

<< Declaration of BEng major << Declaration of BBA major

School:		School of Engineering and School of Business Management			Student's Pathway										
Program:		Dual Degree Program (BEng in Bioengineering and BBA in Global Business)													
Course Offering Dept (course code prefix)	Course Code	Course Title / Courses List	Credits	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	Remarks

BEng in Bioengineering

Major Requirements

Engineering Fundamental Courses

COMP	1021	Introduction to Computer Science	3-6												
COMP	1022P	Introduction to Computing with Java	3												
COMP	1029P	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	2011	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										3	
CHEM	1052	Laboratory for General Chemistry B	1	1										1	
LIFS	1901	General Biology I	3	3										3	
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												
PHYS	1112	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		(3)									0	
Required credits for Engineering Fundamental Courses			20-27											19	

Major Required Courses and Electives

BIEN	1010	Introduction to Biomedical Engineering	3		3									3	
CENG	1000	Introduction to Chemical and Biological Engineering	3												
BIEN	2310	Modeling for Chemical and Biological Engineering	3			3								3	
BIEN	2410	Cellular and Systems Physiology for Engineers	3					3						3	
BIEN	2610	Chemical Biology for Engineers	3			3								3	
BIEN	2990	Academic and Professional Development I	1			1								1	
BIEN	3300	Data Science for Molecular Engineering	3					3						3	
BIEN	3310	Data Science for Neural Engineering	3				3							3	
BIEN	3320	Data Science for Biology and Medicine	3												
BIEN	3410	Introduction to Bioinstrumentation and Bioimaging	3							3				3	
BIEN	3910	Bioengineering Laboratory	4							4				4	
BIEN	4920	Bioengineering Capstone Design	6									3	3	6	
BIEN	4930	Bioengineering Thesis Research	6												
BIEN	4940	Bioengineering Industrial Project	6												
BIEN	4990	Academic and Professional Development II	1										1	1	
CENG	2210	Chemical and Biological Engineering Thermodynamics	3				3							3	
CENG	2220	Transport Phenomena I	3									3		3	
CENG	3230	Chemical and Biological Reaction Engineering	3							3				3	
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0	
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	15
Required credits for Major Required Courses and Electives			57											57	

BBA in Global Business

School Requirements

ACCT	2010	Principles of Accounting I	3	3										3	
ACCT	2200	Principles of Accounting II	3						3					3	
ECON	2103	Principles of Microeconomics	3			3								3	
ECON	2113	Microeconomics	3												
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	Substituted by COMP 1021/1022P/2011/2012H
ISOM	2020	Coding for Business	1	-	-	-	-	-	-	-	-	-	-	0	Waived for DDP students if they have taken and passed COMP1021 or COMP 1029P
ISOM	2500	Business Statistics	3		3									3	
ISOM	2600	Introduction to Business Analytics	1	-	-	-	-	-	-	-	-	-	-	0	Substituted by BIEN 3310/3320
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	
MATH	1003	Calculus and Linear Algebra	3-4												
MATH	1012	Calculus IA	4												
MATH	1013	Calculus IB	3	(3)										0	DDP students should take MATH 1012 or MATH 1013 or MATH 1020 or MATH 1023 to satisfy the requirements of both BEng and BBA degrees
MATH	1020	Accelerated Calculus	4												
MATH	1023	Honors Calculus I	3												
Required credits for School Requirements			39-40											31	

Major Requirements

Major Required Courses and Electives

GBUS	1000	Global Leadership Development	0					0	0	0	0	0	0	0	
GBUS	2010	Global Business Analysis	3						3					3	
GBUS/SBMT	2020	Public Service Project	1-4												
GBUS	2040	Environmental, Social, and Governance (ESG) Corporate Project	1						1	[1]				1	
SBMT	2100-2110	Community Services Project	4												
GBUS/ISOM	3030	Global Business Case Studies	3-4								3		[3]	3	
ISOM	4780	Integrated Planning and Execution	4												
GBUS	4910	Capstone Project	4									4	[4]	4	
GBUS		Global Business Electives (Courses from the specified elective list, of which at least 6 credits from each area and at least 2 courses must be offered by GBUS. Courses taken to fulfill requirements of an additional major in SBM may not be counted towards this elective requirement.)	15								6	3	6	15	
Required credits for Major Required Courses and Electives			26-30											26	

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	
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			3	3	6	6			3		21	
CORE	C1 & C2	U CORE - English Language	6	3	3									6	
HMAW	1905	Behavioral Foundations of University Education: Habits, Mindsets, and Wellness	3	1	2									3	
Sub-total for University CORE			30											30	

Term load (excl. free credits)									
17	20	16	18	16	19	16	17	13	18
170##									

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):