

COMMITTEE ON UNDERGRADUATE STUDIES

Paper for: Discussion/Approval

Title: **Dual Degree Program in Technology and Management: 11 BEng/BSc Programs with Four More BBA Programs**

Purpose: The Interdisciplinary Programs Office has submitted a proposal of the deviation arrangements for the existing 11 BEng/BSc programs with BBA in Economics, BBA in Finance, BBA in Management and BBA in Marketing to take effect from Spring 2021-22 for approval by the CUS

Submitted by: Interdisciplinary Programs Office

Prepared by: CUS Secretariat

BACKGROUND

1. Under the four-year degree, students will declare their major under respective schools, while they have also the option to enroll in the dual degree program under which students may earn two different degrees by fulfilling all the requirements of both degree programs.
2. At its 124th CUS meeting in May 2012, CUS approved the deviation arrangements for the first batch of nine BEng and BBA dual degree programs under the four-year degree curriculum. Currently, there are 11 BEng/BSc and BBA in General Business Management (GBM) dual degree programs. With demand for more combinations of dual degree program, the Interdisciplinary Programs Office (IPO) has submitted a proposal regarding pre-approved deviation arrangements for the 11 existing BEng/BSc programs with four more School of Business and Management (SBM) BBA programs, namely BBA in Economics, BBA in Finance, BBA in Management and BBA in Marketing, totaling 44 new dual degree programs.

PROPOSED ARRANGEMENTS

3. The proposed deviation arrangements follow the framework as approved in May 2012 which are summarized as follows:
 - (a) *Minimum 120-credit requirement:* in the attached normative study plan, the total credits students will earn when completing the newly proposed BEng/BSc and BBA dual degree programs range from 161 to 191, and would not be required to complete additional credits.

- (b) *University Common Core requirement:* students must complete all the requirements of the University Common Core, and may count this to both degrees.
 - (c) *University English Language requirement:* The English Language requirements of the dual degree program combine requirements of the University, School of Engineering (SENG)/School of Science (SSCI) and SBM, with the 6-credit University English Core courses being counted towards both degrees (see Attachment C to the Appendix).
 - (d) *Substitution and waiver of courses and requirements for School and major requirements:* Details of the substitution and waiver arrangements are set out in Attachment A to the Appendix.
 - (e) *Additional requirement:* Students in the dual degree program are required to take an additional non-credit bearing course TEMP 1010 *Technology and Management Professional Activities*, in addition to the School and major requirements, with an intention to enhance their academic and/or personal development (see Attachments A and B to the Appendix).
4. The deviation arrangements have been reviewed and agreed by SENG, SSCI and SBM.
5. The deviations from curriculum proposed in paragraph 3 could apply to all students enrolled in the dual degree programs. Any further deviation from the curriculum that may be necessary for individual student, or further curricular changes, will be subject to approval by SENG, SSCI and SBM, following the current policy and procedures for approving deviations from curriculum.
6. The changes are proposed to take effect from Spring 2021-21, applicable to 2020-2021 cohort and beyond.

TOTAL CREDITS AND STUDY PATHWAYS

7. For the reference of the Committee, the study pathways for students directly admitted to the Dual Degree Program (full set including the GBM combination), as well as those admitted from the Schools of Science, Engineering, and Business and Management (sample set) are presented in Attachment B to the Appendix. Provided that there is sufficient overlap of courses between the Common Core and School/Major Requirements, students may further benefit from reduced credit requirements.

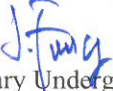
ACTION SOUGHT


8. CUS is invited to
- (i) consider, and approve as appropriate, the proposed deviation arrangements for the dual degree programs under the four-year curriculum set out above in paragraph 3 and in Attachment A to the Appendix; and

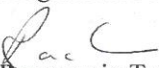
- (ii) note for information the total credits needed to complete the proposed dual degree programs, and the students' study pathways as presented in Attachment B to the Appendix.

MEMORANDUM

To: CUS Secretariat

via: Prof. Jimmy Fung 
Chair, Interdisciplinary Undergraduate Studies Committee

From: Prof. Kai Lung Hui 
Co-director of Dual Degree Program in Technology & Management

& Prof. Ravi Goonetilleke 
Co-director of Dual Degree Program in Technology & Management

Date: 15th October, 2020

Our Ref: 402/DDP

Subject: Proposed 5Y Curriculum of Dual Degree Program in Technology & Management
(BEng/BSc with 11 options and BBA with 5 options)

Dual Degree Program in Technology & Management (T&M-DDP) would like to propose the 5-year curriculum with 11 options in BEng/BSc and 5 options in BBA with effect from Spring 2021-22. This change will have effect on the 2020-2021 cohort onwards. The new curriculum will include 44 new majors in addition to the existing 11 majors with BBA degree in GBM. The program structure is listed below.

Total: 55 majors (44 new majors)	BEng in Bioengineering	and	BBA in Economics
	BEng in Chemical Engineering		
	BEng in Civil Engineering		BBA in Finance
	BEng in Civil and Environmental Engineering		
	BEng in Computer Engineering		BBA in General Business Management (Existing)
	BEng in Computer Science		
	BEng in Decision Analytics		
	BEng in Electronic Engineering		BBA in Management
	BEng in Industrial Engineering and Engineering Management		
	BEng in Mechanical Engineering		
	BSc in Biotechnology		BBA in Marketing

Students can admit to T&M-DDP via program-based admission or school-based admission. Program-based admission students will be admitted to T&M-DDP in their first year and school-based admission students will be admitted to T&M-DDP in their second year. Students will declare their major via the Major Selection Exercises (MSE) at the ends of their first year and second year for BEng/BSc degree and BBA degree of T&M-DDP respectively. Pathway templates of all majors for program-based admission students and four sets of sample pathway for school-based admission students are presented to demonstrate their study progress (*see Attachment B*).

The program requirements of T&M-DDP are devised by combining the requirements of the BEng/BSc program and the BBA program. This will apply in the proposed 5-year curriculum with the following taken into consideration:

1. Deviation from Curriculum

The course substitutions and waivers that are applicable in the existing BEng/BSc&BBA Dual Degree program will continue to apply in the proposed Dual Degree programs with new BBA options (*See attachment A*).

2. Additional Dual Degree Requirements

Additional requirements specifically for the Dual Degree Program, including TEMG1010 and TEMG3950 are presented in the pathway templates (see *attachment B*) and “Deviation from Curriculum” (see *attachment A*).

3. English Language Requirements

The English Language requirements of the new BEng/BSc&BBA Dual Degree programs are a combination of the requirements of university, SENG/SSCI and SBM (see *attachment C*).

4. Double Counting of Common Core Requirements

The double-counting policy applicable to existing BEng/BSc&BBA Dual Degree programs, which is to apply double-counting policy to each degree separately will continue to apply in the proposed Dual Degree programs.

Below please find the concurrence obtained from departments/schools in concern,

School/ Dept.	Approval	Name	Initial	Date
CBE	Yes / No			
CIVL	Yes / No			
CSE	Yes / No			
CPEG	Yes / No			
ECE	Yes / No			
IEDA	Yes / No			
MAE	Yes / No			
LIFS	Yes / No			
ECON	Yes / No			
FINA	Yes / No			
MARK	Yes / No			
MGMT	Yes / No			
SSCI	Yes / No			
SENG	Yes / No			
SBM	Yes / No			

For consideration and approval please. Thank you very much.

Encl.

A. Attachment A – Deviation from Curriculum

B. Attachment B – Suggested pathways of all Dual Degree programs

C. Attachment C – English language requirements of all Dual Degree programs

Below please find the concurrence obtained from departments/schools in concern,

School/Dept.	Approval	Name	Date
CBE	Yes / No	Prof Ying CHAU	2 Nov 2020
CIVL	Yes / No	Prof Jack CHENG	13 Nov 2020
CSE	Yes / No	Dr Qiong LUO	22 Oct 2020
CPEG	Yes / No	Prof Wilfred NG	16 Oct 2020
ECE	Yes / No	Prof Weichuan YU	16 Oct 2020
IEDA	Yes / No	Prof Jiheng ZHANG	19 Oct 2020
MAE	Yes / No	Prof Baoling HUANG	16 Oct 2020
LIFS	Yes / No	Prof Robert KO	16 Oct 2020
ECON	Yes / No	Prof Albert PARK	12 Nov 2020
FINA	Yes / No	Prof Chu ZHANG	23 Nov 2020
MARK	Yes / No	Prof Jiewen HONG	12 Nov 2020
MGMT	Yes / No	Prof Yaping GONG	13 Nov 2020
SSCI	Yes / No	Prof Pakwo LEUNG	20 Oct 2020
SENG	Yes / No	Prof Philip K.T. MOK	22 Oct 2020
SBM	Yes / No	Prof Allen HUANG	12 Nov 2020

Deviation from curriculum
for Dual Degree Program

Degree Program 1: *BEng in Bioengineering (BIEN)*
Degree Program 2: *BBA in Economics (ECON) OR*
BBA in Finance (FINA) OR
BBA in General Business Management (GBM) OR
BBA in Management (MGMT) OR
BBA in Marketing (MARK)

Degree Program	Original requirements specified for the degree program		Substituted/ Waived/ Additional Req't/ Others	Proposed substituted course/ requirement		Remarks
	Course code/ requirement	Credits		Course code/ requirement	Credits	
ECON/FINA/GBM/MGMT/MARK	SBMT 1111	0	Waived	-	-	DDP students do not need to join this non-credit bearing development course originally designed for Business students
BIEN	ENGG 1010	0	Waived	-	-	[For non-SENG year 1 students admitted to T&M-DDP via School-based admission] DDP students do not need to join this non-credit bearing development course originally designed for Engineering students.
BIEN	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development.
ECON/FINA/GBM/MGMT/MARK	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development.
BIEN	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/FINA/GBM/MGMT/MARK	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/FINA/GBM/MGMT/MARK	ISOM 2010	3	Substituted	COMP 1021 OR COMP 1022P OR COMP 2011	3 OR 4	COMP 1021, COMP 1022P and COMP 2011 are more advanced computing courses as compared to ISOM 2010. Students should take one of these three COMP courses instead of ISOM 2010
ECON/FINA/GBM/MGMT/MARK	ISOM 2020	1	Substituted	COMP 1021 OR COMP 1022P OR COMP 1029P OR COMP 2011	3 OR 4	COMP 1021, COMP 1022P, COMP1029P and COMP 2011 are more advanced coding courses as compared to ISOM 2020. Students should take one of these four COMP courses instead of ISOM 2020
ECON/FINA/GBM/MGMT/MARK	ISOM 2500	3	Substituted	LIFS 3150 OR MATH 2411	3 OR 4	ISOM 2500 and LIFS 3150 / MATH 2411 are mutual exclusions. To fulfill the HKIE engineering accreditation requirements, dual degree students should take LIFS 3150 / MATH 2411. (Students admitted via SBM could be considered of using ISOM 2500 to substitute LIFS 3150 / MATH 2411 upon individual case-by-case approval from Engineering department.)
ECON/FINA/GBM/MGMT/MARK	ISOM 2600	1	Substituted	BIEN3320	3	DDP students could learn similar analytical skills in BIEN3320.

Deviation from curriculum

for Dual Degree Program

Degree Program 1:

BSc in Biotechnology (BIOT)

Degree Program 2:

BBA in Economics (ECON) OR

BBA in Finance (FINA) OR

BBA in General Business Management (GBM) OR

BBA in Management (MGMT) OR

BBA in Marketing (MARK)

Degree Program	Original requirements specified for the degree program		Substituted/ Waived/ Additional Req't/ Others	Proposed substituted course/ requirement		Remarks
	Course code/ requirement	Credits		Course code/ requirement	Credits	
ECON/FINA/GBM /MGMT/MARK	SBMT 1111	0	Waived	-	-	DDP students do not need to join this non-credit bearing development course originally designed for Business students
BIOT	SCIE 1000	0	Waived	-	-	<i>[For non-SSCI year 1 students admitted to T&M-DDP via School-based admission]</i> DDP students do not need to join this non-credit bearing development course originally designed for Science students.
BIOT	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
ECON/FINA/GBM /MGMT/MARK	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
BIOT	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/FINA/GBM /MGMT/MARK	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/FINA/GBM /MGMT/MARK	ISOM 2010	3	Substituted	COMP 1021 OR COMP 1022P OR COMP 2011	3 OR 4	COMP 1021, COMP 1022P and COMP 2011 are more advanced computing courses as compared to ISOM 2010. Students should take one of these three COMP courses instead of ISOM 2010
ECON/FINA/GBM /MGMT/MARK	ISOM 2020	1	Substituted	COMP 1021 OR COMP 1029P	1 OR 3	COMP 1021 COMP 1029P are similar coding courses as compared to ISOM 2020. Students should take one of these two COMP courses instead of ISOM 2020

Deviation from curriculum
for Dual Degree Program

Degree Program 1: *BEng in Chemical Engineering (CENG)*
Degree Program 2: *BBA in Economics (ECON) OR*
BBA in Finance (FINA) OR
BBA in General Business Management (GBM) OR
BBA in Management (MGMT) OR
BBA in Marketing (MARK)

Degree Program	Original requirements specified for the degree program		Substituted/ Waived/ Additional Req't/ Others	Proposed substituted course/ requirement		Remarks
	Course code/ requirement	Credits		Course code/ requirement	Credits	
ECON/FINA/GBM/ MGMT/MARK	SBMT 1111	0	Waived	-	-	DDP students do not need to join this non-credit bearing development course originally designed for Business students
CENG	ENGG 1010	0	Waived	-	-	[For non-SENG year 1 students admitted to T&M-DDP via School-based admission] DDP students do not need to join this non-credit bearing development course originally designed for Engineering students.
CENG	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
ECON/FINA/GBM/ MGMT/MARK	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
CENG	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/FINA/GBM/ MGMT/MARK	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/FINA/GBM/ MGMT/MARK	ISOM 2010	3	Substituted	COMP 1021 OR COMP 1022P OR COMP 2011	3 OR 4	COMP 1021, COMP 1022P and COMP 2011 are more advanced computing courses as compared to ISOM 2010. Students should take one of these three COMP courses instead of ISOM 2010
ECON/FINA/GBM/ MGMT/MARK	ISOM 2020	1	Substituted	COMP 1021 OR COMP 1029P	1 OR 3	COMP 1021 COMP 1029P are similar coding courses as compared to ISOM 2020. Students should take one of these two COMP courses instead of ISOM 2020

Deviation from curriculum
for Dual Degree Program

Degree Program 1: *BEng in Civil Engineering (CIVL)*
Degree Program 2: *BBA in Economics (ECON) OR*
BBA in Finance (FINA) OR
BBA in General Business Management (GBM) OR
BBA in Management (MGMT) OR
BBA in Marketing (MARK)

Degree Program	Original requirements specified for the degree program		Substituted/ Waived/ Additional Req't/ Others	Proposed substituted course/ requirement		Remarks
	Course code/ requirement	Credits		Course code/ requirement	Credits	
ECON/FINA/GBM /MGMT/MARK	SBMT 1111	0	Waived	-	-	DDP students do not need to join this non-credit bearing development course originally designed for Business students
CIVL	ENGG 1010	0	Waived	-	-	[For non-SENG year 1 students admitted to T&M-DDP via School-based admission] DDP students do not need to join this non-credit bearing development course originally designed for Engineering students.
CIVL	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
ECON/FINA/GBM /MGMT/MARK	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
CIVL	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/FINA/GBM /MGMT/MARK	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/FINA/GBM /MGMT/MARK	ISOM 2010	3	Substituted	COMP 1021 OR COMP 1022P OR COMP 2011	3 OR 4	COMP 1021, COMP 1022P and COMP 2011 are more advanced computing courses as compared to ISOM 2010. Students should take one of these three COMP courses instead of ISOM 2010
ECON/FINA/GBM /MGMT/MARK	ISOM 2500	3	Substituted	CIVL 2160	3	ISOM 2500 and CIVL 2160 are mutual exclusions. To fulfill the HKIE engineering accreditation requirements, dual degree students should take CIVL 2160. (Students admitted via SBM could be considered of using ISOM 2500 to substitute CIVL 2160 upon individual case-by-case approval from Engineering department.)
ECON/FINA/GBM /MGMT/MARK	ISOM 2020	1	Substituted	COMP 1021 OR COMP 1029P	1 OR 3	COMP 1021 COMP 1029P are similar coding courses as compared to ISOM 2020. Students should take one of these two COMP courses instead of ISOM 2020

Deviation from curriculum
for Dual Degree Program

Degree Program 1: *BEng in Computer Science (COMP)*
Degree Program 2: *BBA in Economics (ECON) OR*
BBA in Finance (FINA) OR
BBA in General Business Management (GBM) OR
BBA in Management (MGMT) OR
BBA in Marketing (MARK)

Degree Program	Original requirements specified for the degree program		Substituted/ Waived/ Additional Req't/ Others	Proposed substituted course/ requirement		Remarks
	Course code/ requirement	Credits		Course code/ requirement	Credits	
ECON/FINA/GBM /MGMT/MARK	SBMT 1111	0	Waived	-	-	DDP students do not need to join this non-credit bearing development course originally designed for Business students
COMP	ENGG 1010	0	Waived	-	-	[For non-SENG year 1 students admitted to T&M-DDP via School-based admission] DDP students do not need to join this non-credit bearing development course originally designed for Engineering students.
COMP	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
ECON/FINA/GBM /MGMT/MARK	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
COMP	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/FINA/GBM /MGMT/MARK	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/FINA/GBM /MGMT/MARK	ISOM 2010	3	Substituted	COMP 1021 OR COMP 1022P	3	COMP 1021 and COMP 1022P are more advanced computing courses as compared to ISOM 2010. Students should take one of these two COMP courses instead of ISOM 2010
ECON/FINA/GBM /MGMT/MARK	ISOM 2500	3	Substituted	MATH 2411	4	ISOM 2500 and MATH 2411 are mutual exclusions. To fulfill the HKIE engineering accreditation requirements, dual degree students should take MATH 2411. (Students admitted via SBM could be considered of using ISOM 2500 to substitute MATH 2411 upon individual case-by-case approval from Engineering department.)
ECON/FINA/GBM /MGMT/MARK	ISOM 2020	1	Substituted	COMP 1021 OR COMP 1029P	1 OR 3	COMP 1021 COMP 1029P are similar coding courses as compared to ISOM 2020. Students should take one of these two COMP courses instead of ISOM 2020

Deviation from curriculum
for Dual Degree Program

Degree Program 1: *BEng in Computer Engineering (CPEG)*
Degree Program 2: *BBA in Economics (ECON) OR*
BBA in Finance (FINA) OR
BBA in General Business Management (GBM) OR
BBA in Management (MGMT) OR
BBA in Marketing (MARK)

Degree Program	Original requirements specified for the degree program		Substituted/ Waived/ Additional Req't/ Others	Proposed substituted course/ requirement		Remarks
	Course code/ requirement	Credits		Course code/ requirement	Credits	
ECON/FINA/GBM/ MGMT/MARK	SBMT 1111	0	Waived	-	-	DDP students do not need to join this non-credit bearing development course originally designed for Business students
CPEG	ENGG 1010	0	Waived	-	-	[For non-SENG year 1 students admitted to T&M-DDP via School-based admission] DDP students do not need to join this non-credit bearing development course originally designed for Engineering students.
CPEG	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
ECON/FINA/GBM/ MGMT/MARK	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
CPEG	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/FINA/GBM/ MGMT/MARK	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/FINA/GBM/ MGMT/MARK	ISOM 2010	3	Substituted	COMP 1021 OR COMP 1022P	3	COMP 1021 and COMP 1022P are more advanced computing courses as compared to ISOM 2010. Students should take one of these two COMP courses instead of ISOM 2010
ECON/FINA/GBM/ MGMT/MARK	ISOM 2020	1	Substituted	COMP 1021 OR COMP 1029P	1 OR 3	COMP 1021 COMP 1029P are similar coding courses as compared to ISOM 2020. Students should take one of these two COMP courses instead of ISOM 2020

Deviation from curriculum
for Dual Degree Program

Degree Program 1: *BEng in Civil and Environmental Engineering (CIEV)*
Degree Program 2: *BBA in Economics (ECON) OR*
BBA in Finance (FINA) OR
BBA in General Business Management (GBM) OR
BBA in Management (MGMT) OR
BBA in Marketing (MARK)

Degree Program	Original requirements specified for the degree program		Substituted/ Waived/ Additional Req't/ Others	Proposed substituted course/ requirement		Remarks
	Course code/ requirement	Credits		Course code/ requirement	Credits	
ECON/FINA/GBM/MGMT/MARK	SBMT 1111	0	Waived	-	-	DDP students do not need to join this non-credit bearing development course originally designed for Business students
CIVL	ENGG 1010	0	Waived	-	-	[For non-SENG year 1 students admitted to T&M-DDP via School-based admission] DDP students do not need to join this non-credit bearing development course originally designed for Engineering students.
CIVL	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
ECON/FINA/GBM/MGMT/MARK	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
CPEG	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/FINA/GBM/MGMT/MARK	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/FINA/GBM/MGMT/MARK	ISOM 2010	3	Substituted	COMP 1021 OR COMP 1022P OR COMP 2011	3 OR 4	COMP 1021, COMP 1022P and COMP 2011 are more advanced computing courses as compared to ISOM 2010. Students should take one of these three COMP courses instead of ISOM 2010
ECON/FINA/GBM/MGMT/MARK	ISOM 2500	3	Substituted	CIVL 2160	3	It is one-way exclusion for which ISOM 2500 excludes CIVL 2160. To fulfill the HKIE engineering accreditation requirements, dual degree students should take CIVL 2160. (Students admitted via SBM could be considered of using ISOM 2500 to substitute CIVL 2160 upon individual case-by-case approval from Engineering department.)
ECON/FINA/GBM/MGMT/MARK	ISOM 2020	1	Substituted	COMP 1021 OR COMP 1029P	1 OR 3	COMP 1021 COMP 1029P are similar coding courses as compared to ISOM 2020. Students should take one of these two COMP courses instead of ISOM 2020

Deviation from curriculum

for Dual Degree Program

Degree Program 1: *BEng in Decision Analytics (DA)*
Degree Program 2: *BBA in Economics (ECON) OR*
BBA in General Business Management (GBM) OR
BBA in Management (MGMT) OR
BBA in Marketing (MARK)

Degree Program	Original requirements specified for the degree program		Substituted/ Waived/ Additional Req't/ Others	Proposed substituted course/ requirement		Remarks
	Course code/ requirement	Credits		Course code/ requirement	Credits	
ECON/GBM/MGMT /MARK	SBMT 1111	0	Waived	-	-	DDP students do not need to join this non-credit bearing development course originally designed for Business students
DA	ENGG 1010	0	Waived	-	-	[For non-SENG year 1 students admitted to T&M-DDP via School-based admission] DDP students do not need to join this non-credit bearing development course originally designed for Engineering students.
DA	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development.
ECON/GBM/MGMT /MARK	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development.
DA	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/GBM/MGMT /MARK	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/GBM/MGMT /MARK	ISOM 2010	3	Substituted	COMP 1021 OR COMP 1022P OR COMP 2011	3 OR 4	COMP 1021, COMP 1022P and COMP 2011 are more advanced computing courses as compared to ISOM 2010. Students should take one of these three COMP courses instead of ISOM 2010
ECON/GBM/MGMT /MARK	ISOM 2500	3	Substituted	IEDA 2540	3	It is one-way exclusion for which IEDA 2540 excludes ISOM 2500. To fulfill the HKIE engineering accreditation requirements, dual degree students should take IEDA 2540. (Students admitted via SBM could be considered of using ISOM 2500 to substitute IEDA 2540 upon individual case-by-case approval from Engineering department.)
ECON/GBM/MGMT /MARK	ISOM 2020	1	Substituted	COMP 1021 OR COMP 1029P	1 OR 3	COMP 1021 COMP 1029P are similar coding courses as compared to ISOM 2020. Students should take one of these two COMP courses instead of ISOM 2020

Deviation from curriculum
for Dual Degree Program

Degree Program 1: *BEng in Electronic Engineering (ELEC)*
Degree Program 2: *BBA in Economics (ECON) OR*
BBA in Finance (FINA) OR
BBA in General Business Management (GBM) OR
BBA in Management (MGMT) OR
BBA in Marketing (MARK)

Degree Program	Original requirements specified for the degree program		Substituted/ Waived/ Additional Req't/ Others	Proposed substituted course/ requirement		Remarks
	Course code/ requirement	Credits		Course code/ requirement	Credits	
ECON/FINA/GBM /MGMT/MARK	SBMT 1111	0	Waived	-	-	DDP students do not need to join this non-credit bearing development course originally designed for Business students
ELEC	ENGG 1010	0	Waived	-	-	[For non-SENG year 1 students admitted to T&M-DDP via School-based admission] DDP students do not need to join this non-credit bearing development course originally designed for Engineering students.
ELEC	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
ECON/FINA/GBM /MGMT/MARK	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
ELEC	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/FINA/GBM /MGMT/MARK	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/FINA/GBM /MGMT/MARK	ISOM 2010	3	Substituted	COMP 1021 OR COMP 1022P	3	COMP 1021 and COMP 1022P are more advanced computing courses as compared to ISOM 2010. Students should take one of these two COMP courses instead of ISOM 2010
ECON/FINA/GBM /MGMT/MARK	ISOM 2020	1	Substituted	COMP 1021 OR COMP 1029P	3	COMP 1021 COMP 1029P are similar coding courses as compared to ISOM 2020. Students should take one of these two COMP courses instead of ISOM 2020

Deviation from curriculum

for Dual Degree Program

Degree Program 1: *BEng in Industrial Engineering and Engineering Management (IEEM)*
Degree Program 2: *BBA in Economics (ECON) OR*
BBA in General Business Management (GBM) OR
BBA in Management (MGMT) OR
BBA in Marketing (MARK)

Degree Program	Original requirements specified for the degree program		Substituted/ Waived/ Additional Req't/ Others	Proposed substituted course/ requirement		Remarks
	Course code/ requirement	Credits		Course code/ requirement	Credits	
ECON/GBM/ MGMT/MAR K	SBMT 1111	0	Waived	-	-	DDP students do not need to join this non-credit bearing development course originally designed for Business students
IEEM	ENGG 1010	0	Waived	-	-	[For non-SENG year 1 students admitted to T&M-DDP via School-based admission] DDP students do not need to join this non-credit bearing development course originally designed for Engineering students.
IEEM	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
ECON/GBM/ MGMT/MAR K	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
IEEM	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/GBM/ MGMT/MAR K	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/GBM/ MGMT/MAR K	ISOM 2010	3	Substituted	COMP 1021 OR COMP 1022P OR COMP 2011	3 OR 4	COMP 1021, COMP 1022P and COMP 2011 are more advanced computing courses as compared to ISOM 2010. Students should take one of these three COMP courses instead of ISOM 2010
ECON/GBM/ MGMT/MAR K	ISOM 2700	3	Substituted	IEDA 4100	3	ISOM 2700 and IEDA 4100 are mutual exclusions. ISOM 2700 should be substituted by IEDA 4100 to fulfill the HKIE engineering accreditation.
ECON/GBM/ MGMT/MAR K	ISOM 2500	3	Substituted	IEDA 2540	3	It is one-way exclusion for which IEDA 2540 excludes ISOM 2500. To fulfill the HKIE engineering accreditation requirements, dual degree students should take IEDA 2540. (Students admitted via SBM could be considered of using ISOM 2500 to substitute IEDA 2540 upon individual case-by-case approval from Engineering department.)
ECON/GBM/ MGMT/MAR K	ISOM 2020	1	Substituted	COMP 1021 OR COMP 1029P	1 OR 3	COMP 1021 COMP 1029P are similar coding courses as compared to ISOM 2020. Students should take one of these two COMP courses instead of ISOM 2020

Deviation from curriculum
for Dual Degree Program

Degree Program 1: *BEng in Mechanical Engineering (MECH)*
Degree Program 2: *BBA in Economics (ECON) OR*
BBA in Finance (FINA) OR
BBA in General Business Management (GBM) OR
BBA in Management (MGMT) OR
BBA in Marketing (MARK)

Degree Program	Original requirements specified for the degree program		Substituted/ Waived/ Additional Req't/ Others	Proposed substituted course/ requirement		Remarks
	Course code/ requirement	Credits		Course code/ requirement	Credits	
ECON/FINA/GBM /MGMT/MARK	SBMT 1111	0	Waived	-	-	DDP students do not need to join this non-credit bearing development course originally designed for Business students
MECH	ENGG 1010	0	Substituted	SBMT 1111	0	[For non-SENG year 1 students admitted to T&M-DDP via School-based admission] DDP students do not need to join this non-credit bearing development course originally designed for Engineering students.
MECH	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
ECON/FINA/GBM /MGMT/MARK	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
MECH	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/FINA/GBM /MGMT/MARK	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
ECON/FINA/GBM /MGMT/MARK	ISOM 2010	3	Substituted	COMP 1021 OR COMP 1022P OR COMP 2011	3 OR 4	COMP 1021, COMP 1022P and COMP 2011 are more advanced computing courses as compared to ISOM 2010. Students should take one of these three COMP courses instead of ISOM 2010
ECON/FINA/GBM /MGMT/MARK	ISOM 2020	1	Substituted	COMP 1021 OR COMP 1029P	1 OR 3	COMP 1021 COMP 1029P are similar coding courses as compared to ISOM 2020. Students should take one of these two COMP courses instead of ISOM 2020

Deviation from curriculum
for Dual Degree Program

Degree Program 1: *BEng in Decision Analytics (DA)*

Degree Program 2: *BBA in Finance (FINA)*

Degree Program	Original requirements specified for the degree program		Substituted/ Waived/ Additional Req't/ Others	Proposed substituted course/ requirement		Remarks
	Course code/ requirement	Credits		Course code/ requirement	Credits	
FINA	SBMT 1111	0	Waived	-	-	DDP students do not need to join this non-credit bearing development course originally designed for Business students
DA	ENGG 1010	0	Waived	-	-	[For non-SENG year 1 students admitted to T&M-DDP via School-based admission] DDP students do not need to join this non-credit bearing development course originally designed for Engineering students.
DA	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development.
FINA	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development.
DA	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
FINA	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
FINA	ISOM 2010	3	Substituted	COMP 1021 OR COMP 1022P OR COMP 2011	3 OR 4	COMP 1021, COMP 1022P and COMP 2011 are more advanced computing courses as compared to ISOM 2010. Students should take one of these three COMP courses instead of ISOM 2010
DA	IEDA 2540	3	Substituted	ISOM 2500	3	DDP students should take ISOM 2500 to allow themselves to complete FINA2303 before SBM major selection to fulfill the entry requirement of FINA.
FINA	ISOM 2020	1	Substituted	COMP 1021 OR COMP 1029P	1 OR 3	COMP 1021 COMP 1029P are similar coding courses as compared to ISOM 2020. Students should take one of these two COMP courses instead of ISOM 2020

Deviation from curriculum

for Dual Degree Program

Degree Program 1: *BEng in Industrial Engineering and Engineering Management (IEEM)*
Degree Program 2: *BBA in Finance (FINA)*

Degree Program	Original requirements specified for the degree program		Substituted/ Waived/ Additional Req't/ Others	Proposed substituted course/ requirement		Remarks
	Course code/ requirement	Credits		Course code/ requirement	Credits	
FINA	SBMT 1111	0	Waived	-	-	DDP students do not need to join this non-credit bearing development course originally designed for Business students
IEEM	ENGG 1010	0	Waived	-	-	[For non-SENG year 1 students admitted to T&M-DDP via School-based admission] DDP students do not need to join this non-credit bearing development course originally designed for Engineering students.
IEEM	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
FINA	-	-	Additional Req't	TEMG 1010	0	DDP students should take this non-credit bearing course to enhance their academic development
IEEM	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
FINA	-	-	Additional Req't	TEMG 3950	3	DDP students should take this 3-credit course to enhance their problem-solving skills.
FINA	ISOM 2010	3	Substituted	COMP 1021 OR COMP 1022P OR COMP 2011	3 OR 4	COMP 1021, COMP 1022P and COMP 2011 are more advanced computing courses as compared to ISOM 2010. Students should take one of these three COMP courses instead of ISOM 2010
FINA	ISOM 2700	3	Substituted	IEDA 4100	3	ISOM 2700 and IEDA 4100 are mutual exclusions. ISOM 2700 should be substituted by IEDA 4100 to fulfill the HKIE engineering accreditation.
IEEM	IEDA 2540	3	Substituted	ISOM 2500	3	DDP students should take ISOM 2500 to allow themselves to complete FINA2303 before SBM major selection to fulfill the entry requirement of FINA.
FINA	ISOM 2020	1	Substituted	COMP 1021 OR COMP 1029P	1 OR 3	COMP 1021 COMP 1029P are similar coding courses as compared to ISOM 2020. Students should take one of these two COMP courses instead of ISOM 2020

The Hong Kong University of Science and Technology
Interdisciplinary Programs Office
An Example on Student's Pathway

BEGBM **2020-21 Intake**
(Via DDP PBA)

||<< 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 General Business 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			

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		3									3	The course will also be used to substitute ISOM 2010	
COMP	1029P	Introduction to Computing with Java	3													
COMP	2011	Python Programming Bridging Course	1													
COMP	2011	Programming with C++	4													
ENGG	1010	Academic Orientation	0	0	0									0		
CHEM	1010	Note: CHEM1010 OR CHEM 1020														
CHEM	1020	General Chemistry IA	3	3										3		
CHEM	1020	General Chemistry IB	3													
CHEM	1050	Laboratory for General Chemistry I	1	1										1		
LANG	2030	Technical Communication I	3				3							3		
LIFS	1901	General Biology I	3	3										3		
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7													
MATH	1013	Calculus IA	4													
MATH	1014	Calculus IB	3													
MATH	1014	Calculus II	3	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														
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		(3)									0		
Required credits for Engineering Fundamental Courses			23-29											22		

Major Required Courses and Electives

BIEN	1010	Note: BIEN 1010 OR CENG 1000	3		3									3		
CENG	1000	Introduction to Biomedical Engineering	3													
BIEN	2310	Introduction to Chemical and Biological Engineering	3			3								3		
BIEN	2410	Modeling for Chemical and Biological Engineering	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	3240	Transport Phenomena in Biological Systems	3									3		3		
BIEN	3320	Data Science for Biology and Medicine	3				3							3		
BIEN	3410	Introduction to Bioinstrumentation and Bioimaging	3							3				3		
BIEN	3910	Bioengineering Laboratory	4							4				4		
BIEN	4920	Note: BIEN 4920 OR BIEN 4930 OR BIEN 4940														
BIEN	4930	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	3230	Chemical and Biological Reaction Engineering	3							3				3		
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0		
LIFS	3150	Note: LIFS 3150 OR MATH 2411	3-4													
LIFS	2411	Biostatistics	3			3								3		
MATH	2411	Applied Statistics	4													
LANG	4035	Technical Communication II for Chemical and Biological Engineering	3									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									6	3	6	15	
Required credits for Major Required Courses and Electives			60-61											60		

BBA in General Business Management

School Requirements

ACCT	2010	Principles of Accounting I	3			3								3		
ACCT	2200	Principles of Accounting II	3						3					3		
ECON	2103	Note: ECON 2103 OR ECON 2113														
ECON	2113	Principles of Microeconomics	3			3								3		
ECON	2113	Microeconomics	3													
ECON	2123	Note: ECON 2123 OR ECON 3123														
ECON	3123	Macroeconomics	3							3				3		
FINA	2303	Macroeconomic Theory I	3													
FINA	2303	Financial Management	3				3							3		
ISOM	2010	Introduction to Information Systems	3	-	-	-	-	-	-	-	-	-	-	0	Substituted by COMP 1021/1022P/COMP2011	
ISOM	2020	Coding for Business	1	-	-	-	-	-	-	-	-	-	-	0		
ISOM	2500	Business Statistics	3	-	-	-	-	-	-	-	-	-	-	0	Substituted by COMP 1021/1022P/1029P/2011	
ISOM	2600	Introduction to Business Analytics	1	-	-	-	-	-	-	-	-	-	-	0		
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	Substituted by ENGG 1010	
LABU	2040	Business Case Analyses	3					3						3		
LABU	2060	Effective Communication in Business	3							3				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	4													
MATH	1013	Calculus IB	3													
MATH	1020	Accelerated Calculus	4													
MATH	1023	Honors Calculus I	3													
Required credits for School Requirements			43-44											34		

Major Requirements

Major Required Courses and Electives

SB&M		SB&M Electives (Any 9 courses offered by the departments under SB&M, of which at least 4 courses are of 3000-level or above.)	29					6		3	9	4	7	29		
Required credits for Major Required Courses and Electives			29											29		

Additional Requirements

Requirements for Dual Degree Program

Required Courses

TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0		
TEMG	3950	Case-based Problem Solving	3		3									3		
Required credits for Additional Requirements			3											3		

University CORE

CORE	C3 - C12	U CORE - Others	30	3	3	3	3	6	6	3	3			30		
CORE	C1 & C2	U CORE - English Language	6	3				3						6		
Sub-total for University CORE			36											36		

Term load (excl. free credits)									
19	18	19	20	20	18	19	18	17	16
184##									

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):

>> 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.

