

# 100-1 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	智慧型材料製程原理	Serial No. / ID	1051 / MAV4005
Dept.	機械與自動化工程學系	School System / Class	四技部4年1班
Lecturer	鄭江河	Full or Part-time	專任
Required / Credit	Optinal / 3	Graduate Class	Yes
Time / Place	(二)56 / H443 (四)23 / H443	Language	Chinese

Introduction
Fundamental of manufacture process for intelligent material is a fundamental course connecting manufacture of piezoelectric material and relation application This course will provide students a thorough understanding manufacture process of the bulk, paste thick film, thin film, and composite piezoelectric The adequate ability to develop the manufacture and design model of piezoelectric material and to analyze the intelligent material will be developed.

Outline
<ol style="list-style-type: none"><li>1. Introduction</li><li>2. Parameters for piezoelectric ceramics</li><li>3. Fabrication of PZT<ol style="list-style-type: none"><li>a. Thin film PZT</li><li>b. Thick film PZT</li><li>c. Bulk PZT</li><li>d. Multilayer PZT</li><li>e. PVDF</li><li>f. Piezoceramic-polymer composites</li></ol></li><li>4. Important commercial piezoceramics</li><li>5. Applications</li></ol>

Prerequisite
Introduction to Smart Materials and Structures