

97-1 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	磁性材料及應用	Serial No. / ID	2709 / EGR5354
Dept.	電機工程學系碩士班	School System / Class	研究所碩士班1年1班
Lecturer	李得勝	Full or Part-time	專任
Required / Credit	Optinal / 3	Graduate Class	NO
Time / Place	(五)234 / H341	Language	Chinese

Introduction
The course of magnetic phenomena and materials for the introductory course, the main target for the graduate students. The course will introduce basic knowledge of magnetism, the magnetism of the work and hope to be studied under a common model and theory to help scholars engaged in research in the future when you enter the situation. The magnetic spin electronics (Spintronics) as the basic, physical characteristics of the magnetic to magnetic phase derivative of the latest developments in spintronics

Outline
1. the basic magnetic physics Introduction 2. magnetic principle Introduction 3. diamagnetic and paramagnetic phenomena; 4. ferromagnetic properties; 5. antiferromagnetic properties; 6. the concept of volume; 7. magnetic interaction model; 8. Principles of magnetic records; 9. giant magnetoresistance; 10. the principle of magnetic valve; 11. colossal magnetoresistance phenomenon.

Prerequisite
Background knowledge required for this course as the basic electromagnetism, modern physics. There are good solid-state physics, but not absolutely necessary