

<< 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 General Business Management)			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	
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: COMP 1021 OR COMP 1022P OR COMP 2011	3-4												
COMP	1022P	Introduction to Computer Science	3	3											3
COMP	2011	Introduction to Computing with Java Programming with C++	4												
ENGG	1010	Academic Orientation	0	0	0										0
CHEM	1010	Note: CHEM1010 OR CHEM1020	3	3											3
CHEM	1020	General Chemistry IA General Chemistry IB	3												
LANG	2030	Technical Communication I	3			3									3
MATH	1012	Note: (MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024) OR [MATH 1020]	4-7												
MATH	1013	Calculus IA	4												
MATH	1014	Calculus IB	3	3	3										6
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	3											3
PHYS	1312	General Physics I with Calculus Honors General Physics I	3												
Required credits for Engineering Fundamental Courses			19-23												21
Major Required Courses and Electives															
CENG	1000	Note: CENG1000 OR CENG1500	3	3											3
CENG	1500	Introduction to Chemical and Biological Engineering A First Course on Materials Science and Applications	3												
CENG	1600	Note: CENG1600 OR CENG1700 OR BIEN1010	3		3										3
CENG	1700	Biotechnology and Its Business Opportunities	3												
BIEN	1010	Introduction to Environmental Engineering Introduction to Biomedical Engineering	3												
CENG	1010	Academic and Professional Development I	0			0									0
CENG	1980	Industrial Training	0				0	0	0	0	0				0
CENG	2110	Process and Product Design Principles	3			3									3
CENG	2210	Chemical and Biological Engineering Thermodynamics	3				3								3
CENG	2220	Process Fluid Mechanics	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: CENG4920 OR CENG4930 OR CENG4940	6										3	3	6
CENG	4930	Chemical Engineering Capstone Design	6												
CENG	4940	Chemical Engineering Thesis Research Chemical Engineering Industrial Project	6												
ENGG	2010	Engineering Seminar Series	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				3								3
BIEN	2610	Cellular and Systems Physiology for Engineers	3												
LIFS	1901	General Biology I	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 General Business Management															
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		3										3
ECON	2113	Principles of Microeconomics Microeconomics	3												
ECON	2123	Note: ECON 2123 OR ECON 3123	3							3					3
ECON	3123	Macroeconomics 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					1							1
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
SBMT	1111	Business Student Induction	0	---	---	---	---	---	---	---	---	---	---	---	0
LABU	2040	Business Case Analyses	3							3					3
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	(3)											
MATH	1020	Calculus IB	3												
MATH	1023	Accelerated Calculus Honors Calculus I	3												
Required credits for School Requirements			45-46												39
Major Requirements															
Major Required Courses and Electives															
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						3	9		7	10		29
Required credits for Major Required Courses and Electives			29												29
Additional Requirements															
Requirements for Dual Degree Program															
Required Courses															
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0	0
TEMG	3950	Case-based Problem Solving	3		3										3
Required credits for Additional Requirements			3												3
University CORE															
CORE	C3 - C12	U CORE - Others	30			3	6		3	12	3	3			30
CORE	C1 & C2	U CORE - English Language	6	3	3										6
Sub-total for University CORE			36												36
Term load (excl. free credits)															
18 19 21 19 20 19 21 21 19 19															
196##															

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.