

Course: Advanced Placement Calculus II (BC)

Instructor: Sean Bird

Text *Calculus: Concepts and Applications 2nd edition*
by Paul A. Foerster

Objective: Prepare for and take the AP Calculus BC Exam.

Foster an enjoyment of mathematics. Strengthen mental faculties.

Syllabus:

Quarter 1: Differential Equations With Slope Fields

Differential Equations (13 Days)

1. Math Tricks Algebraic Solution
Read 1.2, then 1.0 as much as possible
2. HW ch1 #1,2b,d,e,f,g,3a,5a
3. 2.1 Linear eq
4. 2.2 further discussion of linear eq.
5. 2.3 nonlinear eq
6. slope fields on TI-Interactive
7. slope fields
8. 2.4 separable eq
9. 2.5 application of 1st order linear eq
10. 2.6 population
11. 2.7 mechanics
12. 3.1 Intro to 2nd order linear DEs
13. TEST

Derivative as Analytical Tool (15 Days)

Integral Review (20 Days)

Quarter 2: Application of Integral (15 Days)

Series

Function Approximations (14 Days)

Sequences and Series (20 Days)

Taylor Series

Series of Constants

Quarter 3: Limits/Derivatives

Functions (12 Days)

Limits (13 Days)

Derivatives (21 Days)

Quarter 4: Review for AP Exam (May 3rd) –

Practice old exams

AP Exam – May 3rd