

Department of Civil Engineering and Geomatics

Curriculum Requirements for Enrollees in the Academic Year 113 (Fall 2024)

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	86 Credits		General Education		19 Credits				
			Major Required		67 Credits				
			College Major		0 Credits				
Elective	42 Credits		General Education		8 Credits				
			Major Elective		31 Credits				
Other Regulations									
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	496835	Literary Appreciation and Expression	2/2		General Education	496435	Contemporary Taiwan and Moder World	2/2	
General Education	492001		2/2		General Education	496735	Human Rights and Legal	2/2	
General Education	4912C0	Physical Education(1)	2/2		General Education	496935	Practical Chinese	2/2	
General Education	490335	Community Service & Learning(1)	0.5/1		General Education	492002	English (II)	2/2	
General Education	497A00		2/2		General Education	4912D0	Physical Education(2)	2/2	
Major Required	435601	Physics (1)	3/3		General Education	490435	Community Service & Learning(2)	0.5/1	
Major Required	435604	Calculus (1)	3/3		General Education	497B00		2/2	
Major Required	435A50	Introduction to Civil Engineering and Geomatics	1/1		Major Required	435602	Physics (2)	3/3	
Major Required	435606	Chemistry	3/3		Major Required	435609	Laboratory of Physics	2/2	
Major Required	435022	Computational Thinking and Creative Programming	3/3	Computer Course	Major Required	435A89	Engineering Mechanics	3/3	
Major Elective	435012	Morality and Professional Ethics	2/2		Major Required	435A90	Engineering Material	3/3	
Major Elective	435R58	Fundamental Mathematics Drilling	2/2		Major Elective	435B06	Calculus (2)	3/3	

Major Elective	435N50	Career student Counselling	2/2		Major Elective	435S06	Sustainable Development Goals	2/2	
27.5 Credits, 28 Hours					28.5 Credits, 29 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	492003	English(III)	2/2		General Education	497D00		2/2	
General Education	497C00		2/2		Major Required	435A61	Theory of Structures(1)	3/3	
Major Required	435B13	Surveying Practice	2/2		Major Required	435A62	Reinforced Concrete(1)	3/3	
Major Required	435610	Programming Language	3/3	Computer Course	Major Required	435A80	Engineering Mathematics(1)	3/3	
Major Required	435A57	Surveying	2/2		Major Required	435A95	Theory and Practice for Protioning Concret Mixing	3/3	
Major Required	435A92	Material Mechanics	3/3		Major Elective	435R33	Engineering Surveying	2/2	
Major Required	435A94	Engineering drawing (1)	3/3	Computer Course	Major Elective	435R52	Environmental Engineering	2/2	
Major Required	435B12	Material Testing	2/2		Major Elective	435R55	Drawing Engineering(2)	3/3	Computer Course
Major Elective	435N51	Originality Thinking Training	2/2						
Major Elective	435R54	Numerical Methods	2/2	Computer Course					
23 Credits, 23 Hours					21 Credits, 21 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	435A83	Soil Mechanics	3/3		Major Required	435B15	Soil Mechanics Testing	2/2	
Major Required	435A84	constraction drawing	2/2		Major Required	435A72	Foundation Engineering	2/2	
Major Elective	435033	Construction Management Practice	2/2		Major Required	435A86	Structural Steel Design	3/3	
Major Elective	435N53	Theory of Structures (2)	3/3		Major Elective	435N60	Foundation Construction	2/2	Computer Course
Major Elective	435N54	Reinforced Concrete(2)	3/3		Major Elective	435N62	Concrete Technology of Construction	2/2	
Major Elective	435N56	Road Engineerging	2/2		Major Elective	435N65	Construction Provisions	2/2	
Major Elective	435N61	Building Information Model	2/2	Computer Course	Major Elective	435N66	Structural Steel Design	3/3	
Major Elective	435N63	Occupational health and safety	2/2		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	435R49	Fluid Mechanics	3/3		Major Elective	435R27	Basic Professional Counseling	3/3	
					Major Elective	435R50	Hydrology	3/3	
31 Credits, 31 Hours					34 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
General Education	492135	English Proficiency qualification	0/2		College Major	40TND9	Interdisciplinary program learning	0/1	
Major Required	435B16	Analysis of Mechanics Testing	2/2		College Major Required	40TNF1	Interdisciplinary Micro Course Program for Engineering Digital Technology	0/1	
Major Required	435B09	Practical Project	2/2		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	435017	Remote Sensing	2/2	Computer Course	Major Elective	435011	Semester Off-Campus Internship(2)	9/9	
Major Elective	435021	The Adjustment of Surveying	3/3		Major Elective	435016	Geodetic Surveying(Including Practice)	3/3	
Major Elective	435R23	Construction Contracts and Technical Provisions	2/2		Major Elective	435019	UAV control and verification	2/2	
Major Elective	435R28	Professional Professional Counseling	3/3		Major Elective	435R24	Hillside Developing Engineering	3/3	
Major Elective	435R31	Patent Research and Development Practice	2/2		Major Elective	435R29	Advanced Professional Counseling	3/3	
Major Elective	435R45	Engineer Planning and risk evaluation	2/2		Major Elective	435R32	quality management	2/2	
Major Elective	435R51	Conservation of Water and Soil Project	3/3		Major Elective	435R46	Technology application of construction industry	2/2	
Major Elective	435R56	Computer Applications in Engineering	2/2	Computer Course					
Major Elective	435R57	Engineering Statistics	3/3						
Major Elective	435R60	Project Management	2/2						
46 Credits, 48 Hours					35 Credits, 39 Hours				