<< Declaration of
BEng major

<< Declaration of
BBA major

School:		School of Science and School of Business Management		Student's Pathway															Remarks
Program:		Dual Degree Program (BSc in Biotechnology and BBA in General Business 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					
BSc in Biotechnology																			
School Requirements																			
SCIE	1000	Science School Induction	0	0	0									0	This course will be used to substitute ISOM 2010				
COMP	1021	Note: COMP1021 OR COMP1022P OR COMP2011	3-4													LIFS1901 & LIFS1902 are Major Pre-requisite Students are recommended to take CHEM1010, CHEM1030, LIFS1903 and MATH1013 to satisfy the requirements of both SSCI School requirements and Major requirements			
COMP	1022P	Introduction to Computer Science	3			3								3					
COMP	2011	Introduction to Computing with Java	4																
LANG	2010	Programming with C++	3					3						3					
SSCI		Science Foundation courses [8 courses from the specified elective list. Students should take (i) 7 foundation lecture courses, including at least 1 lecture course, but no more than 3 lecture courses, from each discipline: CHEM, LIFS, MATH and PHYS; and (ii) 1 laboratory course.]	22-25												LIFS1901 & LIFS1902 are Major Pre-requisite Students are recommended to take CHEM1010, CHEM1030, LIFS1903 and MATH1013 to satisfy the requirements of both SSCI School requirements and Major requirements				
CHEM	1004	Chemistry in Everyday Life	3																
CHEM	1010	General Chemistry IA	3																
CHEM	1020	General Chemistry IB	3																
CHEM	1030	General Chemistry II	3																
CHEM	1050	Laboratory for General Chemistry I	1																
CHEM	1055	Laboratory for General Chemistry II	1																
LIFS	1030	Environmental Science	3																
LIFS	1901®	General Biology I®	3																
LIFS	1902®	General Biology II®	3																
LIFS	1903	Laboratory for General Biology I	1																
LIFS	1904	Laboratory for General Biology II	1																
LIFS	1930	Laboratory for General Biology II	3																
LIFS	2210	Nature of Life Sciences	3																
LIFS	2210	Biochemistry I	3																
MATH	1012	Calculus IA	4	10	3	6	3							22					
MATH	1013	Calculus IB	3																
MATH	1014	Calculus II	3																
MATH	1020	Accelerated Calculus	4																
MATH	1023	Honors Calculus I	3																
MATH	1024	Honors Calculus II	3																
MATH	2023	Multivariable Calculus	4																
MATH	2121	Linear Algebra	4																
MATH	2131	Honors in Linear and Abstract Algebra I	4																
PHY	1001	Physics and the Modern Society	3																
PHY	1111	General Physics I	3																
PHY	1112	General Physics I with Calculus	3																
PHY	1113	Laboratory for General Physics I	1																
PHY	1114	General Physics II	3																
PHY	1115	Laboratory for General Physics II	1																
PHY	1312	Honors General Physics I	3																
PHY	1314	Honors General Physics II	3																
Required credits for School / Major Pre-requisite Requirements			25-29											28					
Major Requirements																			
Major Required Courses and Electives																			
LIFS	1903	Laboratory for General Biology I	1	(1)										0					
LIFS	1904	Laboratory for General Biology II	1		1									1					
LIFS	2040	Cell Biology	3				3							3					
LIFS	2070	Introduction to Biotechnology	3			3								3					
LIFS	2080	Plant Biology	3				3							3					
LIFS	2210	Biochemistry I	3			(3)								0					
LIFS	3060	Microbiology	3						3					3					
LIFS	3110	Biotechnological Application of Recombinant DNA Techniques	3					3						3					
LIFS	3140	General Genetics	4							4				4					
LIFS	4150	Plant Biotechnology	3									3		3					
LIFS	4200	Concepts and Issues in Contemporary Biotechnology	3							3				3					
LIFS	4963	Note: LIFS4963 OR (LIFS4973 AND LIFS4983) OR (SCIE4500 AND LIFS4983) [Students following IRE Track can only use (SCIE4500 AND LIFS4983) to fulfill the requirement.]	3-7																
LIFS	4963	Biotechnology Capstone Project	3									[3]	3	3					
LIFS	4973	Biotechnology Project Research I	3																
LIFS	4983	Biotechnology Project Research II	4																
SCIE	4500	IRE Research Project II	3																
CHEM	1010	Note: CHEM1010 OR CHEM1020		(3)										0					
CHEM	1020	General Chemistry IA	3																
CHEM	1030	General Chemistry IB	3			(3)								0					
CHEM	1050	General Chemistry II	3																
CHEM	1055	Laboratory for General Chemistry I	1	1										1					
CHEM	1055	Laboratory for General Chemistry II	1		1									1					
CHEM	2110	Note: CHEM 2110 OR CHEM 2311	3																
CHEM	2311	Organic Chemistry I	3					3						3					
CHEM		Analytical Chemistry	3																
CHEM	2155	Note: CHEM2155 OR CHEM2355	1							1				1					
CHEM	2355	Fundamental Organic Chemistry Laboratory	1																
CHEM	2355	Fundamental Analytical Chemistry Laboratory	1																
CENG	1600	Biotechnology and Its Business Opportunities	3							3				3					
LANG	3024	Biotechnology and Science Communication in English (Life Science)	3										3	3					
LIFS/BIPH/BTEC/BIEN/ CENG		Biotechnology Electives (Courses from the specified elective list; Students following IRE Track are required to take a minimum of 15 credits; while others a minimum of 18 credits. Courses taken as Major/Track Required Courses may not be counted towards the elective requirement.)	15-18						3		3	6	3	15					
Required credits for Major Required Courses and Electives			62-70											56					
BBA in General Business Management																			
School Requirements																			
ACCT	2010	Principles of Accounting I	3		3									3					
ACCT	2200	Principles of Accounting II	3						3					3					
ECON	2103	Note: ECON 2103 OR ECON 2113	3				3							3					
ECON	2113	Principles of Microeconomics	3																
ECON	2123	Microeconomics	3																
ECON	3123	Note: ECON 2123 OR ECON 3123	3					3						3					
ECON	3123	Macroeconomics	3																
FINA	2303	Macroeconomic Theory I	3																
FINA	2303	Financial Management	3				3							3					
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P/1022Q/2011				
ISOM	2020	Coding for Business	1						1					1					
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	Business Ethics and the Individual	3			3								3					
MGMT	2130	Organizational Behavior	3																
MGMT	2130	Business Ethics and Social Responsibility	2					2						2					
SBMT	1111	Business Student Induction	0	---	---	---	---	---	---	---	---	---	---	0	Waived for DDP students				
LABU	2040	Business Case Analyses	3							3				3					
LABU	2060	Effective Communication in Business	3									3		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	4																
MATH	1013	Calculus IB	4																
MATH	1020	Accelerated Calculus	4																
MATH	1023	Honors Calculus I	3																
Required credits for School Requirements			43-44											39					
Major Requirements																			
Major Required Courses and Electives																			
SB&M		SB&M Electives (Any 9 courses offered by the departments under SB&M, of which at least 4 courses are of 3000-level or above.)	29					3	6	3	7	3	7	29					
Required credits for Major Required Courses and Electives			29											29					
Additional Requirements																			
Requirements for Dual Degree Program																			
Required Courses																			
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0					
TEMG	3950	Case-based Problem Solving	3		3									3					
Required credits for Additional Requirements			3											3					
University CORE																			
CORE	C3 - C12	U CORE - Others	30	3	3		3	3		3	9	3	3	30					
CORE	C1 & C2	U CORE - English Language	6	3	3									6					
Sub-total for University CORE			36											36					

<< 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 Chemical Engineering and BBA in General Business Management)														Remarks	
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	Subtotal			

BEng in Chemical Engineering

Major Requirements

Engineering Fundamental Courses

COMP	1021	Note: COMP 1021 OR COMP 1022P OR COMP 2011	3-4															
COMP	1022P	Introduction to Computer Science	3	3										3				This course will also be used to substitute ISOM 2010
COMP	2011	Introduction to Computing with Java Programming with C++	3															
ENGG	1010	Academic Orientation	0	0	0									0				
CHEM	1010	Note: CHEM1010 OR CHEM1020	3	3										3				
CHEM	1020	General Chemistry IA General Chemistry IB	3															
LANG	2030	Technical Communication I	3			3								3				
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7															
MATH	1013	Calculus IA	4															
MATH	1014	Calculus IB	3	3	3									6				
MATH	1020	Calculus II	3															
MATH	1023	Accelerated Calculus	4															
MATH	1024	Honors Calculus I	3															
MATH	1024	Honors Calculus II	3															
MATH	2011	Introduction to Multivariable Calculus	3			3								3				
PHYS	1112	Note: PHYS 1112 OR PHYS 1312	3	3										3				
PHYS	1312	General Physics I with Calculus Honors General Physics I	3															
Required credits for Engineering Fundamental Courses			19-23											21				

Major Required Courses and Electives

CENG	1000	Note: CENG1000 OR CENG1500	3	3										3				
CENG	1500	Introduction to Chemical and Biological Engineering A First Course on Materials Science and Applications	3															
CENG	1600	Note: CENG1600 OR CENG1700 OR BIEN1010	3		3									3				
CENG	1700	Biotechnology and Its Business Opportunities	3															
BIEN	1010	Introduction to Environmental Engineering Introduction to Biomedical Engineering	3															
CENG	1010	Academic and Professional Development I	0			0								0				
CENG	1980	Industrial Training	0				0	0	0	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	Process Fluid Mechanics	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				
CENG	4920	Note: CENG4920 OR CENG4930 OR CENG4940	6										3	6				
CENG	4930	Chemical Engineering Capstone Design	6															
CENG	4940	Chemical Engineering Thesis Research 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				
BIEN	2410	Note: BIEN2410 OR BIEN2610 OR LIFS1901	3				3							3				
BIEN	2610	Cellular and Systems Physiology for Engineers	3															
LIFS	1901	Chemical Biology for Engineers General Biology I	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 General Business Management

School Requirements

ACCT	2010	Principles of Accounting I	3			3								3				
ACCT	2200	Principles of Accounting II	3							3				3				
ECON	2103	Note: ECON 2103 OR ECON 2113	3		3									3				
ECON	2113	Principles of Microeconomics Microeconomics	3															
ECON	2123	Note: ECON 2123 OR ECON 3123	3							3				3				
ECON	3123	Macroeconomics Macroeconomic Theory I	3															
FINA	2303	Financial Management	3				3							3				
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0				Substituted by COMP 1021/1022P/COMP2011
ISOM	2020	Coding for Business	1					1						1				
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				Waived for DDP students
LABU	2040	Business Case Analyses	3						3					3				
LABU	2060	Effective Communication in Business	3										3	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	4	(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	Calculus IB	4															
MATH	1023	Accelerated Calculus Honors Calculus I	3															
Required credits for School Requirements			45-46											39				

Major Requirements

Major Required Courses and Electives

SB&M		SB&M Electives (Any 9 courses offered by the departments under SB&M, of which at least 4 courses are of 3000-level or above.)	29						3	9		7	10	29				
Required credits for Major Required Courses and Electives			29											29				

Additional Requirements

Requirements for Dual Degree Program

Required Courses

TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0				
TEMG	3950	Case-based Problem Solving	3		3									3				
Required credits for Additional Requirements			3											3				

University CORE

CORE	C3 - C12	U CORE - Others	30				3	6		3	12	3	3	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	21	19	20	19	21	21	19	19
196##									

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.

School:		School of Engineering and School of Business Management		Student's Pathway													Remarks
Program:		Dual Degree Program (BEng in Civil Engineering and BBA in General Business Management)													Sub-total		
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				

Major Requirements

[illegible][illegible]

School Requirements

[illegible]

Major Requirements

[illegible]

Additional Requirements

Requirements for Dual Degree Program

Required Courses	
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[illegible]

University CORE

[illegible]

<i><< Declaration of BEng major</i>	<i><< Declaration of BBA major</i>
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To graduate, students should complete all requirements as specified for DDP.

>> 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.

<< 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 Computer Science and BBA in General Business 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			

BEng in Computer Science

Major Requirements

Engineering Fundamental Courses

COMP	1021	Note: COMP1021 OR COMP1022P	3	3										3	This course will also be used to substitute ISOM 2010
COMP	1022P	Introduction to Computer Science	3												
ENGG	1010	Academic Orientation	0	0	0									0	
CHEM	1004	Note: CHEM1004 OR CHEM1010 OR CHEM1020 OR LIFS1901 OR PHYS1001 OR PHYS1112 OR PHYS1312	3	3										3	
CHEM	1010	Chemistry in Everyday Life	3												
CHEM	1020	General Chemistry IA	3												
LIFS	1901	General Chemistry IB	3												
PHYS	1001	General Biology I	3												
PHYS	1112	Physics and the Modern Society	3												
PHYS	1312	General Physics I with Calculus	3												
PHYS	1312	Honors General Physics I	3												
LANG	2030	Technical Communication I	3					3						3	
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7	3	3									6	
MATH	1013	Calculus IA	4												
MATH	1013	Calculus IB	3												
MATH	1014	Calculus II	3												
MATH	1020	Accelerated Calculus	4												
MATH	1023	Honors Calculus I	3												
MATH	1024	Honors Calculus II	3												
MATH	2111	Matrix Algebra and Applications	3			3								3	
SENG		Engineering Introduction course (COMP students may also use COMP1022P or COMP1022Q to fulfill this requirement)	3-4	(3)										0	
Required credits for Engineering Fundamental Courses			19-23											18	

Major Required Courses and Electives

COMP	2011	Note: (COMP2011 AND COMP2012) OR COMP2012H	5-8												
COMP	2012	Programming with C++	4			4	4							8	
COMP	2012H	Object-Oriented Programming and Data Structures	4												
COMP	2611	Honors Object-Oriented Programming and Data Structures	5												
COMP	2611	Computer Organization	4						4					4	
COMP	2711	Note: COMP2711 OR COMP2711H	4			4								4	
COMP	2711H	Discrete Mathematical Tools for Computer Science	4												
COMP	2711H	Honors Discrete Mathematical Tools for Computer Science	4												
COMP	3111	Note: COMP3111 OR COMP3111H	4					4						4	
COMP	3111H	Software Engineering	4												
COMP	3111H	Honors Software Engineering	4												
COMP	3511	Operating Systems	3							3				3	
COMP	3711	Note: COMP3711 OR COMP3711H	3-4												
COMP	3711	Design and Analysis of Algorithms	3					3						3	
COMP	3711H	Honors Design and Analysis of Algorithms	4												
COMP	4900	Note: Students are required to take COMP4900 for every regular term in which they are in residency at HKUST with major in COMP	0			0	0	0	0	0	0	0	0	0	
COMP	4900	Academic and Professional Development	0												
COMP	1991	Note: (COMP4981 OR COMP4981H) AND COMP1991 OR COMP4910	6												
COMP	4981	Industrial Experience	0												
COMP	4981	Final Year Project	6									3	3	6	
COMP	4981H	Final Year Thesis	6												
COMP	4910	Co-op FYP Program	6												
ELEC	2600	Note: ELEC2600 OR IELM2510 OR MATH2411 OR MATH2421 OR MATH2431	3-4											4	Students should take MATH 2411 which will also be used to substitute ISOM 2500
IEDA	2520	Probability and Random Processes in Engineering	4												
IEDA	2540	Probability for Engineers	3												
MATH	2411	Statistics for Engineers	3												
MATH	2421	Applied Statistics	4												
MATH	2431	Probability	4												
MATH	2431	Honors Probability	4												
ENGG	2010	Engineering Seminar Series	0			0	0	0	0	0	0	0	0	0	
LANG	4030	Technical Communication II for CSE & CPEG	3									3		3	
COMP		COMP Electives (5 courses from the specified elective list, of which at least 3 courses should be taken from 1 area and at least 2 courses outside that area.)	15							3	6	3	3	15	
COMP		COMP Elective (Any 1 course offered under COMP)	3										3	3	
Required credits for Major Requirements Courses and Electives			53-58											57	

BBA in General Business Management

School Requirements

ACCT	2010	Principles of Accounting I	3		3									3	
ACCT	2200	Principles of Accounting II	3						3					3	
ECON	2103	Note: ECON 2103 OR ECON 2113	3				3							3	
ECON	2113	Principles of Microeconomics	3												
ECON	2113	Microeconomics	3												
ECON	2123	Note: ECON 2123 OR ECON 3123	3					3						3	
ECON	3123	Macroeconomics	3												
FINA	2303	Macroeconomic Theory I	3												
FINA	2303	Financial Management	3				3							3	
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P
ISOM	2020	Coding for Business	1					1						1	
ISOM	2500	Business Statistics	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by MATH 2411
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	Waived for DDP students
LABU	2040	Business Case Analyses	3				3							3	
LABU	2060	Effective Communication in Business	3						3					3	
MATH	1003	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023	3-4	(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	1012	Calculus and Linear Algebra	3												
MATH	1013	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											36	

Major Requirements

Major Required Courses and Electives

SB&M		SB&M Electives (Any 9 courses offered by the departments under SB&M, of which at least 4 courses are of 3000-level or above.)	29					6	3	3	6	7	4	29	
Required credits for Major Required Courses and Electives			29											29	

Additional Requirements

Requirements for Dual Degree Program

Required Courses

TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0	
TEMG	3950	Case-based Problem Solving	3		3									3	
Required credits for Additional Requirements			3											3	

University CORE

CORE	C3 - C12	U CORE - Others	30	6	3	3			3	6	6		3	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	18	19	18	20	19	17	18	16	16
179##									

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 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.

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 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.

<< Declaration of
Eng major

<< Declaration of
BBA major

School:		School of Engineering and School of Business Management		Student's Pathway												Remarks
Program:		Dual Degree Program (BEng in Civil and Environmental Engineering and BBA in General Business 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		
BEng in Civil and Environmental Engineering																
Major Requirements																
Engineering Fundamental Courses																
COMP COMP COMP	1021 1022P 2011	Note: COMP 1021 OR COMP 1022P OR COMP 2011 Introduction to Computer Science Introduction to Computing with Java Programming with C++	3-4 3 3 4		3									3	This course will also be used to substitute ISOM 2010	
ENGG	1010	Academic Orientation	0	0	0									0		
CHEM CHEM	1010 1020	Note: CHEM 1010 OR CHEM 1020 General Chemistry IA General Chemistry IB	3 3	3										3		
LANG	2030	Technical Communication I	3					3						3		
MATH MATH MATH MATH MATH MATH	1012 1013 1014 1020 1023 1024	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020] Calculus IA Calculus IB Calculus II Accelerated Calculus Honors Calculus I Honors Calculus II	4-7 4 3 3 4 3 3		3									6		
MATH	2011	Introduction to Multivariable Calculus	3			3								3		
MATH	2350	Applied Linear Algebra and Differential Equations	3			3								3		
PHYS PHYS	1112 1312	Note: PHYS 1112 OR PHYS 1312 General Physics I with Calculus Honors General Physics I	3 3	3										3		
Required credits for Engineering Fundamental Courses			22-26											24		
Major Required Courses and Electives																
CIVL	1010	Academic Professional Development I	0			0	0							0		
CIVL	1100	Discovering Civil and Environmental Engineering	3		3									3		
CIVL	2010	Academic Professional Development II	0					0	0					0		
CIVL	2020	Industrial and BIM Training	0			0*	0							0		
CIVL	2110	Statics	3			3								3		
CIVL	2120	Mechanics of Materials	3				3							3		
CIVL	2160	Modeling Systems with Uncertainties	3			3								3	This course will also be used to substitute ISOM 2500	
CIVL	2170	Infrastructure Systems Engineering and Management	3				3							3		
CIVL	2410	Environmental Assessment and Management	3				3							3		
CIVL	2510	Fluid Mechanics	3				3							3		
CIVL	2810	Construction Materials	3					3						3		
CIVL	3010	Academic Professional Development III	0							0	0			0		
CIVL	3020	Internship Training	0								0*			0		
CIVL	3210	Note: CIVL3210 OR CIVL3610	3						3					3		
CIVL	3610	Introduction to Construction Management	3													
CIVL	3310	Traffic and Transportation Engineering	3					3						3		
CIVL	3320	Structural Analysis	3													
CIVL	3320	Reinforced Concrete Design	3						3					3		
CIVL	3420	Water and Wastewater Engineering	3						3					3		
CIVL	3510	Hydrosystems Engineering	3					3						3		
CIVL	3730	Fundamentals of Geotechnics	3							3				3		
CIVL	3740	Geotechnical Analysis and Design	3								3			3		
CIVL	4910	Note: CIVL 4910 OR CIVL 4920	6									3	3	6		
CIVL	4920	Civil and Environmental Engineering Final Year Project	6													
CIVL	4920	Civil and Environmental Engineering Final Year Thesis	6													
CIVL	4950	Civil Engineering Capstone Design Project	3									3		3		
CIVL	4450	Note: CIVL4450 OR CIVL 5450 OR CIVL5460	3													
CIVL	5450	Carbon Footprint Analysis and Reduction	3								3			3		
CIVL	5460	Hazardous Waste Treatment and Site Remediation	3													
CIVL	5460	Landfill Engineering and Design	3													
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0		
LANG	4033	Technical Communication II for Civil and Environmental Engineering	3									3		3		
CIVL/SENG		CIVL (Environmental) Electives [at least 1 course should be selected from the "Restricted Electives".] Restricted electives: at least 1 course AND (CIVL: Any CIVL courses at 4000-level or above except those listed as "Restricted Electives" from the list OR SENG: Any 3000-level or above courses offered by the Engineering School or engineering departments other than CIVL)	6									3	3	6		
Required credits for Major Requirements Courses and Electives			66											66		
BBA in General Business Management																
School Requirements																
ACCT	2010	Principles of Accounting I	3			3								3		
ACCT	2200	Principles of Accounting II	3						3					3		
ECON	2103	Note: ECON 2103 OR ECON 2113	3			3								3		
ECON	2113	Principles of Microeconomics	3													
ECON	2123	Note: ECON 2123 OR ECON 3123	3					3						3		
ECON	3123	Macroeconomics	3													
FINA	2303	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	
ISOM	2020	Coding for Business	1		1									1		
ISOM	2500	Business Statistics	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by CIVL 2160	
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	Substituted by ENGG 1010	
LABU	2040	Business Case Analyses	3										3	3		
LABU	2060	Effective Communication in Business	3							3				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	4													
MATH	1013	Calculus IB	3													
MATH	1020	Accelerated Calculus	4													
MATH	1023	Honors Calculus I	3													
Required credits for School Requirements			43-44											36		
Major Requirements																
Major Required Courses and Electives																
SB&M		SB&M Electives (Any 9 courses offered by the departments under SB&M, of which at least 4 courses are of 3000-level or above.)	29					3	3	7	3	6	7	29		
Required credits for Major Required Courses and Electives			29											29		
Additional Requirements																
Requirements for Dual Degree Program																
Required Courses																
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0		
TEMG	3950	Case-based Problem Solving	3		3									3		
Required credits for Additional Requirements			3											3		
University CORE																
CORE		1 U CORE - Others	30	6			3		3	6	9		3	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				20				21				
19				20				21				19				
20				21				19				20				
21				19				21				18				
18				19				20				19				

<< 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 Decision Analytics and BBA in General Business 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		
BEng in Decision Analytics																
Major Requirements																
Engineering Fundamental Courses																
COMP	1021	Note: COMP 1021 OR COMP 1022P OR COMP 2011	3-4		3									3	This course will also be used to substitute ISOM 2010	
COMP	1022P	Introduction to Computer Science	3													
COMP	2011	Introduction to Computing with Java Programming with C++	4													
ENGG	1010	Academic Orientation	0	0	0									0		
CHEM	1010	Note: CHEM1010 OR CHEM1020 OR PHYS1112 OR PHYS1312													3	
CHEM	1020	General Chemistry IA	3	3												
PHYS	1112	General Chemistry IB	3													
PHYS	1312	General Physics I with Calculus Honors General Physics I	3													
LANG	2030	Technical Communication I	3				3							3		
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7												6	
MATH	1013	Calculus IA	4													
MATH	1014	Calculus IB	3	3	3											
MATH	1020	Calculus II	3													
MATH	1023	Accelerated Calculus	4													
MATH	1024	Honors Calculus I	3													
MATH	2011	Honors Calculus II	3													
MATH	2111	Introduction to Multivariable Calculus	3				3							3		
MATH	2111	Matrix Algebra and Applications	3			3								3		
SENG		Engineering Introduction course (If the students take an introduction course included in their major, tr course can be counted towards their major requirement.	3-4		(3)									0		
Required credits for Engineering Fundamental Courses			22-27											21		
Major Required Courses and Electives																
IEDA	1010	Academic and Professional Development I	0			0	0							0		
IEDA	1020	Academic and Professional Development II	0					0	0					0		
IEDA	1990	Note: IEDA1990 OR IEDA1991	0			0	0	0	0	0	0	0	0	0	This course will also be used to substitute ISOM250C	
IEDA	1991	Industrial Training Industrial Experience	0													
IEDA	2520	Probability for Engineers	3		3									3		
IEDA	2540	Statistics for Engineers	3				3							3		
IEDA	3010	Prescriptive Analytics	3					3						3		
IEDA	3230	Engineering Economics and Accounting	3				3							3		
IEDA	3250	Stochastic Models	3						3					3		
IEDA	3300	Industrial Data Systems	3				3							3		
IEDA	3560	Predictive Analytics	3						3					3		
IEDA	4901	Note: IEDA4901 OR IEDA4920	6									3	3	6		
IEDA	4920	Final Year Thesis Decision Analytics Final Year Project	6													
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0		
ECON	2103	Note: ECON2103 OR ECON2113	3			3								3		
ECON	2113	Principles of Microeconomics Microeconomics	3													
LANG	4032	Technical Communication II for Industrial Engineering and Decision Analytics	3						3					3		
IEDA		Area Electives (5 courses from the specified elective list, of which all 5 courses should be taken from th same area)	15						3	6	3	3		15		
Required credits for Major Required Courses and Electives			48											48		
BBA in General Business Management																
School Requirements																
ACCT	2010	Principles of Accounting I	3			3								3		
ACCT	2200	Principles of Accounting II	3						3					3		
ECON	2103	Note: ECON 2103 OR ECON 2113	3			(3)								0		
ECON	2113	Principles of Microeconomics Microeconomics	3													
ECON	2123	Note: ECON 2123 OR ECON 3123	3								3			3		
ECON	3123	Macroeconomics Macroeconomic Theory	3													
FINA	2303	Financial Management	3					3						3		
ISOM	2010	Introduction to Information Systems	3	-	-	-	-	-	-	-	-	-	-	0		
ISOM	2020	Coding for Business	1					1						1	Substituted by COMP 1021/1022P/2011	
ISOM	2500	Business Statistics	3	-	-	-	-	-	-	-	-	-	-	0	Substituted by IEDA2540	
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					3						3	Waived for DDP students	
LABU	2060	Effective Communication in Business	3						3					3	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	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	4													
MATH	1020	Calculus IB	3													
MATH	1023	Accelerated Calculus Honors Calculus I	4													
Required credits for School Requirements			43-44											33		
Major Requirements																
Major Required Courses and Electives																
SB&M		SB&M Electives (Any 9 courses offered by the departments under SB&M, of which at least 4 courses an of 3000-level or above.	29					3		6	6	7	7	29		
Required credits for Major Required Courses and Electives			29											29		
Additional Requirements																
Requirements for Dual Degree Program																
Required Courses																
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0		
TEMG	3950	Case-based Problem Solving	3		3									3		
Required credits for Additional Requirements			3											3		
University CORE																
CORE	C3 - C12	U CORE - Others	30	6	6	3	3			3	6		3	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		18		18		18		16		18		17		18		
170##																

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):

<< Declaration of
BEng major

<< Declaration of
BBA major

Student's Pathway

School:		School of Engineering and School of Business Management														Remarks							
Program:		Dual Degree Program (BEng in Electronic Engineering and BBA in General Business 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									
BEng in Electronic Engineering																							
Major Requirements																							
Engineering Fundamental Courses																							
ELEC	2600	Note: ELEC2600 OR ELEC2600H) OR MATH2011 OR MATH2111 OR MATH2350 OR MATH 2351 (3 courses out of 6)	9-10																				
ELEC	2600H	Probability and Random Processes in Engineering	4																				
ELEC	2011	Honors Probability and Random Processes in Engineering	4	3		3		3						9									
MATH	2111	Introduction to Multivariable Calculus	3																				
MATH	2350	Matrix Algebra and Applications	3																				
MATH	2351	Applied Linear Algebra and Differential Equations	3																				
		Introduction to Differential Equations	3																				
COMP	1021	Note: COMP1021 OR COMP1022P	3		3									3	This course will also be used to substitute ISOM 2010								
COMP	1022P	Introduction to Computer Science	3																				
COMP	2011	Introduction to Computing with Java	4			4								4									
ENGG	1010	Programming with C++	0	0	0									0									
LANG	2030	Academic Orientation	3						3					3									
		Technical Communication I	3																				
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7																				
MATH	1013	Calculus IA	4																				
MATH	1014	Calculus IB	3	3	3									6									
MATH	1020	Calculus II	3																				
MATH	1023	Accelerated Calculus	4																				
MATH	1024	Honors Calculus I	3																				
		Honors Calculus II	3																				
PHYS	1112	Note: PHYS1112 OR PHYS1312	3	3										3									
PHYS	1312	General Physics I with Calculus	3																				
		Honors General Physics I																					
PHYS	1114	Note: PHYS1114 OR PHYS1314	3		3									3									
PHYS	1314	General Physics II	3																				
		Honors General Physics II																					
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			32-37											31									
Major Required Courses and Electives																							
ELEC	1100	Introduction to Electro-Robot Design	4			4								4									
ELEC	1200	A System View of Communications: from Signals to Packets	4				4							4									
ELEC	2100	Note: ELEC2100 OR ELEC2100H	4							4				4									
ELEC	2100H	Signals and Systems	4																				
ELEC	2350	Honors Signals and Systems	4																				
ELEC	2350	Introduction to Computer Organization and Design	4							4				4									
ELEC	2400	Electronic Circuits	4						4					4									
ELEC	2910	Academic and Professional Development I	0			0	0							0									
ELEC	3910	Academic and Professional Development II	0					0	0					0									
ELEC	4900	Note: (ELEC4900 AND ELEC2991) OR (ELEC4901 AND ELEC2991) OR ELEC4910	6																				
ELEC	4901	(Students taking the Research Option must take ELEC 4901)	6																				
ELEC	2991	Final Year Design Project	6									3	3	6									
ELEC	4910	Final Year Thesis	0																				
ELEC	4910	Industrial Experience (Electronic Engineering)	0																				
ENGG	2010	Co-op Program	6																				
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0									
LANG	4031	Technical Communication II for ECE & CPEG	3									3		3									
ELEC		ELEC 3000-level or 4000-level Electives (Any 2 courses ELEC 4000-level courses. ELEC4940 cannot be used to count towards this elective requirement)	21				3		3		6	3	6	21									
Required credits for Major Requirements Courses and Electives			50											50									
BBA in General Business Management																							
School Requirements																							
ACCT	2010	Principles of Accounting I	3			3								3									
ACCT	2200	Principles of Accounting II	3						3					3									
ECON	2103	Note: ECON2103 OR ECON2113	3																				
ECON	2113	Principles of Microeconomics	3			3								3									
		Microeconomics	3																				
ECON	2123	Note: ECON2123 OR ECON3123	3					3						3									
ECON	3123	Macroeconomics	3																				
		Macroeconomic Theory I																					
FINA	2303	Financial Management	3				3							3									
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P								
ISOM	2020	Coding for Business	1					1						1									
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	Waived for DDP students								
LABU	2040	Business Case Analyses	3				3							3									
LABU	2060	Effective Communication in Business	3					3						3									
MATH	1003	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023	3-4	(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	1012	Calculus and Linear Algebra	3																				
MATH	1013	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											39									
Major Requirements																							
Major Required Courses and Electives																							
SB&M		SB&M Electives (Any 9 courses offered by the departments under SB&M, of which at least 4 courses are of 3000-level or above.)	29					6	3	6	4	3	7	29									
Required credits for Major Required Courses and Electives			29											29									
Additional Requirements																							
Requirements for Dual Degree Program																							
Required Courses																							
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0									
TEMG	3950	Case-based Problem Solving	3		3									3									
Required credits for Additional Requirements			3											3									
University CORE																							
CORE	C3 - C12	U CORE - Others	30	6	3				3	6	9	3		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	18	20	19	20	19	20	19	17	18
														188##									

<< Declaration of
BEng major

<< Declaration of
BBA major

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 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.

