

Department of Civil Engineering and Geomatics

Curriculum Requirements for Enrollees in the Academic Year 111 (Fall 2022)

Program	Four-year technical college program of the Day Division								
Group	None								
Class Type	Regular Class								
Special Program	None								
Curriculum Committee	Department Curriculum		114.04.15						
	College Curriculum		114.05.16						
	University Curriculum		114.06.09						
	Academic Affairs		114.06.09						
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	88 Credits		General Education		16 Credits				
			Major Required		72 Credits				
			College Major		0 Credits				
Elective	40 Credits		General Education		8 Credits				
			Major Elective		32 Credits				
Other Regulations	跨科系部選修至多採認8學分								
Remarks	"Computer Course" means computer access is required (computer and internet usage fee).								
First Semester, First Year					Second Semester, First Year				
Course	Course	Course Name	Credits /Hours	Notes	Course	Course	Course Name	Credits /Hours	Notes
General Education	435001	Chinese(1)	2/2		General Education	435002	Chinese(2)	2/2	
General Education	400E00	English(I)	2/2		General Education	400F00	English(II)	2/2	
General Education	43500D	Community Service & Learning(1)	0/1		General Education	43500E	Community Service & Learning(2)	0/1	
General Education	400A00	physical education (1)	1/2		General Education	400B00	physical education (2)	1/2	
General Education	300A00		2/2		General Education	300B00	General Courses (II)	2/2	
Major Required	435601	Physics (1)	3/3		Major Required	435A79	Contemporary Taiwan and Modern World	2/2	
Major Required	435604	Calculus (1)	3/3		Major Required	435602	Physics (2)	3/3	
Major Required	435A50	Introduction to Civil Engineering and Geomatics	1/1		Major Required	435603	Laboratory of Physics	1/2	
Major Required	435A51	Fundamental Mathematics Drilling	1/2		Major Required	435605	Calculus (2)	3/3	
Major Required	435606	Chemistry	3/3		Major Required	435A53	Engineering Material	2/2	
Major Required	435018	Labor education (1)	0/1		Major Required	435A81	Engineering Mechanics	2/2	
Major Elective	435012	Morality and Professional Ethics	2/2		Major Required	435005	Computational Thinking and Creative Programming	2/3	Computer Course
Major Elective	435N50	Career student Counselling	2/2		Major Required	435019	Labor education (2)	0/1	

22 Credits, 26 Hours					22 Credits, 27 Hours				
First Semester, Second Year					Second Semester, Second Year				
Course	Course	Course Name	Credits / Hours	Notes	Course	Course	Course Name	Credits / Hours	Notes
General Education	400G00	English(III)	2/2		General Education	400H00	English (IV)	2/2	
General Education	400C00	Physical Education (III)	1/2		General Education	400D00	physical education (4)	1/2	
General Education	300C00		2/2		General Education	300D00	General Courses (IV)	2/2	
Major Required	435607	Programming Language	2/3	Computer Course	Major Required	435003	Practical Chinese	2/2	
Major Required	435A54	Material Testing	1/3		Major Required	435004	Human Rights and Legal Education	2/2	
Major Required	435A55	Project Management and Practice	1/3		Major Required	435A61	Theory of Structures(1)	3/3	
Major Required	435A56	Mechanics of Materials	2/2		Major Required	435A62	Reinforced Concrete(1)	3/3	
Major Required	435A57	Surveying	2/2		Major Required	435A63	Theory and Practice for Protioning Concret Mixing	1/3	
Major Required	435A58	Surveying Practice	1/3		Major Required	435A65	Drawing Engineering(2)	1/3	Computer Course
Major Required	435A59	Engineering drawing (1)	1/3	Computer Course	Major Required	435A80	Engineering Mathematics(1)	3/3	
Major Required	435A85	Numerical Methods	2/2	Computer Course	Major Elective	435R33	Engineering Surveying	2/2	
Major Elective	435N51	Originality Thinking Training	2/2						
19 Credits, 29 Hours					22 Credits, 27 Hours				
First Semester, Third Year					Second Semester, Third Year				
Course	Course	Course Name	Credits / Hours	Notes	Course	Course	Course Name	Credits / Hours	Notes
Major Required	435A68	Construction Management Practice	1/3		Major Required	435A70	Soil Mechanics Testing	1/3	
Major Required	435A83	Soil Mechanics	3/3		Major Required	435A72	Foundation Engineering	2/2	
Major Required	435A84	constraction drawing	2/2		Major Required	435A86	Structural Steel Design	3/3	
Major Elective	435N53	Theory of Structures (2)	3/3		Major Elective	435N62	Concrete Technology of Construction	2/2	
Major Elective	435N54	Reinforced Concrete(2)	3/3		Major Elective	435N63	Occupational health and safety	2/2	
Major Elective	435N56	Road Engineerging	2/2		Major Elective	435N65	Construction Provisions	2/2	
Major Elective	435N60	Foundation Construction	2/2	Computer Course	Major Elective	435N66	Structural Steel Design	3/3	
Major Elective	435N61	Building Information Model	2/2	Computer Course	Major Elective	435N68	Pavement Technology	2/2	
Major Elective	435009	Summer Off-campus Internship	2/2		Major Elective	435014	Topographic Surveying	2/2	
Major Elective	435013	Cadastral Surveying	2/2		Major Elective	435020	Three-dimensional visual design (1)	3/3	Computer Course
Major Elective	435018	UAV design and implementation	3/3		Major Elective	435R20	Global Navigation Satellite System	2/2	

