numbers <i>Exercises:</i> 9.2: 1, 2, 3, 4, 5, 9.

Day	Date	Activity	Details
11-T	11/8	<i>Hand in:</i>	9.1 <i>Discuss:</i> 9.2 <i>Preview:</i> 3.1: Divisibility (Related to Math 310: Elementary Theory of Numbers) <i>Exercises:</i> 3.1: 3, 7, 9, 10, 11, 14, 15, 16, 19, 21, 24.
11-R	11/10	<i>Hand in:</i>	9.2 <i>Discuss:</i> 3.1 <i>Preview:</i> 4.5: Probability (Related to Math 318: Probability and Statistics) <i>Exercises:</i> 4.5: 2, 3, 4, 6, 8, 9, 10.
<b>SUMS Conference at JMU: Saturday, November 12</b> (up to 10 points extra credit for attending and writing a page about what you did at the conference)			
12-T	11/15	<i>Hand in:</i>	3.1 <i>Discuss:</i> 4.5 <i>Preview:</i> 5.4: Quotient Spaces (Related to Math 430: Abstract Algebra) <i>Exercises:</i> 5.4: 1, 2, 6, 7, 8, 9, 10.
12-R	11/17	<i>Hand in:</i>	4.5 <i>Discuss:</i> 5.4 <i>Preview:</i> 6.3: Cardinality of Infinite Sets (Related to Math 315: The Real Number System) <i>Exercises:</i> 6.3: 2, 3, 6, 8, 9, 10.
13-T	11/22	<i>Hand in:</i>	5.4 <i>Discuss:</i> 6.3 <i>Preview:</i> 7.1: Graphs (Related to Math 353: Graph Theory) <i>Exercises:</i> 7.1: 2, 3, 4, 6, 9, 11, 12, 13.
13-R	11/24	<i>Eat Turkey:</i>	<b>Thanksgiving Break</b>
14-T	11/29	<i>Hand in:</i>	6.3 <i>Discuss:</i> 7.1 <i>Review:</i> Review for Test III
14-R	12/1	<i>Hand in:</i>	7.1 <i>Exam:</i> <b>Test III</b> (covering sections 3.1, 4.5, 5.4, 6.2, 6.3, 7.1, 9.1, 9.2)
15-T	12/6	<i>Hand in:</i>	Resubmit any proof <i>Movie:</i> <i>The Proof</i>
15-R	12/8	<i>Hand in:</i>	Resubmit any proof

Final Exam: Tuesday, December 13, 1:30-3:30, Miller 130.

The final will be cumulative, all proofs, open book.