Topics to be covered in Atkinson's Math 2101 Any entries in parentheses refer to the 7th edition of the textbook. If no parentheses appear in a line, then the the numbers refer to both editions.

Section	Practice problems
12.1: Three-dimensional coordinate systems	7, 9, 11, 13, 15, 17, 19, 21, 33, 35
12.2: Vectors	4-25 (4-6, 9-26, 29)
12.3: The dot product	1-27, 35-40, 43, 49 (1-27, 39-44, 47, 53)
12.4: The cross product	1-21, 29-38
12.5: Lines and planes	You should be able to do all types of problems in this section. For more routine, problems, look at 1-58 (1-60). 59-72 (61-74) are more interesting. Skip around.
12.6: Cylinders and quadratic surfaces	3-28, 41-44
12: Review	Concept check and true-false quiz
13.1: Vector functions and space curves	1-24, 25-28, 36-38, 42 (1-14, 17-26, 27-30, 40-42, 48)
13.2: Derivatives and integrals of vector functions	1-20, 23-26, 31, 33-38 (1-20, 23-26, 33, 35-40)
13.3: Arc length and curvature	1-6, 11, 13, 14, 15, 16, 17-23, 27-30, 36-37 (38-39)
13.4: Motion in space	3-16, 19, 20, 22, 23, 33-38 (37-42)
13: Review	Concept check, true-false quiz
14.1: Functions of several variables	11-30, 34, 39-46, 55-60 (13-32, 38, 43-50, 59-64)
14.2: Limits and continuity	5-18, 29-38, 39-41
14.3: Partial derivatives	15-42, 45-48, 51-68 (15-44, 47-50, 53-70)
14.4: Tangent planes and linear approximation	1-6, 11-16, 29, 21, 31
14.5: The chain rule	1-34
14.6: Directional derivatives and the gradient	4-17, 19, 21-26, 27-29, 36, 39-44 (4-17, 19, 21-26, 27-29, 36, 41-46)
14.7: Maximum and minimum values	3-20, 29-36, 39, 41, 43, 45
14.8: Lagrange multipliers	3-19, 25, 40-41 (3-21, 27, 42-43)
14: Review	Concept check, true-false quiz
15.1: Double integrals over rectangles	Try at least one or two of 1-4, do 11-14
15.2: Iterated integrals	1-31, 35-36
15.3: Double integrals over general regions	1-28, 39-52, 55-56 (1-10, 17-32, 43-56, 59-60)
15.4: Double integrals in polar coordinates	7-32
15.6 (15.7): Triple integrals	3-22, 27-36
15.7 (15.8): Triple integrals in cylindrical coords	15-22
15.8 (15.9): Triple integrals in spherical coords	17-27, 36, 38, 39, 40
15.9 (15.10): Change of variables	1-6, 7-10, 11-16 (1-6, 7-10, 15-20)
15: Review	Concept check, true-false quiz
16.2: Line integrals	1-22
16.3: Fundamental theorem for line integrals	3-20, 23-24, 33, (3-20 25-26, 35)
16.4: Green's theorem	1-14

If time permits, we will discuss further selected topics from chapter 16.