Major Elective	435R16	Engineering Mathematics(2)	2/2		Major Elective	435R22	Engineering Geology	3/3	
Major Elective	435R17	Fluid Mechanics	2/2		Major Elective	435R26	Hydrology	2/2	
Major Elective	435R43	Environmental Engineering	2/2		Major Elective	435R27	Basic Professional Counseling	3/3	
31 Credits, 33 Hours					32 Credits, 34 Hours				
First Semester, Fourth Year					Second Semester, Fourth Year				
Course	Course	Course Name	Credits / Hours	Notes	Course	Course	Course Name	Credits / Hours	Notes
Major Required	435012	English Proficiency qualification	0/2		College Major	40TND9	Interdisciplinary program learning	0/1	
Major Required	435A74	Practical Project	2/3		College Major Required	40TNF1	Interdisciplinary Micro Course Program for Engineering Digital Technology	0/1	
Major Required	435A75	Engineering Statistics	2/2		Major Required	435A76	Analysis of Mechanics Testing	1/3	
Major Required	435A87	Computer Applications in Engineering	2/2	Computer Course	Major Required	435A77	Professional ability test	0/2	
Major Elective	435N70	Prestressed Concrete	3/3		Major Elective	435N76	Geographic Information System	2/2	Computer Course
Major Elective	435N72	Foundation Construction	2/2		Major Elective	435N77	Introduction of Earth Quake Engineering	2/2	
Major Elective	435N74	Methods of Civil Engineering	2/2		Major Elective	435N79	Structural Steel Engineering	2/2	
Major Elective	435N75	Construction Estimates and Costs	2/2		Major Elective	435N80	Tunnel Engineering	3/3	
Major Elective	435010	Semester Off-Campus Internship(1)	9/9		Major Elective	435N81	Introduction of Deep Excavation Engineering	2/2	
Major Elective	435015	The Adjustment of Surveying	3/3		Major Elective	435011	Semester Off-Campus Internship(2)	9/9	
Major Elective	435017	Remote Sensing	2/2	Computer Course	Major Elective	435016	Geodetic Surveying(Including Practice)	3/3	
Major Elective	435R21	Conservation of Water and Soil Project	2/2		Major Elective	435019	UAV control and verification	2/2	
Major Elective	435R23	Construction Contracts and Technical Provisions	2/2		Major Elective	435R24	Hillside Developing Engineering	3/3	
Major Elective	435R28	Professional Professional Counseling	3/3		Major Elective	435R29	Advanced Professional Counseling	3/3	
Major Elective	435R31	Patent Research and Development Practice	2/2		Major Elective	435R32	quality management	2/2	
Major Elective	435R48	Construction practice	3/3						
Major Elective	435R61	Engineering simulation applications	3/3	Computer Course					
Major Elective	435R40	The building Information modeling and model element establishment	3/3	Computer Course					
47 Credits, 50 Hours					34 Credits, 40 Hours				