**VSA Course Assignment Sheet**

**Course Name: Calculus I**

**Quarter 2**

| Day | Class Dates | Daily Learning Objectives Student will learn: | Assignment to be Completed by Class Start Unless Otherwise Indicated |
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| 17 | Mon 11/2/2020 | ❑ How to approximate a zero of a function using Newton's Method. | ❑ Read: Section 3.8, pp 194-197.<br>❑ Upload homework: Section 3.7, questions 7, 11, 13, 17, 25, 29, pp 190-193. |
| 18 | Wed 11/4/2020 | ❑ About various differentiation techniques and applications. | ❑ Upload homework: Section 3.8, questions 3, 5, 7, 11, 21, pp 198-199.<br>❑ Upload homework: chap 3 Study Guide, Part A. |
| 19 | Mon 11/9/2020 | ❑ How to find critical numbers and relative extrema of a function. | ❑ Read: Section 4.1, pp 206-210.<br>❑ Upload homework: chap 3 Study Guide, Part B. |
| 20 | Wed 11/11/2020 | ❑ About Rolle's Theorem and the Mean Value Theorem to find relative extrema and instantaneous rates of change. | ❑ Read: Section 4.2, pp 214-217.<br>❑ Upload homework: Section 4.1, questions 5-17 (odd), 29, 33, 71, 73, pp 211-213.<br>❑ Submit chap 3 Test. Due Saturday 11/14/2020 at 11:55 pm ET. |
| 21 | Mon 11/16/2020 | ❑ How to determine when a function is increasing or decreasing, and how to apply the first derivative test. | ❑ Read: Section 4.3, pp 221-226.<br>❑ Upload homework: Section 4.2, questions 5-19(odd), 23, 25, 33, 37-43 (odd), pp 218-220. |
| 22 | Wed 11/18/2020 | ❑ About upward and downward concavity and points of inflection and how to use the second derivative test to find relative extrema. | ❑ Read: Section 4.4, pp 231-235.<br>❑ Upload homework: Section 4.3, questions 3, 7, 13, 17, 25, 27, 37, 39, 41, 95, 99, pp 227-230. |
| **Thanksgiving Break - No Classes** | | | |
| 23 | Mon 11/30/2020 | ❑ How to evaluate limits at infinity to determine end behavior of a function and find horizontal | ❑ Read: Section 4.5, pp 239-245.<br>❑ Upload homework: Section 4.4, questions 3, 5, 11, 13, 15, 21, 31-35 (odd), 77, pp 236-238. |

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| | | asymptotes. | |
| 24 | Wed 12/2/2020 | ❑ How to analyze and sketch the graph of a function (part 1). | ❑ Read: Section 4.6, pp 249-251.<br>❑ Upload homework: Section 4.5, questions 5, 7, 9, 11, 13, 17, 23, 25, 29, 31, 45, 53, 57, pp 246-248.<br>❑ Submit Quiz 4-1 (covers sections 4.1 through 4.3). Due Saturday 12/5/2020 at 11:55 pm ET |
| 25 | Mon 12/7/2020 | ❑ How to analyze and sketch the graph of a function (part 2). | ❑ Read: Section 4.6, pp. 251-255.<br>❑ Upload homework: Section 4.6, Part A, questions 5, 7, 11, 17, 63, 65, 67, pp. 256-259. |
| 26 | Wed 12/9/2020 | ❑ How to solve applied optimization problems (part 1). | ❑ Read: Section 4.7, pp 260-265.<br>❑ Upload homework: Section 4.6, Part B, questions 15, 19, 21, 23, 29, 33, 35, pp 256-259.<br>❑ Submit Quiz 4-2 (covers section 4.4 and 4.5). Due Saturday 12/12/2020 at 11:55 pm ET. |
| 27 | Mon 12/14/2020 | ❑ How to solve applied optimization problems (part 2). | ❑ Reread: Section 4.7, pp 260-265.<br>❑ Upload homework: Section 4.7, Part A, questions 5-17 (odd), 19, page 266. |
| 28 | Wed 12/16/2020 | ❑ About the value of the differential compared with the value of the actual change in y.<br>❑ How to estimate a propagated error using a differential. | ❑ Read: Section 4.8, pp 271-275.<br>❑ Upload homework: Section 4.7, Part B, questions 23 (a and c), 29, 35, 37, 41, pp 267-270.<br>❑ Submit Quiz 4-3 (covers section 4.6). Due Friday 12/18/2020 at 11:55 pm ET. |
| **Christmas Break - No Classes** | | | |
| 29 | Mon 1/4/2021 | ❑ How to find antiderivatives using indefinite integrals.<br>❑ How to find a particular solution to a differential equation and solve position/velocity/ acceleration problems. | ❑ Read: Section 5.1, pp 284-290.<br>❑ Upload homework: Section 4.8, questions 1, 7, 9, 21, 25, 29, 31, 37, 39 (a and c), 47, pp 276-277. |
| 30 | Wed 1/6/2021 | ❑ How to write and evaluate a summation using sigma notation and how to find the area of a region using limits. | ❑ Read: Section 5.2, pp 294-302.<br>❑ Upload homework: Section 5.1, questions 5-29 (odd), 31, 33, 35, 37, 39, 45, 55, 60, 63, 69, pp 291-293. |
| 31 | Mon 1/11/2021 | ❑ To become more proficient using the concepts learned in chapters 1-4. | ❑ Upload homework: Midterm Study Guide, Part A. |

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| 32 | Wed 1/13/2021 | ❑ To become more proficient using the concepts learned in chapters 1-4. | ❑ Upload homework: Midterm Study Guide, Part B. |
| **Midterm Exam Week - Midterms open on 1/15/21 at 12:01 am ET and close on 1/22/21 at 11:55 pm ET.** | | | |