**Unit Questions**

**What differentiates your course from others on the same topic?**

1. Why the development of CALCULUS has changed the world?
2. What are the most important applications of CALCULUS these days?
3. How can you use the concepts of CALCULUS in your area of expertise?

**Essential Questions**

How do I find the velocity of an object?

How can I measure the area of a region?

How can I maximize the profit?

**Evidence**

Use the Logarithmic Function to find its limit to 2.

Use the exponential function to find its derivative at 1.

Describe what you learned.

Use the definite integral to find the area between two curves.

Use the definite integral to find the length of a curve.

Describe what you have learned.

Describe the profit as a function.

Describe the demand as a function.

Analyze the break-even point.

**Assessments**

Blog post on reaction to MIT site

Presentation using 7-9 calculation slides (3-5 minutes)

Quiz

Submission of homework calculations

Interview with 1 of 10 suggested professionals

Post questions and answers on Discussion Board

Respond to other students’ interviews

**Activities**

- Read text
- Practice problems from text
- Review website on velocity
- Review blog entries from MIT.

- Read text
- Practice problems from text
- Watch demonstrations on class CD and post observations on class discussion board.

- Read text
- Practice problems from text
- Research web for those who are using calculus in their profession. Post links on discussion board.