

PIONEERS Co-Op

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> Overview of Calculus (Grades 11-12)

Tutor: Dr. Frederick Trexler 517-581-1330 (cell) fred-val@att.net

Required Text:

• **Calculus: Concepts and Applications** by Paul A. Foerster by Key Curriculum Press (ISBN 978-1559536547)

Recommended Supplement (Optional):

Home Study Companion: Calculus Available from MathWithoutBorders.com \$129 as a digital download

This material is based upon the same textbook used in class. It contains daily lectures and also works out many of the homework answers. The website also offers good recommendations for free graphing software (don't buy fancy calculator).

Prerequisite: Precalculus

Supplies: Scientific calculator (eg. TI-30Xa); access to Excel for problem solving and graphing

Student Evaluation:		Grading Scale		
	a a ta r ana da		90-100%	=A
<u>% of sen</u> Homework	<u>ester grade</u> 30%		80-89%	=B
Class Preparedness	5%		70-79%	=C
Quizzes and Tests	40%		60-69%	=D
Semester Exam	25%		Less than 60% =F	

Course Description: This is a high school level class with quizzes, take-home-tests, and a semester exam. The textbook follows the AP Calculus curriculum for both AB and BC levels. Expect daily work to take one to one-and-a-half hours per day. Class topics will include:

- Precalculus Review integrated with new material
- Derivatives
- Limits
- Antiderivatives (Indefinite Integrals)
- Definite Integrals
- Numerical Methods of Solving Differential Equations
- Algebraic Calculus
- Calculus of Motion

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