School:		School of Engineering and School of Business Management			<< Declaration of BEng major												<< Declaration of BBA major											
Program:		Dual Degree Program (BEng in Industrial Engineering and Engineering Management and BBA in General Business Management)			Student's Pathway																Remarks							
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													
BEng in Industrial Engineering and Engineering Management																												
Major Requirements																												
Engineering Fundamental Courses																												
COMP	1021	Note: COMP1021 OR COMP1022P OR COMP2011	3-4																									
COMP	1022P	Introduction to Computer Science	3	3											3	This course will also be used to substitute ISOM 2010												
COMP	2011	Introduction to Computing with Java	3																									
COMP		Programming with C++	4																									
ENGG	1010	Academic Orientation	0	0	0										0													
CHEM	1010	Note: CHEM1010 OR CHEM1020 OR PHYS1112 OR PHYS1312																										
CHEM	1020	General Chemistry IA	3																									
CHEM	1020	General Chemistry IB	3	3											3													
PHYS	1112	General Physics I with Calculus	3																									
PHYS	1312	Honors General Physics I	3																									
LANG	2030	Technical Communication I	3						3						3													
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7																									
MATH	1013	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													
MATH	2111	Matrix Algebra and Applications	3				3								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			22-27												21													
Major Required Courses and Electives																												
IEDA	1010	Academic and Professional Development I	0				0	0							0													
IEDA	1020	Academic and Professional Development II	0						0	0					0													
IEDA	1990	Note: IEDA1990 OR IEDA1991																										
IEDA	1991	Industrial Training	0				0*	0^							0													
IEDA	1991	Industrial Experience	0																									
IEDA	2520	Probability for Engineers	3				3								3													
IEDA	2540	Statistics for Engineers	3					3							3	This course will also be used to substitute ISOM2500												
IEDA	3010	Prescriptive Analytics	3						3						3													
IEDA	3230	Engineering Economics and Accounting	3						3						3													
IEDA	3250	Stochastic Models	3							3					3													
IEDA	3300	Industrial Data Systems	3					3							3													
IEDA	4100	Integrated Production Systems	3									3			3	This course will also be used to substitute ISOM 2700												
IEDA	4130	System Simulation	3									3			3													
IEDA	4901	Note: IEDA4901 OR IEDA4990	6										3	3	6													
IEDA	4960	Final Year Thesis	6																									
IEDA		Industrial Engineering and Engineering Management Final Year Project	6																									
ENGG	2010	Engineering Seminar Series	0				0	0	0	0	0	0	0	0	0													
ECON	2103	Note: ECON 2103 OR ECON 2113																										
ECON	2113	Principles of Microeconomics	3				3								3													
ECON	2113	Microeconomics	3																									
LANG	4032	Technical Communication II for Industrial Engineering and Decision Analytics	3										3		3													
IEDA		Industrial Engineering Electives (Courses from the specified 21 elective list, of which at least 15 credits should be taken from 1 of the 2 areas and at least 6 credits outside that area.)	21				6	3			3		3	6	21													
Required credits for Major Requirements Courses and Electives			57												57													
BBA in General Business Management																												
School Requirements																												
ACCT	2010	Principles of Accounting I	3		3										3													
ACCT	2200	Principles of Accounting II	3							3					3													
ECON	2103	Note: ECON 2103 OR ECON 2113																										
ECON	2113	Principles of Microeconomics	3				(3)								0													
ECON	2113	Microeconomics	3																									
ECON	2123	Note: ECON 2123 OR ECON 3123																										
ECON	3123	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												
ISOM	2020	Coding for Business	1						1						1													
ISOM	2500	Business Statistics	3	---	---	---	---	---	---	---	---	---	---	---	0		Substituted by IEDA2540											
ISOM	2600	Introduction to Business Analytics	1							1					1													
ISOM	2700	Operations Management	3	---	---	---	---	---	---	---	---	---	---	---	0	Substituted by IEDA 4100												
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	Waived for DDP students												
LABU	2040	Business Case Analyses	3							3					3													
LABU	2060	Effective Communication in Business	3								3				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	1012	Calculus IA	4	(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	1013	Calculus IB	3																									
MATH	1020	Accelerated Calculus	4																									
MATH	1023	Honors Calculus I	3																									
MATH	1023																											
Required credits for School Requirements			43-44												30													
Major Requirements																												
Major Required Courses and Electives																												
SB&M		SB&M Electives (Any 9 courses offered by the departments under SB&M, of which at least 4 courses are of 3000-level or above.)	29							3	9	3	7	7	29													
Required credits for Major Required Courses and Electives			29												29													
Additional Requirements																												
Requirements for Dual Degree Program																												
Required Courses																												
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0	0													
TEMG	3950	Case-based Problem Solving	3		3										3													
Required credits for Additional Requirements			3												3													
University CORE																												
CORE	C3 - C12	U CORE - Others	30	6	3	3			3	6	3	6			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				18	18				18	19	18	18	17	16	16													
176##																												

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.

				<< Declaration of BEng major		<< Declaration of BBA major		Student's Pathway									
School:		School of Engineering and School of Business Management															
Program:		Dual Degree Program (BEng in Mechanical Engineering and BBA in General Business 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 Mechanical Engineering																	
Major Requirements																	
Engineering Fundamental Courses																	
COMP	1021	Note: COMP1021 OR COMP1022P OR COMP2011	3-4											3	This course will also be used to substitute ISOM 2010		
COMP	1022P	Introduction to Computer Science	3	3													
COMP	2011	Introduction to Computing with Java	3														
		Programming with C++	4														
ENGG	1010	Academic Orientation	0	0	0									0			
LANG	2030	Technical Communication I	3				3							3			
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7												6		
MATH	1013	Calculus IA	4														
MATH	1014	Calculus IB	3	3	3												
MATH	1020	Calculus II	3														
MATH	1023	Accelerated Calculus	4														
MATH	1024	Honors Calculus I	3														
MATH	2011	Honors Calculus II	3														
MATH	2011	Introduction to Multivariable Calculus	3							3				3			
MATH	2111	Note: MATH2111 OR MATH2350 OR MATH2351	3												3		
MATH	2350	Matrix Algebra and Applications	3							3							
MATH	2351	Applied Linear Algebra and Differential Equations	3														
PHYS	1112	Note: PHYS1112 OR PHYS1312	3		3									3			
PHYS	1312	General Physics I with Calculus	3														
PHYS		Honors General Physics I	3														
CHEM/LIFS/ PHYS		Science 1000-level course (Any 1 course of the subject and level as specified)	3		(3)									0			
Required credits for Engineering Fundamental Courses			22-26											21			
Major Required Courses and Electives																	
MECH	1990	Industrial Training	0			0*	0^							0			
MECH	2020	Statics and Dynamics	3			3								3			
MECH	2040	Solid Mechanics I	3						3					3			
MECH	2210	Fluid Mechanics	3						3					3			
MECH	2310	Thermodynamics	3			3								3			
MECH	2410	Engineering Materials I	3				3							3			
MECH	2520	Design and Manufacturing I	3				3							3			
MECH	2907	Mechatronic Design and Prototyping	3						3					3			
MECH	3030	Mechanisms of Machinery	3								3			3			
MECH	3300	Note: MECH3300 OR MECH3420 OR MECH3520	3							3				3			
MECH	3420	Energy Conversion	3												3		
MECH	3520	Engineering Materials II	3														
MECH	3520	Design and Manufacturing II	3														
MECH	3310	Heat Transfer	3								3			3			
MECH	3610	Control Principles	3					3						3			
MECH	3630	Electrical Technology	3						3					3			
MECH	3830	Laboratory	3								3			3			
MECH	4900	Final Year Design Project	6									3	3	6			
ELEC	2420	Basic Electronics	3			3								3			
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0			
LANG	4034	Technical Communication II for Mechanical and Aerospace Engineering	3								3			3			
Required credits for Major Requirements Courses and Electives			51											51			
BBA in General Business Management																	
School Requirements																	
ACCT	2010	Principles of Accounting I	3			3								3			
ACCT	2200	Principles of Accounting II	3						3					3			
ECON	2103	Note: ECON 2103 OR ECON 2113	3			3								3			
ECON	2113	Principles of Microeconomics	3												3		
ECON		Microeconomics	3														
ECON	2123	Note: ECON 2123 OR ECON 3123	3					3									
ECON	3123	Macroeconomics	3												3		
ECON		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		
ISOM	2020	Coding for Business	1					1						1			
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	Waived for DDP students		
LABU	2040	Business Case Analyses	3					3						3			
LABU	2060	Effective Communication in Business	3							3				3			
MATH	1003	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023	3-4												0		
MATH	1012	Calculus and Linear Algebra	3	(3)													
MATH	1013	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											39			
Major Requirements																	
Major Required Courses and Electives																	
SB&M		SB&M Electives (Any 9 courses offered by the departments under SB&M, of which at least 4 courses are of 3000-level or above.)	29					6		3	3	7	10	29			
Required credits for Major Required Courses and Electives			29											29			
Additional Requirements																	
Requirements for Dual Degree Program																	
Required Courses																	
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0			
TEMG	3950	Case-based Problem Solving	3		3									3			
Required credits for Additional Requirements			3											3			
University CORE																	
CORE	C3 - C12	U CORE - Others	30	9	6					3	3	6	3	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	18	20	18	19	18	18	18	16	16								
179##																	

<< 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 Finance)														Remarks
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		
BEng in Bioengineering																
Major Requirements																
Engineering Fundamental Courses																
COMP	1021	Note: [COMP 1021] OR [(COMP 1022P OR COMP 2011) AND COMP1029P]	3-5												DDP students should take COMP 1022P to satisfy the requirements of both BEng and BBA degrees	
COMP	1022P	Introduction to Computer Science	3		3									3		
COMP	1029P	Python Programming Bridging Course	1													
COMP	2011	Programming with C++	4													
ENGG	1010	Academic Orientation	0	0	0									0		
CHEM	1010	Note: CHEM1010 OR CHEM 1020													3	
CHEM	1020	General Chemistry IA	3	3												
CHEM	1050	General Chemistry IB	3												1	
		Laboratory for General Chemistry I	1	1												
LANG	2030	Technical Communication I	3				3								3	
LIFS	1901	General Biology I	3	3											3	
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7												6	
MATH	1013	Calculus IA	4													
MATH	1014	Calculus IB	3	3	3											
MATH	1020	Calculus II	3													
MATH	1023	Accelerated Calculus	4													
MATH	1024	Honors Calculus I	3												3	
PHYS	1112	Note: PHYS 1112 OR PHYS 1312														
PHYS	1312	General Physics I with Calculus	3	3												
SENG		Honors General Physics I	3												0	
		Engineering Introduction course (If the students take an introduction course included in their major, the course can be counted towards their major requirement.)	3-4		(3)											
Required credits for Engineering Fundamental Courses			23-29											22		
Major Required Courses and Electives																
BIEN	1010	Note: BIEN 1010 OR CENG 1000	3		3									3		
CENG	1000	Introduction to Biomedical Engineering	3													
BIEN	2310	Introduction to Chemical and Biological Engineering	3			3								3		
BIEN	2410	Modeling for Chemical and Biological Engineering	3						3					3		
BIEN	2610	Cellular and Systems Physiology for Engineers	3											3		
BIEN	2610	Chemical Biology for Engineers	3			3								3		
BIEN	2990	Academic and Professional Development I	1			1								1		
BIEN	3240	Transport Phenomena in Biological Systems	3									3		3		
BIEN	3320	Data Science for Biology and Medicine	3				3							3		
BIEN	3410	Introduction to Bioinstrumentation and Bioimaging	3							3				3		
BIEN	3910	Introduction to Bioinstrumentation and Bioimaging	4							4				4		
BIEN	4920	Bioengineering Laboratory	4												6	
BIEN	4920	Note: BIEN 4920 OR BIEN 4930 OR BIEN 4940														
BIEN	4930	Bioengineering Capslone Design	6									3	3			
BIEN	4940	Bioengineering Thesis Research	6													
BIEN	4940	Bioengineering Industrial Project	6												1	
BIEN	4990	Academic and Professional Development II	1									1				
CENG	2210	Chemical and Biological Engineering Thermodynamics	3				3							3		
CENG	3230	Chemical and Biological Reaction Engineering	3											3		
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0		
LIFS	3150	Note: LIFS 3150 OR MATH 2411	3-4											3		
MATH	2411	Biosstatistics	3			3										
MATH	2411	Applied Statistics	4											3		
LANG	4035	Technical Communication II for Chemical and Biological Engineering	3									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								6	3	6	15		
Required credits for Major Required Courses and Electives			60-61											60		
BBA in Finance																
School Requirements																
ACCT	2010	Principles of Accounting I	3			3								3		
ACCT	2200	Principles of Accounting II	3						3					3		
ECON	2103	Note: ECON 2103 OR ECON 2113	3			3								3		
ECON	2113	Principles of Microeconomics	3													
ECON	2123	Note: ECON 2123 OR ECON 3123	3							3				3		
ECON	3123	Macroeconomics	3													
FINA	2303	Macroeconomic Theory I	3											3	FINA 2303 is a major pre-requisite	
ISOM	2010	Financial Management	3				3							3		
ISOM	2010	Introduction to Information Systems	3	-	-	-	-	-	-	-	-	-	-	0	Substituted by COMP 1021/1022P/COMP2011	
ISOM	2020	Coding for Business	1	-	-	-	-	-	-	-	-	-	-	0		
ISOM	2500	Business Statistics	3	-	-	-	-	-	-	-	-	-	-	0	Substituted by LIFS 3150/MATH 2411	
ISOM	2600	Introduction to Business Analytics	1	-	-	-	-	-	-	-	-	-	-	0		
ISOM	2700	Operations Management	3						3					3	Substituted by BIEN3320	
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		
SBMT	1111	Business Student Induction	0	-	-	-	-	-	-	-	-	-	-	0		
LABU	2040	Business Case Analyses	3					3						3	Substituted by ENGG 1010	
LABU	2060	Effective Communication in Business	3											3		
MATH	1003	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023	3-4												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	1012	Calculus and Linear Algebra	3													
MATH	1013	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											34		
Major Requirements																
Major Required Courses and Electives																
FINA	3001	Key Skills for Finance Professionals (A)	1					1						1		
FINA	3103	Intermediate Investments	3					3						3		
FINA	3203	Derivative Securities	3								3			3		
FINA	3303	Intermediate Corporate Finance	3							3				3		
FINA	3810	Bloomberg Market Concepts Certification	0					0						0		
ACCT	3010	Note: (ACCT 3010 AND ACCT 3020) OR ACCT 3030	3-6											3		
ACCT	3020	Financial Accounting I	3					3								
ACCT	3030	Financial Accounting II	3													
ISOM/COMP		Note: ISOM 3230 OR ISOM 3400 OR COMP 1022P	3												DDP students should take COMP 1022P to satisfy the requirements of both BEng and BBA degrees	
ISOM	3230	Business Applications Programming	3													
ISOM	3400	Python Programming for Business Analytics	3													
COMP	1022P	Introduction to Computing with Java	3													
FINA		FINA 3000-level or above Electives (Any 3 courses of the subject and level as specified)	9								3	3	3	9		
Required credits for Major Required Courses and Electives			25-28											22		
Additional Requirements																
Requirements for Dual Degree Program																
Required Courses																
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0		
TEMG	3950	Case-based Problem Solving	3		3									3		
Required credits for Additional Requirements			3											3		
University CORE																
CORE	C3 - C12	U CORE - Others	30	3			3	6	6	3	6	3		30		
CORE	C1 & C2	U CORE - English Language	6	3	3									6		
Sub-total for University CORE			36											36		
Term load (excl. free credits)																
19 18 18 18 18 18 18 19 18 19 12																
177##																
<< Declaration of BEng major << Declaration of BBA major																
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.																

<< Declaration of
BEng major

<< Declaration of
BBA major

School:		School of Science and School of Business Management		Student's Pathway													
Program:		Dual Degree Program (BSc in Biotechnology and BBA in Finance)															
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		
BSc in Biotechnology																	
School Requirements																	
SCIE	1000	Science School Induction	0	0	0									0			
COMP	1021	Note: COMP1021 OR COMP1022P OR COMP2011	3-4														
COMP	1022P	Introduction to Computer Science	3			3								3	DDP students should take COMP 1022P to satisfy the requirements of both BEng and BBA degrees		
COMP	2011	Programming with C++	4														
LANG	2010	English for Science I	3					3						3			
SSCI		Science Foundation courses [8 courses from the specified elective list. Students should take (i) 7 foundation lecture courses, including at least 1 lecture course, but no more than 3 lecture courses, from each discipline: CHEM, LIFS, MATH and PHYS; and (ii) 1 laboratory course.]	22-25														
CHEM	1004	Chemistry in Everyday Life	3														
CHEM	1010	General Chemistry IA	3														
CHEM	1020	General Chemistry IB	3														
CHEM	1030	General Chemistry II	3														
CHEM	1050	Laboratory for General Chemistry I	1														
CHEM	1055	Laboratory for General Chemistry II	1														
LIFS	1030	Environmental Science	3														
LIFS	1901 ^B	General Biology I ^B	3														
LIFS	1902 ^B	General Biology II ^B	3														
LIFS	1903	Laboratory for General Biology I	1														
LIFS	1904	Laboratory for General Biology II	1														
LIFS	1930	Nature of Life Sciences	3	10	3	6	3							22	LIFS1901 & LIFS1902 are Major Pre-requisite		
LIFS	2210	Biochemistry I	3												Students are recommended to take CHEM1010, CHEM1030, LIFS1903 and MATH1013 to satisfy the requirements of both SSCI School requirements and Major requirements		
MATH	1012	Calculus IA	4														
MATH	1013	Calculus IB	3														
MATH	1014	Calculus II	3														
MATH	1020	Accelerated Calculus	4														
MATH	1023	Honors Calculus I	3														
MATH	1024	Honors Calculus II	3														
MATH	2023	Multivariable Calculus	4														
MATH	2121	Linear Algebra	4														
MATH	2131	Honors in Linear and Abstract Algebra I	4														
PHY	1001	Physics and the Modern Society	3														
PHY	1111	General Physics I	3														
PHY	1112	General Physics I with Calculus	3														
PHY	1113	Laboratory for General Physics I	1														
PHY	1114	General Physics II	3														
PHY	1115	Laboratory for General Physics I	1														
Required credits for School / Major Pre-requisite Requirements			25-29											28			
Major Requirements																	
Major Required Courses and Electives																	
LIFS	1903	Laboratory for General Biology I	1	(1)										0			
LIFS	1904	Laboratory for General Biology II	1		1									1			
LIFS	2040	Cell Biology	3				3							3			
LIFS	2070	Introduction to Biotechnology	3			3								3			
LIFS	2080	Plant Biology	3				3							3			
LIFS	2210	Biochemistry I	3			(3)								0			
LIFS	3060	Microbiology	3						3					3			
LIFS	3110	Biotechnological Application of Recombinant DNA Techniques	3					3						3			
LIFS	3140	General Genetics	4						4					4			
LIFS	4150	Plant Biotechnology	3									3		3			
LIFS	4200	Concepts and Issues in Contemporary Biotechnology	3						3					3			
LIFS	4963	Note: LIFS4963 OR (LIFS4973 AND LIFS4983) OR (SCIE4500 AND LIFS4983) [Students following IRE Track can only use (SCIE4500 AND LIFS4983) to fulfill the requirement.]	3-7									[3]	3	3			
LIFS	4973	Biotechnology Capstone Project	3														
LIFS	4983	Biotechnology Project Research I	3														
LIFS	4983	Biotechnology Project Research II	4														
SCIE	4500	IRE Research Project I	3														
CHEM	1010	Note: CHEM1010 OR CHEM1020	3	(3)										0			
CHEM	1020	General Chemistry IA	3														
CHEM	1030	General Chemistry IB	3														
CHEM	1050	Laboratory for General Chemistry I	1	1										1			
CHEM	1055	Laboratory for General Chemistry II	1		1									1			
CHEM	2110	Note: CHEM 2110 OR CHEM 2311	3					3						3			
CHEM	2311	Organic Chemistry I	3														
CHEM	2155	Note: CHEM2155 OR CHEM2355	1						1					1			
CHEM	2355	Fundamental Organic Chemistry Laboratory	1														
CENG	1600	Fundamental Analytical Chemistry Laboratory	1														
CENG	1600	Biotechnology and Its Business Opportunities	3						3					3			
LANG	3024	Science Communication in English (Life Science)	3										3	3			
LIFS/BIPH/BTEC/BIEN/ CENG		Biotechnology Electives (Courses from the specified elective list; Students following IRE Track are required to take a minimum of 15 credits, while others a minimum of 18 credits. Courses taken as Major/Track Required Courses may not be counted towards the elective requirement.)	15-18						3		3	6	3	15			
Required credits for Major Required Courses and Electives			62-70											56			
BBA in Finance																	
School Requirements																	
ACCT	2010	Principles of Accounting I	3		3									3			
ACCT	2200	Principles of Accounting II	3						3					3			
ECON	2103	Note: ECON 2103 OR ECON 2113	3				3							3			
ECON	2113	Principles of Microeconomics	3														
ECON	2123	Note: ECON 2123 OR ECON 3123	3					3						3			
ECON	3123	Macroeconomics	3														
FINA	2303	Macroeconomic Theory I	3														
FINA	2303	Financial Management	3				3							3	FINA 2303 is a major pre-requisite		
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P/1022Q/2011		
ISOM	2020	Coding for Business	1				1							1			
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	Waived for DDP students		
LABU	2040	Business Case Analyses	3								3			3			
LABU	2060	Effective Communication in Business	3									3		3			
MATH	1003	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1022	3-4														
MATH	1012	Calculus and Linear Algebra	3														
MATH	1013	Calculus IA	4	(3)										0	DDP students should take MATH 1013 OR MATH 1023 to satisfy the requirements of both BSc and BBA degrees		
MATH	1020	Calculus IB	3														
MATH	1023	Accelerated Calculus	4														
MATH	1023	Honors Calculus I	3														
Required credits for School Requirements			43-44											39			
Major Requirements																	
Major Required Courses and Electives																	
FINA	3001	Key Skills for Finance Professionals (A)	1					1						1			
FINA	3103	Intermediate Investments	3					3						3			
FINA	3203	Derivative Securities	3							3				3			
FINA	3303	Intermediate Corporate Finance	3							3				3			
FINA	3810	Bloomberg Market Concepts Certification	0					0						0			
ACCT	3010	Note: (ACCT 3010 AND ACCT 3020) OR ACCT 3030	3-6														
ACCT	3020	Financial Accounting I	3					3						3			
ACCT	3030	Financial Accounting II	3														
ISOM/COMP	3230	Intermediate Financial Accounting for Non-Accounting Majors	3														
ISOM	3400	Note: ISOM 3230 OR ISOM 3400 OR COMP 1022P	3											0	DDP students should take COMP 1022P to satisfy the requirements of both BEng and BBA degrees		
ISOM	3400	Business Applications Programming	3			(3)											
COMP	1022P	Python Programming for Business Analytics	3														
FINA		Introduction to Computing with Java	3														
FINA		FINA 3000-level or above Electives (Any 3 courses of the subject and level as specified)	9							3	3	3		9			
Required credits for Major Required Courses and Electives			25-28											22			
Additional Requirements																	
Requirements for Dual Degree Program																	
Required Courses																	
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0			
TEMG	3950	Case-based Problem Solving	3		3									3			
Required credits for Additional Requirements			3											3			
University CORE																	
CORE	C3 - C12	U CORE - Others	30	3	3				6	6	6	3	3	30			
CORE	C1 & C2	U CORE - English Language	6	3	3									6			
Sub-total for University CORE			36											36			

<< Declaration of
BEng major

<< Declaration of
BBA major

Notes:

@ Course that students need to complete before enrolling into respective major/programs.

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

[] denotes the course is also offered in other terms as indicated and students may take the course in one of these subject to advice by the program office.

--- 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.

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.

>> 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.

<< 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 Civil Engineering and BBA in Finance)															
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			
BEng in Civil Engineering																	
Major Requirements																	
Engineering Fundamental Courses																	
COMP	1021	Note: COMP 1021 OR COMP 1022P OR COMP 2011 Introduction to Computer Science Introduction to Computing with Java Programming with C++	3-4		3									3	DDP students should take COMP 1022P to satisfy the requirements of both BEng and BBA degrees		
COMP	1022P		3														
COMP	2011		4														
ENGG	1010		0	0	0											0	
CHEM	1010	Note: CHEM 1010 OR CHEM 1020 General Chemistry IA General Chemistry IB	3	3											3		
CHEM	1020		3														
LANG	2030	Technical Communication I	3					3							3		
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020] Calculus IA Calculus IB Calculus II Accelerated Calculus Honors Calculus I Honors Calculus II	4-7												6		
MATH	1013		4														
MATH	1014		3	3	3												
MATH	1020		3														
MATH	1023		4														
MATH	1024		3														
MATH	2011	Introduction to Multivariable Calculus	3			3									3		
MATH	2350	Applied Linear Algebra and Differential Equations	3			3									3		
PHYS	1112	Note: PHYS 1112 OR PHYS 1312 General Physics I with Calculus Honors General Physics I	3	3											3		
PHYS	1312		3														
Required credits for Engineering Fundamental Courses			22-26												24		
Major Required Courses and Electives																	
CIVL	1010	Academic Professional Development I	0			0	0								0		
CIVL	1100	Discovering Civil and Environmental Engineering	3		3										3		
CIVL	2010	Academic Professional Development II	0					0	0						0		
CIVL	2020	Industrial and BIM Training	0			0*	0								0		
CIVL	2110	Statics	3			3									3		
CIVL	2120	Mechanics of Materials	3				3								3		
CIVL	2160	Modeling Systems with Uncertainties	3			3									3		
CIVL	2170	Infrastructure Systems Engineering and Management	3				3								3		
CIVL	2410	Environmental Assessment and Management	3				3								3		
CIVL	2510	Fluid Mechanics	3				3								3		
CIVL	2810	Construction Materials	3					3							3		
CIVL	3010	Academic Professional Development III	0							0	0				0		
CIVL	3020	Internship Training	0								0*				0		
CIVL	3210	Introduction to Construction Management	3						3						3		
CIVL	3310	Structural Analysis	3					3							3		
CIVL	3320	Reinforced Concrete Design	3						3						3		
CIVL	3510	Hydrosystems Engineering	3					3							3		
CIVL	3610	Traffic and Transportation Engineering	3						3						3		
CIVL	3730	Fundamentals of Geotechnics	3							3					3		
CIVL	3740	Geotechnical Analysis and Design	3								3				3		
CIVL	4910	Note: CIVL 4910 OR CIVL 4920 Civil and Environmental Engineering Final Year Project Civil and Environmental Engineering Final Year Thesis	6									3	3		6		
CIVL	4920		6														
CIVL	4950	Civil Engineering Capstone Design Project	3									3			3		
ENGG	2010	Engineering Seminar Series	0			0	0	0	0						0		
LANG	4033	Technical Communication II for Civil and Environmental Engineering	3									3			3		
CIVL/SENG		CIVL Electives (3 courses from the specified elective list) CIVL: Any CIVL courses at 4000-level or above except CIVL 4230 SENG: Any 3000-level or above courses offered by the Engineering School or engineering departments other than CIVL	9								3	3	3		9		
Required credits for Major Requirements Courses and Electives			66												66		
BBA in Finance																	
School Requirements																	
ACCT	2010	Principles of Accounting I	3			3								3			
ACCT	2200	Principles of Accounting II	3						3					3			
ECON	2103	Note: ECON 2103 OR ECON 2113 Principles of Microeconomics Microeconomics	3		3									3			
ECON	2113		3														
ECON	2123	Note: ECON 2123 OR ECON 3123 Macroeconomics Macroeconomic Theory I	3					3						3			
ECON	3123		3														
FINA	2303	Financial Management	3				3							3	FINA 2303 is a major pre-requisite		
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P		
ISOM	2020	Coding for Business	1				1							1			
ISOM	2500	Business Statistics	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by CIVL 2160		
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	Waived for DDP students		
LABU	2040	Business Case Analyses	3										3	3			
LABU	2060	Effective Communication in Business	3							3				3			
MATH	1003	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023 Calculus and Linear Algebra Calculus IA Calculus IB Accelerated Calculus Honors Calculus I	3-4												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	1012		4	(3)													
MATH	1013		3														
MATH	1020		4														
MATH	1023		3														
Required credits for School Requirements			43-44											36			
Major Requirements																	
Major Required Courses and Electives																	
FINA	3001	Key Skills for Finance Professionals (A)	1					1						1			
FINA	3103	Intermediate Investments	3					3						3			
FINA	3203	Derivative Securities	3								3			3			
FINA	3303	Intermediate Corporate Finance	3							3				3			
FINA	3810	Bloomberg Market Concepts Certification	0					0						0			
ACCT	3010	Note: (ACCT 3010 AND ACCT 3020) OR ACCT 3030 Financial Accounting I Financial Accounting II Intermediate Financial Accounting for Non-Accounting Majors	3-6							3				3			
ACCT	3020		3														
ACCT	3030		3														
ISOM/COMP	3230	Note: ISOM 3230 OR ISOM 3400 OR COMP 1022P Business Applications Programming Python Programming for Business Analytics Introduction to Computing with Java	3		(3)									0	DDP students should take COMP 1022P to satisfy the requirements of both BEng and BBA degrees		
ISOM	3400		3														
COMP	1022P		3														
FINA		FINA 3000-level or above Electives (Any 3 courses of the subject and level as specified)	9								3	3	3	9			
Required credits for Major Required Courses and Electives			25-28											22			
Additional Requirements																	
Requirements for Dual Degree Program																	
Required Courses																	
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0			
TEMG	3950	Case-based Problem Solving	3		3									3			
Required credits for Additional Requirements			3											3			
University CORE																	
CORE	C3 - C12	U CORE - Others	30	6					3	6	6	3	6	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 18 20 20 19 18 18 20 18 18																	
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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.

