

中山醫學大學

Chung Shan Medical University

113 學年度入學新生應修科目及學分表

Courses and Credits for Freshmen Admitted in the 113th Academic Year

健康管理學院職業安全衛生學系

Department of Occupational Safety and Health, College of Health Care and Management

第一學年 1 st Academic Year						
科目名稱 Course Name in Chinese	科目英文名稱 Course Name in English	必修 Required Elective	合計 學分 Credits Subtotal	第一 學期 1 st Semester Credits	第二 學期 2 nd Semester Credits	備註 Remarks
微積分	Calculus	必修 Required	2	2	0	
職業安全衛生概論	Introduction to Occupational Safety & Health	必修 Required	2	2	0	
普通物理學	General Physics	必修 Required	2	0	2	
生命醫學導論	Introduction to Life Medicine	必修 Required	2	0	2	
統計學(一)	Statistics(I)	必修 Required	2	0	2	
環境化學概論	Introduction to Environmental Chemistry	必修 Required	2	0	2	
環境化學實驗	Environmental Chemistry Experiment	必修 Required	1	0	1	
工業管理	Industrial Management	選修 Elective	2	2	0	
電氣安全	Electrical Safety	選修 Elective	2	2	0	
工業心理學	Industrial Psychology	選修 Elective	2	2	0	
行業危害個論	Industrial Hazard	選修 Elective	2	2	0	
職業衛生化學	Occupational Hygiene Chemistry	選修 Elective	2	2	0	
職業衛生化學實驗	Occupational Hygiene Chemistry Experiment	選修 Elective	1	1	0	
有機化學	Organic Chemistry	選修 Elective	2	0	2	
經濟學概論	Introduction to Economics	選修 Elective	2	0	2	
毒理學概論	Introduction to Toxicology	選修 Elective	2	0	2	
勞動生理學	Work Physiology	選修 Elective	2	0	2	
機械製造	Machinery Manufacturing	選修 Elective	2	0	2	
環境衛生學(一)	Environmental Health(I)	選修 Elective	2	0	2	
必修學分合計 Required Credits Subtotal			13	4	9	

多元文化與語文		必修 Required	2	(2)	(2)	共同教育課程 通識中心開課 Common Education Courses Provided by General Studies Center
程式語言	Programming Language	必修 Required	2	0	2	共同教育課程 通識中心開課 Common Education Courses Provided by General Studies Center
大學之道	Foundation of University Education	必修 Required	1	1	0	共同教育課程 通識中心開課 Common Education Courses Provided by General Studies Center
服務學習	Service Learning	必修 Required	1	(1)	(1)	共同教育課程 通識中心開課 Common Education Courses Provided by General Studies Center
體育	Physical Education	必修 Required	1	1	0	共同教育課程 體育中心開課 Common Education Courses Provided by Sports Center
體育	Physical Education	必修 Required	1	0	1	共同教育課程 體育中心開課 Common Education Courses Provided by Sports Center

第 二 學 年 2nd Academic Year						
科目名稱 Course Name in Chinese	英文科目名稱 Course Name in English	必修 Required Elective	合計 學分 Credits Subtotal	第一 學期 1 st Semester Credits	第二 學期 2 nd Semester Credits	備註 Remarks
工業安全工程	Industrial Safety Engineering	必修 Required	2	2	0	
防火防爆學	Fire and Explosion Protection	必修 Required	2	2	0	
工業毒物學	Industrial Toxicology	必修 Required	2	2	0	
統計學(二)	Statistics(II)	必修 Required	2	2	0	
作業環境測定(一)	Workplace Monitoring (I)	必修 Required	2	2	0	
作業環境測定實驗(一)	Workplace Monitoring Laboratory(I)	必修 Required	1	1	0	
工業通風	Industrial Ventilation	必修 Required	2	0	2	
噪音與振動	Noise and Vibration	必修 Required	2	0	2	
機電防護	Machinery and Electrical Safety	必修 Required	2	0	2	

