Department of Electrical Engineering

Curriculum Requirements for Enrollees in the Academic Year 112 (Fall 2023)

Program	Four-year technical college program of the Day Division			
Group	None			
Class Type	Regular Class			
Special Program	None			
Curriculum Committee	Department Curriculum	114.09.05		
	College Curriculum	114.09.12		
	University Curriculum	114.09.22		
	Academic Affairs	114.09.22		
Graduation Credits /Study Duration	At least 128 credits required (normally 4 years).			
Credit Load per Semester	Students in Grades 1 and 2 must take no fewer than 16 credits and no more than 28 credits per semester. Students in Grades 3 and 4 must take no fewer than 9 credits and no more than 25 credits per semester.			
Required and Elective	Credits	Subject Category	Credits	
Required	73 Credits	General Education	22 Credits	
		Major Required	51 Credits	
		College Major	0 Credits	
Elective	55 Credits	General Education	8 Credits	
		Major Elective	47 Credits	
Graduation	Course Title	Description		Regulations/Notes
Cross-disciplinary Credit Courses	Cross-disciplinary Program Learning(0/1)	Students must complete at least one (micro) credit program offered by their respective college before graduation, or a (micro) credit program from another college with the approval of their own college.		1.Regulations for the Establishment of Credit Programs
Cross-disciplinary Credit Program	Digital Technology Micro- Credit Program Learning(0/1)	A Micro-Credit Program in Digital Technology offered by the student's respective college		2.Guidelines for the Implementation of Interdisciplinary (Micro) Credit Programs
English Certificate	English Proficiency Test(0/2)	Students must pass the General English Proficiency Test (GEPT) Basic Level (or equivalent) during their studies.		1.Principles for the Implementation of English Courses and English Proficiency Graduation Requirements
Practical Project	Practical Project(2/2)	According to the regulations of each department		1.Regulations for the Implementation of "Practical Projects, Special Projects, Research Projects, and Graduation Design" 2.Regulations of Each Department
Off-campus internship	In accordance with the regulations of each department	In accordance with the regulations of each department		In accordance with the University's Regulations for Student Off-Campus Internships and the relevant regulations of each department

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Other Regulations			
Remarks	"Computer Course" means computer access is required (computer and internet usage fee). Graduation Requirements： 「G01」：Cross-disciplinary Credit Program: Cross-disciplinary Learning 「G02」：Cross-disciplinary Credit Program: Digital Technology Micro Program 「G03」：English Proficiency Certificate 「G04」：Practical Project 「G06」：Off-campus Internship 「G06」：Off-campus Internship 「G06」：Off-campus Internship		

First Semester, First Year					Second Semester, First Year				
Course Category	Course Number	Course Name	Credits/ Hours	Notes	Course Category	Course Number	Course Name	Credits/ Hours	Notes
General Education	496105	Chinese(1)	2/2		General Education	496205	Chinese(2)	2/2	
General Education	496505	Human Rights and Legal	2/2		General Education	492002	English (II)	2/2	
General Education	492001	English(1)	2/2		General Education	4912B0	physical education (2)	1/2	
General Education	4912A0	physical education (1)	1/2		General Education	490205	Community Service and Learning(2)	0/1	
General Education	490105	Community Service and Learning(1)	0/1		General Education	497B00	General Courses (II)	2/2	
General Education	497A00	General Courses (I)	2/2		Major Required	405C02	Physics(2)	3/3	
Major Required	405C01	Physics (1)	3/3		Major Required	405C08	Calculus(2)	3/3	
Major Required	405C03	Physics Lab.	1/2		Major Required	405C06	Computer Program	2/3	Computer Course
Major Required	405C07	Calculus (1)	3/3		Major Elective	405885	Industrial Wiring internship	2/3	
Major Required	405031	Introduction to Computer Science	2/3	Computer Course	Major Elective	405892	Computer Programming and Application	1/2	Computer Course
Major Elective	405888	Introduction to Electrical Engineering	0/1		Major Elective	405Q53	ComputerSoftwareApplicationandLab	2/3	Computer Course
18 Credits, 23 Hours					20 Credits, 26 Hours				

First Semester, Second Year					Second Semester, Second Year				
Course Category	Course Number	Course Name	Credits/ Hours	Notes	Course Category	Course Number	Course Name	Credits/ Hours	Notes
General Education	496405	Contemporary Taiwan and Moder World	2/2		General Education	496305	Practical Chinese	2/2	
General Education	492003	English(III)	2/2		General Education	492004	English (IV)	2/2	