Notes:	<div> <div> << Declaration of BEng major </div> <div> << Declaration of BBA major </div> </div>
<p>() indicates the reuse of the same course to fulfill more than one requirement.</p> <p>--- denotes the course/requirement is either waived or substituted</p> <p>## To graduate, students should complete all requirements as specified for DDP.</p> <p>**Remarks on course(s):</p> <p>>> 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.</p>	

<< 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 Computer Engineering and BBA in Finance)													Remarks	
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		
BEng in Computer Engineering																
Major Requirements																
Engineering Fundamental Courses																
COMP	1021	Note: COMP1021 OR COMP1022P Introduction to Computer Science Introduction to Computing with Java	3	3										3	DDP students should take COMP 1022P to satisfy the requirements of both BEng and BBA degrees	
COMP	1022P		3													
ENGG	1010	Academic Orientation	0	0	0									0		
LANG	2030	Technical Communication I	3				3							3		
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020] Calculus IA Calculus IB Calculus II Accelerated Calculus Honors Calculus I Honors Calculus II	4-7												6	
MATH	1013		4													
MATH	1014		3	3												
MATH	1020		4													
MATH	1023		3													
MATH	1024	Honors Calculus II	3													
MATH	2011	Introduction to Multivariable Calculus	3					3						3		
MATH	2111	Matrix Algebra and Applications	3					3						3		
PHYS	1112	Note: PHYS1112 OR PHYS1312 General Physics I with Calculus Honors General Physics I	3	3										3		
PHYS	1312		3													
PHYS	1114	Note: PHYS1114 OR PHYS1314 General Physics II Honors General Physics II	3						3					3		
PHYS	1314		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			25-29											24		
Major Required Courses and Electives																
CPEG	2930	Academic and Professional Development I	0			0	0							0		
CPEG	3930	Academic and Professional Development II	0					0	0					0		
COMP	2011	Note: (COMP2011 AND COMP2012) OR COMP2012H Programming with C++ Object-Oriented Programming and Data Structures Honors Object-Oriented Programming and Data Structures	4			4		4						8		
COMP	2012		4													
COMP	2012H		5													
COMP	2611	Note: COMP2611 OR ELEC2350 Computer Organization Introduction to Computer Organization and Design	4				4							4		
ELEC	2350		4													
COMP	2711	Note: COMP2711 OR COMP2711H OR ELEC 2600 Discrete Mathematical Tools for Computer Science Honors Discrete Mathematical Tools for Computer Science Probability and Random Processes in Engineering	4							4				4		
COMP	2711H		4													
ELEC	2600		4													
COMP	3511	Operating Systems	3								3			3		
COMP	4521	Note: COMP4521 OR COMP4611 OR ELEC 4310 Mobile Application Development Design and Analysis of Computer Architectures Embedded System Design FPGA-based Design: From Theory to Practice Mobile Embedded Systems: Hardware Platform, Software Development, and Applications	3-4												3	
COMP	4611		3													
ELEC	4310		3										3			
ELEC	4320		4													
ELEC	4330		3													
CPEG	1971	Note: [(CPEG4901 OR CPEG4902) AND CPEG1971] OR [(CPEG4911 OR CPEG4912) AND CPEG1971] OR CPEG4910 Industrial Experience Computer Engineering Final Year Project in COMP Computer Engineering Final Year Thesis in COMP Computer Engineering Final Year Project in ELEC Computer Engineering Final Year Thesis in ELEC Co-op Program	6												6	
CPEG	4901		6									3	3			
CPEG	4902		6													
CPEG	4911		6													
CPEG	4912		6													
CPEG	4910		6													
ELEC	1100	Introduction to Electro-Robot Design	4			4								4		
ELEC	1200	Note: ELEC1200 OR ELEC2100 OR ELEC2400 (2 courses out of 3) A System View of Communications: from Signals to Packets Signals and Systems Electronic Circuits	8				4		4					8		
ELEC	2100		4													
ELEC	2400		4													
ELEC	3300	Introduction to Embedded Systems	4								4			4		
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0		
LANG	4030	Note: LANG4030 OR LANG4031 Technical Communication II for CSE & CPEG Technical Communication II for ECE & CPEG	3										3	3		
LANG	4031		3													
COMP/ELEC		Area Courses (At least 4 courses from the specified elective list, of which at least 2 courses should be taken from one single area and at least 2 courses outside that area. Courses taken as Major Required Courses may not be counted towards the elective requirement.)	15			3					4	4	4	15		
Required credits for Major Requirements Courses and Electives			59-63											62		
BBA in Finance																
School Requirements																
ACCT	2010	Principles of Accounting I	3			3								3		
ACCT	2200	Principles of Accounting II	3						3					3		
ECON	2103	Note: ECON 2103 OR ECON 2113 Principles of Microeconomics Microeconomics	3		3									3		
ECON	2113		3													
ECON	2123	Note: ECON 2123 OR ECON 3123 Macroeconomics Macroeconomic Theory I	3					3						3		
ECON	3123		3													
FINA	2303	Financial Management	3											3		
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0	FINA 2303 is a major pre-requisite Substituted by COMP 1021/1022P	
ISOM	2020	Coding for Business	1					1						1		
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	Waived for DDP students	
LABU	2040	Business Case Analyses	3				3							3		
LABU	2060	Effective Communication in Business	3						3					3		
MATH	1003	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023 Calculus and Linear Algebra Calculus IA Calculus IB Accelerated Calculus Honors Calculus I	3-4												0	
MATH	1012		4	(3)												
MATH	1013		3													
MATH	1020		4													
MATH	1023		3													
Required credits for School Requirements			43-44											39		
Major Requirements																
Major Required Courses and Electives																
FINA	3001	Key Skills for Finance Professionals (A)	1					1						1		
FINA	3103	Intermediate Investments	3					3						3		
FINA	3203	Derivative Securities	3								3			3		
FINA	3303	Intermediate Corporate Finance	3							3				3		
FINA	3810	Bloomberg Market Concepts Certification	0					0						0		
ACCT	3010	Note: (ACCT 3010 AND ACCT 3020) OR ACCT 3030 Financial Accounting I Financial Accounting II Intermediate Financial Accounting for Non-Accounting Majors	3-6							3				3		
ACCT	3020		3													
ACCT	3030		3													
ISOM/COMP	3230	Note: ISOM 3230 OR ISOM 3400 OR COMP 1022P Business Applications Programming Python Programming for Business Analytics Introduction to Computing with Java	3												0	
ISOM	3400		3	(3)												
COMP	1022P		3													
FINA		FINA 3000-level or above Electives (Any 3 courses of the subject and level as specified)	9								3	3	3	9		
Required credits for Major Required Courses and Electives			25-28											22		
Additional Requirements																
Requirements for Dual Degree Program																
Required Courses																
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0		
TEMG	3950	Case-based Problem Solving	3		3									3		
Required credits for Additional Requirements			3											3		
University CORE																
CORE	C3 - C12	U CORE - Others	30	6	3	3			3	9				6	30	
CORE	C1 & C2	U CORE - English Language		3	3										6	
Sub-total for University CORE			36											36		
Term load (excl. free credits)																
18 18 20 20 19 19 19 19 18 16																
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<< 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 Civil and Environmental Engineering and BBA in Finance)															
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	

BEng in Civil and Environmental Engineering

Major Requirements

Engineering Fundamental Courses

COMP	1021	Note: COMP 1021 OR COMP 1022P OR COMP 2011	3-4														
COMP	1022P	Introduction to Computer Science	3		3											3	DDP students should take COMP 1022P to satisfy the requirements of both BEng and BBA degrees
COMP	2011	Introduction to Computing with Java	3														
COMP		Programming with C++	4														
ENGG	1010	Academic Orientation	0	0	0											0	
CHEM	1010	Note: CHEM 1010 OR CHEM 1020															
CHEM		General Chemistry IA	3	3												3	
CHEM	1020	General Chemistry IB	3														
LANG	2030	Technical Communication I	3						3							3	
MATH		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 I	3														
MATH	2011	Introduction to Multivariable Calculus	3				3									3	
MATH	2350	Applied Linear Algebra and Differential Equations	3				3									3	
PHYS	1112	Note: PHYS 1112 OR PHYS 1312															
PHYS		General Physics I with Calculus	3	3												3	
PHYS	1312	Honors General Physics I	3														
Required credits for Engineering Fundamental Courses			22-26													24	

Major Required Courses and Electives

CIVL	1010	Academic Professional Development I	0			0	0								0	
CIVL	1100	Discovering Civil and Environmental Engineering	3		3										3	
CIVL	2010	Academic Professional Development II	0					0	0						0	
CIVL	2020	Industrial and BIM Training	0			0*	0								0	
CIVL	2110	Statics	3			3									3	
CIVL	2120	Mechanics of Materials	3				3								3	
CIVL	2160	Modeling Systems with Uncertainties	3			3									3	
CIVL	2170	Infrastructure Systems Engineering and Management	3				3								3	
CIVL	2410	Environmental Assessment and Management	3				3								3	
CIVL	2510	Fluid Mechanics	3				3								3	
CIVL	2810	Construction Materials	3					3							3	
CIVL	3010	Academic Professional Development III	0						0	0					0	
CIVL	3020	Internship Training	0							0*					0	
CIVL	3210	Note: CIVL3210 OR CIVL3610	3						3						3	
CIVL	3610	Introduction to Construction Management	3													
CIVL	3310	Traffic and Transportation Engineering	3													
CIVL	3320	Structural Analysis	3					3							3	
CIVL	3320	Reinforced Concrete Design	3						3						3	
CIVL	3420	Water and Wastewater Engineering	3						3						3	
CIVL	3510	Hydrosystems Engineering	3					3							3	
CIVL	3730	Fundamentals of Geotechnics	3							3					3	
CIVL	3740	Geotechnical Analysis and Design	3								3				3	
CIVL	4910	Note: CIVL 4910 OR CIVL 4920	6									3	3		6	
CIVL	4920	Civil and Environmental Engineering Final Year Project	6													
CIVL	4920	Civil and Environmental Engineering Final Year Thesis	6													
CIVL	4950	Civil Engineering Capstone Design Project	3										3		3	
CIVL	4450	Note: CIVL4450 OR CIVL 5450 OR CIVL5460	3									3			3	
CIVL	5450	Carbon Footprint Analysis and Reduction	3													
CIVL	5460	Hazardous Waste Treatment and Site Remediation	3													
CIVL	5460	Landfill Engineering and Design	3													
ENGG	2010	Engineering Seminar Series	0			0	0	0	0						0	
LANG	4033	Technical Communication II for Civil and Environmental Engineering	3										3		3	
CIVL/SENG		CIVL (Environmental) Electives [at least 1 course should be selected from the "Restricted Electives".]	6										3	3	6	
Required credits for Major Requirements Courses and Electives				66											66	

BBA in Finance

School Requirements

ACCT	2010	Principles of Accounting I	3			3									3	
ACCT	2200	Principles of Accounting II	3						3						3	
ECON	2103	Note: ECON 2103 OR ECON 2113	3			3									3	
ECON	2113	Principles of Microeconomics	3													
ECON	2123	Note: ECON 2123 OR ECON 3123	3					3							3	
ECON	3123	Macroeconomics	3													
FINA	2303	Macroeconomic Theory I	3													
FINA	2303	Financial Management	3				3								3	FINA 2303 is a major pre-requisite
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P/2011
ISOM	2020	Coding for Business	1				1								1	
ISOM	2500	Business Statistics	3	---	---	---	---	---	---	---	---	---	---	---	0	Substituted by CIVL 2160
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	Substituted by ENGG 1010
LABU	2040	Business Case Analyses	3										3		3	
LABU	2060	Effective Communication in Business	3							3					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	4	(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	Calculus IB	3													
MATH	1023	Accelerated Calculus	4													
MATH	1023	Honors Calculus I	3													
Required credits for School Requirements				43-44											36	

Major Requirements

Major Required Courses and Electives

FINA	3001	Key Skills for Finance Professionals (A)	1					1							1	
FINA	3103	Intermediate Investments	3					3							3	
FINA	3203	Derivative Securities	3								3				3	
FINA	3303	Intermediate Corporate Finance	3								3				3	
FINA	3810	Bloomberg Market Concepts Certification	0					0							0	
ACCT	3010	Note: (ACCT 3010 AND ACCT 3020) OR ACCT 3030	3-6													
ACCT	3020	Financial Accounting I	3							3					3	
ACCT	3030	Financial Accounting II	3													
ISOM/COMP	3230	Intermediate Financial Accounting for Non-Accounting Majors	3													
ISOM	3400	Note: ISOM 3230 OR ISOM 3400 OR COMP 1022P	3												0	DDP students should take COMP 1022P to satisfy the requirements of both BEng and BBA degrees
COMP	1022P	Business Applications Programming	3													
COMP	1022P	Python Programming for Business Analytics	3													
COMP	1022P	Introduction to Computing with Java	3													
FINA		FINA 3000-level or above Electives (Any 3 courses of the subject and level as specified)	9								3	3	3		9	
Required credits for Major Required Courses and Electives				25-28											22	

Additional Requirements

Requirements for Dual Degree Program

Required Courses

TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0	0	
TEMG	3950	Case-based Problem Solving	3		3										3	
Required credits for Additional Requirements				3											3	

University CORE

CORE	C3 - C12	U CORE - Others	30	6					3	6	6	3	6		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	18	20	19	19	19	18	20	18	18
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<< Declaration of
BEng major

<< Declaration of
BBA major

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.

Major Requirements

[illegible][illegible]

School Requirements

ACCT	2200	Principles of Accounting II	3						3					3	
ECON	2103	Note: ECON 2103 OR ECON 2113	3											0	
ECON	2113	Principles of Microeconomics Microeconomics	3			(3)									
ECON	2123	Note: ECON 2123 OR ECON 3123	3									3		3	
ECON	3123	Macroeconomics Macroeconomic Theory I	3												
FINA	2303	Financial Management	3				3							3	FINA 2303 is a major pre-requisite
ISOM	2010	Introduction to Information Systems	3	-	-	-	-	-	-	-	-	-	-	0	Substituted by COMP 1021/1022P/2011
ISOM	2020	Coding for Business	1					1						1	
ISOM	2500	Business Statistics	3			3								3	This course will also be used to substitute IEDA2540
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	Waived for DDP students
LABU	2040	Business Case Analyses	3					3						3	
LABU	2060	Effective Communication in Business	3						3					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	4												
MATH	1013	Calculus IB	3												
MATH	1020	Accelerated Calculus	4												
MATH	1023	Honors Calculus I	3												
Required credits for School Requirements			43-44											36	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

[illegible][illegible][illegible]

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

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

Notes:	<div> <div> << Declaration of BEng major </div> <div> << Declaration of BBA major </div> </div>
() 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 as specified for DDP.	
<div>**Remarks on course(s):</div> <div> <div>>> 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.</div> </div>	

Notes:	<div> <div> <div><< Declaration of</div> <div>BEng major</div> </div> <div> <div><< Declaration of</div> <div>BBA major</div> </div> </div>
() 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.	

>> 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.

<< 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 Mechanical Engineering and BBA in Finance)																
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				
BEng in Mechanical Engineering																		
Major Requirements																		
Engineering Fundamental Courses																		
COMP	1021	Note: COMP1021 OR COMP1022P OR COMP2011	3-4															
COMP	1022P	Introduction to Computer Science	3	3										3	DDP students should take COMP 1022P to satisfy the requirements of both BEng and BBA degrees			
COMP	2011	Introduction to Computing with Java	3															
COMP		Programming with C++	4															
ENGG	1010	Academic Orientation	0	0	0									0				
LANG	2030	Technical Communication 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															
MATH	1014	Calculus II	3	3	3									6				
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				
MATH	2111	Note: MATH2111 OR MATH2350 OR MATH2351	3															
MATH	2350	Matrix Algebra and Applications	3							3				3				
MATH	2351	Applied Linear Algebra and Differential Equations	3															
MATH		Introduction to Differential Equations	3															
PHYS	1112	Note: PHYS1112 OR PHYS1312	3		3									3				
PHYS	1312	General Physics I with Calculus	3															
PHYS		Honors General Physics I																
CHEM/LIFS/ PHYS		Science 1000-level course (Any 1 course of the subject and level as specified)	3		(3)									0				
Required credits for Engineering Fundamental Courses			22-26											21				
Major Required Courses and Electives																		
MECH	1990	Industrial Training	0			0*	0^							0				
MECH	2020	Statics and Dynamics	3			3								3				
MECH	2040	Solid Mechanics I	3															
MECH	2210	Fluid Mechanics	3						3					3				
MECH	2310	Thermodynamics	3			3								3				
MECH	2410	Engineering Materials I	3				3							3				
MECH	2520	Design and Manufacturing I	3				3							3				
MECH	2907	Mechatronic Design and Prototyping	3						3					3				
MECH	3030	Mechanisms of Machinery	3								3			3				
MECH	3300	Note: MECH3300 OR MECH3420 OR MECH3520	3															
MECH	3420	Energy Conversion	3							3				3				
MECH	3520	Engineering Materials II	3															
MECH		Design and Manufacturing II																
MECH	3310	Heat Transfer	3								3			3				
MECH	3610	Control Principles	3					3						3				
MECH	3630	Electrical Technology	3						3					3				
MECH	3830	Laboratory	3								3			3				
MECH	4900	Final Year Design Project	6									3	3	6				
ELEC	2420	Basic Electronics	3			3								3				
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0				
LANG	4034	Technical Communication II for Mechanical and Aerospace Engineering	3									3		3				
Required credits for Major Requirements Courses and Electives			51											51				
BBA in Finance																		
School Requirements																		
ACCT	2010	Principles of Accounting I	3			3								3				
ACCT	2200	Principles of Accounting II	3						3					3				
ECON	2103	Note: ECON 2103 OR ECON 2113	3			3								3				
ECON	2113	Principles of Microeconomics	3															
ECON	2123	Note: ECON 2123 OR ECON 3123	3					3						3				
ECON	3123	Macroeconomics	3															
ECON		Macroeconomic Theory I																
FINA	2303	Financial Management	3				3							3	FINA 2303 is a major pre-requisite			
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P/2011			
ISOM	2020	Coding for Business	1					1						1				
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	Waived for DDP students			
LABU	2040	Business Case Analyses	3					3						3				
LABU	2060	Effective Communication in Business	3							3				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	(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	1013	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											39				
Major Requirements																		
Major Required Courses and Electives																		
FINA	3001	Key Skills for Finance Professionals (A)	1					1						1				
FINA	3103	Intermediate Investments	3					3						3				
FINA	3203	Derivative Securities	3								3			3				
FINA	3303	Intermediate Corporate Finance	3							3				3				
FINA	3810	Bloomberg Market Concepts Certification	0					0						0				
ACCT	3010	Note: (ACCT 3010 AND ACCT 3020) OR ACCT 3030	3-6															
ACCT	3020	Financial Accounting I	3							3				3				
ACCT	3030	Financial Accounting II	3															
ACCT		Intermediate Financial Accounting for Non-Accounting Majors	3															
ISOM/COMP	3230	Note: ISOM 3230 OR ISOM 3400 OR COMP 1022P	3															
ISOM	3400	Business Applications Programming	3	(3)										0	DDP students should take COMP 1022P to satisfy the requirements of both BEng and BBA degrees			
ISOM	1022P	Python Programming for Business Analytics	3															
COMP		Introduction to Computing with Java	3															
FINA		FINA 3000-level or above Electives (Any 3 courses of the subject and level as specified)	9								3	3	3	9				
Required credits for Major Required Courses and Electives			25-28											22				
Additional Requirements																		
Requirements for Dual Degree Program																		
Required Courses																		
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0				
TEMG	3950	Case-based Problem Solving	3		3									3				
Required credits for Additional Requirements			3											3				
University CORE																		
CORE	C3 - C12	U CORE - Others	30	9	6					3		6	6	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 18 18 18 18 18 18 18 14 14																		
172##																		
<< Declaration of BEng major << Declaration of BBA major																		

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.

<< 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 Economics)															Remarks
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	

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		3									3		The course will also be used to substitute ISOM 2010
COMP	1029P	Python Programming Bridging Course	1													
COMP	2011	Programming with C++	4													
ENGG	1010	Academic Orientation	0	0	0									0		
CHEM	1010	Note: CHEM1010 OR CHEM 1020	3	3										3		
CHEM	1020	General Chemistry IA	3													
CHEM	1050	General Chemistry IB	3													
CHEM	1050	Laboratory for General Chemistry I	1	1										1		
LANG	2030	Technical Communication I	3				3							3		
LIFS	1901	General Biology I	3	3										3		
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7													
MATH	1013	Calculus IA	4													
MATH	1014	Calculus IB	3	3	3											
MATH	1020	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										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		(3)									0		
Required credits for Engineering Fundamental Courses			23-29											22		

Major Required Courses and Electives

BIEN	1010	Note: BIEN 1010 OR CENG 1000	3		3									3		
CENG	1000	Introduction to Biomedical Engineering	3													
BIEN	2310	Introduction to 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	3240	Transport Phenomena in Biological Systems	3									3		3		
BIEN	3320	Data Science for Biology and Medicine	3				3							3		
BIEN	3410	Introduction to Bioinstrumentation and Bioimaging	3						3					3		
BIEN	3910	Bioengineering Laboratory	4						4					4		
BIEN	4920	Note: BIEN 4920 OR BIEN 4930 OR BIEN 4940	6									3	3	6		
BIEN	4930	Bioengineering Capstone Design	6													
BIEN	4940	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	3230	Chemical and Biological Reaction Engineering	3						3					3		
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0		
LIFS	3150	Note: LIFS 3150 OR MATH 2411	3-4													
MATH	2411	Biostatistics	3			3								3		
MATH	2411	Applied Statistics	4													
LANG	4035	Technical Communication II for Chemical and Biological Engineering	3									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									6	3	6	15	
Required credits for Major Required Courses and Electives			60-61											60		

BBA in Economics

School Requirements

ACCT	2010	Principles of Accounting I	3			3								3		
ACCT	2200	Principles of Accounting II	3						3					3		
ECON	2103	Note: ECON 2103 OR ECON 2113	3			3								3		
ECON	2113	Principles of Microeconomics	3													ECON 2103/2113/2123 is a major prerequisite
ECON	2123	Note: ECON 2123 OR ECON 3123	3					3						3		
ECON	3123	Macroeconomics	3													
FINA	2303	Macroeconomic Theory I	3													
FINA	2303	Financial Management	3				3							3		
ISOM	2010	Introduction to Information Systems	3	-	-	-	-	-	-	-	-	-	-	0		Substituted by COMP 1021/1022P/COMP2011
ISOM	2020	Coding for Business	1	-	-	-	-	-	-	-	-	-	-	0		Substituted by COMP 1021/1022P/1029P/2011
ISOM	2500	Business Statistics	3	-	-	-	-	-	-	-	-	-	-	0		Substituted by LIFS 3150/MATH 2411
ISOM	2600	Introduction to Business Analytics	1	-	-	-	-	-	-	-	-	-	-	0		Substituted by BIEN3320
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		Substituted by ENGG 1010
LABU	2040	Business Case Analyses	3					3						3		
LABU	2060	Effective Communication in Business	3						3					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	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											34		

Major Requirements

Major Required Courses and Electives

ECON	3014	Managerial Microeconomics	4					4						4		
ECON	3024	Managerial Macroeconomics	4						4					4		
ECON	3334	Introduction to Econometrics	4							4				4		
ECON	4670	Economics Research and Communication	0									0		0		
ECON		ECON 4000-level Electives (Any 3 courses of the subject and level as specified)	11									4	4	3	11	
Required credits for Major Required Courses and Electives			23											23		

Additional Requirements

Requirements for Dual Degree Program

Required Courses

TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0		
TEMG	3950	Case-based Problem Solving	3		3									3		
Required credits for Additional Requirements			3											3		

University CORE

CORE	C3 - C12	U CORE - Others	30	3		3		6	6	3	6		3	30		
CORE	C1 & C2	U CORE - English Language	6	3	3									6		
Sub-total for University CORE			36											36		

Term load (excl. free credits)

19	18	19	20	18	19	17	16	17	15
178##									

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

Notes:

() indicates the reuse of the same course to fulfill more than one requirement.
[] denotes the course is also offered in other terms as indicated and students may take the course in one of these subject to advice by the program office.
--- 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.

Notes:

@ Course that students need to complete before enrolling into respective major/programs.

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

[] denotes the course is also offered in other terms as indicated and students may take the course in one of these subject to advice by the program officer.

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

To graduate, students should complete all requirements as specified for DDP.

>> 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.

<< 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)																		
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						
BEng in Chemical Engineering																				
Major Requirements																				
Engineering Fundamental Courses																				
COMP	1021	Note: COMP 1021 OR COMP 1022P OR COMP 2011	3-4																	
COMP	1022P	Introduction to Computer Science	3	3										3						
COMP	2011	Introduction to Computing with Java	3																	
COMP		Programming with C++	4																	
ENGG	1010	Academic Orientation	0	0	0									0						
CHEM		Note: CHEM1010 OR CHEM1020																		
CHEM	1010	General Chemistry IA	3	3										3						
CHEM	1020	General Chemistry IB	3																	
LANG	2030	Technical Communication I	3			3								3						
MATH		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									6						
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		Note: PHYS 1112 OR PHYS 1312																		
PHYS	1112	General Physics I with Calculus	3	3										3						
PHYS	1312	Honors General Physics I	3																	
Required credits for Engineering Fundamental Courses			19-23											21						
Major Required Courses and Electives																				
CENG		Note: CENG1000 OR CENG1500																		
CENG	1000	Introduction to Chemical and Biological Engineering	3	3										3						
CENG	1500	A First Course on Materials Science and Applications	3																	
CENG		Note: CENG1600 OR CENG1700 OR BIEN1010																		
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	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	Process Fluid Mechanics	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						
CENG		Note: CENG4920 OR CENG4930 OR CENG4940																		
CENG	4920	Chemical Engineering Capstone Design	6									3	3	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						
BIEN		Note: BIEN2410 OR BIEN2610 OR LIFS1901																		
BIEN	2410	Cellular and Systems Physiology for Engineers	3				3							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						
Required credits for Major Requirements Courses and Electives			68											68						
BBA in Economics																				
School Requirements																				
ACCT	2010	Principles of Accounting I	3		3									3						
ACCT	2200	Principles of Accounting II	3						3					3						
ECON		Note: ECON 2103 OR ECON 2113																		
ECON	2103	Principles of Microeconomics	3		3									3						
ECON	2113	Microeconomics	3																	
ECON		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			1								1						
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							3				3						
LABU	2060	Effective Communication in Business	3										3	3						
MATH		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											39						
Major Requirements																				
Major Required Courses and Electives																				
ECON	3014	Managerial Microeconomics	4					4						4						
ECON	3024	Managerial Macroeconomics	4						4					4						
ECON	3334	Introduction to Econometrics	4							4				4						
ECON	4670	Economics Research and Communication	0									0		0						
ECON		ECON 4000-level Electives (Any 3 courses of the subject and level as specified)	11								4	4	3	11						
Required credits for Major Required Courses and Electives			23											23						
Additional Requirements																				
Requirements for Dual Degree Program																				
Required Courses																				
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0						
TEMG	3950	Case-based Problem Solving	3		3									3						
Required credits for Additional Requirements			3											3						
University CORE																				
CORE	C3 - C12	U CORE - Others	30					3		3	9	6	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 20 19 20 19 20 18 18																				
190##																				

<< 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 Civil Engineering and BBA in Economics)																
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				
BEng in Civil Engineering																		
Major Requirements																		
Engineering Fundamental Courses																		
COMP	1021	Note: COMP 1021 OR COMP 1022P OR COMP 2011	3-4		3									3	This course will be used to substitute ISOM 2010			
COMP	1022P	Introduction to Computer Science	3															
COMP	2011	Introduction to Computing with Java Programming with C++	4															
ENGG	1010	Academic Orientation	0	0	0									0				
CHEM	1010	Note: CHEM 1010 OR CHEM 1020		3										3				
CHEM	1020	General Chemistry IA General Chemistry IB	3															
LANG	2030	Technical Communication I	3					3						3				
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7															
MATH	1013	Calculus IA	4															
MATH	1014	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				
MATH	2350	Applied Linear Algebra and Differential Equations	3			3								3				
PHYS	1112	Note: PHYS 1112 OR PHYS 1312	3	3										3				
PHYS	1312	General Physics I with Calculus Honors General Physics I	3															
Required credits for Engineering Fundamental Courses			22-26											24				
Major Required Courses and Electives																		
CIVL	1010	Academic Professional Development I	0			0	0							0				
CIVL	1100	Discovering Civil and Environmental Engineering	3		3									3				
CIVL	2010	Academic Professional Development II	0					0	0					0				
CIVL	2020	Industrial and BIM Training	0			0*	0							0				
CIVL	2110	Statics	3			3								3				
CIVL	2120	Mechanics of Materials	3				3							3				
CIVL	2160	Modeling Systems with Uncertainties	3			3								3	This course will also be used to substitute ISOM 2500			
CIVL	2170	Infrastructure Systems Engineering and Management	3				3							3				
CIVL	2410	Environmental Assessment and Management	3				3							3				
CIVL	2510	Fluid Mechanics	3				3							3				
CIVL	2810	Construction Materials	3					3						3				
CIVL	3010	Academic Professional Development III	0							0	0			0				
CIVL	3020	Internship Training	0								0^			0				
CIVL	3210	Introduction to Construction Management	3						3					3				
CIVL	3310	Structural Analysis	3					3						3				
CIVL	3320	Reinforced Concrete Design	3						3					3				
CIVL	3510	Hydrosystems Engineering	3					3						3				
CIVL	3610	Traffic and Transportation Engineering	3						3					3				
CIVL	3730	Fundamentals of Geotechnics	3							3				3				
CIVL	3740	Geotechnical Analysis and Design	3								3			3				
CIVL	4910	Note: CIVL 4910 OR CIVL 4920 Civil and Environmental Engineering Final Year Project Civil and Environmental Engineering Final Year Thesis	6									3	3	6				
CIVL	4920		6															
CIVL	4950	Civil Engineering Capstone Design Project	3									3		3				
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0				
LANG	4033	Technical Communication II for Civil and Environmental Engineering	3									3		3				
CIVL/SENG		CIVL Electives (3 courses from the specified elective list) CIVL: Any CIVL courses at 4000-level or above except CIVL 4230 SENG: Any 3000-level or above courses offered by the Engineering School or engineering departments other than CIVL	9								3	3	3	9				
Required credits for Major Requirements Courses and Electives			66											66				
BBA in Economics																		
School Requirements																		
ACCT	2010	Principles of Accounting I	3			3								3				
ACCT	2200	Principles of Accounting II	3						3					3				
ECON	2103	Note: ECON 2103 OR ECON 2113	3		3									3	ECON 2103/2113/2123 is a major prerequisite			
ECON	2113	Principles of Microeconomics Microeconomics	3															
ECON	2123	Note: ECON 2123 OR ECON 3123	3			3								3				
ECON	3123	Macroeconomics Macroeconomic Theory I	3															
FINA	2303	Financial Management	3				3							3				
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P			
ISOM	2020	Coding for Business	1					1						1				
ISOM	2500	Business Statistics	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by CIVL 2160			
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	Waived for DDP students			
LABU	2040	Business Case Analyses	3										3	3				
LABU	2060	Effective Communication in Business	3							3				3				
MATH	1003	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023	3-4												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	1012	Calculus and Linear Algebra	3															
MATH	1013	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											36				
Major Requirements																		
Major Required Courses and Electives																		
ECON	3014	Managerial Microeconomics	4					4						4				
ECON	3024	Managerial Macroeconomics	4						4					4				
ECON	3334	Introduction to Econometrics	4							4				4				
ECON	4670	Economics Research and Communication	0									0		0				
ECON		ECON 4000-level Electives (Any 3 courses of the subject and level as specified)	11								4	4	3	11				
Required credits for Major Required Courses and Electives			23											23				
Additional Requirements																		
Requirements for Dual Degree Program																		
Required Courses																		
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0				
TEMG	3950	Case-based Problem Solving	3		3									3				
Required credits for Additional Requirements			3											3				
University CORE																		
CORE	C3 - C12	U CORE - Others	30	3				3		9	9	3	3	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	18	20	18	20	20	19	19	19	17									
														188##				

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

<< 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 Computer Science and BBA in Economics)														
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		

