

102-1 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	材料科學與工程導論	Serial No. / ID	2159 / MMI1001
Dept.	醫療器材設計與材料學士學位	School System / Class	大學日間部1年1班
Lecturer	楊耀福	Full or Part-time	專任
Required / Credit	Required / 3	Graduate Class	No
Time / Place	(一)5 / H541 (五)34 / H541	Language	Chinese

Introduction
The course introduces the basic principles in materials science and engineering related to materials structure, properties and processing. The goal of this course will provide students with the basic knowledge about crystal structure, diffusion, solidification, phase diagram and microstructure development during heat treatment. Also, introduce the practical applications and new development of engineering materials.

Outline
<ol style="list-style-type: none">1. Introduction2. Atomic structure and Bonding3. Crystal structure4. Crystallographic points, directions, and planes5. X-ray diffraction6. Defects in solids7. Phase diagram8. Iron-carbon phase diagram9. Solidification and phase transformation10. Heat treatment in iron and steel

Prerequisite
Basic Physics and Chemistry