

<< 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 Finance)			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	1012	General Chemistry B: Atomic Structure, Molecules, and Bonding Theories	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	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								
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														
Required credits for Engineering Fundamental Courses				16-21											18		
Major Required Courses and Electives																	
CENG	1000	Note: CENG1000 OR CENG1500	3														
CENG	1500	Introduction to Chemical and Biological Engineering	3	3													
CENG	1500	A First Course on Materials Science and Applications	3														
CENG	1600	Note: CENG1600 OR CENG1700 OR BIEN1010	3														
CENG	1700	Biotechnology and Its Business Opportunities	3		3												
CENG	1700	Introduction to Environmental Engineering	3														
BIEN	1010	Introduction to Biomedical Engineering	3														
CENG	1010	Academic and Professional Development I	0			0											
CENG	1980	Industrial Training	0										0				
CENG	2110	Process and Product Design Principles	3			3											
CENG	2210	Chemical and Biological Engineering Thermodynamics	3				3										
CENG	2220	Transport Phenomena I	3				3										
CENG	2310	Modeling for Chemical and Biological Engineering	3			3											
CENG	3110	Process Dynamics and Control	3						3								
CENG	3150	Integrated Chemical Process & Product Design	5						5								
CENG	3210	Separation Processes	3						3								
CENG	3220	Heat and Mass Transfer	3						3								
CENG	3230	Chemical and Biological Reaction Engineering	3						3								
CENG	3330	Data Science for Molecular Engineering	3			3											
CENG	3950	Chemical and Environment Engineering Laboratory	4								4						
CENG	4020	Academic and Professional Development II	0									0					
CENG	4920	Note: CENG 4920 OR CENG 4930 OR CENG 4940 (Students taking the Research Option must take CENG 4930)	6									3	3				
CENG	4930	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								
CHEM	1052	Laboratory for General Chemistry B	1		1												
CHEM	2111	Fundamentals of Organic Chemistry	3				3										
CHEM	2155	Fundamental Organic Chemistry Laboratory	1				1										
BIEN	2410	Note: BIEN2410 OR BIEN2610 OR LIFS1901	3														
BIEN	2610	Cellular and Systems Physiology for Engineers	3				3										
LIFS	1901	Chemical Biology for Engineers	3														
LIFS	1901	General Biology I	3														
CENG/CHEM		CENG Elective (9 credits from specified elective list)	9			3		3	3								
Required credits for Major Requirements Courses and Electives				65													
BBA in Finance																	
School Requirements																	
ACCT	2010	Principles of Accounting I	3		3												
ACCT	2200	Principles of Accounting II	3						3								
ECON	2103	Note: ECON 2103 OR ECON 2113	3			3											
ECON	2113	Principles of Microeconomics	3														
ECON	2123	Note: ECON 2123 OR ECON 3123	3								3						
ECON	3123	Macroeconomics	3														
FINA	2303	Financial Management	3				3										
ISOM	2010	Introduction to Information Systems	3														
ISOM	2020	Coding for Business	1														
ISOM	2500	Business Statistics	3														
ISOM	2600	Introduction to Business Analytics	1						1								
ISOM	2700	Operations Management	3										3				
MARK	2120	Marketing Management	3				3										
MGMT	2010	Business Ethics and the Individual	2										2				
MGMT	2110	Organizational Behavior	3										3				
MGMT	2130	Business Ethics and Social Responsibility	2											2			
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														
MATH	1020	Accelerated Calculus	4														
MATH	1023	Honors Calculus I	3														
Required credits for School Requirements				39-40													
Major Requirements																	
Major Required Courses and Electives																	
FINA	3001	Key Skills for Finance Professionals (A)	1						1								
FINA	3103	Intermediate Investments	3						3								
FINA	3203	Derivative Securities	3							3							
FINA	3303	Intermediate Corporate Finance	3								3						
FINA	3810	Bloomberg Market Concepts Certification	0						0								
ACCT	3010	Note: (ACCT 3010 AND ACCT 3020) OR ACCT 3030	3-6														
ACCT	3020	Financial Accounting I	3								3						
ACCT	3030	Financial Accounting II	3														
ACCT	3030	Intermediate Financial Accounting for Non-Accounting Majors	3														
ISOM	3230	Note: ISOM 3230 OR ISOM 3400	3								3						
ISOM	3400	Business Programming in VBA	3														
ISOM	3400	Business Applications Development in Python	3														
FINA		FINA 3000-level or above Electives (Any 3 courses of the subject and level as specified)	9									3	3	3			
Required credits for Major Required Courses and Electives				25-28													
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	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													
University CORE																	
CORE	C3 - C9	U CORE - Others	21								6	6		9			
CORE	C1 & C2	U CORE - English Language	6	3	3												
HMAW	1905	Behavioral Foundations of University Education: Habits, Mindsets, and Wellness	3	1	2												
Sub-total for University CORE				30													
Term load (excl. free credits)																	
19 21 15 19 20 20 19 16 11 17																	
177##																	
Notes:																	
<p>() indicates the reuse of the same course to fulfill more than one requirement.</p> <p>* Courses offered in winter term</p> <p>^ Courses offered in summer term</p> <p>--- denotes the course/requirement is either waived or substituted</p> <p>## To graduate, students should complete all requirements as specified for DDP.</p>																	
**Remarks on course(s):																	