BEng in Computer Science

Major Requirements

Engineering Fundamental Courses

COMP	1021	Note: COMP1021 OR COMP1022P	3	3										3	This course will also be used to substitute ISOM 2010
COMP	1022P	Introduction to Computer Science Introduction to Computing with Java	3												
ENGG	1010	Academic Orientation	0	0	0									0	
CHEM	1004	Note: CHEM1004 OR CHEM1010 OR CHEM1020 OR LIFS1901 OR PHYS1001 OR PHYS1112 OR PHYS1312	3	3										3	
CHEM	1010	Chemistry in Everyday Life	3												
CHEM	1020	General Chemistry IA	3												
LIFS	1901	General Chemistry IB	3												
PHYS	1001	General Biology I	3												
PHYS	1112	Physics and the Modern Society	3												
PHYS	1312	General Physics I with Calculus	3												
PHYS	1312	Honors General Physics I	3												
LANG	2030	Technical Communication I	3					3						3	
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7												
MATH	1013	Calculus IA	4												
MATH	1014	Calculus IB	3	3	3									6	
MATH	1020	Calculus II	3												
MATH	1020	Accelerated Calculus	4												
MATH	1023	Honors Calculus I	3												
MATH	1024	Honors Calculus II	3												
MATH	2111	Matrix Algebra and Applications	3			3								3	
SENG		Engineering Introduction course (COMP students may also use COMP1022P or COMP1022Q to fulfill this requirement)	3-4	(3)										0	
Required credits for Engineering Fundamental Courses			19-23											18	

Major Required Courses and Electives

COMP	2011	Note: (COMP2011 AND COMP2012) OR COMP2012H	5-8			4	4							8	
COMP	2012	Programming with C++	4												
COMP	2012H	Object-Oriented Programming and Data Structures	4												
COMP	2012H	Honors Object-Oriented Programming and Data Structures	5												
COMP	2611	Computer Organization	4						4					4	
COMP	2711	Note: COMP2711 OR COMP2711H	4			4								4	
COMP	2711H	Discrete Mathematical Tools for Computer Science	4												
COMP	3111	Note: COMP3111 OR COMP3111H	4					4						4	
COMP	3111H	Software Engineering	4												
COMP	3511	Honors Software Engineering	4												
COMP	3511	Operating Systems	3							3				3	
COMP	3711	Note: COMP3711 OR COMP3711H	3-4					3						3	
COMP	3711H	Design and Analysis of Algorithms	3												
COMP	3711H	Honors Design and Analysis of Algorithms	4												
COMP	4900	Note: Students are required to take COMP4900 for every regular term in which they are in residency at HKUST with major in COMP	0			0	0	0	0	0	0	0	0	0	
COMP	4900	Academic and Professional Development	0												
COMP	1991	Note: (COMP4981 OR COMP4981H) AND COMP1991 OR COMP4910	6												
COMP	4981	Industrial Experience	0												
COMP	4981	Final Year Project	6									3	3	6	
COMP	4981H	Final Year Thesis	6												
COMP	4910	Co-op FYP Program	6												
ELEC	2600	Note: ELEC2600 OR IELM2510 OR MATH2411 OR MATH2421 OR MATH2431	3-4											4	Students should take MATH 2411 which will also be used to substitute ISOM 2500.
IEDA	2520	Probability and Random Processes in Engineering	4												
IEDA	2540	Probability for Engineers	3												
MATH	2411	Statistics for Engineers	3			4									
MATH	2421	Applied Statistics	4												
MATH	2421	Probability	4												
MATH	2431	Honors Probability	4												
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0	
LANG	4030	Technical Communication II for CSE & CPEG	3									3		3	
COMP		COMP Electives (5 courses from the specified elective list, of which at least 3 courses should be taken from 1 area and at least 2 courses outside that area.)	15							3	6	3	3	15	
COMP		COMP Elective (Any 1 course offered under COMP)	3										3	3	
Required credits for Major Requirements Courses and Electives			53-58											57	

BBA in Economics

School Requirements

ACCT	2010	Principles of Accounting I	3		3									3	
ACCT	2200	Principles of Accounting II	3						3					3	
ECON	2103	Note: ECON 2103 OR ECON 2113	3		3									3	ECON 2103/2113/2123 is a major prerequisite
ECON	2113	Principles of Microeconomics	3												
ECON	2123	Note: ECON 2123 OR ECON 3123	3			3								3	
ECON	3123	Macroeconomics	3												
FINA	2303	Macroeconomic Theory I	3												
FINA	2303	Financial Management	3				3							3	
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P
ISOM	2020	Coding for Business	1					1						1	
ISOM	2500	Business Statistics	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by MATH 2411
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	Waived for DDP students
LABU	2040	Business Case Analyses	3				3							3	
LABU	2060	Effective Communication in Business	3						3					3	
MATH	1003	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023	3-4												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	1012	Calculus and Linear Algebra	3												
MATH	1013	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											36	

Major Requirements

Major Required Courses and Electives

ECON	3014	Managerial Microeconomics	4					4						4	
ECON	3024	Managerial Macroeconomics	4						4					4	
ECON	3334	Introduction to Econometrics	4							4				4	
ECON	4670	Economics Research and Communication	0									0		0	
ECON		ECON 4000-level Electives (Any 3 courses of the subject and level as specified)	11								4	4	3	11	
Required credits for Major Required Courses and Electives			23											23	

Additional Requirements

Requirements for Dual Degree Program

Required Courses

TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0	
TEMG	3950	Case-based Problem Solving	3		3									3	
Required credits for Additional Requirements			3											3	

University CORE

CORE	C3 - C12	U CORE - Others	30	6	3		3		6	6	6			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	18	18	20	18	20	18	16	13	14		
173##											

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 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.

<< 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 Computer Engineering and BBA in Economics)																	
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					

BEng in Computer Engineering

Major Requirements

Engineering Fundamental Courses

COMP	1021	Note: COMP1021 OR COMP1022P	3	3										3	This course will also be used to substitute ISOM 2010		
COMP	1022P	Introduction to Computer Science	3														
ENGG	1010	Academic Orientation	0	0	0									0			
LANG	2030	Technical Communication I	3				3							3			
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7														
MATH	1013	Calculus IA	4														
MATH	1014	Calculus IB	3	3	3									6			
MATH	1020	Accelerated Calculus	3														
MATH	1023	Honors Calculus I	4														
MATH	1024	Honors Calculus II	3														
MATH	2011	Introduction to Multivariable Calculus	3					3						3			
MATH	2111	Matrix Algebra and Applications	3					3						3			
PHYS	1112	Note: PHYS1112 OR PHYS1312	3	3										3			
PHYS	1312	General Physics I with Calculus	3														
PHYS	1114	Note: PHYS1114 OR PHYS1314	3						3					3			
PHYS	1314	General Physics II	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			25-29											24			

Major Required Courses and Electives

CPEG	2930	Academic and Professional Development I	0			0	0							0			
CPEG	3930	Academic and Professional Development II	0					0	0					0			
COMP	2011	Note: (COMP2011 AND COMP2012) OR COMP2012H	5-8			4		4						8			
COMP	2012	Programming with C++	4														
COMP	2012H	Object-Oriented Programming and Data Structures	5														
COMP	2611	Note: COMP2611 OR ELEC2350	4				4							4			
ELEC	2350	Computer Organization	4														
		Introduction to Computer Organization and Design	4														
COMP	2711	Note: COMP2711 OR COMP2711H OR ELEC 2600	4							4				4			
COMP	2711H	Discrete Mathematical Tools for Computer Science	4														
ELEC	2600	Honors Discrete Mathematical Tools for Computer Science	4														
		Probability and Random Processes in Engineering	4														
COMP	3511	Operating Systems	3								3			3			
COMP	4521	Note: COMP4521 OR COMP4611 OR ELEC 4310	3-4														
COMP	4611	Mobile Application Development	3														
ELEC	4310	Design and Analysis of Computer Architectures	3									3		3			
ELEC	4320	Embedded System Design	4														
ELEC	4330	FPGA-based Design: From Theory to Practice	3														
		Mobile Embedded Systems: Hardware Platform, Software Development, and Application	3														
CPEG	1971	Note: [(CPEG4901 OR CPEG4902) AND CPEG1971] OR [(CPEG4911 OR CPEG4912) AND CPEG1971] OR CPEG4910	6														
CPEG	4901	Industrial Experience	0														
CPEG	4902	Computer Engineering Final Year Project in COMP	6									3	3	6			
CPEG	4911	Computer Engineering Final Year Thesis in COMP	6														
CPEG	4912	Computer Engineering Final Year Project in ELEC	6														
CPEG	4910	Computer Engineering Final Year Thesis in ELEC	6														
		Co-op Program	6														
ELEC	1100	Introduction to Electro-Robot Design	4			4								4			
ELEC	1200	Note: ELEC1200 OR ELEC2100 OR ELEC2400 (2 courses out of 3)	8														
ELEC	2100	A System View of Communications: from Signals to Packets	4				4			4				8			
ELEC	2400	Signals and Systems	4														
ELEC	3300	Electronic Circuits	4														
ELEC		Introduction to Embedded Systems	4								4			4			
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0			
LANG	4030	Note: LANG4030 OR LANG4031	3														
LANG	4031	Technical Communication II for CSE & CPEG	3									3		3			
		Technical Communication II for ECE & CPEG	3														
COMP/ELEC		Area Courses (At least 4 courses from the specified elective list, of which at least 2 courses should be taken from one single area and at least 2 courses outside that area. Courses taken as Major Required Courses may not be counted towards the elective requirement.)	15			3					4	4	4	15			
Required credits for Major Requirements Courses and Electives			59-63											62			

BBA in Economics

School Requirements

ACCT	2010	Principles of Accounting I	3		3									3			
ACCT	2200	Principles of Accounting II	3						3					3			
ECON	2103	Note: ECON 2103 OR ECON 2113	3		3									3	ECON 2103/2113/2123 is a major prerequisite		
ECON	2113	Principles of Microeconomics	3														
		Microeconomics	3														
ECON	2123	Note: ECON 2123 OR ECON 3123	3			3								3			
ECON	3123	Macroeconomics	3														
		Macroeconomic Theory I	3														
FINA	2303	Financial Management	3				3							3			
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P		
ISOM	2020	Coding for Business	1					1						1			
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	Waived for DDP students		
LABU	2040	Business Case Analyses	3								3			3			
LABU	2060	Effective Communication in Business	3						3					3			
MATH	1003	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023	3-4												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	1012	Calculus and Linear Algebra	3														
MATH	1013	Calculus IA	4	(3)										0			
MATH	1013	Calculus IB	3														
MATH	1020	Accelerated Calculus	4														
MATH	1023	Honors Calculus I	3														
Required credits for School Requirements			43-44											39			

Major Requirements

Major Required Courses and Electives

ECON	3014	Managerial Microeconomics	4				4							4			
ECON	3024	Managerial Macroeconomics	4						4					4			
ECON	3334	Introduction to Econometrics	4							4				4			
ECON	4670	Economics Research and Communication	0									0		0			
ECON		ECON 4000-level Electives (Any 3 courses of the subject and level as specified)	11								4	4	3	11			
Required credits for Major Required Courses and Electives			23											23			

Additional Requirements

Requirements for Dual Degree Program

Required Courses

TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0			
TEMG	3950	Case-based Problem Solving	3		3									3			
Required credits for Additional Requirements			3											3			

University CORE

CORE	C3 - C12	U CORE - Others	30	6	3	3		3		9			6	30
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<< 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 Civil and Environmental Engineering and BBA in Economics)																	
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					
BEng in Civil and Environmental Engineering																			
Major Requirements																			
Engineering Fundamental Courses																			
COMP COMP COMP	1021 1022P 2011	Note: COMP 1021 OR COMP 1022P OR COMP 2011 Introduction to Computer Science Introduction to Computing with Java Programming with C++	3-4 3 3 4		3									3	This course will also be used to substitute ISOM 2010				
ENGG	1010	Academic Orientation	0	0	0									0					
CHEM CHEM	1010 1020	Note: CHEM 1010 OR CHEM 1020 General Chemistry IA General Chemistry IB	3 3	3										3					
LANG	2030	Technical Communication I	3					3						3					
MATH MATH MATH MATH MATH MATH	1012 1013 1014 1020 1023 1024	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020] Calculus IA Calculus IB Calculus II Accelerated Calculus Honors Calculus I Honors Calculus I	4-7 4 3 3 4 3 3	3	3									6					
MATH	2011	Introduction to Multivariable Calculus	3			3								3					
MATH	2350	Applied Linear Algebra and Differential Equations	3			3								3					
PHYS PHYS	1112 1312	Note: PHYS 1112 OR PHYS 1312 General Physics I with Calculus Honors General Physics I	3 3	3										3					
Required credits for Engineering Fundamental Courses			22-26											24					
Major Required Courses and Electives																			
CIVL	1010	Academic Professional Development I	0			0	0							0					
CIVL	1100	Discovering Civil and Environmental Engineering	3		3									3					
CIVL	2010	Academic Professional Development II	0					0	0					0					
CIVL	2020	Industrial and BIM Training	0			0*	0							0					
CIVL	2110	Statics	3			3								3					
CIVL	2120	Mechanics of Materials	3				3							3					
CIVL	2160	Modeling Systems with Uncertainties	3			3								3					
CIVL	2170	Infrastructure Systems Engineering and Management	3				3							3					
CIVL	2410	Environmental Assessment and Management	3				3							3					
CIVL	2510	Fluid Mechanics	3				3							3					
CIVL	2810	Construction Materials	3					3						3					
CIVL	3010	Academic Professional Development III	0							0	0			0					
CIVL	3020	Internship Training	0								0*			0					
CIVL	3210	Note: CIVL3210 OR CIVL3610 Introduction to Construction Management	3						3					3					
CIVL	3610	Traffic and Transportation Engineering	3																
CIVL	3310	Structural Analysis	3					3						3					
CIVL	3320	Reinforced Concrete Design	3						3					3					
CIVL	3420	Water and Wastewater Engineering	3						3					3					
CIVL	3510	Hydrosystems Engineering	3					3						3					
CIVL	3730	Fundamentals of Geotechnics	3							3				3					
CIVL	3740	Geotechnical Analysis and Design	3								3			3					
CIVL	4910	Note: CIVL 4910 OR CIVL 4920 Civil and Environmental Engineering Final Year Project	6									3	3	6					
CIVL	4920	Civil and Environmental Engineering Final Year Thesis	6																
CIVL	4950	Civil Engineering Capstone Design Project	3									3		3					
CIVL	4450	Note: CIVL4450 OR CIVL 5450 OR CIVL5460 Carbon Footprint Analysis and Reduction	3								3			3					
CIVL	5450	Hazardous Waste Treatment and Site Remediation	3																
CIVL	5460	Landfill Engineering and Design	3																
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0					
LANG	4033	Technical Communication II for Civil and Environmental Engineering	3									3		3					
CIVL/SENG		CIVL (Environmental) Electives [at least 1 course should be selected from the "Restricted Electives"] Restricted electives: at least 1 course AND (CIVL: Any CIVL courses at 4000-level or above except those listed as "Restricted Electives" from the list OR SENG: Any 3000-level or above courses offered by the Engineering School or engineering departments other than CIVL)	6									3	3	6					
Required credits for Major Requirements Courses and Electives			66											66					
BBA in Economics																			
School Requirements																			
ACCT	2010	Principles of Accounting I	3			3								3					
ACCT	2200	Principles of Accounting II	3						3					3					
ECON	2103	Note: ECON 2103 OR ECON 2113 Principles of Microeconomics	3		3									3	ECON 2103/2113/2123 is a major prerequisite				
ECON	2113	Microeconomics	3																
ECON	2123	Note: ECON 2123 OR ECON 3123 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				
ISOM	2020	Coding for Business	1				1							1					
ISOM	2500	Business Statistics	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by CIVL 2160				
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	Substituted by ENGG 1010				
LABU	2040	Business Case Analyses	3										3	3					
LABU	2060	Effective Communication in Business	3							3				3					
MATH	1003	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023 Calculus and Linear Algebra	3-4 3								3				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	1012	Calculus IA	4																
MATH	1013	Calculus IB	3	(3)										0					
MATH	1020	Accelerated Calculus	4																
MATH	1023	Honors Calculus I	3																
Required credits for School Requirements			43-44											36					
Major Requirements																			
Major Required Courses and Electives																			
ECON	3014	Managerial Microeconomics	4					4						4					
ECON	3024	Managerial Macroeconomics	4						4					4					
ECON	3334	Introduction to Econometrics	4							4				4					
ECON	4670	Economics Research and Communication	0									0		0					
ECON		ECON 4000-level Electives (Any 3 courses of the subject and level as specified)	11								4	4	3	11					
Required credits for Major Required Courses and Electives			23											23					
Additional Requirements																			
Requirements for Dual Degree Program																			
Required Courses																			
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0					
TEMG	3950	Case-based Problem Solving	3		3									3					
Required credits for Additional Requirements			3											3					
University CORE																			
CORE	C3 - C12	U CORE - Others	30	3				3		9	9	3	3	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				18		20		19		19		20		19		19		17	
188##																			
<< Declaration of BEng major																<< Declaration of BBA major			
Notes:																			

The Hong Kong University of Science and Technology

Interdisciplinary Programs Office

An Example on Student's Pathway

<< Declaration of BEng major

<< Declaration of BBA major

DAECON

(Via DDP PBA)

2020-21 Intake

School:

Program:

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 Decision Analytics

Major Requirements

Engineering Fundamental Courses

COMP	1021	Note: COMP 1021 OR COMP 1022P OR COMP 2011	3-4													
COMP	1022P	Introduction to Computer Science	3		3										3	This course will also be used to substitute ISOM 2010
COMP	2011	Introduction to Computing with Java	3													
COMP		Programming with C++	4													
ENGG	1010	Academic Orientation	0	0	0										0	
CHEM	1010	Note: CHEM1010 OR CHEM1020 OR PHYS1112 OR PHYS1312														
CHEM	1020	General Chemistry IA	3													
CHEM	1020	General Chemistry IB	3	3											3	
PHYS	1112	General Physics I with Calculus	3													
PHYS	1312	Honors General Physics I	3													
LANG	2030	Technical Communication I	3				3								3	
MATH		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										6	
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	
MATH	2111	Matrix Algebra and Applications	3			3									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	22-27												21	

Major Required Courses and Electives

IEDA	1010	Academic and Professional Development I	0			0	0								0	
IEDA	1020	Academic and Professional Development II	0					0	0						0	
IEDA	1990	Note: IEDA1990 OR IEDA1991	0			0	0	0	0	0	0	0	0	0		
IEDA	1991	Industrial Training	0													
IEDA	1991	Industrial Experience	0													
IEDA	2520	Probability for Engineers	3			3									3	
IEDA	2540	Statistics for Engineers	3				3								3	This course will also be used to substitute ISOM2500
IEDA	3010	Prescriptive Analytics	3					3							3	
IEDA	3230	Engineering Economics and Accounting	3				3								3	
IEDA	3250	Stochastic Models	3						3						3	
IEDA	3300	Industrial Data Systems	3				3								3	
IEDA	3560	Predictive Analytics	3						3						3	
IEDA	4901	Note: IEDA4901 OR IEDA4920	6										3	3	6	
IEDA	4920	Decision Analytics Final Year Project	6													
ENGG	2010	Engineering Seminar Series	0			0	0	0	0						0	
ECON	2103	Note: ECON2103 OR ECON2113	3		3										3	ECON 2103/2113/2123 is a major prerequisite
ECON	2113	Principles of Microeconomics	3													
ECON	2113	Microeconomics	3													
LANG	4032	Technical Communication II for Industrial Engineering and Decision Analytics	3							3					3	
IEDA		Area Electives (5 courses from the specified elective list, of which all 5 courses should be taken from the same area)	15						3	6	3	3			15	
		Required credits for Major Required Courses and Electives	48												48	

BBA in Economics

School Requirements

ACCT	2010	Principles of Accounting I	3			3									3	
ACCT	2200	Principles of Accounting II	3									3			3	
ECON	2103	Note: ECON 2103 OR ECON 2113	3		(3)										0	ECON 2103/2113/2123 is a major prerequisite
ECON	2113	Principles of Microeconomics	3													
ECON	2123	Note: ECON 2123 OR ECON 3123	3			3									3	
ECON	3123	Macroeconomics	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
ISOM	2020	Coding for Business	1					1							1	
ISOM	2500	Business Statistics	3	-	-	-	-	-	-	-	-	-	-	-	0	Substituted by IEDA2540
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	Waived for DDP students
LABU	2040	Business Case Analyses	3					3							3	
LABU	2060	Effective Communication in Business	3							3					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	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	43-44												33	

Major Requirements

Major Required Courses and Electives

ECON	3014	Managerial Microeconomics	4					4							4	
ECON	3024	Managerial Macroeconomics	4						4						4	
ECON	3334	Introduction to Econometrics	4							4					4	
ECON	4670	Economics Research and Communication	0									0			0	
ECON		ECON 4000-level Electives (Any 3 courses of the subject and level as specified)	11								4	4	3		11	
		Required credits for Major Required Courses and Electives	29												23	

Additional Requirements

Requirements for Dual Degree Program

Required Courses

TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0	0	
TEMG	3950	Case-based Problem Solving	3		3										3	
		Required credits for Additional Requirements	3												3	

University CORE

CORE	C3 - C12	U CORE - Others	30	9	3		3			3	6		6	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	18	18	18	17	16	18	16	13	12
164##									

<< Declaration of BEng major

<< Declaration of BBA major

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.

<< 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 Electronic Engineering and BBA in Economics)															
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			
BEng in Electronic Engineering																	
Major Requirements																	
Engineering Fundamental Courses																	
ELEC ELEC MATH MATH MATH MATH	2600 2600H 2011 2111 2350 2351	Note: ELEC2600 OR ELEC2600H) OR MATH2011 OR MATH2111 OR MATH2350 OR MATH 2351 (3 courses out of 6) Probability and Random Processes in Engineering Honors Probability and Random Processes in Engineering Introduction to Multivariable Calculus Matrix Algebra and Applications Applied Linear Algebra and Differential Equations Introduction to Differential Equations	9-10 4 4 3 3 3 3	3		3		3						9			
COMP COMP COMP	1021 1022P 2011	Note: COMP1021 OR COMP1022P Introduction to Computer Science Introduction to Computing with Java Programming with C++	3 3 4		3		4							3	This course will also be used to substitute ISOM 2010		
ENGG	1010	Academic Orientation	0	0	0									0			
LANG	2030	Technical Communication I	3						3					3			
MATH MATH MATH MATH MATH MATH	1012 1013 1014 1020 1023 1024	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020] Calculus IA Calculus IB Calculus II Accelerated Calculus Honors Calculus I Honors Calculus II	4-7 4 3 3 4 3 3	3	3									6			
PHYS PHYS	1112 1312	Note: PHYS1112 OR PHYS1312 General Physics I with Calculus Honors General Physics I	3 3	3										3			
PHYS PHYS	1114 1314	Note: PHYS1114 OR PHYS1314 General Physics II Honors General Physics II	3 3		3									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			32-37											31			
Major Required Courses and Electives																	
ELEC	1100	Introduction to Electro-Robot Design	4			4								4			
ELEC	1200	A System View of Communications: from Signals to Packets	4				4							4			
ELEC ELEC	2100 2100H	Note: ELEC2100 OR ELEC2100H Signals and Systems Honors Signals and Systems	4 4							4				4			
ELEC	2350	Introduction to Computer Organization and Design	4							4				4			
ELEC	2400	Electronic Circuits	4						4					4			
ELEC	2910	Academic and Professional Development I	0			0	0							0			
ELEC	3910	Academic and Professional Development II	0					0	0					0			
ELEC ELEC ELEC ELEC	4900 4901 2991 4910	Note: (ELEC4900 AND ELEC2991) OR (ELEC4901 AND ELEC2991) OR ELEC4910 (Students taking the Research Option must take ELEC 4901) Final Year Design Project Final Year Thesis Industrial Experience (Electronic Engineering) Co-op Program	6 6 6 0 6									3	3	6			
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0			
LANG	4031	Technical Communication II for ECE & CPEG	3									3		3			
ELEC		ELEC 3000-level or 4000-level Electives (Any 2 courses ELEC 4000-level courses. ELEC4940 cannot be used to count towards this elective requirement)	21				3		3		6	3	6	21			
Required credits for Major Requirements Courses and Electives			50											50			
BBA in Economics																	
School Requirements																	
ACCT	2010	Principles of Accounting I	3			3								3			
ACCT	2200	Principles of Accounting II	3						3					3			
ECON ECON	2103 2113	Note: ECON2103 OR ECON2113 Principles of Microeconomics Microeconomics	3 3		3									3	ECON 2103/2113/2123 is a major prerequisite		
ECON ECON	2123 3123	Note: ECON2123 OR ECON3123 Macroeconomics Macroeconomic Theory I	3 3			3								3			
FINA	2303	Financial Management	3				3							3			
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P		
ISOM	2020	Coding for Business	1					1						1			
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	Waived for DDP students		
LABU	2040	Business Case Analyses	3				3							3			
LABU	2060	Effective Communication in Business	3					3						3			
MATH MATH MATH MATH MATH	1003 1012 1013 1020 1023	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023 Calculus and Linear Algebra Calculus IA Calculus IB Accelerated Calculus Honors Calculus I	3-4 3 4 3 4 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		
Required credits for School Requirements			43-44											39			
Major Requirements																	
Major Required Courses and Electives																	
ECON	3014	Managerial Microeconomics	4					4						4			
ECON	3024	Managerial Macroeconomics	4						4					4			
ECON	3334	Introduction to Econometrics	4							4				4			
ECON	4670	Economics Research and Communication	0									0		0			
ECON		ECON 4000-level Electives (Any 3 courses of the subject and level as specified)	11								4	4	3	11			
Required credits for Major Required Courses and Electives			23											23			
Additional Requirements																	
Requirements for Dual Degree Program																	
Required Courses																	
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0			
TEMG	3950	Case-based Problem Solving	3		3									3			
Required credits for Additional Requirements			3											3			
University CORE																	
CORE	C3 - C12	U CORE - Others	30	6				3	3	6	6	3	3	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	18	20	19	20	20	18	18	16	15								
182##																	

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 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.

<< 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 Industrial Engineering and Engineering Management and BBA in Economics)													
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 Industrial Engineering and Engineering Management															
Major Requirements															
Engineering Fundamental Courses															
COMP	1021	Note: COMP1021 OR COMP1022P OR COMP2011	3-4											3	This course will also be used to substitute ISOM 2010
COMP	1022P	Introduction to Computer Science	3	3											
COMP	2011	Introduction to Computing with Java	4												
ENGG	1010	Programming with C++	4												
		Academic Orientation	0	0	0									0	
CHEM	1010	Note: CHEM1010 OR CHEM1020 OR PHYS1112 OR PHYS1312	3												
CHEM	1020	General Chemistry IA	3	3										3	
PHYS	1112	General Chemistry IB	3												
PHYS	1312	General Physics I with Calculus	3												
		Honors General Physics I	3												
LANG	2030	Technical Communication I	3					3						3	
MATH	1012	Note: [MATH 1012 OR MATH 1013 OR MATH 1023] AND	4-7												
MATH	1013	(MATH 1014 OR MATH 1024)] OR [MATH 1020]	4												
MATH	1014	Calculus IA	3	3	3									6	
MATH	1020	Calculus IB	3												
MATH	1023	Calculus II	3												
MATH	1024	Accelerated Calculus	4												
MATH	1023	Honors Calculus I	3												
MATH	1024	Honors Calculus II	3												
MATH	2011	Introduction to Multivariable Calculus	3				3							3	
MATH	2111	Matrix Algebra and Applications	3			3								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			22-27											21	
Major Required Courses and Electives															
IEDA	1010	Academic and Professional Development I	0			0	0							0	
IEDA	1020	Academic and Professional Development II	0					0	0					0	
IEDA	1990	Note: IEDA1990 OR IEDA1991													
IEDA	1991	Industrial Training	0			0*	0^							0	
IEDA	1991	Industrial Experience	0												
IEDA	2520	Probability for Engineers	3			3								3	
IEDA	2540	Statistics for Engineers	3				3							3	This course will also be used to substitute ISOM2500
IEDA	3010	Prescriptive Analytics	3					3						3	
IEDA	3230	Engineering Economics and Accounting	3					3						3	
IEDA	3250	Stochastic Models	3						3					3	
IEDA	3300	Industrial Data Systems	3				3							3	
IEDA	4100	Integrated Production Systems	3								3			3	This course will also be used to substitute ISOM 2700
IEDA	4130	System Simulation	3								3			3	
IEDA	4901	Note: IEDA4901 OR IEDA4990	6									3	3	6	
IEDA	4960	Final Year Thesis	6												
ENGG	2010	Industrial Engineering and Engineering Management Final Year Project	6												
ENGG	2010	Engineering Seminar Series	0			0	0	0	0	0	0	0	0	0	
ECON	2103	Note: ECON 2103 OR ECON 2113	3		3									3	ECON 2103/2113/2123 is a major prerequisite
ECON	2113	Principles of Microeconomics	3												
LANG	4032	Microeconomics	3									3		3	
IEDA		Technical Communication II for Industrial Engineering and Decision Analytics	3												
IEDA		Industrial Engineering Electives (Courses from the specified 21 elective list, of which at least 15 credits should be taken from 1 of the 2 areas and at least 6 credits outside that area.)	21			3	3	3		3		3	6	21	
Required credits for Major Requirements Courses and Electives			57											57	
BBA in Economics															
School Requirements															
ACCT	2010	Principles of Accounting I	3		3									3	
ACCT	2200	Principles of Accounting II	3						3					3	
ECON	2103	Note: ECON 2103 OR ECON 2113	3		(3)									0	ECON 2103/2113/2123 is a major prerequisite
ECON	2113	Principles of Microeconomics	3												
ECON	2123	Note: ECON 2123 OR ECON 3123	3			3								3	
ECON	3123	Macroeconomics	3												
FINA	2303	Macroeconomic Theory I	3					3						3	
ISOM	2010	Financial Management	3												
ISOM	2020	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P
ISOM	2500	Coding for Business	1				1							1	
ISOM	2600	Business Statistics	3											0	Substituted by IEDA2540
ISOM	2700	Introduction to Business Analytics	1				1							1	
MARK	2120	Operations Management	3											0	Substituted by IEDA 4100
MGMT	2010	Marketing Management	3			3								3	
MGMT	2110	Business Ethics and the Individual	2						2					2	
MGMT	2130	Organizational Behavior	3				3							3	
SBMT	1111	Business Ethics and Social Responsibility	2									2		2	
LABU	2040	Business Student Induction	0	---	---	---	---	---	---	---	---	---	---	0	Waived for DDP students
LABU	2060	Business Case Analyses	3						3					3	
MATH	1003	Effective Communication in Business	3							3				3	
MATH	1012	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023	3-4												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	1013	Calculus and Linear Algebra	4												
MATH	1020	Calculus IA	3	(3)										0	
MATH	1023	Calculus IB	3												
MATH	1023	Accelerated Calculus	4												
Required credits for School Requirements			43-44											30	
Major Requirements															
Major Required Courses and Electives															
ECON	3014	Managerial Microeconomics	4					4						4	
ECON	3024	Managerial Macroeconomics	4						4					4	
ECON	3334	Introduction to Econometrics	4							4				4	
ECON	4670	Economics Research and Communication	0									0		0	
ECON		ECON 4000-level Electives (Any 3 courses of the subject and level as specified)	11								4	4	3	11	
Required credits for Major Required Courses and Electives			23											23	
Additional Requirements															
Requirements for Dual Degree Program															
Required Courses															
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0	
TEMG	3950	Case-based Problem Solving	3		3									3	
Required credits for Additional Requirements			3											3	
University CORE															
CORE	C3 - C12	U CORE - Others	30	6	3	3			3	9	6			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 18 18 17 19 18 19 16 15 12															
170##															
<< Declaration of BEng major << Declaration of BBA major															

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.

