

School:			School of Engineering and School of Business Management		<< Declaration of BEng major												<< Declaration of BBA major												Student's Pathway											
Program:			Dual Degree Program (BEng in Civil 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 Engineering																																								
Engineering Fundamental Courses																																								
CIVL COMP COMP COMP COMP	1121 1022P 1023 2011 2012H	Note: CIVL 1121 OR COMP 1022P OR COMP 1023 OR COMP2011 OR COMP 2012H Introduction to Computation for Civil Engineers Introduction to Computing with Java Introduction to Python Programming Programming with C++ Honors Object-Oriented Programming and Data Structures	3-5 3 3 3 4 5			3									3	Students should take COMP 1022P, COMP 1023, COMP 2011 or COMP 2012H which will also be used to substitute ISOM 2010 and to waive ISOM 2020																								
CHEM	1012	General Chemistry B: Atomic Structure, Molecules, and Bonding Theories	3	3											3																									
MATH MATH MATH MATH MATH	1013 1014 1020 1023 1024	Note: [(MATH 1013 OR MATH1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020] Calculus IB Calculus II Accelerated Calculus Honors Calculus I Honors Calculus II	4-6 3 3 4 3 3		3	3									6	DDP students should take MATH 1013 or MATH 1020 or MATH 1023 to satisfy the requirements of both BEng and BBA degrees																								
MATH	2011	Introduction to Multivariable Calculus	3				3								3																									
MATH	2350	Applied Linear Algebra and Differential Equations	3				3								3																									
PHYS PHYS	1112 1312	Note: PHYS 1112 OR PHYS 1312 General Physics I with Calculus Honors General Physics I	3 3	3											3																									
Required credits for Engineering Fundamental Courses			19-23	9	6	6	0	0	0	0	0	0	0	0	21																									
Major Required Courses and Electives																																								
CIVL	1000	Academic and Professional Development for Civil and Environmental Engineering I	0	0	0										0	Students admitted via school-based admission are exempted from taking CIVL1000																								
CIVL	1100	Discovering Civil and Environmental Engineering	3		3										3																									
CIVL	2000	Academic and Professional Development for Civil and Environmental Engineering II	0			0	0								0																									
CIVL	2020	Industrial and BIM Training	0				0*								0	Student should attend the training modules in Year 2 Winter and Spring terms																								
CIVL	2110	Statics	3			3									3																									
CIVL	2120	Mechanics of Materials	3				3								3																									
CIVL	2160	Modeling Systems with Uncertainties	3			3									3	This course will also be used to substitute ISOM 2500																								
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	3000	Academic and Professional Development for Civil and Environmental Engineering III	0					0	0						0																									
CIVL	3020	Internship Training	0						0*						0																									
CIVL	3210	Introduction to Construction Management	3						3						3																									
CIVL	3310	Structural Analysis	3					3							3																									
CIVL	3320	Reinforced Concrete Design	3						3						3																									
CIVL	3510	Hydrosystems Engineering	3					3							3																									
CIVL	3610	Traffic and Transportation Engineering	3						3						3																									
CIVL	3730	Fundamentals of Geotechnics	3					3							3																									
CIVL	3740	Geotechnical Analysis and Design	3						3						3																									
CIVL	4000	Academic and Professional Development for Civil and Environmental Engineering IV	0							0	0				0																									
CIVL CIVL CIVL	4910 4920 4950	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 6 3									2	4	6																										
CIVL/SENG		CIVL Electives (3 courses from the specified elective list)	9							3	3	3			9																									
BEng in Civil Engineering Major Requirements			63	0	3	6	12	12	12	6	3	5	4	63																										
BBA in Economics																																								
School Requirements																																								
ACCT	2010	Principles of Accounting I	3		3										3																									
ACCT	2200	Principles of Accounting II	3					3							3																									
ECON ECON	2103 2113	Note: ECON 2103 OR ECON 2113 Principles of Microeconomics Microeconomics	3 3			3									3	ECON 2103 / 2113 / 2123 is a major pre-requisite																								
ECON ECON	2123 3123	Note: ECON 2123 OR ECON 3123 Macroeconomics Macroeconomic Theory I	3 3 3							3					3																									
FINA	2303	Financial Management	3				3								3																									
ISOM	2010	Introduction to Information Systems	3	-	-	-	-	-	-	-	-	-	-	0		COMP 1023, COMP 1022P, COMP 2011 and COMP 2012H are more advanced computing courses as compared to ISOM 2010. Students SHOULD take COMP1023 or COMP2011 or COMP2012H instead of ISOM 2010.																								
ISOM	2020	Coding for Business	1	-	-	-	-	-	-	-	-	-	-	0		ISOM 2020 is waived for DDP students who have taken and passed COMP 1023 or COMP 1029P or COMP2011 or COMP2012H. These two COMP courses are similar or more advanced coding (Python) courses as ISOM 2020.																								
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																									
MATH MATH MATH MATH	1003 1013 1020 1023	Note: MATH 1003 OR MATH 1013 OR MATH 1020 OR MATH 1023 Calculus and Linear Algebra Calculus IB Accelerated Calculus Honors Calculus I	3-4 3 3 4 3	(3)										0		DDP students should take MATH 1013 or MATH 1020 or MATH 1023 to satisfy the requirements of both BEng and BBA degrees																								
Required credits for School Requirements			39-40	3	3	3	6	3	0	4	2	3	2	29																										
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	0	0	0	0	4	4	4	4	4	3	23																										
Additional Requirement for Dual Degree																																								
Requirements for Dual Degree Program																																								
TEMG	1011	T&M Professional Activities I	0	0	0										0	To graduate, students should complete ALL requirements as specified for DDP.																								
TEMG	1012	T&M Professional Activities II	0			0	0								0																									
TEMG	1013	T&M Professional Activities III	0					0	0						0																									
TEMG	1014	T&M Professional Activities IV	0							0	0				0																									
TEMG	1015	T&M Professional Activities V	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	0	3	0	0	0	0	4	0	0	0	7																										
University Common Core Requirement																																								
CORE	C3 - C9	U CORE - Others	21			3					6	6	6	21																										
CORE	C1 & C2	U CORE - English Language	6	3	3									6																										
HMAW	1905	Behavioral Foundations of University Education: Habits, Mindsets, and Wellness	3	1	2										3																									
Sub-total for University CORE			30	4	5	3	0	0	0	0	6	6	6	30																										
Term load (excl. free credits)														173																										
16				20		18		18		19		16					18		15																					
173##																																								