



Dallas High School Home of the Dragons



Calculus

2013-2014

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Office Hours: Tues-Friday 3:00-3:30, additional times by arrangement.

Course Description: This is an introductory course to Calculus. The course will cover the topics of a college calculus course with less emphasis on the applications.

Texts: *Calculus Concepts & Contexts* 3rd edition, James Stewart

Course Outline

Semester 1	Unit Topic	Summative Assessment
Unit 1	Limits and Continuity	Limits test: standard I
Unit 2	Derivative Definition & Concept	Derivative test 1: II a-d,f
Unit 3	*Applying Derivatives	Derivative test 2: II e, f
Unit 4	Integration Definition & Concepts	Integration test: III a, d, f
Semester 2	-----	-----
Unit 5	Fundamental Theorem of Calculus	FTC test: II a, III a, c
Unit 6	*Applying Integration	Integration test 2: III b
Unit 7	Differential Equations	DEQ test: III b, d, e
Unit 8	AP Test Review	All standards

*less emphasis on applications than ap calculus

<p><u>Standards to Be Assessed:</u></p> <p>I. Functions, Graphs, and Limits</p> <ol style="list-style-type: none"> Analysis of graphs. Limits of functions (including one-sided limits) Asymptotic and unbounded behavior Continuity as a property of functions <p>II. Derivatives</p> <ol style="list-style-type: none"> Concept of the derivative Derivative at a point Derivative as a function Second derivatives Applications of derivatives Computation of derivatives 	<p>III. Integrals</p> <ol style="list-style-type: none"> Interpretations and properties of definite integrals Applications of integrals. Fundamental Theorem of Calculus Techniques of anti-differentiation Applications of anti-differentiation Numerical approximations to definite integrals.
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Career Related Learning Standards: Career-related learning standards (CRLS) are fundamental skills essential for success in employment, college, family, and community life. We have integrated the Personal Management standard from the CRLS into all courses at DHS. **This standard will be assessed and communicated independent of the academic grade.** It is included below and mainly includes behaviors that will be assessed in this course.

- **Personal Management Standard:** Exhibit appropriate work ethic and behaviors in school, community and workplace.
 - Students will identify tasks that need to be done and initiate action to complete the tasks.
 - Students will plan, organize and complete projects and assigned tasks on time, meeting agreed upon standards of quality.
 - Students will take responsibility for decisions and actions and anticipate consequences of decisions and actions.
 - Students will maintain regular attendance and be on time daily.
 - Students will maintain appropriate interactions with colleagues.

Grading and Assessment:

Student's final grade for each course will be broken down into two categories:

- 1) **Academic:** based on assessments, tests, projects and performances that measure learning.
- 2) **Personal Management:** based on homework completion and other behaviors measuring the CRLS personal management standard.

The Final grade is calculated as follows: 75% of the course grade will be based on the **Academic** grade and **25%** on the **Personal Management** grade.

- Any items included in the Academic grade (PA) may be retaken and the higher grade recorded. Teachers may extend the retake time period, but as a rule all retakes need to be done within 2 weeks of the initial assessment.
- Students will complete extra preparation before retaking an assessment.
- Personal management work turned in late may be reduced by up to 50% credit.
- Retakes are not allowed on Personal Management assignments.
- Students must schedule performance retakes at their teacher's convenience. (Speech, drama, labs.)