**6.1 Slope Fields and Euler’s Method**

P 409 #5, 8, 9, 12, 13, 16, 21, 24, 25, 28, 33, 42, 45, 48, 49, 56, 59, 62, 69, 92

**6.2 Differential Equations: Growth and Decay**

P 418 #3 – 63 by 3’s

**6.3 Separation of Variables and the Logistic Equation**

P 429 #3 – 21 by 3’s, 36 – 63 by 3’s, 75 & 79

**March/April**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| **24** | **25** | **26** | **27 28**6.1 6.1  |
| **31**6.2 | **1**6.2 | **2**6.3 | **3****6.3** | **4****ER** |
| **7****6.1 – 6.3 Partner Test****w/notes** | **8** | **9** |  |  |

**AP Calculus AB
Chapter 6**

**Differential Equations**

**Blooms Verb for the unit**

* Determine efficient ways to integrate and differentiate transcendental functions.
* Solve real life problems with differentiation and integration of transcendental functions.

**Performance Objectives (No State Standards)**

**6.1 Slope Fields and Euler’s Method**

* Find particular solutions to differential equations
* Use slope fields and Euler’s Method to approximate solutions of differential equations

**6.2 Differential Equations: Growth and Decay**

* Use separation of variable to solve simple differential equations.
* Use exponential functions to model growth and decay in applied problems.

**6.3 Separation of Variables and the Logistic Equation**

* Recognize and solve differential equations that can be solved by separation of varibles.
* Recognize and solve homogeneous differential equations
* Use differential equations to model and solve applied problems.
* Solve and analyze logistic differential equations.

**21st Century Skills**

**Group Homework Quiz**

**Critical Thinking**

Students will solve problems together.

**Communication/Collaboration.**

Students will peer review other students work before it is submitted for grading.

|  |  |
| --- | --- |
| **Enduring Understanding****Explain and recognize how to solve differential equations; explaining the various techniques?** | **Essential Questions****How long does it take for a substance to cool?** |

**Evidence of Understanding**

|  |  |  |
| --- | --- | --- |
| **Quizzes (Formative)*** White Boards (Observation)
* Bellwork (Numerical Data)
* Spot Checks
* Survey Student about strengths and weaknesses
* Questioning strategies
* Teacher observing student interaction during group work

**Test (Summative)**1 summative test  6.1-6.3 | **Student Self-Assessment**Re-take Policy: Student Self-Assessment have to write the concepts that were most difficult on the test. Then make a plan of action to learn those concepts before assessing their knowledge again | **Academic Prompts**How are slope fields used to help solve differential equations?Explain when and how you can use separation of variables to solve differential equations.Explain how to recognize and solve homogeneous differential equations. |