

100-2 Preliminary Syllabus, Da-Yeh Univ

| Information | | | |
|-------------------|--------------------------|-----------------------|----------------|
| Title | 工程數學(二) | Serial No. / ID | 1125 / MAV2002 |
| Dept. | 機械與自動化工程學系 | School System / Class | 四技部2年1班 |
| Lecturer | 鄭江河 | Full or Part-time | 專任 |
| Required / Credit | Required / 3 | Graduate Class | No |
| Time / Place | (一)4 / H562 (三)23 / H537 | Language | Chinese |

| Introduction |
|--|
| Engineering Mathematics (II) is a fundamental course connecting physics and mathematics with practical problems. This course will provide students a thorough understanding of linear algebra, vector differential calculus and vector Integral, Fourier Series, and partial differential equations. The adequate ability to develop the mathematical model and to analyze the engineering system will be developed. |

| Outline |
|---|
| <ol style="list-style-type: none">1. Linear Algebra: Matrices, Vectors, Determinants, Linear Systems.2. Linear Algebra: Matrix Eigenvalue Problems.3. Vector Differential Calculus. Grad, Div, Curl4. Vector Integral Calculus. Integral Theorems.5. Fourier Series, Integrals, and Transforms.6. Partial Differential Equations (PDEs). |

| Prerequisite |
|--------------|
| Calculus |