MATH 238 : Differential Equations

Credits 5
Quarter Offered Spring (odd year)
Introduction to applied problem solving with first and second order ordinary differential equations using analytical, numerical and graphic methods. This class may include students from multiple sections. (Quantitative Skills, Elective)
Prerequisites
2.0 in MATH& 152 or equivalent
Course Outcomes
    Discuss mathematics verbally, algebraically, numerically, and graphically in a group setting.
    Write detailed solutions using appropriate mathematical language.
    Apply appropriate mathematical concepts to various problems.
    How do we achieve these goals?
    For #1, small discussion groups provide students with regular opportunities to discuss and present mathematics both formally and informally.
    For #2, students will be provided with regular opportunities to write detailed solutions on discussion sheets, homework, assessments/exams, computer algebra systems, etc.
    We approach #3 in two stages:
    Fundamentals: These are the building blocks of more complex concepts. We discuss and practice these in class.
    Synthesis: At this next level, small discussion groups are used to focus on combining the building blocks into more complex techniques by breaking problems in smaller pieces, then solving each and combining the results.