



**SAINT
JOSEPH
PREP**

Ms. Paula Daly

Mathematics Department Chair

paula.daly@saintjosephprep.org

617-254-8383 x1614

Calculus Honors

Grade 12

Providing infinite opportunities for application in the STEAM fields, Calculus is the math of design, innovation and change. This course covers the fundamentals of calculus, including limits, derivatives and their applications, graphical analysis, and integrals, with an emphasis on real world applications in physics, economics, and the life sciences. Students are introduced to the definitions and calculations of derivatives and integrals, in addition to applications for rates of change and areas under a curve. Students will develop skills in problem solving, mathematical notation, interpreting mathematical text, and mathematical analysis using the graphing calculator (TI 83 or 84). Upon completion of this course, students will have demonstrated the ability to calculate derivatives and integrals of most functions, to develop a thorough graphical analysis of a function using derivative data, and to apply derivation and integration in a variety of real-world contexts.