**WHS AP Calculus AB**

**Unit 5: Other Topics in Differentiation and Integration**

**Week 23**

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| **Date** | **Section** | **Lesson Objectives/The student will:**  **Instructional Strategies/The teacher will:** | **Assignments** | **Planned Assessments** |
| 2/22 | 7.2 | Find the volume of solids with known cross-sections  Direct instruction: present notes and examples  Begin review of sections 4.5, 7.1 and 7.2  Monitor independent practice | **Classwork p. 468** #72 |  |
| 2/23 | Review | Review for quiz  Monitor independent practice | **Study for quiz** |  |
| 2/24 |  | No School – Inclement Weather |  |  |
| 2/25 | Assess  5.1 | Class: Take quiz  Homework: Review characteristics of the natural log function and properties of log functions  Monitor assessment | **Homework:**  **p. 331** #7-10 all,  12 – 36 every other even | **Quiz:**  Sect. 4.5, 7.1, 7.2 |
| 2/26 | 5.1 | Differentiate ln functions  Direct instruction: present notes and examples | **p. 331** #40, 42, 44, 45, 48, 50, 54, 58, 62, 66, 74 |  |

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**Weeks 24 – 25**

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| **Date** | **Section** | **Lesson Objectives/The student will:**  **Instructional Strategies/The teacher will:** | **Assignments** | **Planned Assessments** |
| 2/29 | 5.1 | Complete additional practice on differentiation of logarithmic functions  Provide worked out examples, Monitor student work | **p. 332** #56, 64, 74, 78, 80, 86, 88 |  |
| 3/1 | Review | Work on AP Practice Multiple Choice Exam  Monitor independent practice |  |  |
| 3/2 | 5.4 | Differentiate & integrate *e*-base exponential functions  Direct instruction: present notes and examples | **p. 359** #42 - 58 every other even  **p. 360** #100 - 116 every other even |  |
| 3/3 | 5.2 | Integrate rational functions using natural logs  Direct instruction: present notes and examples | **p. 340**  #4 - 36 every other even, skip #28 |  |
| 3/4 | 5.5 | Differentiate non-*e*-base exponential functions  Direct instruction: present notes and examples | **p. 368** #44 – 50 evens |  |
| 3/7 | 5.5 | Differentiate non-*e*-base log functions  Integrate non-*e*-base exponential functions  Direct instruction: present notes and examples | **p. 368** #52 – 58 evens  **p. 369** #76 – 84 evens |  |
| 3/8 | Review | Complete mixed practice sections 5.1, 5.2, 5.4, 5.5  Monitor independent practice | **Selected Problems** |  |
| 3/9 | Review | Review for quiz  Monitor independent practice |  |  |
| 3/10 | Assess | Take Quiz  Monitor assessment |  | **Quiz:**  Chapter 5 |
| 3/11 | Review | Work on AP Practice Problems  Monitor independent practice |  |  |

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**Weeks 26 – 27**

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| **Date** | **Section** | **Lesson Objectives/The student will:**  **Instructional Strategies/The teacher will:** | **Assignments** | **Planned Assessments** |
| 3/14 | 5.3  5.6 | Find derivatives of inverse functions and inverse trig functions  Direct instruction: present notes and examples | **pp. 350-1** #72 – 80 evens  **p. 379** #44 – 52 evens |  |
| 3/15 | 6.1 | Introduction to slope fields: Complete Slope Fields Forever TI-Nspire Activity  Define a slope field and provide examples to introduce activity; Monitor student participation in activity | **Complete TI-Nspire Activity with partner** |  |
| 3/16 | 6.1 | Draw slope fields and match differential equations to their slope fields  Direct instruction: present notes and examples | **p. 412** #53 - 64 all |  |
| 3/17 | 6.2 | Find general solutions of differential equations  Direct instruction: present notes and examples | **p. 420** #2 – 14 evens |  |
| 3/18 | 6.2 | Solve differential equations involving growth & decay  Direct instruction: present examples  Guide practice | **p. 421** #42, 48, 52, 58, 64 |  |
| 3/21 | 6.3 | Solve differential equations using separation of variables  Direct instruction: present notes and examples | **p. 431** #4 – 24 every other even |  |
| 3/22 | Review | Complete mixed practice problems  Monitor and guide practice | **Selected Problems** |  |
| 3/23 | Review | Review for quiz  Monitor independent practice | **Selected Problems** |  |
| 3/24 | Assess | Take Quiz  Monitor assessment |  | **Quiz:**  Sect. 5.3, 6.1-6.3 |
| 3/25  through  4/1 |  | NO SCHOOL – Spring Break |  |  |