

AP Calculus BC		Full Year
Location	Room #208	
Instructor	Mr. Chess	
Planning Period	9th per Phone: (724) 662 -5104	Parent Teacher Conferences may be scheduled before school from 7:45 to 8:00 or during the planning period.
Email	bchess@mercerc.k12.pa.us	
Class Website	None	
Prerequisites	Precalculus	
Description	Calculus is an extension of the mathematics you have already learned. It takes what you know and “supercharges” it, making it much more useful in solving real-world problems. In this course, we will use a concept called the limit in order to find instantaneous rates of change (derivatives) and products of variable factors (definite integrals). Application of these skills will be emphasized. This course will differ from AP Calculus (AB) in that additional topics, such as the calculus of polar, parametric, and vector functions as well as series approximations of functions, will be covered in order to prepare for the BC version of the AP Calculus exam. Students scoring well on the test may receive calculus credit at their chosen college or university.	
Texts Used	Calculus: Concepts and Applications (Foerster)	
Homework Policy and Philosophy	There will be regularly assigned homework in this class. Successful internalization of concepts requires practice, and there is not enough time in class to complete the necessary practice. Homework will not be collected and graded; however, failure to complete homework assignments will almost certainly result in poor test scores.	Homework Philosophy "The application of homework within almost every learning activity is a valuable means of reinforcement and evaluation. It is the teacher's role to define such assignments and the responsibility of the students to complete them on time. Parents must also assume their responsibility in regard to student homework; therefore, proper communication between the home and the school are vital in establishing assignments, which can significantly contribute to the overall educational process."
Grading 96.5 A+ 92.5 A 89.5 A- 86.5 B+ 82.5 B 79.5 B- 76.5 C+ 72.5 C 69.5 C- 66.5 D+	Your grade in Calculus BC will be determined by your performance in the following areas: (percentages are approximate) Tests: 75% Quizzes: 25% Late work will be penalized at a rate of 10% per day up to 5 days. Work that is more than 5 days late will not be accepted and will result in a grade of zero.	Academic Integrity "Students caught cheating, plagiarizing, copying homework and/or test, quizzes, and using a paper from the Internet will be given a "o" (zero) on that assignment. In addition, their name will be reported to the office and filed in the event of future violations. Repeated violation could result in removal from class and a non-passing grade."
		When a student is in jeopardy of failing, a progress report will be sent home. This will occur

62.5 D 59.5 D- Below F		during the 3rd and 6th weeks in junior high block classes, and any time after the 4th week in other classes.
	<u>Click here to open the Mercer GPA Calculator.</u>	
Classroom Rules	<p>My classroom rules are:</p> <ol style="list-style-type: none"> 1. Come to class prepared (homework, notebook, pencil, etc) 2. Contribute to a positive learning environment (ask questions, volunteer, etc) 3. Be respectful of others (classmates, teacher) 	<p>Make-Up Work</p> <p>"Students on a pre-approved trip of more than one day will be expected to makeup any work minimally on the second full day upon the student's return up to a maximum of five days. Students are required to get all missed work prior to pre-approved absence.</p> <p>For one day or one period - school related absence (athletics/academic games, etc) - it is the student's responsibility to make up the work upon their return to the classroom. It is recommended that they see the teacher ahead of time to determine what they will miss while they are gone."</p>
		<p>Late to Class</p> <p>"A student who is late to class will be given a verbal warning on the first offense. Additional offenses will result in a discipline referral to the office."</p>
Required Materials	3-ring notebook, pencil	
Additional Help	Students needing additional help should see me as soon as problems occur in order to schedule a time to meet.	<p>Tutoring</p> <p>Extra Assistance is available on a regular basis during after school hours (Tuesdays, Wednesdays, and Thursdays from 3:30 to 4:15) by contacting the Guidance Office at (724) 662-2272. It is the students' responsibility to seek such tutoring if needed.</p>

OUTLINE OF MATERIAL COVERED IN THIS CLASS		
Time	Material Covered During Time Period	Notes
Unit 1	Review of Limits and Differentiation	
Unit 2	Parametric Functions and Polar Coordinates	
Unit 3	Review of Calculus of Motion	
Unit 4	Review of Integration	
Unit 5	Review of Area and Volume Calculation	

Unit 6	Calculation of Arc Length	
Unit 7	Review of Calculus of Work	
Unit 8	Review of Calculus of Exponential and Logarithmic Functions and L'Hospital's Rule	
Unit 9	Differential Equations including Logistic DEs and use of Partial Fractions	
Unit 10	Review of Calculus of Trigonometric Functions	
Unit 11	Integration by Parts	
Unit 12	Improper Integrals	
Unit 13	Series	