

MTH 230-02 F'09 Draft Syllabus for *Calculus: Concepts and Contexts, 3rd Edition*, ©2005, by James Stewart
 Problems with superscript ^M require use of Mathematica

<i>Time</i>	<i>Section</i>	<i>Topic</i>	<i>Problems (Hand in those in bold face type)</i>
1.5	4.5	Indeterminate Forms & L'Hopital's Rule	2, 10, 31, 38, 56 ; 1ace, 3ac, 6, 14, 22, 25, 28, 37, 58
2	4.9	Antiderivatives	6, 21, 26, 27, 48 ; 3, 9, 12, 13, 29, 38 ^M , 40, 44, 50
1.5	5.1	Areas and Distances	2, 12, 16, 20 ; 13, 14, 22 ^M
1.5	5.2	The Definite Integral	6, 7, 10, 32, 37 ; 5, 8, 18, 30 ^M , 42
2	5.3	Evaluating Definite Integrals	2, 8, 14, 20, 56 ; 5, 6, 10, 16, 22, 48, 50, 52, 54, 61, 66 ^M
1.5	5.4	The Fundamental Theorem of Calculus	2, 4, 7, 12, 20 ; 1, 10, 19, 22, 24 ^M
2	5.5	The Substitution Rule	8, 11, 30, 47, 50 ; 10, 13, 14, 21, 29, 40, 46, 52, 59
2	5.6	Integration by Parts	6, 8, 21, 22, 38 ; 4, 14, 18, 40, 41
2	App.G	Integration of Rational Functions	2, 10, 12, 15, 20 ; 7, 16, 24, 27
0	5.7	<i>Additional Techniques of Integration</i>	(9, 10, 16, 18, 19, 20, 27)
0	5.8	<i>Integration Using Tables and CAS</i>	
1.5	5.9	Approximate Integration	2, 3, 25, 26, 28 ; 29, 31, 34
2	5.10	Improper Integrals	6, 7, 20, 24, 55 ; 2, 13, 15, 16, 41, 49, 50ab
1.5	6.1	More about <i>Areas</i> (parametric optional)	4, 14, 24, 38 ; 5, 12, 22, 23, 39, 41, (32, 35)
2	6.2	Volumes (cylindrical shells optional)	3, 13, 14, 24, 26 ; 2, 10, 21, 27, 30, 43
1.5	6.3	Arc Length (parametric case optional)	1, 8, 11, 22, 23 ; 3, 7, 20 ^M , (2, 4, 17 ^M , 24)
0	6.4	<i>Average Value of a Function</i>	(4, 5, 11, 14)
3	6.5	Applications to Physics and Engineering (Hydrostatic Pressure and Force optional)	3, 4, 10, 18, 38 ; 6, 12, 17, 18, 21, 22, 33, 35, 40, (23, 28, 30)
0	6.6	<i>Probability</i>	
1.5	7.1	Modeling with Differential Equations	2, 6, 10, 14 ; 3, 9, 12
1.5	7.2	Direction Fields and Euler's Method	4, 9, 24, 28 ; 3, 5, 8, 11 ^M , 19
2	7.3	Separable Equations (omit orthogonal trajectories)	10, 12, 33, 34, 37 ; 2, 16, 28, 36
1.5	7.4	Exponential Growth and Decay	4, 5, 8, 13, 18 ; 3, 7, 14, 20
0	7.5	<i>The Logistic Equation</i>	
34	Total		