MATH 2423, Calculus and Analytic Geometry II
Representative Week-by-Week Outline of Topics

Week	Topic	Section†
1	Areas and distances Definite integral	4.1 4.2
2	Definite integral (cont.) Fundamental theorem of calculus	4.2 4.3
3	Indefinite integrals The substitution rule	4.4 4.5
4	Areas between curves Volumes	5.1 5.2
5	Volumes by cylindrical shells Review, Exam 1	5.3
6	Work Average value of a function Inverse functions	5.4 5.5 6.1
7	Natural logarithm function Natural exponential function	6.2* 6.3*
8	General log and exponential functions Inverse trig functions Hyperbolic functions	6.4* 6.6 6.7
9	Indeterminate forms and l'Hospital's rule Review, Exam 2	6.8
10	Integration by parts Trigonometric integrals	7.1 7.2
11	Trigonometric substitutions Integration by partial fractions	7.3 7.4
12	Strategy for integration Integration with tables and CAS (optional)	7.5 7.6
13	Approximate integration Improper integrals	7.7 7.8
14	Review, Exam 3	
15	Selected applications as time permits such as Exponential growth and decay Arc length Area of surfaces of revolution Applications to Physics and Engineering Modeling with differential equations	 6.5 8.1 8.2 8.3 9.1
16	Final exam (as per University's official schedule)††	

†Sections refer to the designated course text *Calculus 7/e* by James Stewart.

††Evening classes have their final exams on the last regular class meeting of the last week of classes.