

**109 Four-year Curriculum for Engineering Practice**

Freshman				Sophomore				Junior				Senior				
Obligatory General Education Courses (28 credits) including Fundamental Courses (6 credits) and General Courses (22 credits). (General Courses consist of different areas in humanities & social relations, arts and science, self-exploration and health care. Each area shall take at least two core courses).																
1st Semester		2nd Semester		1st Semester		2nd Semester		1st Semester		2nd Semester		1st Semester		2nd Semester		
course	credit	course	credit	course	credit	course	credit	course	credit	course	credit	course	credit	course	credit	
English (I)	2	English (II)	2	English (III)	1	English (IV)	1	General Studies	4	General Studies	2					
Physical Education (I)	0	Physical Education (II)	0	General Studies	4	General Studies	4									
General Studies	4	General Studies	4													
<b>College Obligatory Courses (10 credits)</b>																
Basic Design (I)	4	APP Design and Application	2													
Computer Graphics (I)	2	Computer Graphics (II)	2													
<b>Math. and Fundamental Obligatory Courses (25 credits)</b>																
Calculus (I)	2	Calculus (II)	2	Engineering Mathematics (I)	2	Engineering Mathematics (II)	2									
Civil Engineering History	2	Engineering Mechanics	3	Strength of Materials	3	Theory of Structures	3									
Engineering Materials Test	1															
Technological Physics	2															
Hydrology	3															
<b>Civil Engineering Obligatory Courses (43credits)</b>																
Construction materials	2	Surveying	2	Engineering Geology	2	Soil Mechanics	3	Reinforced Concrete	3	Supervisor in Construction Practices	2	Special Topics I	1	Special Topics II	1	
		Surveying Practice	1	Multifunction Structure Laborator	1	Fluid Mechanics	3	Foundation Engineering	3	Planning and Design of Soil and Water Conservation	3					
				Technology for Disaster Mitigation	2	Soil Mechanics Laboratory	1	Non-destructive Inspection for Civil Technology	3							
				Introduction to Building Information Modeline (I)	2	Working Drawing	2	Quality Control of Civil Engineering	2							
						Introduction to Building Information Modeling (I I)	2	Construction Methods	2							
<b>Civil Engineering Elective Courses (13 credits)</b>																
Geotech and Perpetuity	Introduction to Sustainable Engineering	2	Management and Engineering Practice	Engineering Surveying	2	Structure and Technology	Software Application and Design	2	Building Seismic Design (2)	2						
	Green Construction Materials	2		Engineering Surveying Practice	1		Introduction to Creative Thinking	2								
	Engineering English	2		Construction Regulations	2		Structural system	2								
	Engineering Ethics	2		Occupational Safety and Health Regulations	2		Steel structure design	2								
	Sewer Engineering	2		Value Engineering	2		Building structure BIM	2								
	Soil and Water Conservation Engineering	2		Engineering Valuation	2		Structural monitoring and testing practice	2								
	Slope Engineering	2		Construction Machinery	2		Structural program analysis	2								
	Rock Mechanics and Engineering	2		Construction Safety	2		Application and practice of non-destructive testing technology for foundation piles	3								
	Bridge and Tunnel Engineering	2		Introduction to Project Management	2		Architecture Application of Information Modeling in Engineering	2								
	Water Resources Engineering	2		Engineering Contract and Dispute Mediation	2		Structural Matrix Analysis	2								
	Telemetry and UAV Applications	3		Health Inspection of Engineering Structure Safety	2		Structural Dynamics	2								
	Green Energy Technology	2					Structural Design Optimization	2								
	Environmental Science	2					Basic Principles and Applications of Steel Structures	3								
<b>Foreign Department Elecuive Courses (9 credits)</b>																