

<< 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 Chemical Engineering and BBA in Marketing)			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 Chemical 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	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]	4-7													
MATH	1012	Calculus IA	4													
MATH	1013	Calculus IB	3													
MATH	1014	Calculus II	3	3	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							3
PHYS	1112	Note: PHYS 1112 OR PHYS 1312	3													
PHYS	1312	General Physics I with Calculus	3													3
PHYS	1312	Honors General Physics I	3													3
Required credits for Engineering Fundamental Courses			19-24													18
Major Required Courses and Electives																
CENG	1000	Note: CENG1000 OR CENG1500	3	3												3
CENG	1500	Introduction to Chemical and Biological Engineering	3													
CENG	1600	Note: CENG1600 OR CENG1700 OR BIEN1010	3													
CENG	1700	Biotechnology and Its Business Opportunities	3		3											3
BIEN	1010	Introduction to Environmental Engineering	3													
BIEN	1010	Introduction to Biomedical Engineering	3													
CENG	1010	Academic and Professional Development I	0			0										0
CENG	1980	Industrial Training	0											0		0
CENG	2110	Process and Product Design Principles	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	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	Heat and Mass Transfer	3							3						3
CENG	3230	Chemical and Biological Reaction Engineering	3							3						3
CENG	3950	Chemical and Environment Engineering Laboratory	4									4				4
CENG	4020	Academic and Professional Development II	0										0			0
CENG	4920	Note: CENG 4920 OR CENG 4930 OR CENG 4940 (Students 6	6											3	3	6
CENG	4930	taking the Research Option must take CENG 4930)	6													
CENG	4940	Chemical Engineering Capstone Design	6													
CENG	4940	Chemical Engineering Thesis Research	6													
CENG	4940	Chemical Engineering Industrial Project	6													
ENGG	2010	Engineering Seminar Series	0			0	0	0	0	0						0
CHEM	1050	Laboratory for General Chemistry I	1		1											1
CHEM	2111	Fundamentals of Organic Chemistry	3					3								3
CHEM	2155	Fundamental Organic Chemistry Laboratory	1					1								1
LANG	4035	Technical Communication II for Chemical and Biological Engineering	3										3			3
BIEN	2410	Note: BIEN2410 OR BIEN2610 OR LIFS1901	3													
BIEN	2610	Cellular and Systems Physiology for Engineers	3													
BIEN	2610	Chemical Biology for Engineers	3													
LIFS	1901	General Biology I	3				3									3
SENG/SSCI/ENVR		CENG Elective (12 credits from specified elective list)	12						3	3	3	3				12
Required credits for Major Requirements Courses and Electives			68													68
BBA in Marketing																
School Requirements																
ACCT	2010	Principles of Accounting I	3					3								3
ACCT	2200	Principles of Accounting II	3							3						3
ECON	2103	Note: ECON 2103 OR ECON 2113	3													
ECON	2113	Principles of Microeconomics	3					3								3
ECON	2123	Note: ECON 2123 OR ECON 3123	3													
ECON	3123	Microeconomics	3								3					3
FINA	2303	Macroeconomic Theory I	3													
FINA	2303	Financial Management	3					3								3
ISOM	2010	Introduction to Information Systems	3													0
ISOM	2020	Coding for Business	1													0
ISOM	2500	Business Statistics	3													3
ISOM	2600	Introduction to Business Analytics	1													1
ISOM	2700	Operations Management	3											3		3
MARK	2120	Marketing Management	3													3
MGMT	2010	Business Ethics and the Individual	2												2	2
MGMT	2110	Organizational Behavior	3													3
MGMT	2130	Business Ethics and Social Responsibility	2												2	2
LABU	2040	Business Case Analyses	3													0
LABU	2060	Effective Communication in Business	3												3	3
MATH	1003	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023	3-4													
MATH	1012	Calculus and Linear Algebra	3													
MATH	1013	Calculus IA	4													
MATH	1013	Calculus IB	3	(3)												0
MATH	1020	Accelerated Calculus	4													
MATH	1023	Honors Calculus I	3													
Required credits for School Requirements			45-46													35
Major Requirements																
Major Required Courses and Electives																
MARK	3220	Marketing Research	4							4						4
MARK	3420	Consumer Behavior	4								4					4
MARK	4210	Strategic Marketing	4											4		4
MARK		MARK 3000-level or above Electives (Any 3 courses of the subject and level as specified)	12								4	4	4			12
Required credits for Major Required Courses and Electives			24													24
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
TEMG	4950	T&M Corporate Consulting Project	3-5													4
Required credits for Additional Requirements			7													7
University CORE																
CORE	C3 - C9	U CORE - Others	21								6	6	3	6		21
CORE	C1 & C2	U CORE - English Language	6	3	3											6
CORE	1905	Behavioral Foundations of University Education: Habits, Mindsets, and Wellness	3	0	3											3
Sub-total for University CORE			30													30
															Term load (excl. free credits)	
															15	19
															19	19
															19	19
															19	18
															20	17
															18	18
															182##	

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.