99-2 Preliminary Syllabus, Da-Yeh Univ

| Information | | | |
|-------------------|--------------------------|-----------------------|----------------|
| Title | 材料力學 | Serial No. / ID | 1846 / MAV2006 |
| Dept. | 機械與自動化工程學系 | School System / Class | 四技部2年1班 |
| Lecturer | 鄭鴻儀 | Full or Part-time | 專任 |
| Required / Credit | Required / 3 | Graduate Class | No |
| Time / Place | (三)34 / H445 (四)1 / H445 | Language | Chinese |

Introduction

Understanding is based on the explanation of the physical behavior of materials under load and then modeling this behavior to develop the theory. Emphasis is placed on the importance of satisfying equilibrium, compatibility of deformation, and material behavior requirements.

This course has the goal to cover

- 1. Provide a research of the theory of the stress and strain of normal and shear.
- 2. Provide some understanding of the mechanical properties of materials such as stress-strain diagram, ductile and brittle materials, Hooke 's law and strain energy.
- 3. Provide a research of stress and strain of combined loadings.
- 4. To be familiar with the application of mechanics of materials in mechanical system.

Outline

- 1. Stress
- 2. Strain
- 3. Mechanical Properties of Materials
- 4. Axial Load
- 5. Torsion
- 6. Bending
- 7. Transverse shear
- 8. Combined loadings

Prerequisite

物理、微積分、英文閱讀能力、靜力學