

## Approximate Schedule and Problem List

MAT 296 Fall 2015

Problems may be added or omitted later. Check with your individual instructor for due dates.

Week	Date	Sections
1	Aug 31	5.5, 7.1, 7.2
2	Sep 7	7.2, 7.3
3	Sep 14	7.3, 6.1
4	Sep 21	6.2
5	Sep 28	6.2, 6.3 + Exam 1
6	Oct 5	6.3, 6.6
7	Oct 12	6.6, 7.4, 7.5
8	Oct 19	7.6, 8.1
9	Oct 26	8.2, 8.3 + Exam 2
10	Nov 2	8.3, 8.4
11	Nov 9	8.4, 8.5
12	Nov 16	8.5, 8.7
13	Nov 30	8.7, 9.3 + Exam 3
14	Dec 7	9.4

Section	Problems	Remarks
5.5	Online: 6, 11, 13, 14, 17, 19, 35, 41, 43, 51, 533XP Written: none	review of substitution (Calculus I)
7.1	Online: 1, 19, 31 Written: 12, 20 Online: 3, 9, 15, 36, 501XP, 503XP, 510XP Written: 16	$y = f(x)$ $x = f(y)$
7.2	Online: 3, 5, 6, 7, 522XP Written: none Online: 9, 10, 12, 503XP Written: 16, 18	rotation around an axis  rotation around a shifted axis

Section	Problems	Remarks
7.3	Online: 5, 7, 33, 502XP Written: 6 Online: 9, 11, 34, 504XP Written: 10 Online: 15, 17, 19, 505XP Written: 18, 38	rotation around $y$ -axis  rotation around $x$ -axis  rotation around a shifted axis
6.1	Online: 3, 5, 9, 11, 525XP Written: 10 Online: 13, 19, 502XP, 537XP, 533XP Written: 20, 24	simpler  more complex
6.2	Online: 1, 3, 5, 9, 12 Written: 4, 8 Online: 17, 19, 21, 23, 25 Written: 18, 24 Online: 42, 47 Written: 40 Online: 43, 51, 53 Written: 46, 58	sin, cos integrals  tan, sec integrals  trig substitutions  more complex trig substitutions
6.3	Online: 12, 17, 524XP Written: 10 Online: 19, 20, 519XP, 530XP Written: 16 Online: 22, 23, 517XP Written: 24	linear factors, no powers  long division, linear factors with powers  quadratic factors, no powers
6.6	Online: 7, 9, 13, 17, 22 Written: 12, 34 Online: 23, 27, 30, 49 Written: 24 Written: Ch Review T/F: 7, 10, 11, 12, 13, 14	infinite interval  discontinuous integrand
7.4	Online: 7, 13, 501XP, 511XP Written: 8, 10	
7.5	Online: 5, 7, 9 Written: 8, 10	only for rotations around $x$ -axis
7.6	Online: 17, 505XP Written: none Online: 11, 13 Written: 10	work (tank problems)  work (rope/chain problems)

Section	Problems	Remarks
8.1	Online: 9, 10, 11, 12, 14, 15, 23, 24 Written: none	
8.2	Online: 1, 3, 7, 9, 10, 12, 508XP, 520XP Written: 4, 6 Online: 14, 15, 16, 17, 23, 35, 37, 514XP, 522XP Written: 36	definition, geometric series  divergence test, geometric, harmonic, and telescoping series
8.3	Online: 3, 4, 13, 15, 19, 21, 503XP, 523XP Written: 6, 10, 12, 14 Online: 9, 25, 26, 29, 528XP Written: 18, 22, 30	integral test, $p$ -series, comparison test  more complex comparisons
8.4	Online: 3, 5, 7, 501XP, 507XP Written: 6, 18 Online: 23, 521XP, 533XP Written: 30 Online: 19, 21, 25, 43 Written: 20, 24, 26	alternating series (no error estimate)  conditional and absolute convergence  ratio test (no root test)
8.5	Online: 5, 7, 9, 15, 501XP, 508XP Written: 12, 14, 16 Online: 11, 18, 19, 23, 24, 502XP, 512XP Written: 20, 26	power series  more power series
8.7	Online: 5, 7, 11, 13, 14, 17 Written: 6, 12, 16 Online: 28, 30, 31, 44, 45 Written: 46 Online: 59, 61, 63 Written: 60, 62, 64 Written: Ch Review T/F: 1, 4, 5, 6, 9, 12, 14, 15, 17	Taylor's formula (no error estimate)  using known series to get more  recognizing known series
9.3	Online: 4, 6, 15, 19, 506XP, 514XP, 522XP Written: 16, 20 Online: 27, 28, 31, 33 Written: 24, 30, 34	converting cartesian/polar coords  graphing polar curves
9.4	Online: 5, 7, 10, 502XP, 517XP Written: 6, 12 Online: 17, 19, 21, 503XP, 505XP Written: 20	areas inside polar curves  areas inside and between polar curves