

# 102-1 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	微機電系統概論	Serial No. / ID	2129 / MAB3011
Dept.	機械與自動化工程學系	School System / Class	進修學士班3年1班
Lecturer	鄭江河	Full or Part-time	專任
Required / Credit	Optinal / 3	Graduate Class	No
Time / Place	(三)CDE / H443	Language	Chinese

Introduction
Microelectromechanical Systems is a fundamental course connecting microfabrication and microsystem design with practical problems. This course will provide students a thorough understanding of the bulk micromachining, surface micromachining, lithography, electroforming, molding, micro electro-discharge machining. The adequate ability to develop the micro manufacture and design model and to analyze the microsystem engineering will be developed.

Outline
<ol style="list-style-type: none"><li>1.Introduction to microscopic world</li><li>2.MEMS application</li><li>3.Bulk micromachining</li><li>4.Surface micromachining</li><li>5.LIGA</li><li>6.Non IC-based micromachining</li><li>7.Bonding techniques</li><li>8.Detection techniques</li><li>9.Microactuators and microsensors</li></ol>

Prerequisite
Mechanical Manufacturing, Mechanics of Materials