# 朝陽科技大學 093學年度第1學期教學大綱
# Engineering Mathematics(I) 工程數學(一)

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| **當期課號** | 1026 | **Course Number** | 1026 |
| **授課教師** | 江支弘 | **Instructor** | CHIANG,CHIH HUNG |
| **中文課名** | 工程數學(一) | **Course Name** | Engineering Mathematics(I) |
| **開課單位** | 營建工程系(四日)二A | **Department** | |
| **修習別** | 必修 | **Required/Elective** | Required |
| **學分數** | 3 | **Credits** | 3 |
| **課程目標** | 介紹工程分析之基本觀念，主要範圍包括常微分方程、可變係數方程式之級數解以及拉普拉斯轉換。強調對各種工程實際問題建立數學模式以及解析。積分能力爲良好學習效果之基礎。 | **Objectives** | As a first course in its series, this course covers the basic concept of engineering analysis. Selected topics from ordinary differential equations, series expansion method for variable-coefficient equations, and Laplace transform are introduced. Content is correlated with topics on other engineering courses and applications. |
| **教材** | Advanced Engineering Mathematics 8th ed. by Kreyszig | **Teaching Materials** | |
| **成績評量方式** | midterm 35%; final exam 35%<br>quiz 25%; attitude 5% | **Grading** | midterm 35%; final exam 35%<br>quiz 25%; attitude 5% |
| **教師網頁** | _ | | |
| **教學內容** | 介紹工程分析之基本觀念，主要範圍包括常微分方程、可變係數方程式之級數解以及拉普拉斯轉換。強調對各種工程實際問題建立數學模式以及解析。積分能力爲良好學習效果之基礎，本課程爲結構矩陣分析與有限元素法等科目的先修科目。 | **Syllabus** | First-order differential equations; Linear differential equations of second and high order; Series solutions of differential equations; Laplace transforms |

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