

修課別 Required / Elective Course	學群類別 Course Category	科目代號 Subject Code	科目名稱 Subject Name	學分數 Credits	時數 Hours	開課年級學期 Open Grade Semester	開課單位 Open Course Unit	是否有 替代科 目 If Have Replace Subject	備註 Note
校必修 University Required		應修畢 16 學分 9 門科目 9 Courses (Required 16 Credit)							
	通識-基礎-語文課程 General-Basic- Language Course	DGGC0058	英文(一) Freshman English (1)	3	3	一上 First Grade Last Semester	語文中心 Language Center		
	通識-基礎-體育課程 General-Basic-Physical Education Course	DGGC0733	體育(健康體適能) Physical Education(Physical Fitness)	1	2	一上 First Grade Last Semester	通識教育中心 Center for General Education		
	通識-基礎-語文課程 General-Basic- Language Course	DGGC0803	本國語文(一) Chinese (1)	2	2	一上 First Grade Last Semester	華語文學系 Department of Chinese Language and Literature		
	通識-基礎-語文課程 General-Basic- Language Course	DGGC0304	英文(二) Freshman English (2)	3	3	一下 First Grade Next Semester	語文中心 Language Center		
	通識-基礎-體育課程 General-Basic-Physical Education Course	DGGC0732	體育(基礎游泳) Physical Education(Swimming for Beginners)	1	2	一下 First Grade Next Semester	通識教育中心 Center for General Education		
	通識-基礎-語文課程 General-Basic- Language Course	DGGC0804	本國語文(二) Chinese (2)	2	2	一下 First Grade Next Semester	華語文學系 Department of Chinese Language and Literature		
	通識-基礎-體育課程 General-Basic-Physical Education Course	DGGC0167	體育(三) Physical Education (3)	1	2	二上 Second Grade Last Semester	通識教育中心 Center for General Education		
	通識-基礎-基本素養 General-Basic- Foundation Accomplishment	DGGC0799	民主與法治 Democracy and Law	2	2	二上 Second Grade Last Semester	通識教育中心 Center for General Education		
	通識-基礎-體育課程 General-Basic-Physical Education Course	DGGC0169	體育(四) Physical Education (4)	1	2	二下 Second Grade Next Semester	通識教育中心 Center for General Education		

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系必修 Department Required		應修畢 75 學分 31 門科目 31 Courses (Required 75 Credit)							
		DSCV0323	微積分(一) Calculus (1)	3	3	一上 First Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0353	計算機程式與應用 Computer Programming	2	2	一上 First Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0414	土木與防災工程概論 Introduction to Civil Engineering and Disaster Engineer	2	2	一上 First Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0462	工程圖學 Construction Drawing	2	2	一上 First Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0052	測量學(一) Surveying (1)	2	2	一下 First Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0324	微積分(二) Calculus (2)	3	3	一下 First Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0358	普通物理 Physic	3	3	一下 First Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0463	測量實習(一) Surveying and Practice (1)	2	2	一下 First Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0048	工程數學 Engineering Mathematics	3	3	二上 Second Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		

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系必修 Department Required		應修畢 75 學分 31 門科目 31 Courses (Required 75 Credit)							
		DSCV0152	靜力學 Statics	3	3	二上 Second Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0239	工程材料 Construction Materials	2	2	二上 Second Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0341	測量學(二) Surveying (2)	1	1	二上 Second Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0342	測量實習(二) Surveying and Practice (2)	2	2	二上 Second Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0161	土壤力學 Soil Mechanics	3	3	二下 Second Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0369	材料力學(一) Mechanics of Materials (1)	3	3	二下 Second Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0415	營建與防災管理 Disaster Prevention and Management in Construction	3	3	二下 Second Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0465	材料試驗 Material Testing for Civil Engineering	2	2	二下 Second Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0016	結構學(一) Structure (1)	3	3	三上 Third Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0019	鋼筋混凝土(一) Reinforced Concrete (1)	3	3	三上 Third Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		

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系必修 Department Required		應修畢 75 學分 31 門科目 31 Courses (Required 75 Credit)							
		DSCV0072	流體力學 Fluid Mechanics	3	3	三上 Third Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0466	土壤力學實驗 Experiments of Soil Mechanics	2	2	三上 Third Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0467	流體力學試驗 Experiments of Fluid Mechanics	2	2	三上 Third Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0017	結構學(二) Structure (2)	2	2	三下 Third Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0221	基礎工程 Foundation Engineering	2	2	三下 Third Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0479	實務專題(一) Case Study (1)	2	2	三下 Third Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0040	工程估價 Engineering Cost and Estimate	2	2	四上 Fourth Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0417	水利與颱洪防災工程 Hydraulic Engineering and Flood Mitigation	3	3	四上 Fourth Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0500	鋼結構設計(一) Design of Steel Structure (1)	3	3	四上 Fourth Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0178	工程經濟 Engineering Economics	3	3	四下 Fourth Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		

