

FACULTY OF SCIENCE Department of Mathematics and Statistics

APPLIED MATHEMATICS 311 "DIFFERENTIAL EQUATIONS I"

Calendar Description: H(3-1T)

Classification of ordinary differential equations, first and second order equations with applications, series solutions about regular points and singular points, special functions. Laplace transform.

Prerequisite: Mathematics 253 or 263 or 283 or Applied Mathematics 219.

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

Syllabus

<u>Topics</u>	<u>Number</u> of hours
Classification of differential equations, definition of solutions, explanation of existence and uniqueness theorems (without proofs)	2
Solutions of first-order equations with applications	9
Solutions of second-order equations with applications	8
Series solutions including singular points, and special functions	8
Laplace transforms	6
Systems of equations	3
TOTAL	36

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2001:08:21 Prerequisite change made 03:07:02 Prerequisite change made 08:07:01 LPB.jlong