

<< Declaration of major

School:		School of Engineering and School of Business Management		Student's Pathways (i.e. Study Pattern)																Remarks
Department:		Dual Degree Program (BEng in Civil Engineering and BBA in General Business Management)		Pathway 1																
Program:				Background: HDRSE 4 Core + 2 Elec (incl. 12x PHYS)																
Course Offering Dept (course code prefix)		Course Code / Courses List		Profile: Normative Students to graduate in (BEng & BBA) CIGBM																
				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	Year 6 Fall	Year 6 Spring	Year 7 Fall	Year 7 Spring			
BEng in Civil Engineering																				
Major Requirements																				
Engineering Fundamental Courses																				
COMP	1021	New: COMP 1021 OR COMP 1022P OR COMP 1022G OR COMP 2011		3																
COMP	1022P	Introduction to Computing with Java		3																
COMP	1022G	Introduction to Computing with Equal VBA		3																
COMP	2011	Introduction to Object-oriented Programming		3																
ENGS	1010	Academic Orientation		0	0	0														
CHEM	1010	New: CHEM 1010 OR CHEM 1020		2.5																
CHEM	1020	General Chemistry IA		3																
CHEM	1020	General Chemistry IB		2																
LANG	2030	Technical Communication I		3																
MATH	1012	New: (MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024) OR (MATH 1023)		4.4																
MATH	1012	Calculus IA		4																
MATH	1013	Calculus IB		3																
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																
MATH	2111	New: MATH2111 OR MATH2250		3																
MATH	2111	Matrix Algebra and Applications		3																
MATH	2100	Boundary Value Analysis and Differential Equations		3																
PHYS	1112	New: PHYS 1112 OR PHYS 1312		3																
PHYS	1312	General Physics I with Calculus		3																
PHYS	1312	Honors General Physics I		3																
Required credits for Engineering Fundamental Courses				21.05																
Major Required Courses and Electives																				
CIVL	1100	Discovering Civil and Environmental Engineering		3																
CIVL	2020	Industrial Training		0																
CIVL	2110	Statics		3																
CIVL	2120	Mechanics of Materials		3																
CIVL	1010	Academic Professional Development I		0																
CIVL	2010	Academic Professional Development II		0																
CIVL	2010	Academic Professional Development III		0																
CIVL	2160	Modeling Systems with Uncertainties		3																
CIVL	2170	Infrastructure Systems Engineering and Management		3																
CIVL	2410	Environmental Assessment and Management		3																
CIVL	2510	Fluid Mechanics		3																
CIVL	2810	Construction Materials		3																
CIVL	3020	Internship Training		0																
CIVL	3210	Introduction to Construction Management		3																
CIVL	3310	Structural Analysis		3																
CIVL	3320	Reinforced Concrete Design		3																
CIVL	3510	Hydrodynamic Engineering		3																
CIVL	3510	Traffic and Transportation Engineering		3																
CIVL	3720	Fundamentals of Geotechnics		3																
CIVL	3740**	Geotechnical Analysis and Design		3																
PHYS	4010**	New: PHYS 4010** OR 4020** (Students taking the Honors)		3																
CIVL	4010**	Option must take CIVL 4020		6																
CIVL	4020**	Civil and Environmental Engineering Final Year Project		6																
CIVL	4900**	Civil and Environmental Engineering Final Year Thesis		6																
CIVL	4900**	Civil Engineering Capstone Design Project		3																
ENGS	2010	Engineering Seminar Series		3																
LANG	4030	Technical Communication II for Civil and Environmental Engineering		3																
CIVL/ENGS		CIVL Electives (3 courses from the specified elective list) CIVL: Any CIVL courses at 4000-level or above except CIVL 4230 and CIVL 4510 SENG: Any 3000-level or above courses offered by the Engineering School or engineering departments other than CIVL		9																
Required credits for Major Requirements Courses and Electives				66																
BBA in General Business Management																				
School Requirements																				
ACCT	2010	Principles of Accounting I		3																
ACCT	2020	Principles of Accounting II		3																
ECON	2103	New: ECON 2103 OR ECON 2113		3																
ECON	2103	Principles of Microeconomics		3																
ECON	2113	Microeconomics		3																
ECON	3123	New: ECON 3123 OR ECON 3123 (Students who wish to pursue BSc EcoF must take ECON 3123)		3																
ECON	3123	Macroeconomics		3																
ECON	3123	Macroeconomic Theory I		3																
FINA	2060	Financial Management		3																
ISOM	2010	Introduction to Information Systems		3																
ISOM	2500	Business Statistics		3																
ISOM	2100	Operations Management		3																
ISOM	2120	Marketing Management		3																
MGMT	2110	Organizational Behavior		3																
MGMT	2130	Business Ethics and Social Responsibility		2																
SBMT	1111	Business Student Induction		0																
SBMT	2010	Business Ethics and the Individual		2																
LABU	2020**	Effective Communication in Business		2																
LABU	2050	New: LABU 2050 OR (LABU 2051 AND LABU 2052) (Students who wish to pursue BBA/BE/BS must take LABU 2050 with others)		3.4																
LABU	2051	Business Case Analysis I		3																
LABU	2052	Business Case Analysis II		2																
MATH	1023	New: (MATH 1023 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023)		3.4																
MATH	1023	Calculus and Linear Algebra		3																
MATH	1012	Calculus IA		4																
MATH	1013	Calculus IB		4																
MATH	1020	Accelerated Calculus		4																
MATH	1023	Honors Calculus I		3																
Required credits for School Requirements				42.44																
Major Requirements																				
Major Required Courses and Electives																				
SBMT		SBMT Electives (10x courses offered by the departments under SBMT, of which at least 4 courses are at 2000-level or above.)		29																
Required credits for Major Required Courses and Electives				29																
Additional Requirements																				
Requirements for Dual Degree Program																				
Required Courses																				
TEMS	1010	Technology and Management Professional Activities		0																
Required credits for Additional Requirements				0																
University CORE																				
CORE	C2, C12	U CORE - Others		30	6	6														
CORE	C1 & C2	U CORE - English Language		6	3	3														
Sub-total for University CORE				36																
				Term load (incl. free credits)																
				18 18 20 20 20 18 17 20 18 20																
				18 18 20 20 20 18 17 20 18 20																

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.

*Replaces an (course):
- CIVL 1010: This is a new course subject to approval, (effective from 2016/17 and applicable to students admitted in and after 2015/16)
- CIVL 2010: This is a new course subject to approval, (effective from 2016/17 and applicable to students admitted in and after 2014/15)
- CIVL 3010: This is a new course subject to approval, (effective from 2016/17 and applicable to students admitted in and after 2013/14)
- CIVL 4500: The course title will be changed to "Civil Engineering Capstone Design Project" (effective from Fall 2015-16)
- CIVL 4560: The credit value will be changed to 3 (effective from Fall 2015-16)
- LABU 2051/2052/2020: LABU2051, 2052, 2020 will be deleted soon, replacements are LABU2040, 2040. (Detailed timeline to be announced)
- LABU 2040: This is a new course subject to approval, to replace LABU2051 + LABU2052, (effective from 2016/17 and applicable to students admitted in and after 2016/17)
- LABU 2060: This is a new course subject to approval, to replace LABU2050, (effective from 2016/17 and applicable to students admitted in and after 2016/17)
-> 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 Catalogue/UG Curriculum Handbook for updated graduation requirements. For up-to-date information on course offering and substitution, students should check it out from respective School and Department.

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