

Date	Topics (chapters in Stewart)	Homework	Optional HW
9/4, 9/6	Vectors, coordinate systems (§12.1-2, 10.3, 15.7-8)	Due 9/11 12.1: 1, 4, 6, 15, 20, 35 12.2: 1, 4, 8, 21, 22 10.3: 3, 6 15.7: 2, 3, 6	12.1: 3, 5, 14, 19, 38 12.2: 5, 9-14 10.3: 4, 5 15.7: 7, 8
9/11, 9/13	Dot products, cross products (§12.3, 12.4)	Due 9/18 15.8: 2, 4, 7, 8 12.2: 24, 28, 44, 46 12.3: 1, 2, 5, 8, 17, 23, 31, 43, 54, 64 12.4: 4, 6, 13, 14, 25, 35, 37, 45, 53	12.3: 11, 13, 62, 63 12.4: 15, 29, 42, 46, 47, 54 For students comfortable with first-year physics: 12.2: 30-40, 12.3: 49-53, 12.4: 9-12, 39-41
9/18, 9/20	Parametric equations (§12.5, 10.1, 10.5)	Due 9/25 12.5: 1, 2, 4, 10, 14, 18, 19, 22, 26, 34, 40, 53, 55, 64, 65, 77 10.1: 7, 8, 11, 14, 24, 28 Exercises 24 and 28 are designed to develop geometric intuition: using a graphic calculator defeats the purpose! 10.5: 2, 8, 14, 22, identify the conic sections in 25-30, find vertices and foci in 28.	12.5: 5, 12, 13, 21, 33, 37, 46, 62, 78, 80 10.1: 10, 19-22, 33; also 43, 44, 48, 52 (for fun) 10.5: All odd-numbered exercises.
9/25, 9/27	Some surfaces in 3-space (§12.6); Review for first midterm (through 12.6)	Due 10/2 12.6: 1, 4, 5, 10, 15, 16, 19, 21-28, 36, 47	12.6: Unassigned odd-numbered exercises 1-20, 31-38, 43-46, 49.
10/2, 10/4	First midterm; vector-valued functions (§13.1)	Due 10/9 13.1: 1, 4, 5; 9, 10 (<i>for the last two find a one-word description for the graph</i>); 16, 21-26.	13.1: 12, 13, 14, 28, 31
10/9, 10/11	Integrals of vector-valued functions, applications (§13.2-3)	Due 10/16 13.2: 6, 7, 10-12, 16, 21, 26, 27, 34, 37, 42 13.3: 1, 4, 11, 13, 19, 20, 22, 32, 47	13.2: 1-5, 17-20, 28, 41 13.3: 2, 3, 5, 7-9, 16, 21, 25, 42-45
10/16, 10/18	Physical applications (§13.4); functions of several variables (§14.1-2)	Due 10/23 13.4: 5, 8, 10, 11, 16, 18(a), 19, 22, 25, 32, 36, 39, 40 14.1: 3, 12, 13, 22, 25, 28, 29, 32, 46, 48, 61-66, 67, 70	13.4: 3, 4, 7, 15, 17, 27-29, 35, 44, 45 14.1: 5, 8, 10, 16, 20, 33, 36, 49, 52, 71
10/23, 10/25	Partial derivatives and tangent planes (§14.3-4)	Due 10/30 14.2: 6, 10, 11, 14, 17, 18, 25, 32, 33, 37, 41 14.3: 5-8, 10, 18, 20, 21, 29, 36, 47	14.2: 2, 5-20 (<i>those not assigned</i>), 29, 38 14.3: 25, 27, 31, 33, 35, 37, 43, 48
10/30, 11/1	Chain rule (§14.5); Review for second midterm (through 14.4)	Due 11/13 (note the date!) 14.3: 64, 65, 72, 78, 88, 94 14.4: 2, 4, 12, 18, 21, 25, 28, 32 14.5: 2, 3, 6, 7, 12, 13	14.3: 75, 76, 86, 95 14.4: 1, 3, 5, 26, 27, 29 14.5: 1, 4, 5, 8, 9, 11, 19,
11/8	Second midterm	Second midterm (no HW)	
11/13, 11/15	Directional derivatives and the gradient (§14.6)	Due 11/20 14.5: 22, 23, 27, 30, 31, 42, 49 14.6: 5, 7, 9, 13, 15, 21, 22, 29, 41, 43	14.5: 28, 29, 32, 44, 50 14.6: 6, 10, 11, 16, 24, 27, 56, 63
11/20	Applications: maximum and minimum problems (§14.7)	Due 11/29 (note the date!) 14.6: 52, 55, 60, 64(a) 14.7: 1, 2, 3, 6, 9, 11, 16 (<i>graphing not necessary</i>), 21, 32, 35, 36	14.7: 13, 19, 31, 33, 37
11/27, 11/29	Maximum/minimum problems and Lagrange multipliers (§14.7-8)	Due 12/4 14.7: 39 (<i>graphing not necessary</i>), 41, 43, 44, 46, 54, 57 14.8: 4, 6, 7, 8, 12, 22, 31, 33, 34, 36	14.7: 42, 47, 49, 50, 55, 56, 59 14.8: All odd problems 1-23, 31-43
12/4, 12/6	Complex numbers (Appendix); Review for final exam		Appendix H: 4, 8, 9, 12, 16, 24, 34, 39, 44, 45