

MATH 106 Integral Calculus: Weekly Course Details
 Book: **Calculus: The Classic Edition (Fifth Edition)**,
 by Earl W. Swokowski.

Chapter 5:	Integrals	pages: 240-301
Week 1	Antiderivatives and Indefinite Integrals	
Week 1	Change of Variables in Indefinite Integrals	
Week 1	Summation Notation and Area	
Week 2	The Definite Integral.	
Week 2	Properties of the Definite Integral	
Week 3	The fundamental Theorem of Calculus	
Week 3	Numerical Intergration: Including also the Error estimate.	
Chapter 7:	Logarithmic and Exponential Functions	pages 381-414
Week 4	The Natural Logarithmic Function	
Week 4	The Natural Exponential Function	
Week 4	Intergration	
Week 4	General Exponential and Logarithmic Functions.	
Chapter 8:	Inverse Trigonometric and Hyperbolic Functions	pages 424-453
Week 5	Inverse Trigonometric Functions	
Week 5	Derivatives and Integrals	
Week 5	Hyperbolic Functions	
Week 5	Inverse Hyperbolic Functions.	
Chapter 9:	Techniques of Integration	pages 455-488
Week 6	Integration by parts	
Week 6	Trigonometric Integrals	
Week 7	Trigonometric Substitutions	
Week 7	Integrals of Rational Functions	
Week 8	Integrals Involving Quadratic Expressions	
Week 8	Miscellaneous Substitutions	
Chapter 10:	Indeterminate Forms and Improper Integrals	pages 491-517
Week 9	Indeterminate Forms	
Week 9	Integrals with Infinite Limits of Integration	
Week 9	Integrals with Discontinuous Inegrand	
Chapter 6:	Application of the Definte Integral	pages: 303-328 and 333-342
Week 10	Area	
Week 10	Solid of Revolution	
Week 11	Volumes by Cylindrical Shells	
Week 11	Arc Length and surfaces of Revolution	
Chapter 13:	Plane Curves and Polar Coordinates	pages 641-674
Week 12	Plane Curves	
Week 12	Tangent Lines and Arc Lenght	
Week 13	Polar Coordinate	
Week 14	Intergrals in Polar Coordinates	
Week 15	Revision	