

School:	School of Engineering and School of Business Management				Student's Pathway										
Program:	Dual Degree Program (BEng in Bioengineering and BBA in Management)														
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	Note: [COMP 1021] OR [(COMP 1022P OR COMP 2011) AND COMP1029P]	3-5												
COMP	1022P	Introduction to Computer Science	3												
COMP	1029P	Introduction to Computing with Java	3												
COMP	2011	Python Programming Bridging Course	1												
COMP	2012H	Programming with C++	4												
COMP	2012H	Honors Object-Oriented Programming and Data Structures	5												
CHEM	1020	General Chemistry I	3	3										3	
CHEM	1050	Laboratory for General Chemistry I	1	1										1	
LANG	2030	Technical Communication I	3	-	-	-	-	-	-	-	-	-	-	0	Waived for DDP students
LIFS	1901	General Biology I	3	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	3											
MATH	1014	Calculus II	3												
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	3											
PHYS	1312	General Physics I with Calculus	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			23-29											19	

Major Required Courses and Electives

BIEN	1010	Note: BIEN 1010 OR CENG 1000	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												
BIEN	2410	Cellular and Systems Physiology for Engineers	3												
BIEN	2610	Chemical Biology for Engineers	3												
BIEN	2990	Academic and Professional Development I	1												
		Note: BIEN 3310 OR BIEN 3320													
BIEN	3310	Data Science for Neural Engineering	3												
BIEN	3320	Data Science for Biology and Medicine	3												
BIEN	3410	Introduction to Bioinstrumentation and Biomechanics	3												
BIEN	3910	Bioengineering Laboratory	3												
		Note: BIEN 4920 OR BIEN 4930 OR BIEN 4940													
BIEN	4920	Bioengineering Capstone Design	6												
BIEN	4930	Bioengineering Thesis Research	6												
BIEN	4940	Bioengineering Industrial Project	6												
BIEN	4990	Academic and Professional Development II	1												
CENG	2210	Chemical and Biological Engineering Thermodynamics	3												
CENG	2220	Transport Phenomena I	3												
CENG	3230	Chemical and Biological Reaction Engineering	3												
ENGG	2010	Engineering Seminar Series	0												
		Note: LIFS 3150 OR MATH 2411 OR BIEN 3300	3-4												
LIFS	3150	Biostatistics	3												
MATH	2411	Applied Statistics	4												
BIEN	3300	Data Science for Molecular Engineering	3												
LANG	4035	Technical Communication II for Chemical and Biological Engineering	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												
Required credits for Major Required Courses and Electives			60-61											60	

BBA in Management

School Requirements

ACCT	2010	Principles of Accounting I	3												
ACCT	2200	Principles of Accounting II	3												
		Note: ECON 2103 OR ECON 2113													
ECON	2103	Principles of Microeconomics	3												
ECON	2113	Microeconomics	3												
		Note: ECON 2123 OR ECON 3123													
ECON	2123	Macroeconomics	3												
ECON	3123	Macroeconomic Theory I	3												
FINA	2303	Financial Management	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 COMP 1021 or COMP 1029P
ISOM	2500	Business Statistics	3	-	-	-	-	-	-	-	-	-	-	0	Substituted by LIFS 3150/MATH 2411/BIEN 3300
ISOM	2600	Introduction to Business Analytics	1	-	-	-	-	-	-	-	-	-	-	0	Substituted by BIEN 3310/3320
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												
LABU	2040	Business Case Analyses	3	-	-	-	-	-	-	-	-	-	-	0	Waived for DDP students
LABU	2060	Effective Communication in Business	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			43-44												

Major Requirements

Major Required Courses and Electives

MGMT	3110	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.)	4												
MGMT	3120	Human Resources Management	4												
		Note: MGMT 3130 OR MGMT 3140 (Students in the Consulting Option must take MGMT 3140 to fulfill this requirement.)													
MGMT	3130	Managerial Leadership	4												
MGMT	3140	Judgement and Decision Making in Organizations	4												
		Note: MGMT 4210 OR MGMT 4220 (Students in the Consulting Option or in the Corporate Social Responsibility and Sustainability Option must take MGMT 4210 to fulfill this requirement.)	3-4												
MGMT	4210	Corporate Strategy	3												
MGMT	4220	Entrepreneurship and Innovation	4												
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												
Required credits for Major Required Courses and Electives			24												

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												
TEMG	4950	T&M Corporate Consulting Project	3-5												
Required credits for Additional Requirements			7												

University CORE

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										
Sub-total for University CORE			36												

Term load (excl. free credits)

16	18	18	18	16	19	16	15	15	16
167##									

Notes: << Declaration of BEng major << Declaration of BBA major

() 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):