# 朝陽科技大學 096學年度第1學期教學大綱
# Structural Dynamics 結構動力

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| **當期課號** | 7130 | **Course Number** | 7130 |
| **授課教師** | 王淑娟 | **Instructor** | WANG,SHU CHUAN |
| **中文課名** | 結構動力 | **Course Name** | Structural Dynamics |
| **開課單位** | 營建工程系碩士班一A | **Department** | |
| **修習別** | 選修 | **Required/Elective** | Elective |
| **學分數** | 3 | **Credits** | 3 |
| **課程目標** | 本課程介紹結構動力學基本概念，課程內容包括；(1)單自由度系統、多自由度系統及連續系統之動力平衡方程式建立、(2)自然振盪及(3)動力反應解法、(4)地震反應譜及設計譜應用原理、(5)結構動力分析之數值方法等。 | **Objectives** | The contents of this graduate course cover fundamental topics of Structural Dynamics. It includes first the establishment of equation of motions of single degree of freedom of system, multi degree of freedom of system, and continuous system, and then the corresponding solutions to these systems, and the applications of such theories to the seismic response and design spectra. as well . |
| **教材** | “Dynamics of Structures(3rd edition)” by A. K. Chopra<br>參考資料：“Dynamics of Structures(2nd edition)” by R. Y. Clough and J. Penzien | **Teaching Materials** | “Dynamics of Structures(3rd edition)” by A. K. Chopra<br>Refereces：“Dynamics of Structures(2nd edition)” by R. Y. Clough and J. Penzien |
| **成績評量方式** | 期中考 25%,<br>期末考 25%,<br>作業及小考 40%,<br>平時成績 10% | **Grading** | mid-term exams.:25%,<br>final exam.:25%,<br>homework and quiz:40%,<br>learning altitude:10% |
| **教師網頁** | | | |
| **教學內容** | 本課程在介紹結構動力系統之基本概念及一般結構動力分析之計算方法。內容包括根據單自由度與多自由度結構系統所受之任意動態外力，計算其對應之應力與變形等。 | **Syllabus** | It provides students with knowledge of structural dynamic systems and their associated structural analysis methods for computing the responses of SDOF and MDOF systems when subjected to arbitrary loadings. |

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