

2018 Academic Four-Year Curriculum of Department of Optoelectronics and Materials Engineering										For 2018 enrolled students						
grade	freshman grade				sophomore grade				junior grade		senior grade					
semester	first semester		second semester		first semester		second semester		first semester		second semester					
Basic Required Courses (21credits)	Calculus (I)	3	Calculus (II)	3	Engineering Mathematics (I)	3			Engineering English	2	Techonology English Report	2				
	Physics	3	Applied Chemistry	3												
	Fundamental Physics Experiment	1	Basic Circuit Experiments	1												
Core Required Courses (37credits)	Photoelectric Science	2	Circuit Theory	3	Electronics (I)	3	Electromagnetics (I)	3	Senior Projects (I)	1	Senior Projects (II)	1				
	Materials Science and Engineering (I)	3	Materials Science and Engineering (II)	3	Optics	3	Introduction of Micro-processor	3	Optical and Materials Experiments (I)	1	Optical and Materials Experiments (II)	1				
			Basic Programming (Python)	1			Optical Design	3	Electromagnetics (II)	3						
Required Elective Courses (4credits)	Creativity Engineering (required)	2	Applications of Office (required)	2					Opto-electronical Materials	3						
					Introduction to Green Technology	3	Introduction to Microelectromechanics	3	Thin Film Engineering	3	Light Alloy Manufacturing Technology	3	Employment Ethics	3	Factory Practice	3
Electives Courses (33credits)					Optical Glass and Ceramics	3	Electronics (II)	3	Optical Communication	3	Human-Machine Interface and Virtual Reality	3	Manufacturing Practice	3	Business Experience	3
					Metallographic Analysis	3	Organic Chemistry	3	Laser Principles and Applications	3	Advanced Display Materials Technology	3	Interships	3	Work Ethics	3
					Semiconductor Manufacturing and Assembly	3	Engineering Mathematics (II)	3	Introduction to Robotics Programming	3	Optoelectronics Packaging Technology	3				
					Matlab Programming	3	Database Systems	3	Physical Metallurgy	3	Energy Saving and Storage Technology	3				
							Optoelectronic Components and Applications	3	Introduction to LED Components and Industry	3	Material Analysis Technology	3				
							Green Energy Materials	3	Solar Cell Engineering	3	Solar Cell Manufacturing and Testing Technology	3				
							Engineering Drawing	3	Photovoltaic System Technology Applications	3	Fuel Cells	3				
							Materials Thermodynamics	3	Principle of sensor	3	Artificial Intelligence Applications	3				
School Required Courses (28credits) (include general education courses 22credits)	English(I)	2	English(II)	2	English (III)	1	English (IV)	1	English Proficiency Test	0						
	physical education (I)	0	physical education(II)	0	physical education	0	physical education	0								

Qualifications for graduation from our department

Required credits: 86 credits (including 58 credits of our departmental required, 6 credits of English, and 22 credits of General Education)

Electives credits: 42 credits (including 33 credits of our departmental electives and 9 credits of other departments (General Education, Physical Education, and Military Training are not included in the calculation))

Minimum graduation credits: 128 credits ◎Intercollegiate electives must be requested and approved in advance if they are to be counted for graduation credit.

School and College Common required Notes

- Students in our Department must complete the required credits of English and General Education courses in accordance with the "Regulations for English Courses at Chung Hua University" and "Regulations for General Education Courses at Chung Hua University" within the graduation period to be eligible for graduation.
- Students must complete the required credits of physical education courses in accordance with the "Regulations for Physical Education Courses at Chung Hua University" within the period of study to be eligible for graduation.
- Students in our department must complete the required credits in the military training course within the period of study in accordance with the "Essentials of National Defense Education Military Training Course Implementation" to be eligible for graduation.
- In order to achieve the "Communication and Expression Ability" in the Basic Competency Index of CHU students, students of this department must complete and pass the English language test and the Chinese language test in accordance with the "Regulations for the Implementation of the English Language Test for CHU Students" within the period of study to be eligible for graduation.
- In order to achieve the "Social Care Ability" in the basic competency index of CHU students, students of this department must complete the required 18 hours of service according to the "Implementation Guidelines for CHU Volunteer Campus Culture Promotion" within the term of study in order to be eligible for graduation.
- In order to achieve the "Health and Fitness Ability" in the Basic Competency Index of CHU students, students must complete the required credits and pass the swimming ability and physical fitness tests in accordance with the "Regulations for Physical Education Courses at CHU" within the period of study to be eligible for graduation.
- In order to achieve the "Information Application Ability" in the Basic Competency Index of CHU students, students must take the "Office Software Application" course (with a grade on the transcript), the "Basic Programming (Python)" course, in accordance with the "Regulations for the Implementation of Information Application Ability Testing at CHU", and complete the required credits. The course is designed for students who have completed the required credits and passed the information application test.
- In order to achieve the "Innovation and Creativity" in the basic competency index of CHU students, students must pass the assessment criteria and take the "Creative Engineering" course (with a grade on the transcript) and the "Senior Projects (1)" and "Senior Projects (2)" courses, which are required for the department's major, within the period of study. The student is eligible for graduation.
- In order to achieve the "Basic Literacy" in the basic competency index for students in the college of Computer Science and Electrical Engineering of Chung Hua University, students must take and pass "Emotion Management and Interpersonal Communication" or a course recognized by the department in the General Education Studies 22 credit within the period of study.
- In order to enable students to understand the curriculum characteristics of different colleges in our school, and to achieve the concept of interdisciplinary teaching in their freshman year, students are required to complete the "Intercollege Micro programs " in their freshman year, and the credits earned can be recognized as 9 credits in outside the department required.
- Required elective course: defined as a course that must be taken within the period of study (withdrawal for the second time during the semester is considered not taken), and a grade in the subject on the transcript is recognized as an elective in the department's major field, and is eligible for graduation.
- The time sequence of courses for foreign students can be adjusted after the decision of the Department's Curriculum Planning Committee.