第 二 學 年 2nd Academic Year						
科目名稱 Course Name in Chinese	英文科目名稱 Course Name in English	必修 Required Elective	合計 學分 Credits Subtotal	第一 學期 1 st Semester Credits	第二 學期 2 nd Semester Credits	備註 Remarks
熱力學	Thermodynamics	必修 Required	2	0	2	
儀器分析概論	Introduction to Instrumental Analysis	必修 Required	2	0	2	
作業環境測定(二)	Workplace Monitoring(II)	必修 Required	2	0	2	
作業環境測定實驗(二)	Workplace Monitoring Laboratory(II)	必修 Required	1	0	1	
流行病學	Epidemiology	選修 Elective	2	2	0	
應用力學	Applied Mechanics	選修 Elective	2	2	0	
環境衛生學(二)	Environmental Health(II)	選修 Elective	2	2	0	
職業安全綜論	Topics on Occupational Safety	選修 Elective	2	2	0	
環保與生態實務體驗	Environmental Conservation and Ecological Practical Experience	選修 Elective	2	2	0	
體感科技實作概論	Introduction to Somatosensory Technology in Practice	選修 Elective	2	2	0	
職業病概論	Introduction to Occupational Disease	選修 Elective	2	0	2	
工程材料	Engineering Materials	選修 Elective	2	0	2	
藥物學概論	Introduction to Pharmacology	選修 Elective	2	0	2	
消防法規	Fire Laws	選修 Elective	2	0	2	
淨零企業永續&淨零排放	Net Zero Enterprise Sustainability & Net Zero Emissions	選修 Elective	2	0	2	
產業智慧化及低碳化之方法及案例解析	The Methods and Case Analysis of Industrial Intelligence and Low-Carbonization	選修 Elective	2	0	2	
必修學分合計 Required Credits Subtotal			24	11	13	

體育	Physical Education	必修 Required	1	1	0	共同教育課程 體育中心開課 Common Education Courses Provided by Sports Center
體育	Physical Education	必修 Required	1	0	1	共同教育課程 體育中心開課 Common Education Courses Provided by Sports Center

第 三 學 年 3rd Academic Year						
科目名稱 Course Name in Chinese	英文科目名稱 Course Name in English	必修 Required Elective	合計 學分 Credits Subtotal	第一 學期 1 st Semester Credits	第二 學期 2 nd Semester Credits	備註 Remarks
人因工程	Ergonomics	必修 Required	2	2	0	
生物偵測	Biological Monitoring	必修 Required	2	2	0	
危害風險評估	Risk Assessment on Safety	必修 Required	2	2	0	
儀器分析實驗	Instrumental Analysis Laboratory	必修 Required	1	1	0	
專題研究(一)	Independent Study(I)	必修 Required	1	1	0	
職業安全衛生法規	Occupational Safety and Health Laws	必修 Required	3	0	3	
健康風險評估	Health Risk Assessment	必修 Required	2	0	2	
工業安全管理	Industrial Safety Management	必修 Required	2	0	2	
衛生管理實務	Health Management and Practice	必修 Required	2	0	2	
專題研究(二)	Independent Study (II)	必修 Required	1	0	1	
毒理學	Toxicology	選修 Elective	2	2	0	
暴露評估	Exposure Assessment	選修 Elective	2	2	0	
消防安全設備概論	Introduction to Fire Equipment	選修 Elective	2	2	0	
人力資源管理概論	Introduction to Human Resource Management	選修 Elective	2	2	0	
氣膠學	Aerosol Technology	選修 Elective	2	0	2	
營建安全	Construction Safety	選修 Elective	2	0	2	
個人防護具	Personal Protective Equipment	選修 Elective	2	0	2	
消防安全工程設計	Fire Safety Engineering Design	選修 Elective	2	0	2	
職業安全專業證照與實作	Occupational Safety Professional License and Implementation	選修 Elective	2	0	2	
職業安全衛生體感教材應用實務	Application Practice of Occupational Safety and Health Somatosensory Training System	選修 Elective	2	0	2	
生物偵測實驗	Biological Monitoring Laboratory	選修 Elective	1	0	1	
企業的數位轉型與管理	Enterprise Digital Transformation and Management	選修 Elective	2	0	2	
職業衛生護理與職安人員的關係	The Relationship Between Occupational Health Nursing and Occupational Safety Personnel	選修 Elective	2	0	2	
必修學分合計 Required Credits Subtotal			18	8	10	

第 四 學 年 4th Academic Year						
科目名稱 Course Name in Chinese	英文科目名稱 Course Name in English	必修 Required Elective	合計 學分 Credits Subtotal	第一 學期 1 st Semester Credits	第二 學期 2 nd Semester Credits	備註 Remarks
安全衛生實務實習	Practicum in Occupational Safety and Health	必修 Required	4	4	0	
作業環境控制工程	Workplace Environmental Control Engineering	必修 Required	2	2	0	
廠礦安全與評鑑實務	Industry Safety and Evaluation Practice	必修 Required	2	2	0	
安全衛生書報討論	Occupational Safety and Health Seminar	必修 Required	1	1	0	
專題研究（三）	Independent Study (III)	必修 Required	1	1	0	
有害物質管理策略	Hazardous Materials Management Strategy	必修 Required	2	0	2	
危險性機械設備安全	The Safety of High Risk Machinery and Equipment	必修 Required	2	0	2	
專題研究(四)	Independent Study (IV)	必修 Required	1	0	1	
輻射安全	Radiation Safety	選修 Elective	2	2	0	
職業衛生專業證照與實作	Occupational Health Professional License and Implementation	選修 Elective	2	0	2	
必修學分合計 Required Credits Subtotal			15	10	5	
最低畢業學分數 128 學分，必修 70 學分，通識 20 學分，體育 4 學分，選修 34 學分 Minimum graduation credits: 128 credits, compulsory 70 credits, general education 20 credits, physical education 4 credits, elective 34 credits						
說明 Instructions：						

