Course Structure for Undergraduate Program
Undergraduate Program of Electro-Optical Engineering
National Taiwan Normal University

Adaptive to Class of	Common Courses Credit(s)	Required Credit(s)	Elective Credit(s)	Free Elective Credit(s)	Minimum Total Credits for Graduation
114	32.0	53.0	22.0	21.0	128.0

I. General Course: 32.0 credits are required

Course Name	Credit(s)
1 Chinese 4.0 credits are required	
1-1 Chinese Reading and Thinking	2.0
1-2 Chinese Writing and Expression	2.0
2 English 6.0 credits are required, Students who major in Department of English must take the course which course code are ENU0168 and ENU0169 with a passing score for instead	
2-1 English(I)	2.0
2-2 English(II)	2.0
2-3 English(III)	2.0
3 General Education Courses 18.0 credits are required	
3-1 Liberal Arts Course 8.0 credits are required	
3-1-1 Humanities and Arts 2.0 credits are required	
3-1-2 Social Sciences 2.0 credits are required	
3-1-3 Natural Sciences 2.0 credits are required	
3-1-4 Logic and Computing 2.0 credits are required	
3-2 Cross-domain Exploration 4.0 credits are required	
3-2-1 College Common Course	
3-2-2 Cross-domain Professional Discovery Course	
3-2-3 Introduction to University Studies	
3-3 Self-Directed Learning maximum credits are 4.0	
3-3-1 Inquiry Study	
3-3-2 MOOCs	
4 Physical Education 4.0 credits are required, 4 courses are least required	

Note: The first alphabet ”E” on the course name refers to the course in English as a medium of instruction

II. Required Courses: 53.0 credits are required

Course Code	Course Name	Credit(s)	Credit Unit		Note
			Lecture Hour	Lab/Practice Hour	
PHU0251	1 E General Physics B (I)	3.0	3.0	0.0	
PHU0252	2 E General Physics B (II)	3.0	3.0	0.0	
CMU0178	3 General Chemistry B	3.0	3.0	0.0	
MAU0180	4 E Calculus B (I)	3.0	3.0	0.0	
MAU0181	5 E Calculus B (II)	3.0	3.0	0.0	
OEU0001	6 Introduction to Optoelectronics	2.0	2.0	0.0	
OEU0002	7 Introduction to Computer Science	3.0	3.0	0.0	
OEU0003	8 Engineering Mathematics (I)	3.0	3.0	0.0	
OEU0005	9 Electromagnetism (I)	3.0	3.0	0.0	
OEC9001	10 Geometrical Optics	3.0	3.0	0.0	
OEU0008	11 E Optoelectronics Experiments (I)	1.0	0.0	2.0	
OEU0004	12 Engineering Mathematics (II)	3.0	3.0	0.0	
OEU0006	13 E Electromagnetism (II)	3.0	3.0	0.0	
OEC9002	14 Physical Optics	3.0	3.0	0.0	
OEU0009	15 E Optoelectronics Experiments (II)	1.0	0.0	2.0	
OEU0011	16 Modern Physics	3.0	3.0	0.0	
OEC9112	17 E Photonics	3.0	3.0	0.0	
OEU0013	18 E Independent Study and Practice (I)	2.0	1.0	2.0	
OEU0014	19 E Independent Study and Practice (II)	2.0	1.0	2.0	
OEU0022	20 Electronics (I)	3.0	3.0	0.0	

III. Elective Courses: 22.0 credits are required

Course Code	Course Name	Credit(s)	Credit Unit		Note
			Lecture Hour	Lab/Practice Hour	
OEC9100	1 E Introduction to Biophotonics	3.0	3.0	0.0	
OEC9004	2 Vacuum and Thin Film Technology	3.0	3.0	0.0	
OEC9007	3 Design of Photonics System	3.0	3.0	0.0	
OEC9101	4 E Semiconductor Materials and Processing	3.0	3.0	0.0	
OEC9006	5 E Design of Virtual Instruments	3.0	3.0	0.0	
OEC9102	6 Introduction to Nanomedicine Engineering	3.0	3.0	0.0	
OEC9005	7 Introduction to Numerical Methods	3.0	3.0	0.0	

Course Code	Course Name	Credit(s)	Credit Unit		Note
			Lecture Hour	Lab/Practice Hour	
OEC9003	8 Introduction to English Scientific Reports	2.0	2.0	0.0	
OEC9103	9 E Solid-State Physics	3.0	3.0	0.0	
OEC9104	10 Applied Optics	3.0	3.0	0.0	
OEC9105	11 E Semiconductors for Electro-Optics	3.0	3.0	0.0	
OEU0021	12 E Independent Study and Practice (IV)	1.0	1.0	0.0	
OEC9106	13 Introduction to Energy Materials	3.0	3.0	0.0	
OEC9107	14 Semiconductor Devices Physics	3.0	3.0	0.0	
OEC9108	15 E Applications of Lasers	3.0	3.0	0.0	
OEC9109	16 Internship of Technology Industries	3.0	0.0	6.0	
OEU0020	17 E Independent Study and Practice (III)	1.0	1.0	0.0	
OEC9111	18 E Advanced Optical Microscopy Technologies	3.0	3.0	0.0	
OEC9113	19 Semiconductor Laser	3.0	3.0	0.0	
OEU0023	20 Electric Circuits	3.0	3.0	0.0	
OEC9114	21 E Materials Science	3.0	3.0	0.0	
OEU0024	22 Electronics (II)	3.0	3.0	0.0	
OEC9115	23 Industrial Camps and Implementation	3.0	3.0	0.0	
OEC9116	24 E Introduction to Semiconductor Memory Devices	3.0	3.0	0.0	
OEC9118	25 E Surface Physics	3.0	3.0	0.0	
OEC9119	26 E Introduction to Semiconductors	3.0	3.0	0.0	
OEC9117	27 Vision and Optics across the Lifespan	3.0	3.0	0.0	

IV. Free Elective Credits: 21.0 credits are required