General Education	4913C0	physical education (3)	1/2		General Education	4913D0	physical education (4)	1/2	
General Education	497C00	General Courses(III)	2/2		General Education	497D00	General Courses (IV)	2/2	
Major Required	405C12	Electric Circuits (1)	3/3		Major Required	405C13	Electric Circuits(2)	3/3	
Major Required	405C14	Engineering Mathematics (1)	3/3		Major Required	405C15	Engineering Mathematics (2)	3/3	
Major Required	405C16	Electronics (1)	3/3		Major Required	405C17	Electronics (2)	3/3	
Major Required	405C36	Electronics Lab.	2/3		Major Required	405D42	Single-Chip Application and Lab.	2/3	
Major Required	405C43	Programmable Logic Control and Lab.	2/3		Major Elective	405886	Mechatronics Integration Practice(1)	2/3	
Major Elective	405Q10	Logic Design and Lab.	3/3		Major Elective	405893	Internet Applications	2/3	Computer Course
Major Elective	405R52	Power Generation Technology for New and Renewable Resource	3/3		Major Elective	405N12	Professional Electrical Engineering English	2/2	
					Major Elective	405Q15	Signals and Systems	3/3	
					Major Elective	405R86	Photovoltaic System Construction Practice	2/3	
26 Credits, 29 Hours					29 Credits, 34 Hours				
First Semester, Third Year					Second Semester, Third Year				
Course Category	Course Number	Course Name	Credits/ Hours	Notes	Course Category	Course Number	Course Name	Credits/ Hours	Notes
Major Required	405C19	Control System	3/3		Major Required	405C20	Control System Lab	1/3	
Major Required	405C21	Project in Practice (1)	1/2	G04	Major Required	405C22	Project in Practice (2)	1/2	
Major Required	405C28	Electrical Machinery(1)	3/3		Major Required	405C29	Electrical Machinery Lab.	1/3	
Major Elective	405883	Introduction to Electric Vehicles	3/3		Major Elective	405884	Mechatronics and Practical of electric vehicles	3/3	
Major Elective	405887	Mechatronics Integration Practice(2)	2/3		Major Elective	405895	Digital System Design	2/3	
Major Elective	405894	Linear Algebra	3/3		Major Elective	405N10	PC-based programming practice	2/3	
Major Elective	405N09	Supervisory Control System and Practice	3/3		Major Elective	405N33	Deep Learning	3/3	
Major Elective	405N11	Microprocessor and Lab	2/3	Computer Course	Major Elective	405N37	Applications of AI Power Distribution Design	3/3	
Major Elective	405N32	Machine Learning	3/3		Major Elective	405Q18	Power Systems(1)	3/3	
Major Elective	405N36	Virtual reality applications	3/3		Major Elective	405Q20	Control System Design	3/3	
Major Elective	405Q14	Computer-Aided Circuit Design and Practice	2/3	Computer Course	Major Elective	405Q40	Computer Graphics on Electrical Engineering	3/3	Computer Course
Major Elective	405Q16	Distribution Design	3/3		Major Elective	405Q42	Electrical Machinery(2)	3/3	
Major Elective	405Q21	Elementals of Sensor and Transducers	3/3		Major Elective	405Q71	The introduction of embeded system	3/3	
Major Elective	405Q41	Electromagnetism	3/3		Major Elective	405R15	Materials and Elements of Fiber-Optics	3/3	

Major Elective	405R13	Introduction to Electro-optics Engineering	3/3		Major Elective	405R50	Introduction to Energy Management	3/3	
Major Elective	405R14	Physics of Semiconductor	3/3		Major Elective	405R71	Semiconductor and optoelectronic manufacturing equipment	3/3	
Major Elective	405R51	Programming and Analysis of Power System	3/3		Major Elective	405T31	Distribution Design and Lab.	2/3	
Major Elective	405T08	Industrial distribution and Lab.	2/3						
Major Elective	400N01	Teaching assistant practice	1/1						
49 Credits, 54 Hours					42 Credits, 50 Hours				

First Semester, Fourth Year

Course Category	Course Number	Course Name	Credits/ Hours	Notes
General Education	492105	English Proficiency qualification	0/2	G03
Major Elective	405865	Introduction to Semiconductor Manufacturing Technology	3/3	
Major Elective	405N06	Originality Thinking Training	2/2	
Major Elective	405N07	Personal Character and Professional Ethics	2/2	
Major Elective	405Q19	Power Systems(2)	3/3	
Major Elective	405Q24	Power electronics	3/3	
Major Elective	405Q25	Energy Technology.	3/3	
Major Elective	405Q27	System Protections and Coordinations	3/3	
Major Elective	405Q43	Project Management	3/3	
Major Elective	405Q49	Summer Internship	3/3	G06
Major Elective	405Q55	Semester Off-campus Internship (1)	9/9	G06
Major Elective	405Q59	Practic of Electrical Facility Testing	2/3	
Major Elective	405R16	Introduction to Nanotechnology	3/3	
Major Elective	405R19	Vacuum Technique	3/3	
Major Elective	405T01	Distribution of electricity regulations	3/3	
45 Credits, 48 Hours				

Second Semester, Fourth Year

Course Category	Course Number	Course Name	Credits/ Hours	Notes
College Major	40TND9	Interdisciplinary program learning	0/1	G01
College Major Required	40TNF1	Interdisciplinary Micro Course Program for Engineering Digital Technology	0/1	G02
Major Required	405C42	Electrical Engineering Practical Capability Certification	0/2	
Major Elective	405848	Thin Film Engineering and Lab	3/3	
Major Elective	405891	Numerical Methods	3/3	
Major Elective	405N08	Life-Career Counseling	2/2	
Major Elective	405Q32	Electrical Supervisory and Control Automation	3/3	
Major Elective	405Q33	Renewable Electricity	3/3	
Major Elective	405Q34	Power system simulation	3/3	
Major Elective	405Q39	Electrical Technology Evaluation	2/2	
Major Elective	405Q56	Semester Off-campus Internship (2)	9/9	G06
Major Elective	405Q60	Electric Motor Control and Practice	2/4	
Major Elective	405R24	The Theory and Technique of Solar Cell	3/3	
Major Elective	405R81	LED Lighting and Applications	3/3	
Major Elective	405T13	Engineering quality control and budget production	2/4	
38 Credits, 46 Hours				