

<< Declaration of  
BEng major

<< Declaration of  
BBA major

School:		School of Engineering and School of Business Management			Student's Pathway												
Program:		Dual Degree Program (BEng in Civil and Environmental Engineering and BBA in Economics)															Remarks
Course Offering Dept. (course code prefix)	Course Code	Course Title / Courses List	Credits	Year 1 Fall	Year 1 Spring	Year 2 Fall	Year 2 Spring	Year 3 Fall	Year 3 Spring	Year 4 Fall	Year 4 Spring	Year 5 Fall	Year 5 Spring	Sub-total			

BEng in Civil and Environmental Engineering

Major Requirements

Engineering Fundamental Courses

COMP	1021	Note: COMP1021 OR COMP1022P OR COMP2011 OR COMP2012H Introduction to Computer Science Introduction to Computing with Java Programming with C++ Honors Object-Oriented Programming and Data Structures	3-5												3	Students should take COMP1021 which will also be used to substitute ISOM 2010 and to waive ISOM 2020
COMP	1022P		3		3											
COMP	2011		4													
COMP	2012H		5													
CHEM	1012	General Chemistry B: Atomic Structure, Molecules, and Bonding Theories	3	3											3	
LANG	2030	Technical Communication I	3		-	-	-	-	-	-	-	-	-	-	0	Waived for DDP students
	□	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR (MATH 1020) Calculus IA Calculus IB Calculus II Accelerated Calculus Honors Calculus I Honors Calculus II	4-7													
MATH	1012		4													
MATH	1013		3	3	3											6
MATH	1014		3													
MATH	1020		4													
MATH	1023		3													
MATH	1024	3														
MATH	2011	Introduction to Multivariable Calculus	3			3									3	
MATH	2350	Applied Linear Algebra and Differential Equations	3			3									3	
PHYS	1112	Note: PHYS 1112 OR PHYS 1312 □ General Physics I with Calculus □ Honors General Physics I	3	3											3	
PHYS	1312		3													
Required credits for Engineering Fundamental Courses			22-27												21	

Major Required Courses and Electives

CIVL	1010	Academic Professional Development I	0			0	0								0	
CIVL	1100	Discovering Civil and Environmental Engineering	3			3									3	
CIVL	2010	Academic Professional Development II	0					0	0						0	
CIVL	2020	Industrial and BIM Training	0			0*	0								0	
CIVL	2110	Statics	3			3									3	
CIVL	2120	Mechanics of Materials	3				3								3	
CIVL	2160	Modeling Systems with Uncertainties	3			3									3	
CIVL	2170	Infrastructure Systems Engineering and Management	3				3								3	
CIVL	2410	Environmental Assessment and Management	3				3								3	
CIVL	2510	Fluid Mechanics	3				3								3	
CIVL	2810	Construction Materials	3					3							3	
CIVL	3010	Academic Professional Development III	0							0					0	
CIVL	3020	Internship Training	0								0^				0	
CIVL	3210	Note: CIVL3210 OR CIVL3610 Introduction to Construction Management Traffic and Transportation Engineering	3						3						3	
CIVL	3610		3												3	
CIVL	3310	Structural Analysis	3					3							3	
CIVL	3320	Reinforced Concrete Design	3						3						3	
CIVL	3420	Water and Wastewater Engineering	3						3						3	
CIVL	3510	Hydrosystems Engineering	3					3							3	
CIVL	3730	Fundamentals of Geotechnics	3							3					3	
CIVL	3740	Geotechnical Analysis and Design	3								3				3	
CIVL	4910	Note: CIVL 4910 OR CIVL 4920 (Students taking the Research Option must take CIVL 4920) Civil and Environmental Engineering Final Year Project Civil and Environmental Engineering Final Year Thesis Civil Engineering Capstone Design Project	6									3	3		6	
CIVL	4920		6												6	
CIVL	4950		3									3			3	
ENGG	2010	Engineering Seminar Series	0			0	0	0	0						0	
LANG	4033	Technical Communication II for Civil and Environmental Engineering	3									3			3	
CIVL	4450	Note: CIVL4450 OR CIVL 5450 OR CIVL5460 Carbon Footprint Analysis and Reduction Hazardous Waste Treatment and Site Remediation Landfill Engineering and Design	3								3				3	
CIVL	5450		3												3	
CIVL	5460		3												3	
CIVL/SENG		CIVL (Environmental) Electives [2 courses from the specified elective list. At least 1 course (3 credits) should be selected from the "Restricted Electives"]  Restricted electives: at least 1 course AND (CIVL: Any CIVL courses at 4000-level or above except those listed as "Restricted Electives" from the list OR SENG: Any 3000-level or above courses offered by the Engineering School or engineering departments other than CIVL)	6									3	3		6	
Required credits for Major Requirements Courses and Electives			66											66		

