

## COURSE DETAIL

### LINEAR FINITE ELEMENT ANALYSIS

**Country**

Singapore

**Host Institution**

National University of Singapore

**Program(s)**

National University of Singapore

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Civil Engineering

**UCEAP Course Number**

157

**UCEAP Course Suffix****UCEAP Official Title**

LINEAR FINITE ELEMENT ANALYSIS

**UCEAP Transcript Title**

LINEAR FINITE ELEM

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

This course introduces the fundamentals of finite element principles to understand the behavior of various finite elements and to be able to select appropriate elements to solve physical and engineering problems with emphasis on structural and geotechnical engineering applications. It covers weak formulation, element shape function, isoparametric concepts, 1-D, 2-D, 3-D and axisymmetric elements, field problems, modelling and practical considerations, and special topics. The course is targeted at undergraduate and graduate students involved in research or application of the finite element method in civil engineering problems.

## Language(s) of Instruction

English

## Host Institution Course Number

CE4257

## Host Institution Course Title

LINEAR FINITE ELEMENT ANALYSIS

## Host Institution Campus

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

Civil & Environmental Engineering

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