

**West Windsor-Plainsboro Regional Schools**  
**Mathematics Department**

**MAD275**

**AP Calculus AB**

Description:	Advanced Placement Calculus AB is designed to prepare students for the Advanced Placement Calculus AB Examination of the College Boards. Topics of study include differentiation and integration, with emphasis on application. Students selecting Advanced Placement Calculus AB should have exhibited high ability in mathematics and earned the recommendation of the Mathematics Department. Students are strongly encouraged to take the AP examination. Additional topics will extend beyond the scope of the Advanced Placement Calculus exam. Graphing calculators are used throughout the course. (The TI 83/ TI 84 family of graphing calculators are used exclusively.)
Textbook:	<b>Calculus 4th Edition</b> <u>Author:</u> Stewart (1999). <u>ISBN:</u> 0-534-35949-3
Expectations for Students:	The students enrolled in this course will: <ul style="list-style-type: none"> <li>• actively contribute in group discussions;</li> <li>• participate in oral work;</li> <li>• maintain a notebook which demonstrates organizational skills;</li> <li>• complete worksheets and textbook assignments;</li> <li>• actively incorporate the scientific calculator in problem solving.</li> <li>• actively participate in computer lab projects designed to promote discovery of calculus concepts.</li> <li>• NOTE: A graphing calculator is necessary for the College Board's Advanced Placement exam. (The TI 83/ TI 84 family of graphing calculators are used exclusively in this WWP course.)</li> </ul>
Measurable Proficiencies:	To successfully complete the requirements of this course, the student will demonstrate the ability to: <ul style="list-style-type: none"> <li>• develop an understanding of various types of functions;</li> <li>• develop an understanding of limits and continuity;</li> <li>• learn about and utilize derivatives;</li> <li>• apply derivatives in various models;</li> <li>• understand the concept of the definite integral;</li> <li>• apply the derivative and integral to inverse functions;</li> <li>• apply the definite integral in appropriate situations.</li> <li>• This course has been approved by the College Board through the AP Audit</li> </ul>
Evaluation:	Methods used to evaluate the student's degree of understanding of the course content will include the following: class and homework assignments, group work, computer and calculator activities, projects, quizzes, tests, and a final examination. Assignments and evaluation procedures will be cumulative.  The student will attain a minimum proficiency in the course by earning an average grade of a "D" or 60%. A minimum of 70% competency will result in a grade of a "C", a minimum of 80% in a grade of a "B", and a 90% or better in a grade of an "A".
Student Responsibility:	It is the responsibility of the student to share the above information with parents or guardians.

*The mission of the West Windsor-Plainsboro Regional School District, valuing our tradition of excellence, is to develop all of our students as passionate, confident, life-long learners who have competence and strength of character to realize their aspirations and thoughtfully contribute to a diverse and changing world.*