

<< 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 Economics)			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													
<b>BEng in Chemical Engineering</b>																
<b>Major Requirements</b>																
<b>Engineering Fundamental Courses</b>																
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													
		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													
<b>Required credits for Engineering Fundamental Courses</b>			19-24													18
<b>Major Required Courses and Electives</b>																
CENG	1000	Note: CENG1000 OR CENG1500	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											
BIEN	1010	Introduction to Environmental Engineering	3													
CENG	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													
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													
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	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 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							
CHEM	1050	Laboratory for General Chemistry I	1		1											
CHEM	2111	Fundamentals of Organic Chemistry	3					3								
CHEM	2155	Fundamental Organic Chemistry Laboratory	1					1								
LANG	4035	Technical Communication II for Chemical and Biological Engineering	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													
SENG/SSCI/ENVR		CENG Elective (12 credits from specified elective list)	12						3	3	3	3				12
<b>Required credits for Major Requirements Courses and Electives</b>			68													68
<b>BBA in Economics</b>																
<b>School Requirements</b>																
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													
ECON	2113	Principles of Microeconomics	3				3									
ECON	2123	Note: ECON 2123 OR ECON 3123	3													
ECON	3123	Microeconomics	3													
ECON	3123	Macroeconomics	3								3					
FINA	2303	Financial Management	3													
ISOM	2010	Introduction to Information Systems	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													
ISOM	2700	Operations Management	3													
MARK	2120	Marketing Management	3													
MGMT	2010	Business Ethics and the Individual	2													
MGMT	2110	Organizational Behavior	3													
MGMT	2130	Business Ethics and Social Responsibility	2													
MGMT	2130	Business Ethics and Social Responsibility	2													
LABU	2040	Business Case Analyses	3													
LABU	2060	Effective Communication in Business	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	3													
MATH	1013	Calculus IB	3													
MATH	1020	Accelerated Calculus	4													
MATH	1023	Honors Calculus I	3													
<b>Required credits for School Requirements</b>			45-46													35
<b>Major Requirements</b>																
<b>Major Required Courses and Electives</b>																
ECON	3014	Managerial Microeconomics	4													
ECON	3024	Managerial Microeconomics	4													
ECON	3334	Introduction to Econometrics	4													
ECON	4670	Economics Research and Communication	0													
ECON		ECON 4000-level Electives (Any 3 courses of the subject and level as specified)	11													
<b>Required credits for Major Required Courses and Electives</b>			23													23
<b>Additional Requirements</b>																
<b>Requirements for Dual Degree Program</b>																
<b>Required Courses</b>																
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													
<b>Required credits for Additional Requirements</b>			7													7
<b>University CORE</b>																
CORE	C3 - C9	U CORE - Others	21													
CORE	C1 & C2	U CORE - English Language	6	3	3											
CORE	1905	Behavioral Foundations of University Education: Habits, Mindsets, and Wellness	3	0	3											
<b>Sub-total for University CORE</b>			30													30
Term load (excl. free credits)																
					15	19	19	19	19	18	20	17	18	17		
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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):

>> 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.