

# AP Calculus AB Review Session Schedule

| <u>DATE:</u>                       | <u>AP Calculus Review Sessions</u> | <u>Time</u>              |
|------------------------------------|------------------------------------|--------------------------|
| Saturday<br>February<br>23rd       | Area and Volume                    | 4:00 pm – 5:30 pm        |
| Saturday,<br>March 2 <sup>nd</sup> | $F, f'$ and $f''$ and FTC problems | 11am – 12:30 pm          |
| Friday<br>March 22 <sup>nd</sup>   | Theorems and Theory                | 4:00 pm – 5:30 pm        |
| Friday<br>March 29 <sup>th</sup>   | Differential Equations             | 3:40 pm – 5:00 pm        |
| Saturday,<br>April 6 <sup>th</sup> | New Related Rates                  | 11 am – 12:30 pm         |
| Saturday<br>April 13 <sup>th</sup> | Particle Motion Problems           | 10am – 11am<br>1pm - 2pm |
| Saturday<br>April 20               | Riemann Sum and Numerical Approx   | 11am – 12pm<br>2pm – 3pm |
| Saturday<br>May 4 <sup>th</sup>    | Implicit Differentiation           | 11:00 am – 12:30 pm      |

## Session Descriptions

In these sessions, students will be given a “cheat sheet” which has all important information that pertains to the concept that will be reviewed in the sessions. Along with a summary of the material covered in the session, students will be given 3 to 5 Free Response Questions that usually appear on the AP test.

Students will study the rubric for each type of free response so that they can identify what the AP graders are searching for and how to maximize their free response scores. All sessions with the same name will cover the same material. Review sessions will be available on my website [www.baileyworldofmath.org](http://www.baileyworldofmath.org)

**$f, f', f''$  and Fundamental Theorem of Calculus:** Students will review the relationship between the graphs of  $f, f'$  and  $f''$ , including how to determine critical points, relative extrema, concavity, intervals of increase or decrease, inflection points and absolute extrema. Students will review the statement of the Fundamental Theorem of Calculus, which relates the derivative and integral of a function, and how to apply it to various problems that can be found on the AP Exam.

**Area and Volume:** Students will review how to find the area between graphs of functions and how to find volumes of revolutions and volumes of solids with known base.

**Theorems and Definitions:** The College Board has updated the AP Syllabus and AP Exam to include more questions that assess students' ability to discern when the hypothesis of each theorem is satisfied and when the theorem can be applied. This session will review the precise definitions of mathematical terms and the hypotheses of each theorem.

**Diff Eq AB:** We will begin with separation of variables and end with slope fields

**Riemann Sum:** Students in Calculus AB always have a table with numerical data in which they need to estimate an integral with a Riemann or Trapezoidal Sum. Numerical interpretations of integrals, limits and derivatives will also be reviewed.

**Particle Motion:** Students in Calculus AB must apply calculus to problems that involve particles moving linearly. Students will review how to determine when a particle is moving away or towards the origin, moving faster or slower, and distance traveled.