

# 材料科學與工程學系碩士班

110 學年度

最低修業年限	1 年
應修學分數	24 學分(含本系課程 15 學分)最多不得超過 40 學分
應修(應選)課程及符合畢業資格之修課相關規定	1. 下列課程為本系之核心課程：固態熱力學、擴散學、相變化、高分子物理。碩士班研究生畢業前應至少選修其中六學分，且達及格標準。曾就讀於本系者，基礎學科不得重複修習。 2. 書報討論為碩士班一年級每學期之必選課程，至少修滿二學期並達及格標準。
備註	其他未盡事宜，依據本系「碩士班研究生修業規章」辦理。

## Department of Materials Science and Engineering (Master Program)

Academic Year 2021

Min. Term of Study	1 year
Minimum Credits	Master's students shall take at least twenty-four (24) credits before graduation, which should include fifteen (15) credits taken in the Department.
Courses	1. The fundamental courses are listed as follows: Thermodynamics of Solid, Diffusion, Phase Transformations, Polymer Physics, from which master's students shall take at least six (6) course credits before graduation. Students who have studied in the Department shall not take the same core courses. All first-year master's students are required to take seminars each semester, for at least up to two (2) semesters and satisfy the relevant passing criteria.
	Please refer to the "Department of Materials Science and Engineering Master's Program Academic Regulations" for details.

# 材料科學與工程學系博士班

110 學年度

最低修業年限	2 年
應修學分數	12 學分(含本系課程 9 學分)最多不得超過 36 學分
逕博應修學分數	30 學分(含碩士班已修的學分且本系專業課程至少 27 學分)
應修(應選)課程及符合畢業資格之修課相關規定	<p>1. 下列課程為系訂之基礎學科：固態熱力學、擴散學、相變化、電子顯微鏡學、X 光繞射學、表面分析技術、晶體缺陷、材料機械性質、晶體學、高分子化學、高分子物理、固態物理、<b>表面科學及工程、奈米製造與量測技術、奈米科技導論、奈米材料簡介</b>。</p> <p>(1)一般生及在職生應選修至少 6 學分之基礎學科，且達及格標準。</p> <p>(2)直升生應選修至少 18 學分之基礎學科，且達及格標準。</p> <p>(3)曾就讀於本系者，基礎學科不得重複修習。</p> <p>2. 書報討論為博二(含)以前每學期必修之課程，畢業前須修滿四學期且達及格標準。</p> <p>3. 須通過英語能力鑑定，詳見本系「博士班研究生修業規章」。</p> <p>4. 入學兩年或四學期內(不含休學期間)須通過資格考試。</p>
備註	其他未盡事宜，依據本系「博士班研究生修業規章」辦理。

## Department of Materials Science and Engineering (PhD Program)

Academic Year 2021

Min. Term of Study	2 years
Minimum Credits	twelve (12) course credits (including at least nine (9) professional course credits of the Department).
Minimum Credits (Direct route PhD program)	Thirty (30) course credits (including the credits already received in the master's program, which shall at least include 27 credits of the professional courses of the Department).
Courses	<p>1. The <b>sixteen (16)</b> core courses of the Department are listed below: Thermodynamics of Solids, Diffusion, Phase Transformations, Transmission Electron Microscopy, X-ray Diffraction, Surface Analysis Techniques, Defects in Crystals, Mechanical Behaviors of Materials, Crystallography, Polymer Chemistry, Polymer Physics, and Solid State Physics, <b>Surface Science and Engineering, Nanofabrication and Characterization, Introduction to Nanotechnology, Introduction to Nanostructured Materials.</b></p> <p>(1) Full-time and on-job postgraduates shall take at least six (6) core course credits.</p> <p>(2) Students admitted through the direct route PhD program application shall take at least eighteen (18) core course credits.</p> <p>(3) Students who have studied in the Department shall not take the same core courses.</p> <p>2. Seminars are compulsory courses each semester for all doctoral students in and before their second year. It is required to take seminars for four (4) semesters and meet the passing criteria.</p> <p>3. Doctoral students of the Department shall pass the English language proficiency test before the final oral defense. Please refer to the "PhD Program Academic Regulations, Department of Materials Science and Engineering".</p> <p>4. Doctoral students have to pass the qualifying exam within the two (2) years or four (4) semesters (excluding the period of suspension) after enrollment in the program.</p>
	Please refer to the "PhD Program Academic Regulations, Department of Materials Science and Engineering" for details.