BBA in Economics

School Requirements

ACCT	2010	Principles of Accounting I	3	3										3	
ACCT	2200	Principles of Accounting II	3					3						3	
ECON	2103	Note: ECON 2103 OR ECON 2113	3			3								3	ECON 2103 / 2113 / 2123 is a major pre-requisite
ECON	2113	Principles of Microeconomics	3												
ECON	2123	Note: ECON 2123 OR ECON 3123	3					3						3	
ECON	3123	Macroeconomics	3												
FINA	2303	Macroeconomic Theory I	3			3								3	
ISOM	2010	Financial Management	3											3	
ISOM	2010	Introduction to Information Systems	3	-	-	-	-	-	-	-	-	-	-	0	Substituted by COMP 1021/1022P/2011/2012H
ISOM	2020	Coding for Business	1	---	---	---	---	---	---	---	---	---	---	0	Waived for DDP students if they have taken and passed COMP1021 or COMP 1029P
ISOM	2500	Business Statistics	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by CIVL 2160
ISOM	2600	Introduction to Business Analytics	1				1							1	
ISOM	2700	Operations Management	3						3					3	
MARK	2120	Marketing Management	3				3							3	
MGMT	2010	Business Ethics and the Individual	2			2								2	
MGMT	2110	Organizational Behavior	3							3				3	
MGMT	2130	Business Ethics and Social Responsibility	2								2			2	
LABU	2040	Business Case Analyses	3	-	-	-	-	-	-	-	-	-	-	0	Waived for DDP students
ECON	3700	Writing as an Economist	3								3			3	
MATH	1003	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023	3-4												DDP students should take MATH 1012 or MATH 1013 or MATH 1020 or MATH 1023 to satisfy the requirements of both BEng and BBA degrees
MATH	1012	Calculus and Linear Algebra	3												
MATH	1013	Calculus IA	4	(3)											
MATH	1020	Calculus IB	3												
MATH	1023	Accelerated Calculus	4												
		Honors Calculus I	3												
Required credits for School Requirements			43-44											32	

Major Requirements

Major Required Courses and Electives

ECON	3014	Managerial Microeconomics	4					4							4	
ECON	3024	Managerial Macroeconomics	4						4						4	
ECON	3334	Introduction to Econometrics	4							4					4	
ECON		ECON 4000-level Electives (Any 3 courses of the subject and level as specified)	11								4	4	3		11	
Required credits for Major Required Courses and Electives			23											23		

Additional Requirements

Requirements for Dual Degree Program

Required Courses

TEMG	1010	T&M Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0	0	
TEMG	3950	T&M Case Analysis and Product Innovation	3		3										3	
TEMG	4950	T&M Corporate Consulting Project	3-5					4							4	
Required credits for Additional Requirements			7												7	

University CORE

CORE	C3 - C9	U CORE - Others	21		3					9	3		6		21	
CORE	C1 & C2	U CORE - English Language	6	3	3										6	
CORE	1905	Behavioral Foundations of University Education: Habits, Mindsets, and Wellness	3	0	3										3	
Sub-total for University CORE			30												30	

Term load (excl. free credits)

15	18	20	19	20	19	19	18	16	15
179##									

Notes:

( ) indicates the reuse of the same course to fulfill more than one requirement.

\* Courses offered in winter term

^ Courses offered in summer term

--- denotes the course/requirement is either waived or substituted

## To graduate, students should complete all requirements as specified for DDP.

\*\*Remarks on course(s):

>> The content of this example is not necessarily equivalent to a complete list of graduation requirements of the program. Students should refer to the Program Catalog/UG Curriculum Handbook for updated graduation requirements. For up-to-date information on course offering and scheduling, students should check it out from respective School and Department.