

| 國立暨南國際大學應用材料及光電工程學系碩士班必選修科目一覽表<br>Master's Program Course Catalog of Department of Applied Materials and Optoelectronic Engineering , National Chi Nan UniversityNational Chi Nan University |   |                |  |   |             |
|--|---|----------------|--|---|-------------|
| 本表( 108)學年度入學新生適用 Effective for students admitted in Fall, 2019  |   |                |  |   |             |
| 最低畢業學分：25 學分；必修 4 學分，選修 21 學分。 Master's program requirements: a minimum of 25 required credits, including 4 credits in Department required courses and 21 credits in elective courses.       |   |                |  |   |             |
| 課程代號<br>Course Code  | 課程名稱(中文及英文)<br>Course Name (Chinese and English)  | 學分數<br>Credits | 修別<br>Course type<br>(required/elective) | 開課年級<br>Course availability<br>(freshman/sophomore/junior/senior) | 備註<br>Notes |
| 285001   | 專題研究(一)<br>Independent Study (I)  | 1              | 必  | G1上   |             |
| 285002   | 專題討論(一)<br>Seminar (I)  | 1              | 必  | G1上   |             |
| 285016   | 專題研究(二)<br>Independent Study(II)  | 1              | 必  | G 1下  |             |
| 285017   | 專題討論(二)<br>Seminar (II)   | 1              | 必  | G1下   |             |
| 專業選修課程   |   |                |  |   |             |
| 285018   | 專題討論(三)<br>Seminar (III)  | 0              | 選  | G2上   | 一年以上畢業者必選   |
| 285019   | 專題討論(四)<br>Seminar (IV)   | 0              | 選  | G2下   | 一年以上畢業者必選   |
| 285003   | 薄膜材料與工程<br>Thin Film Materials and Engineering  | 3              | 選  | 3g  |             |
| 285004   | 半導體元件物理(一)<br>Semiconductor Device Physics(I)   | 3              | 選  | 3g  |             |
| 285007   | 半導體元件物理(二)<br>Semiconductor Device Physics(II)  | 3              | 選  | 3g  |             |
| 285008   | 雷射原理與應用<br>Principle and application of laser   | 3              | 選  | 3g  |             |
| 285009   | 光電半導體製程及量測<br>Optoelectronic Semiconductor Device Fabrication and Characterization Technology | 3              | 選  | 3g  |             |
| 285020   | 發光二極體<br>Light Emitting Diode   | 3              | 選  | 3g  |             |
| 285010   | 有機/高分子光電材料與元件<br>Organic/Polymeric Optoelectronic Materials and Devices                       | 3              | 選  | 3g  |             |
| 285024   | 電池材料<br>Battery Materials   | 3              | 選  | 3g  |             |
| 285005   | 固態物理<br>Solid State Physics   | 3              | 選  | 4g  |             |
| 285015   | 光電子學<br>Photo Electronics   | 3              | 選  | 4g  |             |
| 280075   | 積體光學<br>Integrated Optics   | 3              | 選  | 4g  |             |

| 課程代號<br>Course Code | 課程名稱(中文及英文)<br>Course Name (Chinese and English)                         | 學分數<br>Credits | 修別<br>Course type<br>(required/elective) | 開課年級<br>Course availability<br>(freshman/sophomore/<br>junior/senior) | 備註<br>Notes |
|---------------------|--|----------------|--|---|-------------|
| 285011              | 奈米光學   | 3              | 選  | 3g  |             |
| 285012              | 表面科學<br>Surface Science  | 3              | 選  | 3g  |             |
| 285013              | 光電模組與系統<br>Optoelectronic Modules and Systems                            | 3              | 選  | 3g  |             |
| 285022              | 有機電激發光材料與顯示技術<br>Organic Light Emitting Materials and Display Technology | 3              | 選  | 3g  |             |
| 285023              | 奈米製作技術<br>Nano Fabrication Techniques                                    | 3              | 選  | 3g  |             |
| 285025              | 材料檢測與製程<br>Material characterizations and fabrications                   | 3              | 選  | 3g  |             |
|                     | 固態熱力學  | 3              | 選  | 3g  |             |
| 258027              | 電子陶瓷<br>Electronic Ceramics  | 3              | 選  | 3g  |             |
|                     | 積體電路製程技術<br>Integrated Circuit Fabrication Technology                    | 3              | 選  | 3g  |             |
|                     | 高分子材料<br>Polymer Materials   | 3              | 選  | 3g  |             |
| 285030              | 生物醫學材料<br>Biomedical Materials   | 3              | 選  | 3g  |             |
| 285028              | 奈米光電材料與元件<br>Nano Optoelectronic Materials and Devices                   | 3              | 選  | 3g  |             |
| 285026              | 光電元件<br>Optoelectronic Devices   | 3              | 選  | 3g  |             |
|                     | 光儲存元件原理與製作<br>Optical Memory and Data Storage Devices                    | 3              | 選  | 3g  |             |
|                     | 光纖通訊系統<br>Optical-Fiber Communication Systems                            | 3              | 選  | 3g  |             |
|                     | 晶體結構與繞射<br>Crystal structure and diffraction                             | 3              | 選  | 3g  |             |
|                     | 材料微結構分析<br>Microstructural Analysis of Materials                         | 3              | 選  | 3g  |             |
| 285029              | 光電與資訊科技<br>Optoelectronics and Information<br>Technology                 | 3              | 選  | 3g  |             |
| 285006              | 進階光學<br>Advanced Optics  | 3              | 選  | 3g  |             |
| 285031              | 生醫光電<br>Biophotonics   | 3              | 選  | 3g  |             |
| 285032              | 虛擬儀控程式設計<br>Programming of Virtual Instruments                           | 3              | 選  | 3g  |             |
| 285034              | 固態電子元件<br>Solid State Electronic Devices                                 | 3              | 選  | 3g  |             |
| 285033              | 太陽能電池導論<br>Introduction to Solar Cells                                   | 3              | 選  | 3g  |             |
| 285035              | 資料擷取與感測電路<br>Data acquisition and sensing circuits                       | 3              | 選  | 3g  |             |
| 280036              | 進階LabVIEW程式設計<br>Advanced LabVIEW Programming Design                     | 3              | 選  | 3g  |             |
| 285037              | 固態電子學<br>Solid-State Electronics   | 3              | 選  | 3g  |             |
|                     | 固態電子學(一)<br>Solid State Electronics(I)                                   | 3              | 選  | 3g  |             |

