

Engineering (ENGR)

ENGR 2050. Fundamentals of Engineering Mathematics. 3 Hours.

Fulfills prerequisite requirements for foundational engineering courses. Students will gain a basic understanding of calculus including derivatives and integrals and their applications, vectors, and linear algebra. Emphasis is placed on understanding how these concepts are used in to engineering scenarios. **** COURSE LEARNING OUTCOMES (CLOs) **** At the successful conclusion of this course, students will be able to: 1. Apply the definition of a derivative and derivative rules to differentiate functions. 2. Apply the derivative in solving real-world problems. 3. Compute the area under a curve through approximation techniques, and through proper use of the definite integral. 4. Use integrals to formulate and solve application problems in science and engineering. 5. Solve basic differential equations related to physical systems. Prerequisites: MATH 1050 AND MATH 1060 (Grade C or higher); OR MATH 1080 (Grade C or higher); OR ACT math score of 26 or higher or equivalent placement score within two years of enrollment of this course. FA.