**Module 2:**

|  |
| --- |
|  All the assignments due is SATURDAY 11 PM or earlier.Your graded assignments are either in WebWork, BB or need to be submitted **as a PDF file** (either typed up or scan of handwritten work using some apps such as Genius Scan or CamScanne) When you submit your work as a PDF file make sure * You have only one PDF file (combine all the pages to one file)
* File the name as **“201- #of section – Your Last Name-Assignment Title”**
* You upload your pdf file to BB. E-mail submission will NOT be accepted.
* Submitting your work **on time**. Late work may not be graded**.**
 |

**Module Section 1**

1. Motivation & Objectives: Students will
* get familiar with instantaneous rate of change of an arbitrary function at a point.
* know the definition of the derivative of a function at a point.
* understand the meaning of the derivative of a function at a point geometrically and its interpretation.
1. Required Work (this is your learning steps): Students must
* read the entire section 1.3 from the text book (with the solutions)

<https://activecalculus.org/single/sec-1-3-derivative-pt.html>

* watch the videos
* VIDEO : [Screencast 1.3.1: Quick review - The derivative of a function at a point GVSUmath](https://www.youtube.com/watch?v=0zpQnwVaU28&list=PL9bIjQJDwfGuXQHuS5Jkmum_CFILoCZX-&index=8)
* VIDEO : [Screencast 1.3.2: The derivative of a function at a point](https://www.youtube.com/watch?v=fQ5yelPpFk0&list=PL9bIjQJDwfGuXQHuS5Jkmum_CFILoCZX-&index=9)
* VIDEO : [Screencast 1.3.3: Derivative of a function at a point using graphs](https://www.youtube.com/watch?v=0DJPSYeLFpc&list=PL9bIjQJDwfGuXQHuS5Jkmum_CFILoCZX-&index=10)
1. Practice Problems:
* Preview Activity 1.3.1
* Activity 1.3.2
* 1.3.3.Exercises # 1, 3, 4, 7

**Module Section 2**

1. Motivation & Objectives: Students will
* be able to tell what the derivative function $f'$ is and difference between $f'(x)$ and $f^{'}\left(a\right) $for some number $a$.
* know the relation between function and its derivative graph.
* understand when the derivative is not defined.
1. Required Work: Students must
* read the entire section 1.4 from the text book (with the solutions)
* particularly study Preview Activity 1.4.1., Definitions
* watch the

VIDEO : [Screencast 1.4.1: Quick review - The Derivative Function GVSU math](https://www.youtube.com/watch?v=Fzrkq1r-sAI&list=PL9bIjQJDwfGuXQHuS5Jkmum_CFILoCZX-&index=11)

1. Practice Problems:
* Preview Activity 1.4.1
* Activity 1.4.2
* 1.4.3. Exercises # 1, 2, 3, 6

**Module Section 3**

1. Motivation & Objectives: Students will
* be able to tell what the units on the derivative function f0 are and how they related to the units of the original function f.
* understand what it means a given the value of the derivative of a function at a point in terms of the value of the function changes in the near neighborhood.
1. Required Work: Students must
* read the entire section **1.5 Interpreting, estimating, and using the derivative** in our textbook
* watch the video

VIDEO: [Screencast 1.5.1: Quick review - Interpreting, estimating, and using the derivative GVSUmath](https://www.youtube.com/watch?v=XZa0uNu6Uyk&list=PL9bIjQJDwfGuXQHuS5Jkmum_CFILoCZX-&index=14)

#  VIDEO: [Screencast 1.5.2: Estimating the Derivative](https://www.youtube.com/watch?v=wWdijnTdkTk&list=PL9bIjQJDwfGuXQHuS5Jkmum_CFILoCZX-&index=15)

1. Suggested practice problems: (not collected/graded)
* Preview Activity 1.5.1,
* Example 1.5.2
* Activity 1.5.3
* 1.5.4 Exercises #2 a cost function

|  |
| --- |
| Assignments will be collected/graded * 1.3.3 Exercises #7 (You do not submit on BB bring it to class as hard copy I will Check)

Webwork due is April 10 but you should do as soon as possible and ask questions if you have. * WebWork: **Derivative Functions ( We will cover this next week more detailed )**
* WebWork: **Interpreting the Derivative**
 |