

<< Declaration of
 BEng major << Declaration of
 BBA major

School:		School of Engineering and School of Business Management			Student's Pathway													Remarks
Program:		Dual Degree Program (BEng in Civil and Environmental Engineering and BBA in Economics)			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			
Course Offering Dept. (course code prefix)	Course Code	Course Title / Courses List	Credits															
BEng in Civil and Environmental Engineering																		
Major Requirements																		
Engineering Fundamental Courses																		
COMP	1021	Note: COMP1021 OR COMP1022P OR COMP2011 OR COMP2012H	3-5															
COMP	1022P	Introduction to Computer Science	3															
COMP	2011	Introduction to Computing with Java	3		3													
COMP	2012H	Programming with C++	4															
COMP	2012H	Honors Object-Oriented Programming and Data Structures	5															
CHEM	1020	General Chemistry I	3															
LANG	2030	Technical Communication I	3	-	-	-	-	-	-	-	-	-	-	-	-	0		
Note: (MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024) OR (MATH 1020)																		
MATH	1012	Calculus IA	4															
MATH	1013	Calculus IB	3	3	3											6		
MATH	1014	Calculus II	3															
MATH	1020	Accelerated Calculus	4															
MATH	1023	Honors Calculus I	3															
MATH	1024	Honors Calculus II	3															
MATH	2011	Introduction to Multivariable Calculus	3													3		
MATH	2350	Applied Linear Algebra and Differential Equations	3													3		
PHYS	1112	Note: PHYS 1112 OR PHYS 1312	3	3												3		
PHYS	1312	General Physics I with Calculus	3													3		
Required credits for Engineering Fundamental Courses																		
22-27																		
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					0		
CIVL	3020	Internship Training	0								0*					0		
CIVL	3210	Note: CIVL3210 OR CIVL3610	3															
CIVL	3610	Introduction to Construction Management	3							3						3		
CIVL	3310	Traffic and Transportation Engineering	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		
Note: CIVL 4910 OR CIVL 4920 (Students taking the Research Option must take CIVL 4920)																		
CIVL	4910	Civil and Environmental Engineering Final Year Project	6										3	3		6		
CIVL	4920	Civil and Environmental Engineering Final Year Thesis	6													6		
CIVL	4950	Civil Engineering Capstone Design Project	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		
Note: CIVL4450 OR CIVL 5450 OR CIVL5460																		
CIVL	4450	Carbon Footprint Analysis and Reduction	3										3			3		
CIVL	5450	Hazardous Waste Treatment and Site Remediation	3													3		
CIVL	5460	Landfill Engineering and Design	3													3		
CIVL (Environmental) Electives [2 courses from the specified elective list. At least 1 course (3 credits) should be selected from the "Restricted Electives"]																		
CIVL/SENG		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																		
BBA in Economics																		
School Requirements																		
ACCT	2010	Principles of Accounting I	3	3												3		
ACCT	2200	Principles of Accounting II	3							3						3		
Note: ECON 2103 OR ECON 2113																		
ECON	2103	Principles of Microeconomics	3				3									3		
ECON	2113	Microeconomics	3													3		
Note: ECON 2123 OR ECON 3123																		
ECON	2123	Macroeconomics	3						3							3		
ECON	3123	Macroeconomic Theory I	3													3		
FINA	2303	Financial Management	3													3		
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	---	---	0		
ISOM	2020	Coding for Business	1	---	---	---	---	---	---	---	---	---	---	---	---	0		
ISOM	2500	Business Statistics	3	---	---	---	---	---	---	---	---	---	---	---	---	0		
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		
ECON	3700	Writing as an Economist	3								3					3		
LANG	2062	Professional Speaking for the Workplace	3	-	-	-	-	-	-	-	-	-	-	-	-	0		
Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023																		
MATH	1003	Calculus and Linear Algebra	3-4															
MATH	1012	Calculus IA	4															
MATH	1013	Calculus IB	3															
MATH	1020	Accelerated Calculus	4															
MATH	1023	Honors Calculus I	3															
Required credits for School Requirements																		
43-44																		
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																		
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	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																		
University CORE																		
CORE	C3 - C9	U CORE - Others	21		3						6	6		6		21		
CORE	C1 & C2	U CORE - English Language	6		3											6		
HMAW	1905	Behavioral Foundations of University Education: Habits, Mindsets, and Wellness	3	1	2											3		
Sub-total for University CORE																		
30																		
Term load (excl. free credits)																		
16 20 18 18 20 19 16 18 17 17																		
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.