<< 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 Mechanical Engineering and BBA in Economics)													Remarks		
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			
BEng in Mechanical Engineering																	
Major Requirements																	
Engineering Fundamental Courses																	
COMP	1021	Note: COMP1021 OR COMP1022P OR COMP2011	3-4	3										3	This course will also be used to substitute ISOM 2010		
COMP	1022P	Introduction to Computer Science	3														
COMP	2011	Introduction to Computing with Java Programming with C++	4														
ENGG	1010	Academic Orientation	0	0	0									0			
LANG	2030	Technical Communication I	3				3							3			
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7	3	3									6			
MATH	1013	Calculus IA	4														
MATH	1014	Calculus IB	3														
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			
MATH	2111	Note: MATH2111 OR MATH2350 OR MATH2351	3							3				3			
MATH	2350	Matrix Algebra and Applications	3														
MATH	2351	Applied Linear Algebra and Differential Equations	3														
MATH	2351	Introduction to Differential Equations	3														
PHYS	1112	Note: PHYS1112 OR PHYS1312	3		3									3			
PHYS	1312	General Physics I with Calculus	3														
PHYS	1312	Honors General Physics I	3														
CHEM/LIFS/ PHYS		Science 1000-level course (Any 1 course of the subject and level as specified)	3		(3)									0			
Required credits for Engineering Fundamental Courses			22-26											21			
Major Required Courses and Electives																	
MECH	1990	Industrial Training	0			0*	0^							0			
MECH	2020	Statics and Dynamics	3			3								3			
MECH	2040	Solid Mechanics I	3						3					3			
MECH	2210	Fluid Mechanics	3						3					3			
MECH	2310	Thermodynamics	3			3								3			
MECH	2410	Engineering Materials I	3				3							3			
MECH	2520	Design and Manufacturing I	3				3							3			
MECH	2907	Mechatronic Design and Prototyping	3						3					3			
MECH	3030	Mechanisms of Machinery	3								3			3			
MECH	3300	Note: MECH3300 OR MECH3420 OR MECH3520	3							3				3			
MECH	3420	Energy Conversion	3														
MECH	3520	Engineering Materials II	3														
MECH	3520	Design and Manufacturing II	3														
MECH	3310	Heat Transfer	3								3			3			
MECH	3610	Control Principles	3					3						3			
MECH	3630	Electrical Technology	3						3					3			
MECH	3830	Laboratory	3								3			3			
MECH	4900	Final Year Design Project	6									3	3	6			
ELEC	2420	Basic Electronics	3			3								3			
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0			
LANG	4034	Technical Communication II for Mechanical and Aerospace Engineering	3								3			3			
Required credits for Major Requirements Courses and Electives			51											51			
BBA in Economics																	
School Requirements																	
ACCT	2010	Principles of Accounting I	3			3								3			
ACCT	2200	Principles of Accounting II	3						3					3			
ECON	2103	Note: ECON 2103 OR ECON 2113	3	3										3	ECON 2103/2113/2123 is a major prerequisite		
ECON	2113	Principles of Microeconomics	3														
ECON	2123	Note: ECON 2123 OR ECON 3123	3			3								3			
ECON	3123	Macroeconomics	3														
FINA	2303	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		
ISOM	2020	Coding for Business	1					1						1			
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	Waived for DDP students		
LABU	2040	Business Case Analyses	3					3						3			
LABU	2060	Effective Communication in Business	3							3				3			
MATH	1003	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023	3-4	(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	1012	Calculus and Linear Algebra	3														
MATH	1013	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										39				
Major Requirements																	
Major Required Courses and Electives																	
ECON	3014	Managerial Microeconomics	4					4						4			
ECON	3024	Managerial Macroeconomics	4						4					4			
ECON	3334	Introduction to Econometrics	4							4				4			
ECON	4670	Economics Research and Communication	0									0		0			
ECON		ECON 4000-level Electives (Any 3 courses of the subject and level as specified)	11								4	4	3	11			
Required credits for Major Required Courses and Electives			23											23			
Additional Requirements																	
Requirements for Dual Degree Program																	
Required Courses																	
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0			
TEMG	3950	Case-based Problem Solving	3		3									3			
Required credits for Additional Requirements			3											3			
University CORE																	
CORE	C3 - C12	U CORE - Others	30	9	3					6		6	6	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	18		18	18		18	19	19		16	15	14					
173##																	

<< Declaration of
BEng major

<< Declaration of
BBA major

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.

School:		School of Engineering and School of Business Management				Student's Pathway											Remarks
Program:		Dual Degree Program (BEng in Bioengineering and BBA in Marketing)															
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			

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		3									3	This course will also be used to substitute ISOM 2010	
COMP	1029P	Introduction to Computing with Java	3													
COMP	2011	Python Programming Bridging Course	1													
COMP		Programming with C++	4													
ENGG	1010	Academic Orientation	0	0	0									0		
CHEM	1010	Note: CHEM1010 OR CHEM 1020														
CHEM	1020	General Chemistry IA	3	3										3		
CHEM		General Chemistry IB	3													
CHEM	1050	Laboratory for General Chemistry I	1	1										1		
LANG	2030	Technical Communication I	3				3							3		
LIFS	1901	General Biology I	3	3										3		
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7													
MATH	1013	Calculus IA	4													
MATH	1014	Calculus IB	3	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														
PHYS	1312	General Physics I with Calculus	3	3										3		
PHYS		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			23-29											22		

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			3								3		
BIEN	2410	Modeling for Chemical and Biological Engineering	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	3240	Transport Phenomena in Biological Systems	3									3		3		
BIEN	3320	Data Science for Biology and Medicine	3				3							3		
BIEN	3410	Introduction to Bioinstrumentation and Bioimaging	3							3				3		
BIEN	3910	Bioengineering Laboratory	4							4				4		
BIEN	4920	Note: BIEN 4920 OR BIEN 4930 OR BIEN 4940														
BIEN	4930	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	3230	Chemical and Biological Reaction Engineering	3							3				3		
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0		
LIFS	3150	Note: LIFS 3150 OR MATH 2411	3-4													
MATH	2411	Biostatistics	3			3								3		
MATH		Applied Statistics	4													
LANG	4035	Technical Communication II for Chemical and Biological Engineering	3									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								6	3	6	15		
Required credits for Major Required Courses and Electives			60-61											60		

BBA in Marketing

School Requirements

ACCT	2010	Principles of Accounting I	3			3								3		
ACCT	2200	Principles of Accounting II	3						3					3		
ECON	2103	Note: ECON 2103 OR ECON 2113				3								3		
ECON	2113	Principles of Microeconomics	3													
ECON		Microeconomics	3													
ECON	2123	Note: ECON 2123 OR ECON 3123								3				3		
ECON	3123	Macroeconomics	3													
ECON		Macroeconomic Theory I	3													
FINA	2303	Financial Management	3				3							3		
ISOM	2010	Introduction to Information Systems	3	-	-	-	-	-	-	-	-	-	-	0	Substituted by COMP 1021/1022P/COMP2011	
ISOM	2020	Coding for Business	1	-	-	-	-	-	-	-	-	-	-	0		
ISOM	2500	Business Statistics	3	-	-	-	-	-	-	-	-	-	-	0	Substituted by LIFS 3150/MATH 2411	
ISOM	2600	Introduction to Business Analytics	1	-	-	-	-	-	-	-	-	-	-	0		
ISOM	2700	Operations Management	3						3					3	Substituted by BIEN3320	
MARK	2120	Marketing Management	3				3									
MGMT	2010	Business Ethics and the Individual	2			2								2	MARK 2120 is a major pre-requisite	
MGMT	2110	Organizational Behavior	3		3									3		
MGMT	2130	Business Ethics and Social Responsibility	2					2						2		
SBMT	1111	Business Student Induction	0	-	-	-	-	-	-	-	-	-	-	0	Substituted by ENGG 1010	
LABU	2040	Business Case Analyses	3					3						3		
LABU	2060	Effective Communication in Business	3						3					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	4													
MATH	1013	Calculus IB	3													
MATH	1020	Accelerated Calculus	4													
MATH	1023	Honors Calculus I	3													
Required credits for School Requirements			43-44											34		

Major Requirements

Major Required Courses and Electives

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

Additional Requirements

Requirements for Dual Degree Program

Required Courses

TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0		
TEMG	3950	Case-based Problem Solving	3		3									3		
Required credits for Additional Requirements			3											3		

University CORE

CORE	C3 - C12	U CORE - Others	30	3			3	9	3	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)

19	18	18	18	18	19	20	19	17	13
179##									

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.

<< Declaration of
BEng major

<< Declaration of
BBA major

School:		School of Science and School of Business Management		Student's Pathway													
Program:		Dual Degree Program (BSc in Biotechnology and BBA in Marketing)															
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		
BSc in Biotechnology																	
School Requirements																	
SCIE	1000	Science School Induction	0	0	0									0			
COMP	1021	Note: COMP1021 OR COMP1022P OR COMP2011	3-4														
COMP	1022P	Introduction to Computer Science	3			3								3	This course will also be used to substitute ISOM 2010		
COMP	2011	Introduction to Computing with Java	3														
LANG	2010	English for Science I	4					3						3			
SSCI		Science communication courses or courses from the specified elective list. Students should take (i) 7 foundation lecture courses, including at least 1 lecture course, but no more than 3 lecture courses, from each discipline: CHEM, LIFS, MATH and PHYS; and (ii) 1 laboratory course.	22-25														
CHEM	1004	Chemistry in Everyday Life	3														
CHEM	1010	General Chemistry IA	3														
CHEM	1020	General Chemistry IB	3														
CHEM	1030	General Chemistry II	3														
CHEM	1050	Laboratory for General Chemistry I	1														
CHEM	1055	Laboratory for General Chemistry II	1														
LIFS	1030	Environmental Science	3														
LIFS	1901®	General Biology I®	3														
LIFS	1902®	General Biology II®	3														
LIFS	1903	Laboratory for General Biology I	1														
LIFS	1904	Laboratory for General Biology II	1														
LIFS	1930	Nature of Life Sciences	3														
LIFS	2210	Biochemistry I	3	10	3	6	3							22	LIFS1901 & LIFS1902 are Major Pre-requisite Students are recommended to take CHEM1010, CHEM1030, LIFS1903 and MATH1013 to satisfy the requirements of both SSCI School requirements and Major requirements		
MATH	1012	Calculus IA	4														
MATH	1013	Calculus IB	3														
MATH	1014	Calculus II	3														
MATH	1020	Accelerated Calculus	4														
MATH	1023	Honors Calculus I	3														
MATH	1024	Honors Calculus II	3														
MATH	2023	Multivariable Calculus	4														
MATH	2121	Linear Algebra	4														
MATH	2131	Honors in Linear and Abstract Algebra I	4														
PHY	1001	Physics and the Modern Society	3														
PHY	1111	General Physics I	3														
PHY	1112	General Physics I with Calculus	3														
PHY	1113	Laboratory for General Physics I	1														
PHY	1114	General Physics II	3														
PHY	1115	Laboratory for General Physics II	1														
PHY	1116	Laboratory for General Physics II	3														
Required credits for School / Major Pre-requisite Requirements			25-29											28			
Major Requirements																	
Major Required Courses and Electives																	
LIFS	1903	Laboratory for General Biology I	1	(1)										0			
LIFS	1904	Laboratory for General Biology II	1		1									1			
LIFS	2040	Cell Biology	3				3							3			
LIFS	2070	Introduction to Biotechnology	3			3								3			
LIFS	2080	Plant Biology	3				3							3			
LIFS	2210	Biochemistry I	3		(3)									0			
LIFS	3060	Microbiology	3					3						3			
LIFS	3110	Biotechnological Application of Recombinant DNA Techniques	3					3						3			
LIFS	3140	General Genetics	4						4					4			
LIFS	4150	Plant Biotechnology	3								3			3			
LIFS	4200	Concepts and Issues in Contemporary Biotechnology	3						3					3			
LIFS	4963	Note: LIFS4963 OR (LIFS4973 AND LIFS4983) OR (SCIE4500 AND LIFS4983)	3-7														
LIFS	4973	[Students following IRE Track can only use (SCIE4500 AND LIFS4983) to fulfill the requirement.]															
LIFS	4983	Biotechnology Capstone Project	3								[3]	3	3				
LIFS	4983	Biotechnology Project Research I	3														
SCIE	4500	Biotechnology Project Research II	4														
		IRE Research Project II	3														
CHEM	1010	Note: CHEM1010 OR CHEM1020	3	(3)										0			
CHEM	1020	General Chemistry IA	3														
CHEM	1030	General Chemistry IB	3		(3)									0			
CHEM	1050	Laboratory for General Chemistry I	1	1										1			
CHEM	1055	Laboratory for General Chemistry II	1		1									1			
CHEM	2110	Note: CHEM2110 OR CHEM2311	3					3						3			
CHEM	2311	Organic Chemistry I	3														
		Analytical Chemistry															
CHEM	2155	Note: CHEM2155 OR CHEM2355	1						1					1			
CHEM	2355	Fundamental Organic Chemistry Laboratory	1														
CENG	1600	Fundamental Analytical Chemistry Laboratory	3							3				3			
CENG		Biotechnology and Its Business Opportunities															
LANG	3024	Science Communication in English (Life Science)	3										3	3			
LIFS/BIPH/BTEC/BIEN/ CENG		Biotechnology Electives (Courses from the specified elective list; Students following IRE Track are required to take a minimum of 15 credits; while others a minimum of 18 credits. Courses taken as Major/Track Required Courses may not be counted towards the elective requirement.)	15-18						3		3	6	3	15			
Required credits for Major Required Courses and Electives			62-70											56			
BBA in Marketing																	
School Requirements																	
ACCT	2010	Principles of Accounting I	3		3									3			
ACCT	2200	Principles of Accounting II	3						3					3			
ECON	2103	Note: ECON 2103 OR ECON 2113	3				3							3			
ECON	2113	Principles of Microeconomics	3														
ECON	3123	Microeconomics	3					3						3			
ECON	3123	Macroeconomics	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/1022Q/2011		
ISOM	2020	Coding for Business	1				1							1			
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	MARK 2120 is a major pre-requisite		
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	Waived for DDP students		
LABU	2040	Business Case Analyses	3								3			3			
LABU	2060	Effective Communication in Business	3									3		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	4	(3)										0	DDP students should take MATH 1013 OR MATH 1023 to satisfy the requirements of both BSc and BBA degrees		
MATH	1013	Calculus IB	3														
MATH	1020	Accelerated Calculus	4														
MATH	1023	Honors Calculus I	3														
Required credits for School Requirements			43-44											39			
Major Requirements																	
Major Required Courses and Electives																	
MARK	3220	Marketing Research	4					4						4			
MARK	3420	Consumer Behavior	4						4					4			
MARK	4210	Strategic Marketing	4										4	4			
MARK		MARK 3000-level or above Electives (Any 3 courses of the subject and level as specified)	12							4	4	4		12			
Required credits for Major Required Courses and Electives			24											24			
Additional Requirements																	
Requirements for Dual Degree Program																	
Required Courses																	
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0			
TEMG	3950	Case-based Problem Solving	3		3									3			
Required credits for Additional Requirements			3											3			
University CORE																	
CORE	C3 - C12	U CORE - Others	30	3	3			3	3	3	9	3	3	30			
CORE	C1 & C2	U CORE - English Language	6	3	3									6			
Sub-total for University CORE			36											36			

19	17	18	19	19	20	20	19	19	16
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Notes:

@ Course that students need to complete before enrolling into respective major/programs.

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

[] denotes the course is also offered in other terms as indicated and students may take the course in one of these subject to advice by the program office.

--- 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.

<< 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 Chemical Engineering and BBA in Marketing)																		Remarks
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						
BEng in Chemical Engineering																				
Major Requirements																				
Engineering Fundamental Courses																				
COMP	1021	Note: COMP 1021 OR COMP 1022P OR COMP 2011	3-4														This course will also be used to substitute ISOM 2010			
COMP	1022P	Introduction to Computer Science	3	3										3						
COMP	2011	Introduction to Computing with Java	3																	
ENGG	1010	Academic Orientation	0	0	0									0						
CHEM		Note: CHEM1010 OR CHEM1020																		
CHEM	1010	General Chemistry IA	3	3										3						
CHEM	1020	General Chemistry IB	3																	
LANG	2030	Technical Communication I	3					3						3						
MATH		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									6						
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		Note: PHYS 1112 OR PHYS 1312																		
PHYS	1112	General Physics I with Calculus	3	3										3						
PHYS	1312	Honors General Physics I	3																	
Required credits for Engineering Fundamental Courses			19-23											21						
Major Required Courses and Electives																				
CENG	1000	Note: CENG1000 OR CENG1500	3	3										3						
CENG	1500	Introduction to Chemical and Biological Engineering	3																	
CENG		A First Course on Materials Science and Applications	3																	
CENG		Note: CENG1600 OR CENG1700 OR BIEN1010																		
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	0	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	Process Fluid Mechanics	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						
CENG		Note: CENG4920 OR CENG4930 OR CENG4940																		
CENG	4920	Chemical Engineering Capstone Design	6										3	6						
CENG	4930	Chemical Engineering Thesis Research	6										3							
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						
BIEN		Note: BIEN2410 OR BIEN2610 OR LIFS1901																		
BIEN	2410	Cellular and Systems Physiology for Engineers	3				3							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						
Required credits for Major Requirements Courses and Electives			68											68						
BBA in Marketing																				
School Requirements																				
ACCT	2010	Principles of Accounting I	3			3								3						
ACCT	2200	Principles of Accounting II	3							3				3						
ECON		Note: ECON 2103 OR ECON 2113																		
ECON	2103	Principles of Microeconomics	3		3									3						
ECON	2113	Microeconomics	3																	
ECON		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			Substituted by COMP 1021/1022P/COMP2011			
ISOM	2020	Coding for Business	1			1								1						
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			MARK 2120 is a major pre-requisite			
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																	
SBMT	1111	Business Student Induction	0	---	---	---	---	---	---	---	---	---	---	0			Waived for DDP students			
LABU	2040	Business Case Analyses	3							3				3						
LABU	2060	Effective Communication in Business	3											3	3					
MATH		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											39						
Major Requirements																				
Major Required Courses and Electives																				
MARK	3220	Marketing Research	4					4						4						
MARK	3420	Consumer Behavior	4						4					4						
MARK	4210	Strategic Marketing	4										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																				
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
TEMG	3950	Case-based Problem Solving	3		3										3					
Required credits for Additional Requirements			3											3						
University CORE																				
CORE	C3 - C12	U CORE - Others	30				3		3	3	9	6	6	30						
CORE	C1 & C2	U CORE - English Language	6		3									6						
Sub-total for University CORE			36											36						
Term load (excl. free credits)																				
18	19	20	19	19	20	19	20	19	18											
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<< 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 Civil Engineering and BBA in Marketing)																	
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					
BEng in Civil Engineering																			
Major Requirements																			
Engineering Fundamental Courses																			
COMP	1021	Note: COMP 1021 OR COMP 1022P OR COMP 2011	3-4		3									3	This course will also be used to substitute ISOM 2010				
COMP	1022P	Introduction to Computer Science	3																
COMP	2011	Introduction to Computing with Java	3																
ENGG	1010	Programming with C++	4																
		Academic Orientation	0	0	0									0					
CHEM	1010	Note: CHEM 1010 OR CHEM 1020	3	3										3					
CHEM	1020	General Chemistry IA	3																
		General Chemistry IB	3																
LANG	2030	Technical Communication 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	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					
MATH	2350	Applied Linear Algebra and Differential Equations	3			3								3					
PHYS	1112	Note: PHYS 1112 OR PHYS 1312	3	3										3					
PHYS	1312	General Physics I with Calculus	3																
		Honors General Physics I	3																
Required credits for Engineering Fundamental Courses			22-26											24					
Major Required Courses and Electives																			
CIVL	1010	Academic Professional Development I	0			0	0							0					
CIVL	1100	Discovering Civil and Environmental Engineering	3		3									3					
CIVL	2010	Academic Professional Development II	0					0	0					0					
CIVL	2020	Industrial and BIM Training	0			0*	0							0					
CIVL	2110	Statics	3			3								3					
CIVL	2120	Mechanics of Materials	3				3							3					
CIVL	2160	Modeling Systems with Uncertainties	3			3								3	This course will also be used to substitute ISOM 2500				
CIVL	2170	Infrastructure Systems Engineering and Management	3				3							3					
CIVL	2410	Environmental Assessment and Management	3				3							3					
CIVL	2510	Fluid Mechanics	3				3							3					
CIVL	2810	Construction Materials	3					3						3					
CIVL	3010	Academic Professional Development III	0							0	0			0					
CIVL	3020	Internship Training	0								0*			0					
CIVL	3210	Introduction to Construction Management	3						3					3					
CIVL	3310	Structural Analysis	3					3						3					
CIVL	3320	Reinforced Concrete Design	3						3					3					
CIVL	3510	Hydrosystems Engineering	3					3						3					
CIVL	3610	Traffic and Transportation Engineering	3						3					3					
CIVL	3730	Fundamentals of Geotechnics	3							3				3					
CIVL	3740	Geotechnical Analysis and Design	3								3			3					
CIVL	4910	Note: CIVL 4910 OR CIVL 4920	6									3	3	6					
CIVL	4920	Civil and Environmental Engineering Final Year Project	6																
CIVL	4950	Civil and Environmental Engineering Final Year Thesis	3									3		3					
CIVL	4950	Civil Engineering Capstone Design Project	3										3	3					
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0					
LANG	4033	Technical Communication II for Civil and Environmental Engineering	3									3		3					
CIVL/SENG		CIVL Electives (3 courses from the specified elective list) CIVL: Any CIVL courses at 4000-level or above except CIVL 4230 SENG: Any 3000-level or above courses offered by the Engineering School or engineering departments other than CIVL	9								3	3	3	9					
Required credits for Major Requirements Courses and Electives			66											66					
BBA in Marketing																			
School Requirements																			
ACCT	2010	Principles of Accounting I	3			3								3					
ACCT	2200	Principles of Accounting II	3						3					3					
ECON	2103	Note: ECON 2103 OR ECON 2113	3		3									3					
ECON	2113	Principles of Microeconomics	3																
ECON	2123	Note: ECON 2123 OR ECON 3123	3					3						3					
ECON	3123	Macroeconomics	3																
FINA	2303	Macroeconomic Theory I	3																
FINA	2303	Financial Management	3				3							3					
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P				
ISOM	2020	Coding for Business	1				1							1					
ISOM	2500	Business Statistics	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by CIVL 2160				
ISOM	2600	Introduction to Business Analytics	1				1							1					
ISOM	2700	Operations Management	3						3					3					
MARK	2120	Marketing Management	3				3							3	MARK 2120 is a major pre-requisite				
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	Waived for DDP students				
LABU	2040	Business Case Analyses	3										3	3					
LABU	2060	Effective Communication in Business	3							3				3					
MATH	1003	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023	3-4												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	1012	Calculus and Linear Algebra	3																
MATH	1013	Calculus IA	4																
MATH	1013	Calculus IB	4																
MATH	1020	Accelerated Calculus	3																
MATH	1023	Honors Calculus I	3																
Required credits for School Requirements			43-44											36					
Major Requirements																			
Major Required Courses and Electives																			
MARK	3220	Marketing Research	4					4						4					
MARK	3420	Consumer Behavior	4						4					4					
MARK	4210	Strategic Marketing	4										4	4					
MARK		MARK 3000-level or above Electives (Any 3 courses of the subject and level as specified)	12							4	4	4		12					
Required credits for Major Required Courses and Electives			24											24					
Additional Requirements																			
Requirements for Dual Degree Program																			
Required Courses																			
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0					
TEMG	3950	Case-based Problem Solving	3		3									3					
Required credits for Additional Requirements			3											3					
University CORE																			
CORE	C3 - C12	U CORE - Others	30	6						9	9	3	3	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	18	20	20	19	19	19	19	19	19	19	19	18							
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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.

Major Requirements

School Requirements

Major Required Courses and Electives

Requirements for Dual Degree Program

--- 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.

<< 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 Computer Engineering and BBA in Marketing)																
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				
BEng in Computer Engineering																		
Major Requirements																		
Engineering Fundamental Courses																		
COMP	1021	Note: COMP1021 OR COMP1022P	3	3										3	This course will also be used to substitute ISOM 2010			
COMP	1022P	Introduction to Computer Science	3															
ENGG	1010	Academic Orientation	0	0	0									0				
LANG	2030	Technical Communication I	3				3							3				
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7															
MATH	1013	Calculus IA	4															
MATH	1014	Calculus IB	3	3	3									6				
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				
MATH	2111	Matrix Algebra and Applications	3					3						3				
PHYS	1112	Note: PHYS1112 OR PHYS1312	3	3										3				
PHYS	1312	General Physics I with Calculus	3															
PHYS	1114	Note: PHYS1114 OR PHYS1314	3							3				3				
PHYS	1314	General Physics II	3															
SENG		Engineering Introduction course (If the students take an introduction course included in the major, this course can be counted towards their major requirement.)	3-4	(3)										0				
Required credits for Engineering Fundamental Courses			25-29											24				
Major Required Courses and Electives																		
CPEG	2930	Academic and Professional Development I	0			0	0							0				
CPEG	3930	Academic and Professional Development II	0					0	0					0				
COMP	2011	Note: (COMP2011 AND COMP2012) OR COMP2012H	5-8			4		4						8				
COMP	2012	Programming with C++	4															
COMP	2012H	Object-Oriented Programming and Data Structures	4															
COMP	2611	Note: COMP2611 OR ELEC2350	4				4							4				
ELEC	2350	Computer Organization	4															
COMP	2711	Note: COMP2711 OR COMP2711H OR ELEC 2600	4											4				
COMP	2711H	Discrete Mathematical Tools for Computer Science	4							4								
ELEC	2600	Honors Discrete Mathematical Tools for Computer Science	4															
COMP	3511	Probability and Random Processes in Engineering	4															
COMP	4521	Operating Systems	3								3			3				
COMP	4611	Note: COMP4521 OR COMP4611 OR ELEC 4310	3-4															
ELEC	4310	Mobile Application Development	3															
ELEC	4320	Design and Analysis of Computer Architectures	3									3		3				
ELEC	4330	Embedded System Design	4															
ELEC	4330	FPGA-based Design: From Theory to Practice	3															
ELEC	4330	Mobile Embedded Systems: Hardware Platform, Software Development, and Applications	3															
CPEG	1971	Note: [(CPEG4901 OR CPEG4902) AND CPEG1971] OR [(CPEG4911 OR CPEG4912) AND CPEG1971] OR CPEG4910	6															
CPEG	4901	Industrial Experience	0															
CPEG	4902	Computer Engineering Final Year Project in COMP	6									3	3	6				
CPEG	4911	Computer Engineering Final Year Thesis in COMP	6															
CPEG	4912	Computer Engineering Final Year Project in ELEC	6															
CPEG	4910	Computer Engineering Final Year Thesis in ELEC	6															
CPEG	4910	Co-op Program	6															
ELEC	1100	Introduction to Electro-Robot Design	4			4								4				
ELEC	1200	Note: ELEC1200 OR ELEC2100 OR ELEC2400 (2 courses out of 3)	8															
ELEC	2100	A System View of Communications: from Signals to Packets	4				4			4				8				
ELEC	2400	Signals and Systems	4															
ELEC	3300	Electronic Circuits	4								4			4				
ELEC	3300	Introduction to Embedded Systems	4															
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0				
LANG	4030	Note: LANG4030 OR LANG4031	3															
LANG	4031	Technical Communication II for CSE & CPEG	3									3		3				
COMP/ELEC		Area Courses (At least 4 courses from the specified elective list, of which at least 2 courses should be taken from one single area and at least 2 courses outside that area. Courses taken as Major Required Courses may not be counted towards the elective requirement.)	15			3					4	4	4	15				
Required credits for Major Requirements Courses and Electives			59-63											62				
BBA in Marketing																		
School Requirements																		
ACCT	2010	Principles of Accounting I	3			3								3				
ACCT	2200	Principles of Accounting II	3						3					3				
ECON	2103	Note: ECON 2103 OR ECON 2113	3		3									3				
ECON	2113	Principles of Microeconomics	3															
ECON	2123	Note: ECON 2123 OR ECON 3123	3					3						3				
ECON	3123	Macroeconomics	3															
FINA	2303	Macroeconomic Theory I	3															
FINA	2303	Financial Management	3				3							3				
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P			
ISOM	2020	Coding for Business	1					1						1				
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	MARK 2120 is a major pre-requisite			
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	Waived for DDP students			
LABU	2040	Business Case Analyses	3				3							3				
LABU	2060	Effective Communication in Business	3						3					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	4	(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	1013	Calculus IB	3															
MATH	1020	Accelerated Calculus	4															
MATH	1023	Honors Calculus I	3															
Required credits for School Requirements			43-44											39				
Major Requirements																		
Major Required Courses and Electives																		
MARK	3220	Marketing Research	4					4						4				
MARK	3420	Consumer Behavior	4						4					4				
MARK	4210	Strategic Marketing	4										4	4				
MARK		MARK 3000-level or above Electives (Any 3 courses of the subject and level as specified)	12							4	4	4		12				
Required credits for Major Required Courses and Electives			24											24				
Additional Requirements																		
Requirements for Dual Degree Program																		
Required Courses																		
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0				
TEMG	3950	Case-based Problem Solving	3		3									3				
Required credits for Additional Requirements			3											3				
University CORE																		
CORE	C3 - C12	U CORE - Others	30	6	3	3				9	3		6	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 18 20 20 19 20 19 20 17 17																		
188##																		
<< Declaration of BEng major																		
<< Declaration of BBA major																		

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 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.

Major Requirements

School Requirements

Major Required Courses a

Requirements for Dual Degree Program

<< Declaration of BEng major	<< Declaration of BBA major
<p>I, _____, declare that I am a student of the BEng major in the School of _____, _____ University.</p> <p>I, _____, declare that I am a student of the BBA major in the School of _____, _____ University.</p>	<p>I, _____, declare that I am a student of the BBA major in the School of _____, _____ University.</p>

* 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.

**!<< Declaration of BBA
major**

[illegible][illegible]

Additional Requirements														
Requirements for Dual Degree Program														
Required Courses														
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0
TEMG	3950	Case-based Problem Solving	3		3									3
Required credits for Additional Requirements			3										3	
University CORE														
CORE	C3 - C12	U CORE - Others	30	9	6		3			3	3		6	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	18	18	18	17	16	18	16	13	13	
165##														

**<< Declaration of BBA
major**

**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.

School:		School of Engineering and School of Business Management			Student's Pathway														
Program:		Dual Degree Program (BEng in Electronic Engineering and BBA in Marketing)															Remarks		
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					
BEng in Electronic Engineering																			
Major Requirements																			
Engineering Fundamental Courses																			
ELEC	2600	Note: ELEC2600 OR ELEC2600H) OR MATH2011 OR MATH2111 OR MATH2350 OR MATH 2351 (3 courses out of 6)	9-10																
ELEC	2600H	Probability and Random Processes in Engineering	4																
MATH	2011	Honors Probability and Random Processes in Engineering	4	3		3		3							9				
MATH	2111	Introduction to Multivariable Calculus	3																
MATH	2350	Matrix Algebra and Applications	3																
MATH	2351	Applied Linear Algebra and Differential Equations	3																
		Introduction to Differential Equations	3																
COMP	1021	Note: COMP1021 OR COMP1022P	3																
COMP	1022P	Introduction to Computer Science	3		3										3	This course will also be used to substitute ISOM 2010			
COMP	2011	Introduction to Computing with Java	3																
COMP	2011	Programming with C++	4			4									4				
ENGG	1010	Academic Orientation	0	0	0										0				
LANG	2030	Technical Communication 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	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	Note: PHYS1112 OR PHYS1312	3	3											3				
PHYS	1312	General Physics I with Calculus	3																
		Honors General Physics I	3																
PHYS	1114	Note: PHYS1114 OR PHYS1314	3		3										3				
PHYS	1314	General Physics II	3																
		Honors General Physics II	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			32-37												31				
Major Required Courses and Electives																			
ELEC	1100	Introduction to Electro-Robot Design	4			4									4				
ELEC	1200	A System View of Communications: from Signals to Packets	4				4								4				
		Note: ELEC2100 OR ELEC2100H	4																
ELEC	2100	Signals and Systems	4							4					4				
ELEC	2100H	Honors Signals and Systems	4																
ELEC	2350	Introduction to Computer Organization and Design	4							4					4				
ELEC	2400	Electronic Circuits	4						4						4				
ELEC	2910	Academic and Professional Development I	0			0	0								0				
ELEC	3910	Academic and Professional Development II	0					0	0						0				
		Note: (ELEC4900 AND ELEC2991) OR (ELEC4901 AND ELEC2991) OR ELEC4910 (Students taking the Research Option must take ELEC 4901)	6																
ELEC	4900	Final Year Design Project	6																
ELEC	4901	Final Year Thesis	6										3	3	6				
ELEC	2991	Industrial Experience (Electronic Engineering)	0																
ELEC	4910	Co-op Program	6																
ENGG	2010	Engineering Seminar Series	0			0	0	0	0						0				
LANG	4031	Technical Communication II for ECE & CPEG	3									3			3				
ELEC		ELEC 3000-level or 4000-level Electives (Any 2 courses ELEC 4000-level courses. ELEC4940 cannot be used to count towards this elective requirement)	21			3		3			6	3	6		21				
Required credits for Major Requirements Courses and Electives			50												50				
BBA in Marketing																			
School Requirements																			
ACCT	2010	Principles of Accounting I	3			3									3				
ACCT	2200	Principles of Accounting II	3						3						3				
		Note: ECON2103 OR ECON2113	3																
ECON	2103	Principles of Microeconomics	3			3									3				
ECON	2113	Microeconomics	3																
		Note: ECON2123 OR ECON3123	3					3							3				
ECON	2123	Macroeconomics	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			
ISOM	2020	Coding for Business	1					1							1				
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	MARK 2120 is a major pre-requisite			
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	Waived for DDP students			
LABU	2040	Business Case Analyses	3				3								3				
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		(3)														
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												39				
Major Requirements																			
Major Required Courses and Electives																			
MARK	3220	Marketing Research	4					4							4				
MARK	3420	Consumer Behavior	4						4						4				
MARK	4210	Strategic Marketing	4										4		4				
MARK		MARK 3000-level or above Electives (Any 3 courses of the subject and level as specified)	12							4	4	4			12				
Required credits for Major Required Courses and Electives			24												24				
Additional Requirements																			
Requirements for Dual Degree Program																			
Required Courses																			
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0	0				
TEMG	3950	Case-based Problem Solving	3		3										3				
Required credits for Additional Requirements			3												3				
University CORE																			
CORE	C3 - C12	U CORE - Others	30	6	3				3	6	6	3	3		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	18	20	19	20	20	18	18	16	16										
183##																			
<< Declaration ofBEng major								<< Declaration ofBBA major											

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 as specified for DDP.

