

<< 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 Chemical and Biomolecular Engineering and BBA in General Business Management)			Pathway 1											
Program:					Background: HKDSE 4 Core + 2 Elec (incl. 1/2x PHYS) Profile: Normative. Students to graduate in (BEng & BBA) CBGBM Note: w.r.t. CBME pathway for students who decide to choose CBME early on and have CENG 1000 and CHEM 1010/1020 in Year 1											
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-term		
<b>BEng in Chemical and Biomolecular Engineering</b>																
<b>Major Requirements</b>																
<b>Engineering Fundamental Courses</b>																
COMP	1021	Note: COMP 1021 OR COMP 1022P OR COMP 1022Q OR COMP 2011	3-4													
COMP	1022P	Introduction to Computer Science	3													
COMP	1022Q	Introduction to Computing with Java	3													
COMP	2011	Introduction to Computing with Excel VBA Programming with C++	4													
ENGG	1010	Academic Orientation	0	0	0											
CHEM	1010	Note: CHEM 1010 OR CHEM 1020	3													
CHEM	1020	General Chemistry IA	3													
LANG	2030	Technical Communication I	3													
MATH	1012	Note: (MATH 1012 OR MATH 1013 OR MATH 1020) AND (MATH 1013 OR MATH 1024) OR (MATH 1020)	4													
MATH	1013	Calculus IA	4													
MATH	1014	Calculus IB	3													
MATH	1020	Calculus II	3													
MATH	1023	Accelerated Calculus	4													
MATH	1024	Honors Calculus I	3													
MATH	2011	Introduction to Multivariable Calculus	3													
MATH/CENG	2350	Note: MATH2350 OR CENG2310	3													
MATH	2310	Applied Linear Algebra and Differential Equations	3													
CENG	2310	Mathematical Modeling for Chemical and Biological Engineering	3													
PHYS	1112	Note: PHYS1112 OR PHYS1312	3													
PHYS	1312	General Physics I with Calculus	3													
PHYS	1312	Honors General Physics I	3													
SENG		Engineering Introduction course (if the students take an introduction course included in their major, this course can be counted towards their major requirement.)	3-4													
<b>Required credits for Engineering Fundamental Courses</b>			24-30													
<b>Major Required Courses and Electives</b>																
CENG/BIEN	1000	Note: CENG1000 OR BIEN1010	3													
CENG	1010	Introduction to Chemical and Biological Engineering	3													
BIEN	1010	Introduction to Biomedical Engineering	3													
CENG	1600	Academic and Professional Development I	0													
CENG	1600	Biotechnology and its Business Opportunities	3													
CENG	1980	Industrial Training	0													
CENG	2110	Process Principles	3													
CENG	2210	Chemical and Biological Engineering Thermodynamics	3													
CENG	2220	Process Fluid Mechanics	3													
CENG	3120	Process Design and Integration	3													
CENG	3210	Separation Processes	3													
CENG	3220	Heat and Mass Transfer	3													
CENG	3230	Chemical and Biological Reaction Engineering	3													
CENG	4120	Process Dynamics and Control	3													
CENG	4130	Plant Design and Economics	3													
CENG	4620	Bioproducts and Processing	3													
CENG	4640	Biomolecular Engineering	3													
CENG	4920	Note: CENG4920 OR CENG4930 OR CENG4940	6													
CENG	4930	Chemical Engineering Capstone Design	6													
CENG	4940	Chemical Engineering Thesis Research	6													
CENG	4940	Chemical Engineering Industrial Project	6													
BIEN	2010	Bioengineering Laboratory	4													
ENGG	2010	Engineering Seminar Series	0													
CHEM	1050	Laboratory for General Chemistry I	1													
CHEM	2111	Fundamentals of Organic Chemistry	3													
CHEM	2155	Note: CHEM 2155 OR CHEM 2355	1													
CHEM	2355	Fundamental Organic Chemistry Laboratory	1													
CHEM	2311	Fundamental Analytical Chemistry Laboratory	1													
CHEM	2311	Analytical Chemistry	3													
LANG	4035*	Technical Communication II for Chemical and Biological Engineering	3													
BIEN	2610	Note: BIEN2610 OR BIEN2620 OR BIEN2630 OR BIEN2640	3													
LIFS	1901	Chemical Biology for Engineers	3													
LIFS	1902	General Biology I	3													
LIFS	2040	General Biology II	3													
LIFS	2210	Cell Biology	3													
LIFS	2210	Biochemistry I	3													
CENG		CBME Depth Elective (1 course from the specified elective list)	3													
<b>Required credits for Major Requirements Courses and Electives</b>			66													
<b>BBA in General Business Management</b>																
<b>School Requirements</b>																
ACCT	2010	Principles of Accounting I	3													
ACCT	2200	Principles of Accounting II	3													
ECON	2103	Note: ECON 2103 OR ECON 2113	3													
ECON	2113	Principles of Microeconomics	3													
ECON	2113	Microeconomics	3													
ECON	3123	Note: ECON 2123 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	2303	Financial Management	3													
ISOM	2010	Introduction to Information Systems	3													
ISOM	2500	Business Statistics	3													
ISOM	2700	Operations Management	3													
MARK	2120	Marketing Management	3													
MGMT	2010	Business Ethics and Social Responsibility	2													
MGMT	2110	Organizational Behavior	2													
MGMT	2130	Business Ethics and Social Responsibility	2													
SBMT	1111	Business Student Induction	0													
LABU	2040	Business Case Analyses	3													
LABU	2060	Effective Communication in Business	3													
MATH		Note: MATH1003 OR MATH1012 OR MATH1013 OR MATH1020 OR MATH1023	3-4													
MATH	1003	Calculus and Linear Algebra	3													
MATH	1012	Calculus IA	4													
MATH	1013	Calculus IB	3													
MATH	1020	Accelerated Calculus	4													
MATH	1023	Honors Calculus I	3													
<b>Required credits for School Requirements</b>			43-44													
<b>Major Requirements</b>																
<b>Major Required Courses and Electives</b>																
SB&M		SB&M Electives (Any 9 courses offered by the departments under SB&M, of which at least 4 courses are of 3000 level or above.)	29													
<b>Required credits for Major Required Courses and Electives</b>			29													
<b>Additional Requirements</b>																
<b>Requirements for Dual Degree Program</b>																
<b>Required Courses</b>																
TEMG	1010	Technology and Management Professional Activities	0													
<b>Required credits for Additional Requirements</b>			0													
<b>University CORE</b>																
CORE	C3 - C12	U CORE - Others	30													
CORE	C1 & C2	U CORE - English Language	6													
<b>Sub-total for University CORE</b>			36													
Term load (excl. free credits)																
19 18 20 21 21 19 18 18 19 19																
192##																
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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):  
 - LANG 4035: This is a new course to take effect in Fall, 2019-20  
 >> 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.