

APPLIED MATHEMATICS 307 "DIFFERENTIAL EQUATIONS FOR ENGINEERS"

Calendar Description: H(3-1.5T)

Definition, existence and uniqueness of solutions, first and second order equations with applications, series solutions about regular points and singular points, special functions. Laplace transform, systems of equations.

Prerequisite: Mathematics 211 or 221; and Applied Mathematics 219 or Mathematics 253.

Note: Credit for more than one of Applied Mathematics 307, and Applied Mathematics 311 will not be allowed.

Syllabus

<u>Topics</u>	<u>Number of hours</u>
Introduction: definitions, existence, uniqueness	1
First order equations, applications	8
Systems, applications to second and fourth order equations	10
Laplace transforms	4
Series, Taylor series	9
Series solutions to second order ordinary differential equations	4
TOTAL HOURS	36

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