

COMPUTING THEORY (COT)

COT 4500 Numerical Analysis

Credit Hours: 3

Prerequisites: COP 2335, MAC 1233, and MAS 2103 - all courses with a grade of "C" or higher

This is an elementary course in theory and application of numerical approximation techniques used in solving problems that cannot be solved exactly. Topics include solutions of equations, polynomial approximations, numerical differentiation and integration, and linear systems. All concepts involve case examples and fostering intuition for numerical limitations, degree of error, and the situations that warrant application of each concept. This course is suitable for data science, computer science, engineering, and mathematics majors.