

101-1 Preliminary Syllabus, Da-Yeh Univ

| Information | | | |
|-------------------|---------------------------|-----------------------|----------------|
| Title | 智慧型材料製程原理 | Serial No. / ID | 1771 / MAI4048 |
| Dept. | 機械與自動化工程學系 | School System / Class | 大學日間部4年1班 |
| Lecturer | 鄭江河 | Full or Part-time | 專任 |
| Required / Credit | Optinal / 3 | Graduate Class | Yes |
| Time / Place | (二)5 / H440 (四)789 / H440 | Language | Chinese |

| Introduction |
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| 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 |
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| <ol style="list-style-type: none">1. Introduction2. Parameters for piezoelectric ceramics3. Fabrication of PZT<ol style="list-style-type: none">a. Thin film PZTb. Thick film PZTc. Bulk PZTd. Multilayer PZTe. PVDFf. Piezoceramic-polymer composites4. Important commercial piezoceramics5. Applications |

| Prerequisite |
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| Introduction to Smart Materials and Structures |