第 四 學 年

4th Academic Year

科目名稱 Course Name in Chinese	英文科目名稱 Course Name in English	必修 Required Elective	合計 學分 Credits Subtotal	第一 學期 1 st Semester Credits	第二 學期 2 nd Semester Credits	備註 Remarks
1.	<p>通識教育課程總學分數為 20 學分，學生需修滿學分數，始得申請畢業。課程內容分為「基礎通識」及「博雅通識」等兩大部分，修習原則如下：(一)「基礎通識」課程：必修，共 6 學分。含括：「多元文化與語文」、「程式語言」、「大學之道」及「服務學習」等課程。(二)「博雅通識」課程：必修，共 14 學分(醫資系除外，需 16 學分)。含括：文藝領域、社會領域、人文醫學領域和科普領域等四個學群領域，每個學群領域至少需修習 2 學分。。通識教育課程畢業學分的認列，以 20 學分為上限。通識教育課程修習方式依照「中山醫學大學通識課程選課須知」辦理。「服務學習」依照「中山醫學大學服務學習課程實施辦法」辦理。</p> <p>The total number of credits required for the General Education Curriculum is 20. Students must complete these credits in order to apply for graduation. The curriculum is divided into two main parts: "Fundamental General Education" and "Liberal Arts General Education." The guidelines for course completion are as follows:</p> <p>Fundamental General Education Courses: These are mandatory and total 6 credits. They include courses such as "Multiculturalism and Languages," "Programming Languages," "Foundation of University Education," and "Service Learning."</p> <p>Liberal Arts General Education Courses: These are also mandatory and total 14 credits (16 credits for the Department of Medical Informatics). They cover four domains: Literature and Arts, Social Sciences, Humanistic Medicine, and Science and Technology. At least 2 credits must be completed in each domain.</p> <p>The maximum number of credits recognized for the General Education Curriculum towards graduation is 20. The enrollment procedures for the General Education Curriculum are to be followed according to the "Guidelines for General Education Course Selection at Chung Shan Medical University." The "Service Learning" component is to be conducted in accordance with the "Implementation Guidelines for Service Learning Courses at Chung Shan Medical University."</p>					
2.	<p>學生須於畢業前擇一參加經認定之校外官方英文能力檢定考試或校內「中山醫大英文能力檢測」(CEPT)英文檢定考試，相當全民英檢中級初試，並於每學期開學後繳交通過之成績證明文件至各系登錄，以作為畢業資格審定之依據。Students are required to participate in an officially recognized external English proficiency test or the university's internal "Chung Shan Medical University English Proficiency Test" (CEPT) before graduation. The required proficiency level is equivalent to the preliminary test of the GEPT Intermediate Level. After the start of each semester, students must submit their passing score documents to their respective departments for registration, which will serve as a basis for graduation qualification verification.</p>					
3.	<p>學生須依「中山醫學大學深化醫能力百分百實施辦法」參加各項符合增益基本能力之活動並累積至少 100 點，始得畢業。</p> <p>Students must participate in various activities that enhance their basic competencies in accordance with the "Implementation Guidelines for Enhancing Soft Skills at Chung Shan Medical University" and accumulate at least 100 points in order to graduate.</p>					
4.	<p>學生須於畢業前擇一修習雙主修、輔系、跨域學程或跨域微學程，符合修習規範者，始得畢業。</p> <p>Students are required to choose a double major, a minor, an interdisciplinary program, or an interdisciplinary micro-program before graduation. Only those who meet the study standards can graduate.</p>					

第 四 學 年

4th Academic Year

第 四 學 年 4th Academic Year						
科目名稱 Course Name in Chinese	英文科目名稱 Course Name in English	必選 修 Required Elective	合計 學分 Credits Subtotal	第一 學期 1 st Semester Credits	第二 學期 2 nd Semester Credits	備註 Remarks
5.	<p>跨域微學程認列之科目於下列情況不可重複認列學分數：1、其他跨域微學程之科目。2、學生主系之科目(包含必修、選修、專業選修)及通識課程。</p> <p>Courses recognized in the interdisciplinary micro-study program cannot be recognized as credits repeatedly under the following circumstances: 1. Courses in other interdisciplinary micro-study programs. 2. Courses of the student's major (including compulsory, elective, and professional electives) and general courses.</p>					
6.	<p>系選修至少須滿 28 學分，方可畢業。</p> <p>Department electives must complete at least 28 credits before graduation.</p>					