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系必修 Department Required		應修畢 75 學分 31 門科目 31 Courses (Required 75 Credit)							
		DSCV0420	大地災害防治 Disaster Mitigation in Geotechnical Engineering	2	2	四下 Fourth Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0485	地震工程與防災概論 Introduction to Earthquake Engineering and Disaster Prevention	2	2	四下 Fourth Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
院選修 College Elective		應修畢 0 學分 Elective 0 Credit							
		DSS00011	工程倫理 Engineering Ethics	2	2	三上 Third Grade Last Semester	理工學院 College of Engineering and Science		
系選修 Department Elective		應修畢 23 學分 Elective 23 Credit							
		DSCV0431	工程法律實務 Engineering Legal Practice	2	2	一下 First Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0349	工程日文 Engineering Japanese	3	3	二上 Second Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0060	營造與施工 Building Construction	3	3	三上 Third Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0176	工程地質 Engineering Geology	3	3	三上 Third Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0027	水文學 Hydrology	3	3	三下 Third Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		

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系選修 Department Elective		應修畢 23 學分 Elective 23 Credit							
		DSCV0069	預力混凝土 Prestressed Concrete	3	3	三下 Third Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0123	大地工程 Foundation Construction	3	3	三下 Third Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0163	土木施工法 Construction Method	3	3	三下 Third Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0222	政府採購法 Government Procurement	2	2	三下 Third Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0258	地理資訊系統概論 Geographic Information System	3	3	三下 Third Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0370	材料力學(二) Mechanics of Materials (2)	3	3	三下 Third Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0020	鋼筋混凝土(二) Reinforced Concrete (2)	3	3	四上 Fourth Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0063	模板工程 Formwork	3	3	四上 Fourth Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0219	工程統計 Engineering Statistic	3	3	四上 Fourth Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0326	橋樑工程 Bridge Engineering	3	3	四上 Fourth Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		

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系選修 Department Elective		應修畢 23 學分 Elective 23 Credit							
		DSCV0327	混凝土試驗 Concrete Testing	3	3	四上 Fourth Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0459	軌道工程 Track Engineering	3	3	四上 Fourth Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0468	結構力學實驗 Experiments of Structure Mechanics	2	2	四上 Fourth Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0480	實務專題(二) Case Study (2)	2	2	四上 Fourth Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0502	複合材料設計 Composite Material Design	3	3	四上 Fourth Grade Last Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0116	結構系統 Structure System	3	3	四下 Fourth Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0183	契約與規範 Contracts & Specifications	3	3	四下 Fourth Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0186	計算機在工程上之應用 Application of Computer	3	3	四下 Fourth Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0249	生態工法 Ecological Engineering	3	3	四下 Fourth Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0267	水土保持工程 Soil and Water Conservation Engineering	3	3	四下 Fourth Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		

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系選修 Department Elective		應修畢 23 學分 Elective 23 Credit							
		DSCV0328	地工結構物 Underground Structure	3	3	四下 Fourth Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0501	鋼結構設計(二) Design of Steel Structure (2)	3	3	四下 Fourth Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
		DSCV0505	鐵路車站工程設計與施工 Railway Station Engineering Design and Construction	3	3	四下 Fourth Grade Next Semester	土木與防災工程學系 Department of Civil and Disaster Prevention Engineering		
通識-博雅分類 General- Liberal Arts Category		(*應修學分數詳通識課程說明) (*Please read the general education course description)							
	核心課程 Core Curriculum	DGGC1712	倫理、哲學與宗教 Ethics, Philosophy and Religion	2	2	二上 Second Grade Last Semester	通識教育中心 Center for General Education		
	核心課程 Core Curriculum	DGGC1713	人文、藝術與美學 Humanities, Art and Aesthetics	2	2	二下 Second Grade Next Semester	通識教育中心 Center for General Education		
	核心課程 Core Curriculum	DGGC1714	媒體與資訊 Media and Information	2	2	三上 Third Grade Last Semester	通識教育中心 Center for General Education		
	核心課程 Core Curriculum	DGGC1715	社會、法律與經濟 Society, Law and Economy	2	2	三下 Third Grade Next Semester	通識教育中心 Center for General Education		
	核心課程 Core Curriculum	DGGC1711	自然科學與應用科技 Natural Science and Applied Technology	2	2	四上 Fourth Grade Last Semester	通識教育中心 Center for General Education		
	博雅選修課程 Elective Curriculum of Liberal Arts Education	DGGC1716	博雅選修課程 Elective Curriculum of Liberal Arts Education	2	2	四下 Fourth Grade Next Semester	通識教育中心 Center for General Education		

