

# **Structural Vibrations (CIEE 710 / IMSC 010)**

Semester Syllabus

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## **Part 1: Course Information**

### **Instructor Information**

Instructor: Prof. K.V. Yuen

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### **Course Description**

This course introduces fundamental concepts of structural dynamics. It serves as an introductory course for graduate students in civil and mechanical engineering. This course starts from fundamental concepts and formulation of structural dynamic problems. Then, analysis in time-domain and frequency-domain will be introduced. Numerical methods will be delivered with consideration in accuracy, efficiency and stability.

### **Prerequisite**

None

### **Course Duration**

42 contact hours, 3 hours per week (3-credit course)

**Credit:** 3

**Compulsory/elective course:** Elective

## **Part 2: Course Objectives**

1. To introduce the formulation methods for structural dynamic problems.
2. To introduce computational methods in structural dynamics.
3. To prepare students for more advanced courses and research in structural dynamics.

## **Part 3: Major Assessment Methods**

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|-----------------|-----|
| Midterm exam:   | 40% |
| Project report: | 40% |
| Presentation:   | 20% |