

國立東華大學

材料科學與工程學系

108學年度課程規劃表

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|---|--|-------------|-----------|-------------|-----------|
| 碩士班國際組最低畢業學分數36學分 1. 專業必修12學分 2. 專業選修24學分 | | | | | |
| 專業必修 | | 科目代碼 | 學分 | 先修科目 | 備註 |
| 1. | 論文研究 Independent Study | MS__@0130 | 2.0 | | |
| 2. | 專題討論 Seminar | MS__@0140 | 1.0 | | |
| 專業選修 | | 科目代碼 | 學分 | 先修科目 | 備註 |
| 3. | 半導體材料 Semiconductor Materials | MS__@0150 | 3.0 | | |
| 4. | 高等材料科學與工程 Advanced Materials Science and Engineering | MS__@0160 | 3.0 | | |
| 5. | 金屬材料特論 Special Topics on Metallic Materials | MS__@0170 | 3.0 | | |
| 6. | 材料結構與顯微分析 Structure and Microstructure Analysis of Materials | MS__@0180 | 3.0 | | |
| 7. | 相變態 Phase Transformation | MS__@0190 | 3.0 | | |
| 8. | 電子陶瓷 Electronic Ceramics | MS__@0200 | 3.0 | | |
| 9. | 半導體元件 Semiconductor Devices | MS__@0210 | 3.0 | | |
| 10. | 高等物理冶金 Advanced Physical Metallurgy | MS__@0220 | 3.0 | | |
| 11. | 真空科學與技術 Vacuum Science and Technology | MS__@0230 | 3.0 | | |
| 12. | 薄膜科學與技術 Thin Films: Science and Technology | MS__@0240 | 3.0 | | |
| 13. | 穿透式電子顯微鏡 Transmission Electron Microscopy | MS__@0250 | 3.0 | | |
| 14. | 磁性材料 Magnetic Materials | MS__@0260 | 3.0 | | |
| 15. | 光電材料與應用 Optoelectronic Materials and Applications | MS__@0270 | 3.0 | | |
| 16. | 實用解析式電子顯微鏡學 Practical Analytical Electron Microscopy | MS__@0280 | 3.0 | | |
| 17. | 高分子材料科學 Polymeric Materials Science | MS__@0290 | 3.0 | | |

系所主管: _____

1/3

院 長: _____

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| 18. | 微奈米機電製程概論 Introduction to the Processing of Micro- and Nano -electromechanical Systems | MS__@0300 | 3.0 | | |
| 19. | 半導體製程 Semiconductor Processing | MS__@0310 | 3.0 | | |
| 20. | 高分子材料特論 Topics in Polymeric Materials | MS__@0320 | 3.0 | | |
| 21. | 材料物理 Physics of materials | MS__@0330 | 3.0 | | |
| 22. | 奈米光觸媒 Nano - Photocatalysts | MS__@0340 | 3.0 | | |
| 23. | 陶瓷製程 Ceramic Processing | MS__@0350 | 3.0 | | |
| 24. | 真空與電漿科技 Vacuum and Plasma Science and Technology | MS__@0360 | 3.0 | | |
| 25. | 表面催化動力學 Kinetics of Surface Catalytic Reactions | MS__@0370 | 3.0 | | |
| 26. | 材料光譜學 Spectroscopy for Material Science | MS__@0380 | 3.0 | | |
| 27. | 化學反應工程 Chemical Reaction Engineering | MS__@0390 | 3.0 | | |
| 28. | 奈米材料科技 Nanometer-Scale Materials Science and Engineeing | MS__@0400 | 3.0 | | |
| 29. | 化合物半導體 Compound Semiconductor | MS__@0410 | 3.0 | | |
| 30. | 高等熱動力學 Advanced Thermodynamics and Kinetics | MS__@0420 | 3.0 | | |
| 31. | 半導體材料與元件特性分析 Characterization of Semiconductor Materials and Devices | MS__@0430 | 3.0 | | |
| 32. | 高溫合金與製程 High temperature alloys and processing | MS__@0440 | 3.0 | | |
| 33. | 計算材料科學 Calculation in material science | MS__@0450 | 3.0 | | |
| 34. | 英文科技論文寫作 Technical Writing | MS__@0460 | 3.0 | | |
| 35. | 光通訊材料 Photonic materials | MS__@0470 | 3.0 | | |
| 36. | 鋼鐵冶煉學 Steel metallurgy | MS__@0480 | 3.0 | | |
| 37. | 分子動力學 Molecular dynamics in materials science, physics and chemistry | MS__@0490 | 3.0 | | |

系所主管：_____

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院 長：_____

重要相關規定

I. Credit requirement:

Minimum credits for graduation: 36

Required course credits: 12

Minimum elective course credits: 24

II. Regulations

1. Required courses

(1) Independent Study: 2 credits per semester, at least 8 credits.

(2) Seminar: 1 credits per semester, at least 4 credits.

2. A total of 24 credits of elective courses are required (a maximum of six credits from courses offered at other institutes)

3. The department of students enroll this year, shall take and pass the "Taiwan Academic Ethics Education Resource Center" online platform of "academic research ethics education curriculum" during first semester. Who did not pass, should not apply final oral examination.