# *2023 UTC AP Calculus AB APSI: Daily Schedule 8-5*

***Monday 6/19***

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| 8:00-10:20am | Starting the year with Local Linearity and Introductions<br>• Introduction Activity and Introductions<br><br>Exploring Limits, Continuity and the Derivative<br>• Limits<br>• Continuity<br>Derivatives Basics |
| 10:20-10:35 | Morning Break |
| 10:35-12:00pm | Exploring all the CED's have to offer<br>• Course outline<br>• Mathematical Practices<br>• Pacing Guide<br>• Suggested strategies<br>• CED Scavenger Hunt* |
| 12-12:45 | Lunch |
| 12:45-3:00pm | More with Derivative Rules<br>• Chain Rule<br>• Composite functions<br>• Implicit Functions<br>• Inverse Functions |
| 3:00-3:10 | Afternoon Break |
| 3:10-4:45pm | Tools and Resources to support struggling Learners<br>• Classroom resources<br>• Online Resources<br>• Building your own activities with online platforms*<br>• Work on course outline and pacing guide* |
| 4:45-5:00pm | Debrief and closing activity |

***Tuesday 6/20***

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| 8:00-10:20 am | Greetings and morning challenge<br><br>More with Derivative Rules<br>• Chain Rule<br>• Composite functions<br>• Implicit Functions<br>• Inverse Functions |
| 10:20-10:35 | Morning Break |
| 10:35-12:00pm | Relationships between $f, f', f''$ and Existence Theorems<br>• Seeing the relationships between functions and their derivatives in multiple representation including, analytically, graphically, and in writing.<br>• Desmos activities*<br>• IVT, EVT, MVT |
| 12-12:45 | Lunch |
| 12:45-2:45 pm | Applications of Differentiation<br>• Motion<br>• Related Rates<br>• Optimization<br>• L'Hopital's Rule |
| 2:45-3:00 | Afternoon Break |
| 3:00-4:10pm | A Deep Dive into using AP Classroom<br>• PPC's<br>• Topic Questions |

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| | • Creating your own assignments<br>• Analyzing the data |
| 4:10-4:45 | Focus on Continuous Improvement<br>• Using the IPR to understand strengths/ weakness |
| 4:45-5:00pm | Debrief and closing activity |

***Wednesday 6/21***

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| 8:00-10:20am | Greetings and morning challenge<br><br>Introductions to Definite Integral and Riemann Sums<br>• Reimann Sums as a limit<br>• Calculating Area under the Curve<br>• FTC |
| 10:20-10:35 | Morning Break |
| 10:35-12:00pm | Techniques of Integration- (algebraic manipulation)<br>• Identifying basic antiderivatives<br>• U-substitution<br>• Using long division to be able to integrate<br>• Using completing the square to be able to integrate |
| 12-12:45 | Lunch |
| 12:45-2:45pm | Applications of Integration<br>• Average value<br>• Revisiting Motion<br>• Functions defined by Integrals<br>• Accumulation of Rates of Change |
| 2:45-2:55 | Afternoon Break |
| 2:55-4:45pm | Introduction to the Calculus Reading and Scoring FRQ's<br>• What is the reading like?<br>• How are FRQ's scored?<br>• Data provided from past exams and how to use it.<br>Time to work on classroom activities and planning for the coming year* |
| 4:45-5:00pm | Debrief and closing activity |

***Thursday 6/22***

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| 8:00-10:20am | Greetings and morning challenge<br><br>Creating a Community of Learners<br>• Best practices and a Favorite activity share- bring one to share<br>• Being part of the AP Community<br>• Exploring resources* |
| 10:20-10:35 | Morning Break |
| 10:35-12:00pm | Area and Volume<br>• Area of Know Cross Sections<br>• Volumes of solids rotated about the axis<br>• Disk and Washer vs Shell method, what do I include? |
| 12-12:45 | Lunch |
| 1:00-2:20pm | Slope Fields and Differential Equations<br>• Finding slope fields<br>• Representing a differential equation in a graphical form<br>• Solving differential equations |
| 2:20-2:30 | Afternoon Break |
| 2:30-4:15pm | Thinking about Diversity, Equity and Access in the AP Classroom*<br>• " The danger of a single story"<br>• AP lever for Boosting Access Success and Equity<br>• Diversity and Inclusion Activity-<br>• Discussion: Diversity, Equity and Access |

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| 4:15-5:00pm | Final share and Debrief.<br>• Share of contact information<br>• Share of work you have done for upcoming year<br>• Final Evaluation |

**Denotes an asynchronous activity*
*Canvas will contain a complete daily outline with specific activities, and any needed materials*
*Schedule is tentative and subject to change*