

<< 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 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		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	Introduction to Computer Science	3												3	
COMP	1022P	Introduction to Computing with Java	3	3												
COMP	2011	Programming with C++	4													
COMP	2012H	Honors Object-Oriented Programming and Data Structures	5													
ENGG	1010	Academic Orientation	0	0	0										0	
CHEM	1010	General Chemistry IA	3	3											3	
CHEM	1020	General Chemistry IB	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	3	3										6	
MATH	1014	Calculus II	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	General Physics I with Calculus	3		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	Introduction to Chemical and Biological Engineering	3	3											3	
CENG	1500	A First Course on Materials Science and Applications	3													
		Note: CENG1000 OR CENG1500														
CENG	1600	Biotechnology and Its Business Opportunities	3		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									0	
CENG	1980	Industrial Training	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	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	
		Note: CENG 4920 OR CENG 4930 OR CENG 4940 (Students 6 taking the Research Option must take CENG 4930)											3	3	6	
CENG	4920	Chemical Engineering Capstone Design	6													
CENG	4930	Chemical Engineering Thesis Research	6													
CENG	4940	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	
		Note: BIEN2410 OR BIEN2610 OR LIFS1901														
BIEN	2410	Cellular and Systems Physiology for Engineers	3				3								3	
BIEN	2610	Chemical Biology for Engineers	3												3	
LIFS	1901	General Biology I	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 Management																
School Requirements																
ACCT	2010	Principles of Accounting I	3												3	
ACCT	2200	Principles of Accounting II	3							3					3	
		Note: ECON 2103 OR ECON 2113														
ECON	2103	Principles of Microeconomics	3			3									3	
ECON	2113	Microeconomics	3													
		Note: ECON 2123 OR ECON 3123														
ECON	2123	Macroeconomics	3							3					3	
ECON	3123	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									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												0	
LABU	2060	Effective Communication in Business	3										3		3	
		Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023	3-4													
MATH	1003	Calculus and Linear Algebra	3													
MATH	1012	Calculus IA	4													
MATH	1013	Calculus IB	3													
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																
MGMT	3110	Human Resources Management	4						4						4	
MGMT	3120	Managerial Leadership	4												4	
		Note: MGMT 3110 OR MGMT 3120 (For students in the Consulting Option, they will use MGMT 3110 to fulfill the Option Requirements and should take MGMT 3120 to fulfill this requirement.)														
MGMT	3130	Judgement and Decision Making in Organizations	4							4					4	
MGMT	3140	Negotiation	4												4	
		Note: MGMT 3130 OR MGMT 3140 (Students in the Consulting Option must take MGMT 3140 to fulfill this requirement.)														
MGMT	4210	Social Responsibility and Sustainability Option must take MGMT 4210 to fulfill this requirement.)	3								3				3	
MGMT	4220	Corporate Strategy	4												4	
		Note: MGMT 4210 OR MGMT 4220 (Students in the Consulting Option or in the Corporate Strategy Option must take MGMT 4210 to fulfill this requirement.)														
MGMT		MGMT 3000-level or above Electives (Any 3 courses of the subject and level as specified. Courses taken as Option Required Courses may not be counted towards the elective requirement.)	9								3	3	3		9	
Required credits for Major Required Courses and Electives			20-21												20	
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	
TEMG	3950	T&M Case Analysis and Product Innovation	3		3										3	
TEMG	4950	T&M Corporate Consulting Project	3-5							4					4	
Required credits for Additional Requirements			7												7	
University CORE																
CORE	C3 - C12	U CORE - Others	30	3	3					3	9	3	9		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	19	19	19	18	19	19	17	17			
				184##												
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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.