

# 100-1 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	機械設計(一)	Serial No. / ID	0672 / MAI2003
Dept.	機械與自動化工程學系	School System / Class	大學日間部3年1班
Lecturer	劉大銘	Full or Part-time	專任
Required / Credit	Required / 3	Graduate Class	No
Time / Place	(四)789 / H439	Language	Chinese

Introduction
<p>This course is designed to enable students to become familiar with the concept of using mechanical engineering design, including strength, stiffness, impact and fatigue life; and introduces the analysis and computer-related tools. This course provides various professional courses in a bridge connection, including materials, dynamics, mechanical design of materials and machinery applications, the main purpose is to study the static or dynamic loads because of the damage caused. The main goals of education are as follows:</p> <ol style="list-style-type: none"><li>1. to learn the mathematics, science and engineering knowledge and application in mechanical engineering.</li><li>2. learning to design a system, component or process to meet design requirements in mechanical engineering.</li><li>3. to establish identification, planning and solving mechanical engineering problems.</li><li>4. using stress analysis theory, fatigue damage theory and the appropriate theory to design a simple mechanical components.</li><li>5. confirm that the appropriate model to describe or estimate the behavior of a variety of standard mechanical components.</li></ol>

Outline
<ol style="list-style-type: none"><li>1. Load and Stress Analysis</li><li>2. Failure Resulting from Static Loading</li><li>3. Fatigue Failure Resulting from Variable Loading</li><li>4. Screws, Fasteners, and the Design of Nonpermanent Joints</li><li>5. Welding, Bonding, and the Design of Permanent Joints</li></ol>

Prerequisite
Mechanics of Materials, Applied Mechanics