Objective

The students should be able to recall and apply the fundamental concepts and techniques of Calculus I and II essential for a successful completion of classes like Advanced Engineering Mathematics, Ordinary Differential Equations, Multivariable Calculus, etc and engineering classes, which build upon a solid working knowledge of Calculus I and II.

Remark

This is a zero credit class offered as a service to assist students who have become “rusty” in their math skills, to make a smooth transition back into their math studies. As everyone enrolled will receive a “pass”, the students are free to attend those parts most helpful for their individual review needs.

Text


Topics/Schedule

Oct 21, 23, 26, 28: Basic Techniques of Algebra: manipulating terms and equations, solving algebraic equations etc;

Oct 30, Nov 2, 4: Trigonometry: definition and basic properties of the trigonometric functions, fundamental trigonometric identities;

Nov 6, 9, 11, 13: Differential Calculus: limits, continuity, differentiability, techniques of differentiation, applications, etc;

Nov 16, 18, 20, 23, 30, Dec 2: Integral Calculus: definite and indefinite integrals, Fundamental Theorem of Calculus, techniques of integrations, applications, etc;

Dec 2, 4, 7, 9: Sequences and Series: convergence, improper integrals, L’Hospital’s rule, convergence criteria for series, Taylor series, etc.