

**National Chiayi University Syllabus**  
**Department of Forest Products and Furniture Engineering**  
**Fall Semester, Academic Year 2010**

<b>Course:</b> Engineering Mechanics	<b>Credit:</b> 2	<b>Hours:</b> 2
<b>Class:</b> Sophomore	<b>Selected</b>	
<b>Instructor:</b> Yiren Wang	<b>E-mail:</b> woody	
<b>Office:</b> A02-224	<b>Office Hours:</b>	

**I. Course Description:**

The course covers statics and strength of materials.

**II. Teaching Objectives:**

The objective of this course is to develop basic understanding of the theory and methods of statics and strength of materials which will be applied in furniture structural analysis.

**III. Class Schedule(Tuesday, periods A&B)**

Week	Date	Topic/Activity	Reading/Assignment
1		Introduction	
2		Basic Concepts, vector algebra	Ch.1 , 2-1
3		Vector algebra	2-6
4		Decomposition of 2-D and 3-D Force	2-7 , 2-8
5		Result of a force system, moment and couple	2-9 , 第 3 章
6		Free-Body Diagram, Equilibrium	4-3~4-5
7		Equilibrium	
8		Structure Analysis	第 5 章
9		Stress	第 8 章
10		Midterm	
11		Strain	第 8 章
12		Axial loaded member	第 9 章
13		Axial loaded member	第 9 章
14		Shear force and moment	第 10 章
15		Analysis of beam	第 11 章
16		Analysis of beam	第 11 章
17		Stress transformation	第 12 章
18		Final	

**IV. Evaluation :** Quizzes:40%, Midterm:30%, Final:30%

**V. References :**

1. 華根，2006，工程力學-靜力學及材料力學，新文京。
2. 王權銘，2002，工程力學-靜力與材力，高立。
3. 呂以寧譯，2004，建築構造材料的靜力學材料力學，六合

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