**Remarks on course(s):

School:		School of Engineering and School of Business Management			Student's Pathway										
Program:		Dual Degree Program (BEng in Industrial Engineering and Engineering Management and BBA in Marketing)													Remarks
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	

Major Requirements

[illegible][illegible]

School Requirements

Major Requirements

Major Required Courses a

[illegible]

Additional Requirements

Requirements for Dual Degree Program

[illegible]

University CORE

	Term load (excl. free credits)									
	18	18	18	18	18	19	18	16	15	13
	171##									

<i><< Declaration of BEng major</i>	<i><< Declaration of BBA major</i>
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To graduate, students should complete all requirements as specified for DDP.

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School:		School of Engineering and School of Business Management		Student's Pathway												Remarks
Program:		Dual Degree Program (BEng in Mechanical Engineering and BBA in Marketing)												Sub-total		
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			

Engineering Fundamental Courses

Required credits for Engineering Fundamental Courses

Required credits for Major Requirements Courses and Electives

Required credits for School Requirements

Required credits for Major Required Courses and Electives

Required credits for Additional Requirements

Sub-total for University CORE

To graduate, students should complete all requirements as specified for DDP.

>> 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.

<< 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 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				

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		3									3	This course will also be used to substitute ISOM 2010	
COMP	1029P	Introduction to Computing with Java	4													
COMP	2011	Python Programming Bridging Course	1													
ENGG	1010	Academic Orientation	0	0	0									0		
CHEM	1010	Note: CHEM1010 OR CHEM 1020	3	3										3		
CHEM	1020	General Chemistry IA	3													
CHEM	1050	General Chemistry IB	3													
CHEM	1050	Laboratory for General Chemistry I	1	1										1		
LANG	2030	Technical Communication I	3				3							3		
LIFS	1901	General Biology I	3	3										3		
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7													
MATH	1013	Calculus IA	4													
MATH	1014	Calculus IB	3	3	3									6		
MATH	1020	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										3		
PHYS	1312	General Physics I with Calculus	3													
SENG		Honors General Physics I	3													
		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			23-29											22		

Major Required Courses and Electives																
BIEN	1010	Note: BIEN 1010 OR CENG 1000	3		3									3		
CENG	1000	Introduction to Biomedical Engineering	3													
BIEN	2310	Introduction to Chemical and Biological Engineering	3			3								3		
BIEN	2410	Modeling for Chemical and Biological Engineering	3						3					3		
BIEN	2610	Cellular and Systems Physiology for Engineers	3													
BIEN	2610	Chemical Biology for Engineers	3			3								3		
BIEN	2990	Academic and Professional Development I	1			1								1		
BIEN	3240	Transport Phenomena in Biological Systems	3									3		3		
BIEN	3320	Data Science for Biology and Medicine	3				3							3		
BIEN	3410	Introduction to Bioinstrumentation and Bioimaging	3							3				3		
BIEN	3910	Bioengineering Laboratory	4							4				4		
BIEN	4920	Note: BIEN 4920 OR BIEN 4930 OR BIEN 4940	6													
BIEN	4930	Bioengineering Capstone Design	6									3	3	6		
BIEN	4940	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	3230	Chemical and Biological Reaction Engineering	3							3				3		
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0		
LIFS	3150	Note: LIFS 3150 OR MATH 2411	3-4													
MATH	2411	Biostatistics	3			3								3		
MATH	2411	Applied Statistics	4													
LANG	4035	Technical Communication II for Chemical and Biological Engineering	3									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								6	3	6	15		
Required credits for Major Required Courses and Electives			60-61											60		

BBA in Management

School Requirements

ACCT	2010	Principles of Accounting I	3			3								3		
ACCT	2200	Principles of Accounting II	3						3					3		
ECON	2103	Note: ECON 2103 OR ECON 2113	3			3								3		
ECON	2113	Principles of Microeconomics	3													
ECON	2123	Note: ECON 2123 OR ECON 3123	3							3				3		
ECON	3123	Macroeconomics	3													
FINA	2303	Macroeconomic Theory I	3				3							3		
FINA	2303	Financial Management	3													
ISOM	2010	Introduction to Information Systems	3	-	-	-	-	-	-	-	-	-	-	0	Substituted by COMP 1021/1022P/COMP2011	
ISOM	2020	Coding for Business	1	-	-	-	-	-	-	-	-	-	-	0		
ISOM	2500	Business Statistics	3	-	-	-	-	-	-	-	-	-	-	0	Substituted by COMP 1021/1022P/1029P/2011	
ISOM	2600	Introduction to Business Analytics	1	-	-	-	-	-	-	-	-	-	-	0		
ISOM	2700	Operations Management	3							3				3	Substituted by LIFS 3150/MATH 2411	
MARK	2120	Marketing Management	3				3							3		
MGMT	2010	Business Ethics and the Individual	2			2								2	Substituted by BIEN3320	
MGMT	2110	Organizational Behavior	3		3									3		
MGMT	2130	Business Ethics and Social Responsibility	2					2						2	MGMT 2110 is a major pre-requisite	
SBMT	1111	Business Student Induction	0	-	-	-	-	-	-	-	-	-	-	0		
LABU	2040	Business Case Analyses	3					3						3	Substituted by ENGG 1010	
LABU	2060	Effective Communication in Business	3						3					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	4													
MATH	1013	Calculus IB	3													
MATH	1020	Accelerated Calculus	4													
MATH	1023	Honors Calculus I	3													
Required credits for School Requirements			43-44											34		

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							4				4	Students in the Consulting Option must take MGMT 3120	
MGMT	3120	Managerial Leadership	4													
MGMT	3130	Note: MGMT 3130 OR MGMT 3140 (Students in the Consulting Option must take MGMT 3140 to fulfill the requirement.)	4													
MGMT	3140	Judgement and Decision Making in Organizations	4						4					4	Students in the Consulting Option must take MGMT 3140	
MGMT	3140	Negotiation	4													
MGMT	4210	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	4220	Corporate Strategy	3							3				3	Students in the Consulting Option must take MGMT 4210	
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								3	3	3	9	Students in the Consulting Option are recommended to take MGMT 4220 and a new course in Simulating Strategy to fulfill the major elective requirement	
Required credits for Major Required Courses and Electives			20-21											20		

Additional Requirements

Requirements for Dual Degree Program

Required Courses																
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0		
TEMG	3950	Case-based Problem Solving	3		3									3		
Required credits for Additional Requirements			3											3		

University CORE

CORE	C3 - C12	U CORE - Others	30	3			3	9	3		9		3	30		
CORE	C1 & C2	U CORE - English Language	6	3	3									6		
Sub-total for University CORE			36											36		

Term load (excl. free credits)											
19	18	18	18	18	18	19	19	18	16	12	
175##											

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.

School:		School of Science and School of Business Management		<< Declaration of BEng major << Declaration of BBA major														Student's Pathway									
Program:		Dual Degree Program (BSc in Biotechnology 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												
BSc in Biotechnology																											
School Requirements																											
SCIE	1000	Science School Induction	0	0	0									0													
COMP	1021	Note: COMP1021 OR COMP1022P OR COMP2011	3-4											3	This course will also be used to substitute ISOM 2010												
COMP	1022P	Introduction to Computer Science	3			3																					
COMP	2011	Programming with C++	3																								
LANG	2010	English for Science I	3					3						3													
SSCI		Science foundation courses (p courses from the specified elective list. Students should take 7 foundation lecture courses, including at least 1 lecture course, but no more than 3 lecture courses, from each discipline: CHEM, LIFS, MATH and PHYS; and (ii) 1 laboratory course.)	22-25																								
CHEM	1004	Chemistry in Everyday Life	3												LIFS1901 & LIFS1902 are Major Pre-requisite Students are recommended to take CHEM1010, CHEM1030, LIFS1903 and MATH1013 to satisfy the requirements of both SSCI School requirements and Major requirements												
CHEM	1010	General Chemistry IA	3																								
CHEM	1020	General Chemistry IB	3																								
CHEM	1030	General Chemistry II	3																								
CHEM	1030	Laboratory for General Chemistry I	3																								
CHEM	1050	Laboratory for General Chemistry II	1																								
CHEM	1055		1																								
LIFS	1030	Environmental Science	3																								
LIFS	1901®	General Biology I®	3																								
LIFS	1902®	General Biology II®	3																								
LIFS	1903	Laboratory for General Biology I	3																								
LIFS	1903	Laboratory for General Biology II	3																								
LIFS	1904	Nature of Life Sciences	1																								
LIFS	1930	Biochemistry I	3																								
LIFS	2210		3	10	3	6	3							22													
MATH	1012	Calculus IA	4																								
MATH	1013	Calculus IB	3																								
MATH	1014	Calculus II	3																								
MATH	1020	Accelerated Calculus	3																								
MATH	1020	Honors Calculus I	4																								
MATH	1023	Honors Calculus II	3																								
MATH	1024	Multivariable Calculus	3																								
MATH	2023	Linear Algebra	4																								
MATH	2121	Honors in Linear and Abstract Algebra I	4																								
MATH	2131		4																								
PHY	1001	Physics and the Modern Society	3																								
PHY	1111	General Physics I	3																								
PHY	1111	General Physics I with Calculus	3																								
PHY	1112	Laboratory for General Physics I	3																								
PHY	1113	General Physics II	1																								
PHY	1114	Laboratory for General Physics II	3																								
PHY	1115	Honors General Physics I	1																								
PHY	1312	Honors General Physics II	3																								
Required credits for School / Major Pre-requisite Requirements			25-29											28													
Major Requirements																											
Major Required Courses and Electives																											
LIFS	1903	Laboratory for General Biology I	1	(1)										0													
LIFS	1904	Laboratory for General Biology II	1		1									1													
LIFS	2040	Cell Biology	3				3							3													
LIFS	2070	Introduction to Biotechnology	3				3							3													
LIFS	2080	Plant Biology	3				3							3													
LIFS	2210	Biochemistry I	3			(3)								0													
LIFS	3060	Microbiology	3						3					3													
LIFS	3110	Biotechnological Application of Recombinant DNA Techniques	3						3					3													
LIFS	3140	General Genetics	4							4				4													
LIFS	4150	Plant Biotechnology	3									3		3													
LIFS	4200	Concepts and Issues in Contemporary Biotechnology	3							3				3													
LIFS	4963	Note: LIFS4963 OR (LIFS4973 AND LIFS4983) OR (SCIE4500 AND LIFS4983) (Students following IRE Track can only use (SCIE4500 AND LIFS4983) to fulfill the requirement.)	3-7																								
LIFS	4963	Biotechnology Capstone Project	3									[3]	3	3													
LIFS	4973	Biotechnology Project Research I	3																								
LIFS	4983	Biotechnology Project Research II	4																								
SCIE	4500	IRE Research Project II	3																								
CHEM	1010	Note: CHEM1010 OR CHEM1020	3	(3)										0													
CHEM	1020	General Chemistry IA	3																								
CHEM	1030	General Chemistry IIE	3			(3)								0													
CHEM	1030	General Chemistry II	3																								
CHEM	1050	Laboratory for General Chemistry I	1	1										1													
CHEM	1055	Laboratory for General Chemistry II	1		1									1													
CHEM	2110	Note: CHEM 2110 OR CHEM 2311	3					3						3													
CHEM	2311	Organic Chemistry I	3																								
CHEM	2311	Analytical Chemistry	3																								
CHEM	2155	Note: CHEM2155 OR CHEM2355	1						1					1													
CHEM	2355	Fundamental Organic Chemistry Laboratory	1																								
CENG	1600	Fundamental Analytical Chemistry Laboratory	1																								
CENG	1600	Biotechnology and Its Business Opportunities	3							3				3													
LANG	3024	Science Communication in English (Life Science)	3										3	3													
LIFS/BIPH/BTEC/BIEN/ CENG		Biotechnology Electives (Courses from the specified elective list; Students following IRE Track are required to take a minimum of 15 credits; while others a minimum of 18 credits. Courses taken as Major/Track Required Courses may not be counted towards the elective requirement.)	15-18						3		3	6	3	15													
Required credits for Major Required Courses and Electives			62-70											56													
BBA in Management																											
School Requirements																											
ACCT	2010	Principles of Accounting I	3		3									3													
ACCT	2200	Principles of Accounting II	3						3					3													
ECON	2103	Note: ECON 2103 OR ECON 2113	3				3							3													
ECON	2113	Principles of Microeconomics	3																								
ECON	2123	Note: ECON 2123 OR ECON 3123	3					3						3													
ECON	3123	Macroeconomics	3																								
FINA	2303	Macroeconomic Theory I	3				3							3													
ISOM	2010	Financial Management	3																								
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P/1022Q/2011												
ISOM	2020	Coding for Business	1				1							1													
ISOM	2500	Business Statistics	3			3								3													
ISOM	2600	Introduction to Business Analytics	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 2110 is a major pre-requisite												
MGMT	2130	Business Ethics and Social Responsibility	2										2	2													
SBMT	1111	Business Student Induction	0	---	---	---	---	---	---	---	---	---	---	0	Waived for DDP students												
LABU	2040	Business Case Analyses	3											3													
LABU	2060	Effective Communication in Business	3										3	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	4	(3)										0	DDP students should take MATH 1013 OR MATH 1023 to satisfy the requirements of both BSc and BBA degrees												
MATH	1013	Calculus IB	3																								
MATH	1020	Accelerated Calculus	4																								
MATH	1023	Honors Calculus I	3																								
Required credits for School Requirements			43-44											39													
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						4					4	Students in the Consulting Option must take MGMT 3120												
MGMT	3120	Human Resources Management	4																								
MGMT	3120	Managerial Leadership	4																								
MGMT	3130	Note: MGMT 3130 OR MGMT 3140 (Students in the Consulting Option must take MGMT 3140 to fulfill this requirement.)	4					4						4	Students in the Consulting Option must take MGMT 3140												
MGMT	3140	Judgement and Decision Making in Organizations	4																								
MGMT	3140	Negotiation	4																								
MGMT	4210	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											3	Students in the Consulting Option must take MGMT 4210												
MGMT	4210	Corporate Strategy	3							3					Students in the CSR Option must take MGMT 4210												
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								3	3	3	9	Students in the Consulting Option are recommended to take MGMT 4220 and a new course in Stimulating Strategy to fulfill the major elective requirement												
Required credits for Major Required Courses and Electives			20-21											20													
Additional Requirements																											
Requirements for Dual Degree Program																											
Required Courses																											
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0	0												
TEMG	3950	Case-based Problem Solving	3		3									3													
Required credits for Additional Requirements			3											3													
University CORE																											
CORE	C3 - C12	U CORE - Others	30	3	3			3	3	3	9	3	3	30													
CORE	C1 & C2	U CORE - English Language	6	3	3									6													
Sub-total for University CORE			36											36													

<< 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 Chemical Engineering 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 Chemical Engineering																	
Major Requirements																	
Engineering Fundamental Courses																	
COMP	1021	Note: COMP 1021 OR COMP 1022P OR COMP 2011	3-4														
COMP	1022P	Introduction to Computer Science	3	3										3	This course will also be used to substitute ISOM 2010		
COMP	2011	Introduction to Computing with Java Programming with C++	4														
ENGG	1010	Academic Orientation	0	0	0									0			
CHEM	1010	Note: CHEM1010 OR CHEM1020	3	3										3			
CHEM	1020	General Chemistry IA General Chemistry IB	3														
LANG	2030	Technical Communication I	3					3						3			
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7														
MATH	1013	Calculus IA	4														
MATH	1014	Calculus IB	3	3	3									6			
MATH	1020	Calculus II	3														
MATH	1023	Accelerated Calculus	4														
MATH	1024	Honors Calculus I	3														
MATH	1024	Honors Calculus II	3														
MATH	2011	Introduction to Multivariable Calculus	3			3								3			
PHYS	1112	Note: PHYS 1112 OR PHYS 1312	3	3										3			
PHYS	1312	General Physics I with Calculus Honors General Physics I	3														
Required credits for Engineering Fundamental Courses			19-23											21			
Major Required Courses and Electives																	
CENG	1000	Note: CENG1000 OR CENG1500	3	3										3			
CENG	1500	Introduction to Chemical and Biological Engineering A First Course on Materials Science and Applications	3														
CENG	1600	Note: CENG1600 OR CENG1700 OR BIEN1010	3		3									3			
CENG	1700	Biotechnology and Its Business Opportunities	3														
BIEN	1010	Introduction to Environmental Engineering Introduction to Biomedical Engineering	3														
CENG	1010	Academic and Professional Development I	0		0									0			
CENG	1980	Industrial Training	0			0	0	0	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	Process Fluid Mechanics	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			
CENG	4920	Note: CENG4920 OR CENG4930 OR CENG4940	6									3	3	6			
CENG	4930	Chemical Engineering Capstone Design	6														
CENG	4940	Chemical Engineering Thesis Research Chemical Engineering Industrial Project	6														
ENGG	2010	Engineering Seminar Series	0		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			
BIEN	2410	Note: BIEN2410 OR BIEN2610 OR LIFS1901	3				3							3			
BIEN	2610	Cellular and Systems Physiology for Engineers	3														
LIFS	1901	Chemical Biology for Engineers General Biology I	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								3			
ACCT	2200	Principles of Accounting II	3							3				3			
ECON	2103	Note: ECON 2103 OR ECON 2113	3		3									3			
ECON	2113	Principles of Microeconomics Microeconomics	3														
ECON	2123	Note: ECON 2123 OR ECON 3123	3							3				3			
ECON	3123	Macroeconomics Macroeconomic Theory I	3														
FINA	2303	Financial Management	3			3								3			
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P/COMP2011		
ISOM	2020	Coding for Business	1		1									1			
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 2110 is a major pre-requisite		
MGMT	2130	Business Ethics and Social Responsibility	2							2				2			
SBMT	1111	Business Student Induction	0	---	---	---	---	---	---	---	---	---	---	0	Waived for DDP students		
LABU	2040	Business Case Analyses	3							3				3			
LABU	2060	Effective Communication in Business	3										3	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	4														
MATH	1013	Calculus IB	3	(3)													
MATH	1020	Accelerated Calculus	4														
MATH	1023	Honors Calculus I	3														
Required credits for School Requirements			45-46											39	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		
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						4					4	Students in the Consulting Option must take MGMT 3120		
MGMT	3120	Human Resources Management Managerial Leadership	4														
MGMT	3130	Note: MGMT 3130 OR MGMT 3140 (Students in the Consulting Option must take MGMT 3140 to fulfill this requirement.)	4					4						4	Students in the Consulting Option must take MGMT 3140		
MGMT	3140	Judgement and Decision Making in Organizations Negotiation	4														
MGMT	4210	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							3				3	Students in the Consulting Option must take MGMT 4210 Students in the CSR Option must take MGMT 4210		
MGMT	4220	Corporate Strategy Entrepreneurship and Innovation	3														
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	Students in the Consulting Option are recommended to take MGMT 4220 and a new course in Simulating Strategy to fulfill the major elective requirement		
Required credits for Major Required Courses and Electives			20-21											20			
Additional Requirements																	
Requirements for Dual Degree Program																	
Required Courses																	
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0			
TEMG	3950	Case-based Problem Solving	3		3									3			
Required credits for Additional Requirements			3											3			
University CORE																	
CORE	C3 - C12	U CORE - Others	30			3			3		9	6	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 20 19 20 19 18 15																	
187##																	

Notes:
() indicates the reuse of the same course to fulfill more than one requirement.
[] denotes the course is also offered in other terms as indicated and students may take the course in one of these subject to advice by the program office.
* 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.

<< 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 Civil Engineering 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				
BEng in Civil Engineering																		
Major Requirements																		
Engineering Fundamental Courses																		
COMP	1021	Note: COMP 1021 OR COMP 1022P OR COMP 2011	3-4															
COMP	1022P	Introduction to Computer Science	3		3									3	This course will also be used to substitute ISOM 2010			
COMP	2011	Introduction to Computing with Java	4															
ENGG	1010	Academic Orientation	0	0	0									0				
CHEM	1010	Note: CHEM 1010 OR CHEM 1020	3	3										3				
CHEM	1020	General Chemistry IA	3															
CHEM	1020	General Chemistry IB	3															
LANG	2030	Technical Communication I	3					3						3				
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7															
MATH	1013	Calculus IA	4															
MATH	1013	Calculus IB	3															
MATH	1014	Calculus II	3	3	3									6				
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				
MATH	2350	Applied Linear Algebra and Differential Equations	3			3								3				
PHYS	1112	Note: PHYS 1112 OR PHYS 1312	3	3										3				
PHYS	1312	General Physics I with Calculus	3															
PHYS	1312	Honors General Physics I	3															
Required credits for Engineering Fundamental Courses				22-26										24				
Major Required Courses and Electives																		
CIVL	1010	Academic Professional Development I	0			0	0							0				
CIVL	1100	Discovering Civil and Environmental Engineering	3		3									3				
CIVL	2010	Academic Professional Development II	0					0	0					0				
CIVL	2020	Industrial and BIM Training	0			0*	0							0				
CIVL	2110	Statics	3			3								3				
CIVL	2120	Mechanics of Materials	3				3							3				
CIVL	2160	Modeling Systems with Uncertainties	3			3								3	This course will also be used to substitute ISOM 2500			
CIVL	2170	Infrastructure Systems Engineering and Management	3				3							3				
CIVL	2410	Environmental Assessment and Management	3				3							3				
CIVL	2510	Fluid Mechanics	3				3							3				
CIVL	2810	Construction Materials	3					3						3				
CIVL	3010	Academic Professional Development III	0							0	0			0				
CIVL	3020	Internship Training	0								0^			0				
CIVL	3210	Introduction to Construction Management	3						3					3				
CIVL	3310	Structural Analysis	3					3						3				
CIVL	3320	Reinforced Concrete Design	3						3					3				
CIVL	3510	Hydrosystems Engineering	3					3						3				
CIVL	3610	Traffic and Transportation Engineering	3						3					3				
CIVL	3730	Fundamentals of Geotechnics	3							3				3				
CIVL	3740	Geotechnical Analysis and Design	3								3			3				
CIVL	4910	Note: CIVL 4910 OR CIVL 4920	6									3	3	6				
CIVL	4920	Civil and Environmental Engineering Final Year Project	6															
CIVL	4920	Civil and Environmental Engineering Final Year Thesis	6															
CIVL	4950	Civil Engineering Capstone Design Project	3									3		3				
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0				
LANG	4033	Technical Communication II for Civil and Environmental Engineering	3									3		3				
CIVL/SENG		CIVL Electives (3 courses from the specified elective list) CIVL: Any CIVL courses at 4000-level or above except CIVL 4230 SENG: Any 3000-level or above courses offered by the Engineering School or engineering departments other than CIVL	9								3	3	3	9				
Required credits for Major Requirements Courses and Electives				66										66				
BBA in Management																		
School Requirements																		
ACCT	2010	Principles of Accounting I	3			3								3				
ACCT	2200	Principles of Accounting II	3						3					3				
ECON	2103	Note: ECON 2103 OR ECON 2113	3		3									3				
ECON	2113	Principles of Microeconomics	3															
ECON	2113	Microeconomics	3															
ECON	2123	Note: ECON 2123 OR ECON 3123	3					3						3				
ECON	3123	Macroeconomics	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			
ISOM	2020	Coding for Business	1				1							1				
ISOM	2500	Business Statistics	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by CIVL 2160			
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 2110 is a major pre-requisite			
MGMT	2130	Business Ethics and Social Responsibility	2								2			2				
SBMT	1111	Business Student Induction	0	---	---	---	---	---	---	---	---	---	---	0	Waived for DDP students			
LABU	2040	Business Case Analyses	3										3	3				
LABU	2060	Effective Communication in Business	3							3				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	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										36				
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						4					4	Students in the Consulting Option must take MGMT 3120			
MGMT	3120	Human Resources Management	4															
MGMT	3120	Managerial Leadership	4															
MGMT	3130	Note: MGMT 3130 OR MGMT 3140 (Students in the Consulting Option must take MGMT 3140 to fulfill this requirement.)	4					4						4	Students in the Consulting Option must take MGMT 3140			
MGMT	3140	Judgement and Decision Making in Organizations	4															
MGMT	3140	Negotiation	4															
MGMT	4210	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							3				3	Students in the Consulting Option must take MGMT 4210 Students in the CSR Option must take MGMT 4210			
MGMT	4220	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							3	3	3		9	Students in the Consulting Option are recommended to take MGMT 4220 and a new course in Simulating Strategy to fulfill the major elective requirement			
Required credits for Major Required Courses and Electives				20-21										20				
Additional Requirements																		
Requirements for Dual Degree Program																		
Required Courses																		
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0				
TEMG	3950	Case-based Problem Solving	3		3									3				
Required credits for Additional Requirements				3										3				
University CORE																		
CORE	C3 - C12	U CORE - Others	30	6						6	9	3	6	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 18 20 20 19 19 18 20 18 15																		
185##																		

Notes:
() indicates the reuse of the same course to fulfill more than one requirement.
[] denotes the course is also offered in other terms as indicated and students may take the course in one of these subject to advice by the program office.
* 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.

Notes:

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

[] denotes the course is also offered in other terms as indicated and students may take the course in one of these subject to advice by the program officer.

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

To graduate, students should complete all requirements as specified for DDP.

>> 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.

<< 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 Computer Engineering 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			
BEng in Computer Engineering																	
Major Requirements																	
Engineering Fundamental Courses																	
COMP	1021	Note: COMP1021 OR COMP1022P	3	3										3	This course will also be used to substitute ISOM 2010		
COMP	1022P	Introduction to Computer Science	3														
ENGG	1010	Academic Orientation	0	0	0									0			
LANG	2030	Technical Communication I	3				3							3			
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7												6		
MATH	1013	Calculus IA	4														
MATH	1014	Calculus IB	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						3			
MATH	2111	Matrix Algebra and Applications	3					3						3			
PHYS	1112	Note: PHYS1112 OR PHYS1312	3	3										3			
PHYS	1312	General Physics I with Calculus	3														
PHYS	1114	Note: PHYS1114 OR PHYS1314	3						3					3			
PHYS	1314	General Physics II	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			25-29											24			
Major Required Courses and Electives																	
CPEG	2930	Academic and Professional Development I	0			0	0							0			
CPEG	3930	Academic and Professional Development II	0					0	0					0			
COMP	2011	Note: (COMP2011 AND COMP2012) OR COMP2012H	5-8												8		
COMP	2012	Programming with C++	4			4		4									
COMP	2012H	Object-Oriented Programming and Data Structures	5														
COMP	2611	Note: COMP2611 OR ELEC2350	4				4							4			
ELEC	2350	Computer Organization	4														
COMP	2711	Note: COMP2711 OR COMP2711H OR ELEC 2600	4							4				4			
COMP	2711H	Discrete Mathematical Tools for Computer Science	4														
ELEC	2600	Honors Discrete Mathematical Tools for Computer Science	4														
COMP	3511	Operating Systems	3								3			3			
COMP	4521	Note: COMP4521 OR COMP4611 OR ELEC 4310	3-4												3		
COMP	4611	Mobile Application Development	3									3					
ELEC	4310	Design and Analysis of Computer Architectures	4														
ELEC	4320	Embedded System Design	3														
ELEC	4330	FPGA-based Design: From Theory to Practice	3														
ELEC	4330	Mobile Embedded Systems: Hardware Platform, Software Development, and Applications	3														
CPEG	1971	Note: [(CPEG4901 OR CPEG4902) AND CPEG1971] OR [(CPEG4911 OR CPEG4912) AND CPEG1971] OR CPEG4910	6												6		
CPEG	4901	Industrial Experience	0														
CPEG	4902	Computer Engineering Final Year Project in COMP	6									3	3				
CPEG	4911	Computer Engineering Final Year Thesis in COMP	6														
CPEG	4912	Computer Engineering Final Year Project in ELEC	6														
CPEG	4910	Computer Engineering Final Year Thesis in ELEC	6														
CPEG	4910	Co-op Program	6														
ELEC	1100	Introduction to Electro-Robot Design	4			4								4			
ELEC	1200	Note: ELEC1200 OR ELEC2100 OR ELEC2400 (2 courses out of 3)	8												8		
ELEC	2100	A System View of Communications: from Signals to Packets	4			4		4									
ELEC	2400	Signals and Systems	4														
ELEC	3300	Electronic Circuits	4														
ELEC	3300	Introduction to Embedded Systems	4								4			4			
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0			
LANG	4030	Note: LANG4030 OR LANG4031	3												3		
LANG	4031	Technical Communication II for CSE & CPEG	3									3					
COMP/ELEC		Area Courses (At least 4 courses from the specified elective list, of which at least 2 courses should be taken from one single area and at least 2 courses outside that area. Courses taken as Major Required Courses may not be counted towards the elective requirement.)	15			3					4	4	4	15			
Required credits for Major Requirements Courses and Electives			59-63											62			
BBA in Management																	
School Requirements																	
ACCT	2010	Principles of Accounting I	3			3								3			
ACCT	2200	Principles of Accounting II	3						3					3			
ECON	2103	Note: ECON 2103 OR ECON 2113	3		3									3			
ECON	2113	Principles of Microeconomics	3														
ECON	2123	Note: ECON 2123 OR ECON 3123	3					3						3			
ECON	3123	Macroeconomics	3														
FINA	2303	Macroeconomic Theory I	3														
ISOM	2010	Financial Management	3				3							3			
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P		
ISOM	2020	Coding for Business	1					1						1			
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 2110 is a major pre-requisite		
MGMT	2130	Business Ethics and Social Responsibility	2								2			2			
SBMT	1111	Business Student Induction	0	---	---	---	---	---	---	---	---	---	---	0	Waived for DDP students		
LABU	2040	Business Case Analyses	3				3							3			
LABU	2060	Effective Communication in Business	3						3					3			
MATH	1003	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023	3-4												0		
MATH	1012	Calculus and Linear Algebra	4														
MATH	1013	Calculus IA	4														
MATH	1020	Calculus IB	3														
MATH	1023	Accelerated Calculus	4														
MATH	1023	Honors Calculus I	3														
Required credits for School Requirements			43-44											39			
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						4					4	Students in the Consulting Option must take MGMT 3120		
MGMT	3120	Human Resources Management	4														
MGMT	3120	Managerial Leadership	4														
MGMT	3130	Note: MGMT 3130 OR MGMT 3140 (Students in the Consulting Option must take MGMT 3140 to fulfill this requirement.)	4					4						4	Students in the Consulting Option must take MGMT 3140		
MGMT	3140	Judgement and Decision Making in Organizations	4														
MGMT	3140	Negotiation	4														
MGMT	4210	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							3				3	Students in the Consulting Option must take MGMT 4210		
MGMT	4220	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							3	3	3		9	Students in the Consulting Option are recommended to take MGMT 4220 and a new course in Simulating Strategy to fulfill the major elective requirement		
Required credits for Major Required Courses and Electives			20-21											20			
Additional Requirements																	
Requirements for Dual Degree Program																	
Required Courses																	
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0			
TEMG	3950	Case-based Problem Solving	3		3									3			
Required credits for Additional Requirements			3											3			
University CORE																	
CORE	C3 - C12	U CORE - Others	30	6		3				9	3	3	6	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	17	20	20	19	20	19	19	19	13				
184##																	

Notes:
() indicates the reuse of the same course to fulfill more than one requirement.
[] denotes the course is also offered in other terms as indicated and students may take the course in one of these subject to advice by the program office.
--- 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.

