

<< 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 Bioengineering 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	
Course Offering Dept. (course code prefix)	Course Code	Course Title / Courses List	Credits												

BEng in Bioengineering

Major Requirements

Engineering Fundamental Courses

COMP	1021	Note: [COMP 1021] OR [(COMP 1022P OR COMP 2011 OR COMP 2012H) AND COMP1029P]	3-6													
COMP	1022P	Introduction to Computer Science	3													
COMP	1029P	Introduction to Computing with Java	3													
COMP	2011	Python Programming Bridging Course	1		3										3	Students should take COMP1021 which will also be used to substitute ISOM 2010 and to waive ISOM 2020
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	
CHEM	1052	Laboratory for General Chemistry B	1												1	
LIFS	1901	General Biology I	3												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										6	
MATH	1020	Accelerated Calculus	4													
MATH	1023	Honors Calculus I	3													
MATH	1024	Honors Calculus II	3													
PHYS	1112	Note: PHYS 1112 OR PHYS 1312	3													
PHYS	1312	General Physics I with Calculus	3				3								3	
PHYS	1312	Honors General Physics I	3													
SENG		Engineering Introduction course (If the students take an introduction course included in their major, this course can be counted towards their major requirement.)	3-4												0	
Required credits for Engineering Fundamental Courses			20-27												19	

Major Required Courses and Electives

BIEN	1010	Note: BIEN 1010 OR CENG 1000	3		3											
CENG	1000	Introduction to Biomedical Engineering	3													
BIEN	2310	Introduction to Chemical and Biological Engineering	3													
BIEN	2410	Modeling for Chemical and Biological Engineering	3				3									
BIEN	2410	Cellular and Systems Physiology for Engineers	3							3						
BIEN	2610	Chemical Biology for Engineers	3													
BIEN	2990	Academic and Professional Development I	1				1									
BIEN	3310	Note: BIEN 3310 OR BIEN 3320	3													
BIEN	3320	Data Science for Neural Engineering	3					3								
BIEN	3320	Data Science for Biology and Medicine	3													
BIEN	3410	Introduction to Bioinstrumentation and Biomaging	3								3					
BIEN	3910	Bioengineering Laboratory	4								4					
BIEN	4920	Note: BIEN 4920 OR BIEN 4930 OR BIEN 4940	6													
BIEN	4930	Bioengineering Capstone Design	6									3		3		
BIEN	4940	Bioengineering Thesis Research	6													
BIEN	4940	Bioengineering Industrial Project	6													
BIEN	4990	Academic and Professional Development II	1												1	
CENG	2210	Chemical and Biological Engineering Thermodynamics	3					3								
CENG	2220	Transport Phenomena I	3										3			
CENG	3230	Chemical and Biological Reaction Engineering	3								3					
ENGG	2010	Engineering Seminar Series	0				0	0	0	0						
BIEN	3300	Data Science for Molecular Engineering	3							3						
SSCI/SENG		Bioengineering Electives (5 courses from the specified elective list, of which at least 9 credits should be taken from a single specialty area (Area 1 or Area 2). Out of the 15 credits taken, at least 9 credits should be at 4000-level)	15								3		6		6	
Required credits for Major Required Courses and Electives			57												57	

BBA in Marketing

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													
ECON	2113	Principles of Microeconomics	3				3									
ECON	2123	Note: ECON 2123 OR ECON 3123	3													
ECON	3123	Macroeconomics	3									3				
ECON	3123	Macroeconomic Theory I	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				3									
ISOM	2600	Introduction to Business Analytics	1													
ISOM	2700	Operations Management	3													
MARK	2120	Marketing Management	3							3						
MGMT	2010	Business Ethics and the Individual	2										2			
MGMT	2110	Organizational Behavior	3													
MGMT	2130	Business Ethics and Social Responsibility	2													
Required credits for School Requirements			39-40												2	
Required credits for School Requirements			39-40												31	

Major Requirements

Major Required Courses and Electives

MARK	3220	Marketing Research	4							4						
MARK	3420	Consumer Behavior	4								4					
MARK	4210	Strategic Marketing	4									4				
MARK		MARK 3000-level or above Electives (Any 3 courses of the subject and level as specified)	12										4	4	4	
Required credits for Major Required Courses and Electives			24												24	

Additional Requirements

Requirements for Dual Degree Program

Required Courses				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
TEMG	1010	T&M Professional Activities	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 - C9	U CORE - Others	21													
CORE	C1 & C2	U CORE - English Language	6													
HMAW	1905	Behavioral Foundations of University Education: Habits, Mindsets, and Wellness	3													
Sub-total for University CORE			30													

Term load (excl. free credits)									
17	20	16	18	17	19	17	18	10	16
168##									

Notes:

() indicates the reuse of the same course to fulfill more than one requirement.

--- denotes the course/requirement is either waived or substituted

To graduate, students should complete all requirements 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.