Mrs. Medlen
AP Calculus AB
Lesson Plans

CARROLL HIGH SCHOOL

| | Monday 1/15 | Tuesday 1/16 | Wednesday 1/17 | Thursday 1/18 | Friday 1/19 |
|---|---|---|---|---|---|
| **College Board Curriculum Framework Objectives:** | 1. An antiderivative of a function $f$ is a function $g$ whose derivative is $f$. (3.1A1)<br>2. Differentiation rules provide the foundation for finding antiderivatives. (3.1A2)<br>3. The notation $\int f(x)\,dx = F(x) + C$ means that $F'(x) = f(x)$, and $\int f(x)\,dx$ is called an indefinite integral of the function f. (3.3B3)<br>4. Techniques for finding antiderivatives include algebraic manipulation such as long division and completing square as well as substitution of variables. (3.3B5)<br>5. Antidifferentiation can be used to find specific solutions to differential equations with given initial conditions, including applications to motion along a line, exponential growth and decay. (3.5A1) | | | | |
| **Before:** | Holiday | *Homework Questions | *Quiz (Integration Techniques) | *Quiz Review<br><br>*Homework Questions | *Homework Questions |
| **During:** | | *Lesson: Crazy U-sub Problems 1-3 | *Lesson: Separable Diff Eq (MMM ex1-8) | *Lesson: Diff Eq (MMM ex 10-13) & Diff Eq Handout | *Collaboration Problem Set |
| **After:** | | *Spiral Review Problem Set<br><br>*Khan Academy Quizzes | *Homework: MMM 1-6<br><br>*Finish Spiral Review/Khan Academy | *Homework: MMM 7-10<br><br>*Khan Academy | *Homework: Notecards/Khan Academy |
| **Desired Outcome:** | | Students will be able to use substitution to integrate functions. | Students will be able to solve differential equations. | Students will be able to solve more complex differential equations. | Students will be able to solve integration problems in Calculus. |
| **Formative/ Summative:** | | -Student questioning throughout lesson/ Khan Academy | -Student questioning throughout lesson/ Collaboration<br><br>-Class Quiz | -Student questioning throughout lesson/ Khan Academy | -Student questioning throughout lesson/ Khan Academy |
| **Critical Questions:** | | *Explain how you know when a problem requires crazy u-sub.* | *Explain how to solve a general differential equation.* | *Explain how to solve a specific differential equation.* | *n/a* |