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Course Name: Mathematics for Structural Engineering

Course Code: ARCH 684: 004

Program Placement: Elective Technology

Instructor(s): Don Grierson

No graduate teaching assistants

Credits: 0.5 weight

Type: Lecture

Prerequisite: University entrance-level mathematics

Date(s) Offered: Winter 2011

SPC Nos.: these numbers refer to the learning outcomes matrix????

COURSE DESCRIPTION / OVERVIEW

The purpose of this course is to prepare architecture students for the mathematics they will encounter, and will be expected to know, when completing civil engineering courses in fulfillment of the requirements for the 'Structural Engineering Certificate'. The course is conducted over one term as a weekly series of 3-hour workshops focused on presenting mathematical topics of algebra and calculus from the viewpoints of: 1) development of theory; 2) illustrative structural engineering applications; and 3) student assignment work [to be handed in for grading].

LEARNING OBJECTIVES

To learn the mathematics underlying the six core and five elective civil engineering courses that constitute the 'Structural Engineering Certificate'. Namely, the mathematics of structural mechanics/ analysis/ design/ dynamics/ rehabilitation for steel/concrete/timber construction.

COURSE REQUIREMENTS

Students must complete 10-12 weekly assignments that involve solving structural engineering problems using the mathematics of the course (100%)