

School:			School of Engineering and School of Business Management			Student's Pathway												Remarks	
Program:			Dual Degree Program (BEng in Chemical Engineering and BBA in Global Business)																
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	Summer					
BEng in Chemical Engineering																			
Engineering Fundamental Courses																			
COMP	1022P	Note: COMP 1022P OR COMP 1023 OR COMP 2011 OR COMP 2012H	3-5											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				
COMP	1023	Introduction to Computing with Java	3		3														
COMP	2011	Introduction to Python Programming	3																
COMP	2012H	Programming with C++	4																
CHEM	1012	General Chemistry B: Atomic Structure, Molecules, and Bonding Theories	3	3										3					
Note: MATH 1013 OR MATH 1020 OR MATH 1023			3-4											3	DDP students should take MATH 1013 or MATH 1020 or MATH 1023 to satisfy the requirements of both BEng and BBA degrees				
MATH	1013	Calculus I	4	3															
MATH	1020	Accelerated Calculus	3																
MATH	1023	Honors Calculus I	4																
Note: PHYS 1112 OR PHYS 1312			3											3					
PHYS	1112	General Physics I with Calculus	3		3														
PHYS	1312	Honors General Physics I	3																
Required Credits for Engineering Fundamental Courses				13-19	6	6	0	0	0	0	0	0	0			12			
Major Required Courses and Electives																			
CENG	1000	Foundations of Chemical and Biological Engineering	3	3										3	NOTE: Those entering the department in Year 2 will take this course in Year 2 Fall.				
CENG	1010	Academic and Professional Development I	0	0										0					
CENG	1110	Introduction to Chemical Engineering	3		3									3	NOTE: Those entering the department in Year 2 will take this course in Year 2 Fall.				
CENG	1900	A First Course on Materials Science and Applications	3			3								3					
CENG	2210	Chemical and Biological Engineering Thermodynamics	3				3							3					
CENG	2220	Transport Phenomena I	3					3						3					
CENG	2310	Modeling for Chemical and Biological Engineering	3			3								3					
CENG	2320	Modeling for Chemical and Biological Engineering II	3			3								3					
CENG	3110	Process Dynamics and Control	3					3						3					
CENG	3150	Integrated Chemical Process & Product Design	5						5					5					
CENG	3210	Separation Processes	3					3						3					
CENG	3220	Transport Phenomena II	3					3						3					
CENG	3230	Chemical and Biological Reaction Engineering	3					3						3					
CENG	3300	Design Science for Molecular Engineering	3						3					3					
CENG	3950	Chemical and Environment Engineering Laboratory	4						4					4					
CENG	4900	Academic and Professional Development II	0						0					0					
Note: CENG 4920 OR CENG 4930 OR CENG 4940 (Students taking the Research Option must take CENG 4930)			6										3	3	6				
CENG	4920	Chemical Engineering Capstone Design	6																
CENG	4930	Chemical Engineering Thesis Research	6																
CENG	4940	Chemical Engineering Industrial Project	6																
Note: BIEN2410 OR BIEN2610 OR LFS1901			3											3					
BIEN	2410	Cellular and Systems Physiology for Engineers	3			3													
BIEN	2610	Chemical Biology for Engineers	3																
LFS	1901	General Biology I	3																
CHEM	1002	Laboratory for General Chemistry B	1		1									1					
CHEM	2111	Fundamentals of Organic Chemistry	3			3								3	CHEM 2111 offered in Fall				
CHEM	2105	Fundamental Organic Chemistry Laboratory	1			1								1					
CENG/BIEN/COMP/BIEN/CHEM		CENG Elective (Courses from the specified list)	12							3	3	3	3	12					
BEng in Chemical Engineering Major Requirements				71	3	4	13	6	12	15	3	3	6	6	71				
BBA in Global Business																			
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			3											3					
ECON	2103	Principles of Microeconomics	3			3													
ECON	2113	Microeconomics	3																
Note: ECON 2123 OR ECON 3123			3																
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	-	-	-	-	-	-	-	-	-	-			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	-	-	-	-	-	-	-	-	-	-			ISOM 2020 is waived for DDP students who have taken and passed COMP 1023 or COMP 1022P or COMP2011 or COMP2012H. These two COMP courses are similar or more advanced coding (Python) courses as ISOM 2020.			
ISOM	2500	Business Statistics	3	3		-	-	-	-	-	-	-	-	3					
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					
Note: MATH 1003 OR MATH 1013 OR MATH 1020 OR MATH 1023			3-4											0	DDP students should take MATH 1013 and MATH 1023 or MATH 1020 to satisfy the requirements of both BEng and BBA degrees				
MATH	1003	Calculus and Linear Algebra	3																
MATH	1013	Calculus I	3																
MATH	1020	Accelerated Calculus	4																
MATH	1023	Honors Calculus I	3											32					
Required Credits for School Requirements				39-40	3	0	6	6	4	0	3	3	5			2			
Major Required Courses and Electives																			
GBUS	1000	Global Leadership Development	0					0	0	0	0	0	0	0					
GBUS	2010	Global Business Analysis	3						3					3					
Note: GBUS 2040 OR SBMT 2100-2110			1-4							1	[1]			1					
GBUS/SBMT	2040	Environmental, Social, and Governance (ESG) Corporate Project	1											3					
SBMT	2100-2110	Community Services Project	4																
Note: GBUS 3030 OR ISOM 4780			3-4																
GBUS/ISOM	3030	Global Business Case Studies	4							3	[2]								
GBUS	4780	Integrated Planning and Execution	3											3					
GBUS	4910	Capstone Project	4									4	[4]	4					
Global Business Electives (Courses from the specified elective list, of which at least 6 credits from each area and at least 2 courses must be offered by GBUS. Courses taken to fulfill requirements of an additional major in SBM may not be counted towards this elective requirement.)			15									6	3	6	15				
Required Credits for Major Required Courses and Electives				26-30	0	0	0	0	0	4	3	5	7	6	26				
Additional Requirement for Dual Degree																			
Requirements for Dual Degree Program																			
TEMG	1011	TAM Professional Activities I	0	0	0									0	To graduate, students should complete ALL requirements as specified for DDP.				
TEMG	1012	TAM Professional Activities II	0			0	0							0					
TEMG	1013	TAM Professional Activities III	0					0	0					0					
TEMG	1014	TAM Professional Activities IV	0							0	0			0					
TEMG	1015	TAM Professional Activities V	0									0	0	0					
TEMG	3050	TAM Case Analysis and Product Innovation	3		3									3					
TEMG	4950	TAM Corporate Consulting Project	3-6				4							4					
Required Credits for Additional Requirements				7	0	3	0	4	0	0	0	0	0	7					
University Common Core Requirement																			
CORE	C3 - C9	U CORE - Others	21					3		9	6			3	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	0	0	3	0	9	6	0	3	30				
Term load (incl. free credits)																			
16 18 19 16 19 19 18 16 16 17																			
178##																			

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.