

Undergraduate Program

Yearly/ Semester	Required /Elective	Course Name		Credits
		Chinese	English	
Semester	Required	微積分(一)	Calculus(I)	3
Semester	Required	微積分(二)	Calculus(II)	3
Semester	Required	工程圖學	Engineering Graphics	2
Semester	Required	計算機概論(一)	Introduction to Computer Science(I)	2
Semester	Required	工程材料學	Engineering Materials	3
Semester	Required	工程材料學實驗	Experiment of Engineering Materials	1
Semester	Required	工程力學(一)	Engineering Mechanics(I)	3
Semester	Required	工程力學(二)	Engineering Mechanics(II)	3
Semester	Required	工程數學(一)	Engineering Mathematics(I)	3
Semester	Required	工程數學(二)	Engineering Mathematics(II)	3
Semester	Required	水文學	Hydrology	3
Semester	Required	測量學(一)	Surveying(I)	2
Semester	Required	測量學(二)	Surveying(II)	2
Semester	Required	測量學實習	Laboratory of Surveying	1
Semester	Required	工程統計學(一)	Engineering Statistics(I)	3
Semester	Required	材料力學	Mechanics of Materials	4
Semester	Required	流體力學(一)	Fluid Mechanics(I)	3
Semester	Required	流體力學實驗	Experiment of Fluid Mechanics	1
Semester	Required	結構學(一)	Structural Theory(I)	3
Semester	Required	鋼筋混凝土學	Reinforced Concrete	3
Semester	Required	土壤力學(一)	Soil Engineering(I)	3
Semester	Required	土壤力學實驗	Experiment of Soil Engineering	1
Semester	Required	結構學(二)	Structural Theory(II)	3
Semester	Required	結構學實習	Laboratory Test of Structures	1
Semester	Required	基礎工程學(一)	Foundation Engineering(I)	3
Semester	Required	工程地質學	Engineering Geology	3
Semester	Required	水利工程學(一)	Hydraulic Engineering(I)	3
Semester	Required	土木工程專題研究	Topic Study in Civil Engineering	2
Yearly	Elective	普通物理學	General Physics	6
Yearly	Elective	普通物理學實驗	General Physics Lab	2
Semester	Elective	普通化學	General Chemistry	3
Semester	Elective	土木工程概論	Introduction to Civil Engineering	2
Semester	Elective	工程圖學(二)	Engineering Graphics(II)	1
Semester	Elective	計算機概論(二)	Introduction to Computer Science(II)	2
Semester	Elective	工程契約與倫理	Construction Contracting and Ethics	2
Semester	Elective	經濟學	Economics	2
Semester	Elective	運輸工程概論	Introduction to Transportation Engineering	3
Semester	Elective	施工法	Construction Method	3
Semester	Elective	電腦繪圖概論	Introduction to Computer Graphics	3
Semester	Elective	測量學總實習	Practice in Surveying	1

Semester	Elective	工程數學(三)	Engineering Mathematics(III)	3
Semester	Elective	高等材料力學	Advanced Mechanics of Material	3
Semester	Elective	營建管理	Construction Management	3
Semester	Elective	鋼筋混凝土設計	Design of Reinforced Concrete	3
Semester	Elective	工程數學(四)	Engineering Mathematics(IV)	3
Semester	Elective	隧道工程導論	Introduction to Tunnel Engineering	2
Semester	Elective	航空測量學	Photogrammetry	3
Semester	Elective	明渠水力學	Flow in Open Channels	3
Semester	Elective	預力混凝土學	Prestressed Concrete	3
Semester	Elective	遙測學	Remote Sensing	3
Semester	Elective	地下水工程學	Groundwater Engineering	3
Semester	Elective	數值方法	Numerical Analysis	3
Semester	Elective	基礎工程學(二)	Foundation Engineering(II)	3
Semester	Elective	鋼結構設計(一)	Design of Steel Structures(I)	3
Semester	Elective	結構學(三)	Structural Theory(III)	3
Semester	Elective	結構動力學	Dynamics of Structures	3
Semester	Elective	岩石力學導論	Introduction to Rock Mechanics	2
Semester	Elective	地理資訊系統概論	Introduction to Geographic Information Systems	2
Semester	Elective	水利工程學(二)	Hydraulic Engineering(II)	2
Semester	Elective	PC在工程上之應用	Application of Personal Computer in Engineering	3
Semester	Elective	大地測量學	Geodesy	2
Semester	Elective	土壤力學(二)	Soil Mechanics(II)	3
Semester	Elective	應用土壤力學	Applied Soil Mechanics	3
Semester	Elective	鋼結構設計(二)	Design of Steel Structures(II)	3
Semester	Elective	橋樑工程	Bridge Engineering	3
Semester	Elective	應用水文學	Applied Hydrology	3
Semester	Elective	排水工程	Drainage Engineering	3
Semester	Elective	混凝土配合設計	Design of Concrete Mixing	3
Semester	Elective	工程品質控制	Construction Quality Control	3
Semester	Elective	工程測量	Engineering Survey	3
Semester	Elective	測量平差法	Surveying Data Adjustment	2
Semester	Elective	GNSS全球導航衛星系統概論	An Introduction of Global Navigation Satellite System(GNSS)	3
Semester	Elective	橋基沖刷災害與防治對策	Bridge Scour and Protection	3
Semester	Elective	衛生工程學	Sanitary Engineering	3
Semester	Elective	道路工程學	Highway Engineering	3
Semester	Elective	土木工程實務	Civil Engineering Practice	2
Semester	Elective	土木工程實務-實習	Civil Engineering Practice- intern	1
Semester	Elective	綠色工程	Green engineering	2
Semester	Elective	生態工程概論	Introduction to Ecological Engineering	3
Semester	Elective	氣候變遷與環境衝擊	Climate Change and Environmental Impact	3
Semester	Elective	BIM在土木建築的應用與實作	Application and Practice of BIM in Civil Engineering and Architecture	2
Semester	Elective	感測器與資料擷取	Sensors and Data Acquisition	3