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自由選修 Free Electives		至少應修畢 0 學分 Elective 0 Credit							
		DGGP0025	全民國防教育軍事訓練(一) All-out Defense Education Military Training- International Situations	2	2	一上 First Grade Last Semester	軍訓室 Military Education Office		
		DGGP0026	全民國防教育軍事訓練(二) All-out Defense Education Military Training-National Defense Policies	2	2	一下 First Grade Next Semester	軍訓室 Military Education Office		
		DGGP0027	全民國防教育軍事訓練(三) All-out Defense Education Military Training-Civil Defense	2	2	二上 Second Grade Last Semester	軍訓室 Military Education Office		
		DGGP0028	全民國防教育軍事訓練(四) All-out Defense Education Military Training-Defense Mobilization	2	2	二下 Second Grade Next Semester	軍訓室 Military Education Office		
		DGGP0029	全民國防教育軍事訓練(五) All-out Defense Education Military Training-Defense Technology	2	2	三上 Third Grade Last Semester	軍訓室 Military Education Office		

畢業條件 Graduation Threshold						
畢業學分數 Graduation Credits	132	學分 Credits				*通識-博雅課說明： 博雅選修共修得 12 學分即可；博雅 核心課程可抵博雅選修課程。 *General Education-Liberal Arts Course Description: A total of 12 credits for liberal arts electives is enough; the liberal arts core courses can be used as the liberal arts elective courses.
校必修 University Required	16	學分 Credits		9	門科目 Subjects	
院必修 College Required	0	學分 Credits				
主系必修 Department Required	75	學分 Credits		31	門科目 Subjects	
校選修 University Elective	0	學分 Credits				
院選修 College Elective	0	學分 Credits				
主系選修 Department Elective	23	學分 Credits				
博雅核心課程 Core Curriculum of Liberal Arts Education	0	學分 Credits	*			
博雅選修課程 Elective Curriculum of Liberal Arts Education	12	學分 Credits	*			
跨院 Cross College	0	學分 Credits				
跨系 Cross Department	0	學分 Credits				
剩餘學分 Remaining Credits	6	學分 Credits				
自由選修 Free Electives	0	學分 Credits				

<p>※本系基本能力指標：</p> <ol style="list-style-type: none"> 1. 具有運用數學、科學及工程知識於土木與防災工程之能力。 2. 具有土木與防災工程量測分析與營建管理之能力。 3. 具有執行土木與防災工程相關實務之技術能力。 4. 具有溝通協調與團隊合作之能力。 5. 具有專業倫理與終身學習之能力。 	<p>※Core Competency:</p> <ol style="list-style-type: none"> 1. The ability to apply mathematics, science and engineering principles on problems in civil and disaster prevention engineering. 2. The ability of measuring, analyzing and construction management civil engineering and disaster prevention projects. 3. The technical ability to execute civil and disaster prevention engineering related practices. 4. The ability to communicate, coordinate and teamwork. 5. To understand the professional ethics and social responsibility of civil and disaster prevention engineering.
<p>※畢業條件說明：</p> <ol style="list-style-type: none"> 1. 全民國防教育軍事訓練不納入畢業學分。 2. 畢業應修習最低學分為 132 學分，其中（一）數學及基礎科學至少應修 33 學分。（二）主系工程專業課程必修及選修至少應修 65 學分。（三）通識課程依學校規定至少 28 學分。（四）另應再修 6 學分（可跨校選修部分）。 	<p>※Graduation threshold Description:</p> <ol style="list-style-type: none"> 1. National defense education and military training are not included in graduation credits. 2. The minimum credits required for graduation are 132 credits, of which (1) Mathematics and basic sciences should take at least 33 credits. (2) At least 65 credits should be taken for the compulsory and elective courses of the major engineering major. (3) General education courses must be at least 28 credits according to school regulations. (4) In addition, 6 credits should be taken (optional part of cross-school).