

## 碩士學分班第 37 期(112 學年度第二學期)課程大綱表

上課時間/地點	課程名稱	授課教師	課程大綱	學分數
113/2/19~113/6/21 每週一 18:20~21:00	功能性高分子材料	吳宗明老師	01. Lecture on polymer research, development and industrial applications 02. Plastics/elastomers 03. Conducting materials 04. Conducting materials 05. Optoelectronics 06. Optoelectronics 07. Biomaterials 08. Biomaterials 09. Drugs 10. Discussion on literature reading and reporting 11. Discussion on literature reading and reporting 12. Discussion on literature reading and reporting 13. Discussion on literature reading and reporting 14. Discussion on literature reading and reporting 15. Discussion on literature reading and reporting 16. Discussion on literature reading and reporting 17. Discussion on literature reading and reporting 18. Discussion on literature reading and reporting	3 學分 (54 小時)
113/2/19~113/6/21 每週二	電子顯微鏡原理	林克偉老師	01. Overall Introduction 02. Diffraction and the X-ray powder diffractometer	3 學分 (54 小時)

<p><b>18:20~21:00</b></p>			<p>03. The TEM and its optics  04. Scattering  05. Inelastic electron scattering and spectroscopy  06. Diffraction from crystals  07. Electron diffraction and crystallography  08. Electron diffraction and crystallography  09. Midterm Examination  10. Diffraction contrast in TEM images  11. Diffraction lineshapes  12. Patterson functions and diffuse scattering  13. Patterson functions and diffuse scattering  14. High-resolution TEM imaging  15. High-resolution TEM imaging  16. Dynamic theory  17. Dynamic theory  18. Final Examination</p>	
<p><b>113/2/19~113/6/21</b>  每週三  <b>18:20~21:00</b></p>	<p>高分子科學</p>	<p>薛涵宇老師</p>	<p>01. Fundamental organic reactions, synthesis, derivatives, and their basic properties  02. Fundamental organic reactions, synthesis, derivatives, and their basic properties  03. Fundamental organic reactions, synthesis, derivatives, and their basic properties  04. Monomer sources from petrochemical intermediate conversions  05. Monomer sources from petrochemical intermediate</p>	<p><b>3 學分</b>  <b>(54 小時)</b></p>

			<p>conversions</p> <p>06. Monomer sources from petrochemical intermediate conversions</p> <p>07. Polymer synthesis and modification</p> <p>08. Polymer synthesis and modification</p> <p>09. Polymer synthesis and modification</p> <p>10. Structure/property relationship</p> <p>11. Structure/property relationship</p> <p>12. Structure/property relationship</p> <p>13. Biopolymers</p> <p>14. Biopolymers</p> <p>15. Biopolymers</p> <p>16. Biopolymers</p> <p>17. Literature trends and examples</p> <p>18. Literature trends and examples</p>	
<p><b>113/2/19~113/6/21</b></p> <p><b>每週四</b></p> <p><b>18:20~21:00</b></p>	<p>奈米製程</p>	<p>林孟昌老師</p>	<p>01. Preparation and overview</p> <p>02. Introduction</p> <p>03. Nanofabrication by Photons</p> <p>04. Nanofabrication by Photons</p> <p>05. Nanofabrication by Charged Beams</p> <p>06. Nanofabrication by Charged Beams HW#1</p> <p>07. Nanofabrication by Scanning Probes</p> <p>08. Nanofabrication by Scanning Probes</p> <p>09. Midterm Presentation</p> <p>10. Nanofabrication by Replication</p>	<p><b>3 學分</b></p> <p><b>(54 小時)</b></p>

			<ol style="list-style-type: none"><li>11. Nanofabrication by Replication HW#2</li><li>12. Nanofabrication by Pattern Transfer</li><li>13. Nanofabrication by Pattern Transfer</li><li>14. Indirect Nanofabrication</li><li>15. Indirect Nanofabrication HW#3</li><li>16. Nanofabrication by Self-Assembly</li><li>17. Nanofabrication by Self-Assembly</li><li>18. Final Examination</li></ol>	
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