

Southern Regional High School
Manahawkin, New Jersey
Course Syllabus

Department: Math

Course: Calculus II Advanced Placement

Marking Period 1

Topics/Units to be covered:

- Grading policy/classroom expectations
- Review of derivatives – General rules, chain rule, implicit, log, exponential, inverse trig.
- Review of integration – General rules, U-substitution, integration by parts
- Volume
- Length of curve
- Quarterly

Marking Period 2

Topics/Units to be covered:

- Applications of Science and Statistics
- L'Hopital's Rule
- Relative Rates of Growth
- Improper Integrals
- Partial Fractions and Integral Tables
- Quarterly

Marking Period 3

Topics/Units to be covered:

- Power, Taylor and McClaurin Series
- Taylor's Theorem
- Radius of Convergence
- Testing convergence at end points
- Parametric functions
- Vectors in the plane, Vector valued functions, Projectile motion
- Polar coordinates and polar graphs
- Quarterly

Marking Period 4

Topics/Units to be covered:

- Review for AP exam – 1st Wednesday in May
- Design a lab/activity for Calculus 1 students using either derivatives or integrals
- Video project – either a music video or infomercial on calculus
- Final exam