Calculus S2

Course Description

Study limits, continuity, and differentiation while exploring integrated algebraic, trigonometric, and transcendental functions and the applications of derivatives and integrals.

Materials

Study Forge is used in this course - access information will be provided by the online teacher and is included within the course content. No additional materials or textbook are required for this course. See the WVS Materials List for other courses.

Course Outline

Module 5: Integration

- Module Five Checklist and Pretest
- Area Approximation and Riemann Sums
- Introduction to the Definite Integral
- The Fundamental Theorem of Calculus
- Integrals and Antiderivatives
- Integration by Substitution
- The Definite Integral
- Discussion Based Assessment
- Module Five Practice Test
- Module Five Test - Part 1 and Part 2

Module 6: Applications of Integrals

- Module Six Checklist and Pretest
- Finding the Area Under and Between Curves
- Volume by Discs - Slicing
- Average Value of a Function and Rectilinear Motion Revisted
- Discussion Based Assessment
- Module Six Practice Test
- Module Six Test - Part 1 and Part 2

Module 7: Differential Equations and More Riemann Sums

- Module Seven Checklist and Pretest
- Differential Equations - An Introduction
- Initial Value Problems and Slope Fields
- Numerical Approximation Methods with Integrals
- Discussion Based Assessment
- Module Seven Practice Test
- Module Seven Test - Part 1 and Part 2

Module 8: Supplemental Topics

- Module Eight Checklist and Pretest
- Exploring the Graphs of f, f Prime, and f Double Prime
- Relative Rates of Growth
- Using Calculus with Data in a Table
- Functions Defined by Integrals
- Discussion Based Asssessment
- Module Eight Practice Test
- Module Eight Test - Part 1 and Part 2
- Segment Two Practice Exam

Segment Two Exam - Part 1 and Part 2