| 課程代號<br>Course Code | 課程名稱(中文及英文)<br>Course Name (Chinese and English)                                       | 學分數<br>Credits | 修別<br>Course type<br>(required/elective) | 開課年級<br>Course availability<br>(freshman/sophomore/junior/senior) | 備註<br>Notes |
|---------------------|--|----------------|--|---|-------------|
| 285039              | 固態電子學(二)<br>Solid State Electronics(II)  | 3              | 選  | g   |             |
| 285038              | 儀器控制<br>Instrument Control   | 3              | 選  | g   |             |
| 285014              | 非線性光學原理與材料<br>Nonlinear optical theory and materials                                   | 3              | 選  | 4g  |             |
| 他系開設                |  |                |  |   |             |
| 240050              | 電化學<br>Electrochemistry  | 3              | 選  | 3gp   | 應化系         |
| 245043              | 有機發光材料的製備<br>Preparation of OLEDmaterials  | 3              | 選  | 3g  | 應化系         |
| 249009              | 材料化學<br>Materials Chemistry  | 3              | 選  | 3gp   | 應化系         |
| 239005              | 金氧半導體物理<br>Metal-Oxide-Semiconductor Devices Physics                                   | 3              | 選  | 3gp   | 電機系         |
| 239001              | 類比VLSI電路設計<br>Analog VLSI Circuits Design  | 3              | 選  | 3gp   | 電機系         |
| 239019              | 半導體元件特性與量測<br>Semiconductor Device Characterization and Measurement                    | 3              | 選  | 3gp   | 電機系         |
| 239038              | 數位VLSI電路設計<br>Digital VLSI Circuits Design   | 3              | 選  | 3gp   | 電機系         |
| 239045              | 無線通訊<br>Wireless Communication   | 3              | 選  | 3gp   | 電機系         |
| 239064              | 半導體感測器<br>Semiconductor Sensors  | 3              | 選  | 3gp   | 電機系         |
| 239073              | 顯示器驅動電路設計<br>Display Driver Circuit Design   | 3              | 選  | 3gp   | 電機系         |
| 239083              | 射頻積體電路設計<br>RF Integrated Circuit Design   | 3              | 選  | 3gp   | 電機系         |
| 239090              | RFID晶片設計<br>RFID Chip Design   | 3              | 選  | 3gp   | 電機系         |
| 239132              | 生物感測器與換能器<br>Bio-Sensors and Transducers   | 3              | 選  | 3gp   | 電機系         |
| 239137              | 積體電路元件<br>Semiconductor Devices for Integrated Circuits                                | 3              | 選  | 3gp   | 電機系         |
| 239149              | 太陽能電池<br>Solar Cells   | 3              | 選  | 3gp   | 電機系         |
| 239129              | 醫學電子學<br>Biomedical Electronics  | 3              | 選  | 3gp   | 電機系         |
| 295009              | LED特性分析及驅動設計<br>Light emitter diode characteristic analysis and driving circuit design | 3              | 選  | 3g  | 光電碩專班       |
| 295010              | 平面顯示器及驅動電路設計<br>Flat panel display and driving circuit design                          | 3              | 選  | 3g  | 光電碩專班       |
| 295007              | 光電感測器及前置電路設計<br>Optoelectronic Sensor and Front - End Readout Circuit Design           | 3              | 選  | 3g  | 光電碩專班       |

填表人：\_\_\_\_\_系(所)主管：\_\_\_\_\_院長：\_\_\_\_\_填表日期：1080507