

# Calculus II Topic Priority

(based on Stewart's *Essential Calculus, Early Transcendentals, 2nd edition*)

Section	Topic	Can be skipped	Should be skipped	Time Spent
5	Chapter 5 review			2-3 days
6.1	Integration by Parts			2 days
6.2	Trigonometric Integrals and Substitutions			2-3 days
6.3	Partial Fractions			1-1.5 days
6.4	Integration with Tables and Computer Algebra Systems		yes	
6.5	Approximate Integration			1 day
6.6	Improper Integrals			1-2 days
7.1	Areas Between Curves			1 day
7.2	Volumes			1-2 days
7.3	Volumes by Cylindrical Shells			1-2 days
7.4	Arc Length			1 day
7.5	Area of a Surface of Revolution			1 day
7.6	Applications to Physics and Engineering	yes		0-1 day
7.7	Differential Equations			1 day
8.1	Sequences			1.5-2 days
8.2	Series			1-1.5 days
8.3	The Integral and Comparison Tests			1-2 days
8.4	Other Convergence Tests			1-2 days
8.5	Power Series			1-2 days
8.6	Representing Functions as Power Series			1-2 days
8.7	Taylor and Maclaurin Series			2 days
8.8	Applications of Taylor Polynomials			1 day
9.1	Parametric Curves			1 day
9.2	Calculus with Parametric Curves			1 day
9.3	Polar Coordinates			1 day
9.4	Areas and Lengths in Polar Coordinates	yes		0-1 day
9.5	Conic Sections in Polar Coordinates		yes	