<< 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 Civil and Environmental Engineering 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			

BEng in Civil and Environmental Engineering

Major Requirements

Engineering Fundamental Courses

COMP	1021	Note: COMP 1021 OR COMP 1022P OR COMP 2011	3-4														This course will also be used to substitute ISOM 2010
COMP	1022P	Introduction to Computer Science	3		3									3			
COMP	2011	Introduction to Computing with Java	4														
ENG	1010	Academic Orientation	0	0	0									0			
CHEM	1010	Note: CHEM 1010 OR CHEM 1020															
CHEM	1020	General Chemistry IA	3	3										3			
CHEM	1020	General Chemistry IB	3														
LANG	2030	Technical Communication I	3					3						3			
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR (MATH 1020)	4-7														
MATH	1013	Calculus IA	4														
MATH	1014	Calculus IB	3	3	3									6			
MATH	1020	Accelerated Calculus	3														
MATH	1023	Honors Calculus I	4														
MATH	1024	Honors Calculus II	3														
MATH	2011	Introduction to Multivariable Calculus	3			3								3			
MATH	2350	Applied Linear Algebra and Differential Equations	3			3								3			
PHYS	1112	Note: PHYS 1112 OR PHYS 1312															
PHYS	1312	General Physics I with Calculus	3	3										3			
PHYS	1312	Honors General Physics I	3														
Required credits for Engineering Fundamental Courses			22-26											24			

Major Required Courses and Electives

CIVL	1010	Academic Professional Development I	0			0	0							0			
CIVL	1100	Discovering Civil and Environmental Engineering	3		3									3			
CIVL	2010	Academic Professional Development II	0					0	0					0			
CIVL	2020	Industrial and BIM Training	0			0*	0							0			
CIVL	2110	Statics	3			3								3			
CIVL	2120	Mechanics of Materials	3			3								3			
CIVL	2160	Modeling Systems with Uncertainties	3			3								3			
CIVL	2170	Infrastructure Systems Engineering and Management	3			3								3			
CIVL	2410	Environmental Assessment and Management	3			3								3			
CIVL	2510	Fluid Mechanics	3			3								3			
CIVL	2810	Construction Materials	3				3							3			
CIVL	3010	Academic Professional Development III	0						0	0				0			
CIVL	3020	Internship Training	0							0*				0			
CIVL	3210	Note: CIVL3210 OR CIVL3610															
CIVL	3610	Introduction to Construction Management	3					3						3			
CIVL	3610	Traffic and Transportation Engineering	3														
CIVL	3310	Structural Analysis	3					3						3			
CIVL	3320	Reinforced Concrete Design	3					3						3			
CIVL	3420	Water and Wastewater Engineering	3					3						3			
CIVL	3510	Hydrosystems Engineering	3					3						3			
CIVL	3730	Fundamentals of Geotechnics	3						3					3			
CIVL	3740	Geotechnical Analysis and Design	3							3				3			
CIVL	4910	Note: CIVL 4910 OR CIVL 4920															
CIVL	4920	Civil and Environmental Engineering Final Year Project	6									3	3	6			
CIVL	4920	Civil and Environmental Engineering Final Year Thesis	6														
CIVL	4950	Civil Engineering Capstone Design Project	3									3		3			
CIVL	4450	Note: CIVL4450 OR CIVL 5450 OR CIVL5460															
CIVL	5450	Carbon Footprint Analysis and Reduction	3							3				3			
CIVL	5460	Hazardous Waste Treatment and Site Remediation	3														
CIVL	5460	Landfill Engineering and Design	3														
ENG	2010	Engineering Seminar Series	0			0	0	0	0					0			
LANG	4033	Technical Communication II for Civil and Environmental Engineering	3									3		3			
CIVL/SENG		CIVL (Environmental) Electives [at least 1 course should be selected from the "Restricted Electives"]															
CIVL/SENG		Restricted electives: at least 1 course AND (CIVL: Any CIVL courses at 4000-level or above except those listed as "Restricted Electives" from the list OR SENG: Any 3000-level or above courses offered by the Engineering School or engineering departments other than CIVL)	6									3	3	6			
Required credits for Major Requirements Courses and Electives			66											66			

BBA in Management

School Requirements

ACCT	2010	Principles of Accounting I	3			3								3			
ACCT	2200	Principles of Accounting II	3						3					3			
ECON	2103	Note: ECON 2103 OR ECON 2113															
ECON	2113	Principles of Microeconomics	3			3								3			
ECON	2113	Microeconomics	3														
ECON	2123	Note: ECON 2123 OR ECON 3123						3						3			
ECON	3123	Macroeconomics	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
ISOM	2020	Coding for Business	1				1							1			
ISOM	2500	Business Statistics	3	---	---	---	---	---	---	---	---	---	---	0			Substituted by CIVL 2160
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 2110 is a major pre-requisite
MGMT	2130	Business Ethics and Social Responsibility	2						2					2			
SBMT	1111	Business Student Induction	0	---	---	---	---	---	---	---	---	---	---	0			Substituted by ENGG 1010
LABU	2040	Business Case Analyses	3										3	3			
LABU	2060	Effective Communication in Business	3						3					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	4														
MATH	1020	Calculus IB	3														
MATH	1023	Accelerated Calculus	4														
MATH	1023	Honors Calculus I	3														
Required credits for School Requirements			43-44											36			

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						4					4			Students in the Consulting Option must take MGMT 3120
MGMT	3120	Human Resources Management	4														
MGMT	3120	Managerial Leadership	4														
MGMT	3130	Note: MGMT 3130 OR MGMT 3140 (Students in the Consulting Option must take MGMT 3140 to fulfill this requirement.)	4					4						4			Students in the Consulting Option must take MGMT 3140
MGMT	3140	Judgement and Decision Making in Organizations	4														
MGMT	3140	Negotiation	4														
MGMT	4210	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							3				3			Students in the Consulting Option must take MGMT 4210
MGMT	4220	Corporate Strategy	3														Students in the CSR Option must take MGMT 4210
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							3	3	3		9			Students in the Consulting Option are recommended to take MGMT 4220 and a new course in Simulating Strategy to fulfill the major elective requirement
Required credits for Major Required Courses and Electives			20-21											20			

Additional Requirements

Requirements for Dual Degree Program

Required Courses

TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0			
TEMG	3950	Case-based Problem Solving	3		3									3			
Required credits for Additional Requirements			3											3			

University CORE

CORE	C3 - C12	U CORE - Others	30	6						6	9	3	6	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	18	20	19	19	20	20	18	18	15		
185##											

Notes:

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

[] denotes the course is also offered in other terms as indicated and students may take the course in one of these subject to advice by the program office.

* 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.

Major Major

School:		School of Engineering and School of Business Management			Student's Pathway												Remarks
Program:		Dual Degree Program (BEng in Decision Analytics 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	

BEng in Decision Analytics

Major Requirements

Engineering Fundamental Courses

COMP	1021	Note: COMP 1021 OR COMP 1022P OR COMP 2011	3-4													
COMP	1022P	Introduction to Computer Science	3		3									3		This course will also be used to substitute ISOM 2010
COMP	2011	Introduction to Computing with Java	4													
ENGG	1010	Academic Orientation	0	0	0									0		
CHEM	1010	Note: CHEM1010 OR CHEM1020 OR PHYS1112 OR PHYS1312	3													
CHEM	1020	General Chemistry IA	3	3										3		
PHYS	1112	General Chemistry IB	3													
PHYS	1312	General Physics I with Calculus	3													
PHYS	1312	Honors General Physics I	3													
LANG	2030	Technical Communication I	3				3							3		
MATH	1012	Note: (MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024) OR (MATH 1020)	4-7													
MATH	1013	Calculus IA	4													
MATH	1014	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 I	3													
MATH	2011	Introduction to Multivariable Calculus	3				3							3		
MATH	2111	Matrix Algebra and Applications	3			3								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			22-27											21		

Major Required Courses and Electives

IEDA	1010	Academic and Professional Development I	0			0	0							0		
IEDA	1020	Academic and Professional Development II	0					0	0					0		
IEDA	1990	Note: IEDA1990 OR IEDA1991	0			0	0	0	0	0	0	0	0	0		
IEDA	1991	Industrial Training	0													
IEDA	1991	Industrial Experience	0													
IEDA	2520	Probability for Engineers	3			3								3		
IEDA	2540	Statistics for Engineers	3				3							3		This course will also be used to substitute ISOM2500
IEDA	3010	Prescriptive Analytics	3					3						3		
IEDA	3230	Engineering Economics and Accounting	3				3							3		
IEDA	3250	Stochastic Models	3						3					3		
IEDA	3300	Industrial Data Systems	3				3							3		
IEDA	3560	Predictive Analytics	3						3					3		
IEDA	4901	Note: IEDA4901 OR IEDA4920	6									3	3	6		
IEDA	4920	Final Year Thesis	6													
IEDA	4920	Decision Analytics Final Year Project	6													
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0		
ECON	2103	Note: ECON2103 OR ECON2113	3			3								3		
ECON	2113	Principles of Microeconomics	3													
ECON	2113	Microeconomics	3													
LANG	4032	Technical Communication II for Industrial Engineering and Decision Analytics	3						3					3		
IEDA		Area Electives (5 courses from the specified elective list, of which all 5 courses should be taken from the same area)	15						3	6	3	3		15		
Required credits for Major Required Courses and Electives			48											48		

BBA in Management

School Requirements

ACCT	2010	Principles of Accounting I	3			3								3		
ACCT	2200	Principles of Accounting II	3						3					3		
ECON	2103	Note: ECON 2103 OR ECON 2113	3			(3)								0		
ECON	2113	Principles of Microeconomics	3													
ECON	2123	Note: ECON 2123 OR ECON 3123	3									3		3		
ECON	3123	Macroeconomics	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
ISOM	2020	Coding for Business	1					1						1		
ISOM	2500	Business Statistics	3	-	-	-	-	-	-	-	-	-	-	0		Substituted by IEDA2540
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 2110 is a major pre-requisite
MGMT	2130	Business Ethics and Social Responsibility	2							2				2		
SBMT	1111	Business Student Induction	0	-	-	-	-	-	-	-	-	-	-	0		Waived for DDP students
LABU	2040	Business Case Analyses	3					3						3		
LABU	2060	Effective Communication in Business	3										3	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	4	(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	1013	Calculus IB	3													
MATH	1020	Accelerated Calculus	4													
MATH	1023	Honors Calculus I	3													
Required credits for School Requirements			43-44											33		

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						4					4		Students in the Consulting Option must take MGMT 3120
MGMT	3120	Human Resources Management	4													
MGMT	3140	Note: MGMT 3130 OR MGMT 3140 (Students in the Consulting Option must take MGMT 3140 to fulfill this requirement.)	4						4					4		Students in the Consulting Option must take MGMT 3140
MGMT	3130	Judgement and Decision Making in Organizations	4													
MGMT	3140	Negotiation	4													
MGMT	4210	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							3				3		Students in the Consulting Option must take MGMT 4210
MGMT	4220	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							3	3	3		9		Students in the Consulting Option are recommended to take MGMT 4220 and a new course in Simulating Strategy to fulfill the major elective requirement
Required credits for Major Required Courses and Electives			20-21											20		

Additional Requirements

Requirements for Dual Degree Program

Required Courses																
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0	0	
TEMG	3950	Case-based Problem Solving	3		3										3	
Required credits for Additional Requirements			3											3		

University CORE

CORE	C3 - C12	U CORE - Others	30	9	6		3			3	3		6	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	18	18	18	17	19	17	12	12	12
161##									

Major Major

Notes:
() indicates the reuse of the same course to fulfill more than one requirement.
[] denotes the course is also offered in other terms as indicated and students may take the course in one of these subject to advice by the program office.
--- denotes the course/requirement is either waived or substituted
To graduate, students should complete all requirements specified for DDP.

**Remarks on course(s):

<< 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 Electronic Engineering 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					
BEng in Electronic Engineering																			
Major Requirements																			
Engineering Fundamental Courses																			
ELEC ELEC MATH MATH MATH MATH	2600 2600H 2011 2111 2350 2351	Note: ELEC2600 OR ELEC2600H) OR MATH2011 OR MATH2111 OR MATH2350 OR MATH 2351 (3 courses out of 6) Probability and Random Processes in Engineering Honors Probability and Random Processes in Engineering Introduction to Multivariable Calculus Matrix Algebra and Applications Applied Linear Algebra and Differential Equations Introduction to Differential Equations	9-10 4 4 3 3 3 3	3		3		3						9					
COMP COMP	1021 1022P	Note: COMP1021 OR COMP1022P Introduction to Computer Science Introduction to Computing with Java	3 3		3									3	This course will also be used to substitute ISOM 2010				
COMP	2011	Programming with C++	4			4								4					
ENGG	1010	Academic Orientation	0	0	0									0					
LANG	2030	Technical Communication I	3						3					3					
MATH MATH MATH MATH MATH MATH	1012 1013 1014 1020 1023 1024	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020] Calculus IA Calculus IB Calculus II Accelerated Calculus Honors Calculus I Honors Calculus II	4-7 4 3 3 4 3 3	3	3									6					
PHYS PHYS	1112 1312	Note: PHYS1112 OR PHYS1312 General Physics I with Calculus Honors General Physics I	3 3	3										3					
PHYS PHYS	1114 1314	Note: PHYS1114 OR PHYS1314 General Physics II Honors General Physics II	3 3		3									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			32-37											31					
Major Required Courses and Electives																			
ELEC	1100	Introduction to Electro-Robot Design	4			4								4					
ELEC	1200	A System View of Communications: from Signals to Packets	4				4							4					
ELEC ELEC	2100 2100H	Note: ELEC2100 OR ELEC2100H Signals and Systems Honors Signals and Systems	4 4							4				4					
ELEC	2350	Introduction to Computer Organization and Design	4							4				4					
ELEC	2400	Electronic Circuits	4						4					4					
ELEC	2910	Academic and Professional Development I	0			0	0							0					
ELEC	3910	Academic and Professional Development II	0					0	0					0					
ELEC ELEC ELEC ELEC	4900 4901 2991 4910	Note: (ELEC4900 AND ELEC2991) OR (ELEC4901 AND ELEC2991) OR ELEC4910 (Students taking the Research Option must take ELEC 4901) Final Year Design Project Final Year Thesis Industrial Experience (Electronic Engineering) Co-op Program	6 6 6 0 6									3	3	6					
ENGG	2010	Engineering Seminar Series	0			0	0	0	0					0					
LANG	4031	Technical Communication II for ECE & CPEG	3									3		3					
ELEC		ELEC 3000-level or 4000-level Electives (Any 2 courses ELEC 4000-level courses. ELEC4940 cannot be used to count towards this elective requirement)	21				3		3		6	3	6	21					
Required credits for Major Requirements Courses and Electives			50											50					
BBA in Management																			
School Requirements																			
ACCT	2010	Principles of Accounting I	3			3								3					
ACCT	2200	Principles of Accounting II	3						3					3					
ECON ECON	2103 2113	Note: ECON2103 OR ECON2113 Principles of Microeconomics Microeconomics	3 3			3								3					
ECON ECON	2123 3123	Note: ECON2123 OR ECON3123 Macroeconomics Macroeconomic Theory I	3 3					3						3					
FINA	2303	Financial Management	3				3							3					
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P				
ISOM	2020	Coding for Business	1					1						1					
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 2110 is a major pre-requisite				
MGMT	2130	Business Ethics and Social Responsibility	2						2					2					
SBMT	1111	Business Student Induction	0	---	---	---	---	---	---	---	---	---	---	0	Waived for DDP students				
LABU	2040	Business Case Analyses	3				3							3					
LABU	2060	Effective Communication in Business	3					3						3					
MATH MATH MATH MATH MATH	1003 1012 1013 1020 1023	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023 Calculus and Linear Algebra Calculus IA Calculus IB Accelerated Calculus Honors Calculus I	3-4 3 4 3 4 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				
Required credits for School Requirements			43-44											39					
Major Requirements																			
Major Required Courses and Electives																			
MGMT MGMT	3110 3120	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.) Human Resources Management Managerial Leadership	4 4 4						4					4	Students in the Consulting Option must take MGMT 3120				
MGMT MGMT	3130 3140	Note: MGMT 3130 OR MGMT 3140 (Students in the Consulting Option must take MGMT 3140 to fulfill this requirement.) Judgement and Decision Making in Organizations Negotiation	4 4 4					4						4					
MGMT MGMT	4210 4220	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.) Corporate Strategy Entrepreneurship and Innovation	3-4 3 4							3				3	Students in the Consulting Option must take MGMT 4210 Students in the CSR Option must take MGMT 4210				
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		Students in the Consulting Option are recommended to take MGMT 4220 and a new course in Simulating Strategy to fulfill the major elective requirement			
Required credits for Major Required Courses and Electives			20-21											20					
Additional Requirements																			
Requirements for Dual Degree Program																			
Required Courses																			
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0					
TEMG	3950	Case-based Problem Solving	3		3									3					
Required credits for Additional Requirements			3											3					
University CORE																			
CORE	C3 - C12	U CORE - Others	30	6	3					6	9	3	3	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				18				20				19				20			
18				18				20				19				20			
179##																			

Notes:

- () indicates the reuse of the same course to fulfill more than one requirement.
[] denotes the course is also offered in other terms as indicated and students may take the course in one of these subject to advice by the program office.
--- 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.

<< Declaration of BEng major				<< Declaration of BBA major				Student's Pathway											
School:		School of Engineering and School of Business Management															Remarks		
Program:		Dual Degree Program (BEng in Industrial Engineering and Engineering Management 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					
BEng in Industrial Engineering and Engineering Management																			
Major Requirements																			
Engineering Fundamental Courses																			
COMP	1021	Note: COMP1021 OR COMP1022P OR COMP2011	3-4													This course will also be used to substitute ISOM 2010			
COMP	1022P	Introduction to Computer Science	3	3										3					
COMP	2011	Programming with C++	4																
ENGG	1010	Academic Orientation	0	0	0									0					
CHEM	1010	Note: CHEM1010 OR CHEM1020 OR PHYS1112 OR PHYS1312	3													3			
CHEM	1020	General Chemistry IA	3	3															
PHYS	1112	General Chemistry IB	3																
PHYS	1312	General Physics I with Calculus	3																
LANG	2030	Honors General Physics I	3													3			
		Technical Communication I	3					3											
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7																
MATH	1013	Calculus IA	4																
MATH	1014	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													3			
MATH	2011	Introduction to Multivariable Calculus	3				3												
MATH	2111	Matrix Algebra and Applications	3			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			22-27												21				
Major Required Courses and Electives																			
IEDA	1010	Academic and Professional Development I	0			0	0								0				
IEDA	1020	Academic and Professional Development II	0					0	0						0				
IEDA	1990	Note: IEDA1990 OR IEDA1991	0			0*	0^								0				
IEDA	1991	Industrial Training	0																
IEDA	2520	Industrial Experience	0																
IEDA	2520	Probability for Engineers	3			3									3				
IEDA	2540	Statistics for Engineers	3				3								3	This course will also be used to substitute ISOM2500			
IEDA	3010	Prescriptive Analytics	3					3							3				
IEDA	3230	Engineering Economics and Accounting	3					3							3				
IEDA	3250	Stochastic Models	3						3						3				
IEDA	3300	Industrial Data Systems	3				3								3				
IEDA	4100	Integrated Production Systems	3								3				3	This course will also be used to substitute ISOM 2700			
IEDA	4130	System Simulation	3								3				3				
IEDA	4901	Note: IEDA4901 OR IEDA4990	6									3	3		6				
IEDA	4960	Final Year Thesis	6																
IEDA		Industrial Engineering and Engineering Management Final Year Project	6																
ENGG	2010	Engineering Seminar Series	0			0	0	0	0	0	0	0	0	0	0				
ECON	2103	Note: ECON 2103 OR ECON 2113	3			3									3				
ECON	2113	Principles of Microeconomics	3																
LANG	4032	Microeconomics	3																
LANG	4032	Technical Communication II for Industrial Engineering and Decision Analytics	3										3		3				
IEDA		Industrial Engineering Electives (Courses from the specified 21 elective list, of which at least 15 credits should be taken from 1 of the 2 areas and at least 6 credits outside that area.)	21			6	3			3			3	6	21				
Required credits for Major Requirements Courses and Electives			57												57				
BBA in Management																			
School Requirements																			
ACCT	2010	Principles of Accounting I	3		3										3				
ACCT	2200	Principles of Accounting II	3						3						3				
ECON	2103	Note: ECON 2103 OR ECON 2113	3			(3)									0				
ECON	2113	Principles of 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			
ISOM	2020	Coding for Business	1					1							1				
ISOM	2500	Business Statistics	3	---	---	---	---	---	---	---	---	---	---	---	0	Substituted by IEDA2540			
ISOM	2600	Introduction to Business Analytics	1					1							1				
ISOM	2700	Operations Management	3	---	---	---	---	---	---	---	---	---	---	---	0	Substituted by IEDA 4100			
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 2110 is a major pre-requisite			
MGMT	2130	Business Ethics and Social Responsibility	2																
MGMT	1111	Business Student Induction	0	---	---	---	---	---	---	---	---	---	---	---	0	Waived for DDP students			
LABU	2040	Business Case Analyses	3						3						3				
LABU	2060	Effective Communication in Business	3								3				3				
MATH	1003	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023	3-4													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	1012	Calculus and Linear Algebra	3																
MATH	1013	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												30				
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													Students in the Consulting Option must take MGMT 3120			
MGMT	3120	Human Resources Management	4																
MGMT		Managerial Leadership	4																
MGMT	3130	Note: MGMT 3130 OR MGMT 3140 (Students in the Consulting Option must take MGMT 3140 to fulfill this requirement.)	4						4						4	Students in the Consulting Option must take MGMT 3140			
MGMT	3140	Judgement and Decision Making in Organizations	4																
MGMT		Negotiation	4																
MGMT	4210	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													Students in the Consulting Option must take MGMT 4210			
MGMT	4220	Corporate Strategy	3								3				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								3	3	3		9	Students in the Consulting Option are recommended to take MGMT 4220 and a new course in Simulating Strategy to fulfill the major elective requirement			
Required credits for Major Required Courses and Electives			20-21												20				
Additional Requirements																			
Requirements for Dual Degree Program																			
Required Courses																			
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0	0				
TEMG	3950	Case-based Problem Solving	3		3										3				
Required credits for Additional Requirements			3												3				
University CORE																			
CORE	C3 - C12	U CORE - Others	30	6	6					3	6	6		3	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	18	18	18	18	18	18	18	15	14	12									
167##																			

Notes:

- () indicates the reuse of the same course to fulfill more than one requirement.
- [] denotes the course is also offered in other terms as indicated and students may take the course in one of these subject to advice by the program office.
- * Courses offered

School:				School of Engineering and School of Business Management				<< Declaration of BEng major												<< Declaration of BBA major												Student's Pathway											
Program:				Dual Degree Program (BEng in Mechanical Engineering and BBA in Management)																				Remarks																			
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																												
BEng in Mechanical Engineering																																											
Major Requirements																																											
Engineering Fundamental Courses																																											
COMP	1021	Note: COMP1021 OR COMP1022P OR COMP2011	3-4														This course will also be used to substitute ISOM 2010																										
COMP	1022P	Introduction to Computer Science	3	3												3																											
COMP	2011	Introduction to Computing with Java	4																																								
ENGG	1010	Academic Orientation	0	0	0											0																											
LANG	2030	Technical Communication I	3				3										3																										
MATH	1012	Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7														6																										
MATH	1013	Calculus IA	4																																								
MATH	1014	Calculus IB	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								3																										
MATH	2111	Note: MATH2111 OR MATH2350 OR MATH2351	3														3																										
MATH	2350	Matrix Algebra and Applications	3								3																																
MATH	2351	Applied Linear Algebra and Differential Equations	3																																								
PHYS	1112	Note: PHYS1112 OR PHYS1312	3		3												3																										
PHYS	1312	General Physics I with Calculus	3																																								
CHEM/LIFS/ PHYS		Science 1000-level course (Any 1 course of the subject and level as specified)	3		(3)												0																										
Required credits for Engineering Fundamental Courses			22-26													21																											
Major Required Courses and Electives																																											
MECH	1990	Industrial Training	0				0*	0^									0																										
MECH	2020	Statics and Dynamics	3				3										3																										
MECH	2040	Solid Mechanics I	3								3						3																										
MECH	2210	Fluid Mechanics	3								3						3																										
MECH	2310	Thermodynamics	3				3										3																										
MECH	2410	Engineering Materials I	3					3									3																										
MECH	2520	Design and Manufacturing I	3					3									3																										
MECH	2907	Mechatronic Design and Prototyping	3								3						3																										
MECH	3030	Mechanisms of Machinery	3										3				3																										
MECH	3300	Note: MECH3300 OR MECH3420 OR MECH3520	3									3					3																										
MECH	3420	Energy Conversion	3																																								
MECH	3520	Engineering Materials II	3																																								
MECH	3520	Design and Manufacturing II	3																																								
MECH	3310	Heat Transfer	3									3					3																										
MECH	3610	Control Principles	3						3								3																										
MECH	3630	Electrical Technology	3								3						3																										
MECH	3830	Laboratory	3									3					3																										
MECH	4900	Final Year Design Project	6										3	3			6																										
ELEC	2420	Basic Electronics	3				3										3																										
ENGG	2010	Engineering Seminar Series	0				0	0	0	0							0																										
LANG	4034	Technical Communication II for Mechanical and Aerospace Engineering	3									3					3																										
Required credits for Major Requirements Courses and Electives			51													51																											
BBA in Management																																											
School Requirements																																											
ACCT	2010	Principles of Accounting I	3				3									3																											
ACCT	2200	Principles of Accounting II	3								3						3																										
ECON	2103	Note: ECON 2103 OR ECON 2113	3				3										3																										
ECON	2113	Principles of Microeconomics	3																																								
ECON	2123	Note: ECON 2123 OR ECON 3123	3							3							3																										
ECON	3123	Macroeconomics	3																																								
FINA	2303	Financial Management	3					3									3																										
ISOM	2010	Introduction to Information Systems	3	---	---	---	---	---	---	---	---	---	---	---	---	0	Substituted by COMP 1021/1022P/2011																										
ISOM	2020	Coding for Business	1						1							1																											
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	Waived for DDP students																										
LABU	2040	Business Case Analyses	3						3									3																									
LABU	2060	Effective Communication in Business	3									3					3																										
MATH	1003	Note: MATH 1003 OR MATH 1012 OR MATH 1013 OR MATH 1020 OR MATH 1023	3-4	(3)													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	1012	Calculus and Linear Algebra	3																																								
MATH	1013	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												39																												
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								4						Students in the Consulting Option must take MGMT 3120																										
MGMT	3120	Human Resources Management	4																																								
MGMT	3120	Managerial Leadership	4																																								
MGMT	3130	Note: MGMT 3130 OR MGMT 3140 (Students in the Consulting Option must take MGMT 3140 to fulfill this requirement.)	4							4							Students in the Consulting Option must take MGMT 3140																										
MGMT	3140	Judgement and Decision Making in Organizations	4																																								
MGMT	3140	Negotiation	4																																								
MGMT	4210	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									3					Students in the Consulting Option must take MGMT 4210 Students in the CSR Option must take MGMT 4210																										
MGMT	4220	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									3	3	3			Students in the Consulting Option are recommended to take MGMT 4220 and a new course in Simulating Strategy to fulfill the major elective requirement																										
Required credits for Major Required Courses and Electives			20-21													20																											
Additional Requirements																																											
Requirements for Dual Degree Program																																											
Required Courses																																											
TEMG	1010	Technology and Management Professional Activities	0	0	0	0	0	0	0	0	0	0	0	0	0	0																											
TEMG	3950	Case-based Problem Solving	3		3												3																										
Required credits for Additional Requirements			3													3																											
University CORE																																											
CORE	C3 - C12	U CORE - Others	30	9	6						3			6	6	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	18	18	18	18	19	19	18	15	14	14																													
170##																																											

English Language Requirements of SENG, SBM and DDP students

4Y

SENG

SBM

DDP (BEECON/FINA/GBM/MGMT/MARK)

Course code_SENG	Course title_SENG	Credits_SENG	Course code_SBM	Course title_SBM	Credits_SBM	Course code_DDP	Course title_DDP	Credits_DDP	Remarks
U Core	English Language	6	U Core	English Language	6	U Core	English Language	6	university requirement
LANG 2030	Technical Communication I	3	LABU 2040	Business Case Analyses	3	LANG 2030	Technical Communication I	3	SENG requirement
LANG 4035	Technical Communication II for Chemical and Biological Engineering	3	LABU 2060	Effective Communication in Business	3	LABU 2040	Business Case Analyses	3	SBM requirement
						LABU 2060	Effective Communication in Business	3	SBM requirement
						LANG 4035	Technical Communication II for Chemical and Biological Engineering	3	SENG requirement
	Total	12		Total	12		Total	18	

English Language Requirements of SSCI, SBM and DDP students

4Y

SSCI			SBM			DDP (BTECON/FINA/GBM/MGMT/MARK)			Remarks
Course code_SSCI	Course title_SSCI	Credits_SSCI	Course code_SBM	Course title_SBM	Credits_SBM	Course code_DDP	Course title_DDP	Credits_DDP	
U Core	English Language	6	U Core	English Language	6	U Core	English Language	6	university requirement
LANG 2010	English for Science I	3	LABU 2040	Business Case Analyses	3	LANG 2010	English for Science I	3	SSCI requirement
LANG 3024	Science Communication in English (Life Science)	3	LABU 2060	Effective Communication in Business	3	LABU 2040	Business Case Analyses	3	SBM requirement
						LABU 2060	Effective Communication in Business	3	SBM requirement
						LANG 3024	Science Communication in English (Life Science)	3	SSCI requirement
	Total	12		Total	12		Total	18	

English Language Requirements of SENG, SBM and DDP students

4Y

SENG

SBM

DDP (CEECON/FINA/GBM/MGMT/MARK)

Course code_SENG	Course title_SENG	Credits_SENG	Course code_SBM	Course title_SBM	Credits_SBM	Course code_DDP	Course title_DDP	Credits_DDP	Remarks
U Core	English Language	6	U Core	English Language	6	U Core	English Language	6	university requirement
LANG 2030	Technical Communication I	3	LABU 2040	Business Case Analyses	3	LANG 2030	Technical Communication I	3	SENG requirement
LANG 4035	Technical Communication II for Chemical and Biological Engineering	3	LABU 2060	Effective Communication in Business	3	LABU 2040	Business Case Analyses	3	SBM requirement
						LABU 2060	Effective Communication in Business	3	SBM requirement
						LANG 4035	Technical Communication II for Chemical and Biological Engineering	3	SENG requirement
	Total	12		Total	12		Total	18	

English Language Requirements of SENG, SBM and DDP students

4Y

SENG

SBM

DDP (CIECON/FINA/GBM/MGMT/MARK)

Course code_SENG	Course title_SENG	Credits_SENG	Course code_SBM	Course title_SBM	Credits_SBM	Course code_DDP	Course title_DDP	Credits_DDP	Remarks
U Core	English Language	6	U Core	English Language	6	U Core	English Language	6	university requirement
LANG 2030	Technical Communication I	3	LABU 2040	Business Case Analyses	3	LANG 2030	Technical Communication I	3	SENG requirement
LANG 4033	Technical Communication II for Civil and Environmental Engineering	3	LABU 2060	Effective Communication in Business	3	LABU 2040	Business Case Analyses	3	SBM requirement
						LABU 2060	Effective Communication in Business	3	SBM requirement
						LANG 4033	Technical Communication II for Civil and Environmental Engineering	3	SENG requirement
	Total	12		Total	12		Total	18	

English Language Requirements of SENG, SBM and DDP students

4Y

SENG

SBM

DDP (COECON/FINA/GBM/MGMT/MARK)

Course code_SENG	Course title_SENG	Credits_SENG	Course code_SBM	Course title_SBM	Credits_SBM	Course code_DDP	Course title_DDP	Credits_DDP	Remarks
U Core	English Language	6	U Core	English Language	6	U Core	English Language	6	university requirement
LANG 2030	Technical Communication I	3	LABU 2040	Business Case Analyses	3	LANG 2030	Technical Communication I	3	SENG requirement
LANG 4030	Technical Communication II for CSE & CPEG	3	LABU 2060	Effective Communication in Business	3	LABU 2040	Business Case Analyses	3	SBM requirement
						LABU 2060	Effective Communication in Business	3	SBM requirement
						LANG 4030	Technical Communication II for CSE & CPEG	3	SENG requirement
	Total	12		Total	12		Total	18	

English Language Requirements of SENG, SBM and DDP students

4Y

SENG

SBM

DDP (CPECON/FINA/GBM/MGMT/MARK)

Course code_SENG	Course title_SENG	Credits_SENG	Course code_SBM	Course title_SBM	Credits_SBM	Course code_DDP	Course title_DDP	Credits_DDP	Remarks
U Core	English Language	6	U Core	English Language	6	U Core	English Language	6	university requirement
LANG 2030	Technical Communication I	3	LABU 2040	Business Case Analyses	3	LANG 2030	Technical Communication I	3	SENG requirement
LANG 4030 OR LANG 4031	Technical Communication II for CSE & CPEG OR Technical Communication II for ECE & CPEG	3 3	LABU 2060	Effective Communication in Business	3	LABU 2040	Business Case Analyses	3	SBM requirement
						LABU 2060	Effective Communication in Business	3	SBM requirement
						LANG 4030 OR LANG 4031	Technical Communication II for CSE & CPEG OR Technical Communication II for ECE & CPEG	3	SENG requirement
	Total	12		Total	12		Total	18	

English Language Requirements of SENG, SBM and DDP students

4Y

SENG

SBM

DDP (CVECON/FINA/GBM/MGMT/MARK)

Course code_SENG	Course title_SENG	Credits_SENG	Course code_SBM	Course title_SBM	Credits_SBM	Course code_DDP	Course title_DDP	Credits_DDP	Remarks
U Core	English Language	6	U Core	English Language	6	U Core	English Language	6	university requirement
LANG 2030	Technical Communication I	3	LABU 2040	Business Case Analyses	3	LANG 2030	Technical Communication I	3	SENG requirement
LANG 4033	Technical Communication II for Civil and Environmental Engineering	3	LABU 2060	Effective Communication in Business	3	LABU 2040	Business Case Analyses	3	SBM requirement
						LABU 2060	Effective Communication in Business	3	SBM requirement
						LANG 4033	Technical Communication II for Civil and Environmental Engineering	3	SENG requirement
	Total	12		Total	12		Total	18	

English Language Requirements of SENG, SBM and DDP students

4Y

SENG

SBM

DDP (DAECON/FINA/GBM/MGMT/MARK)

Course code_SENG	Course title_SENG	Credits_SENG	Course code_SBM	Course title_SBM	Credits_SBM	Course code_DDP	Course title_DDP	Credits_DDP	Remarks
U Core	English Language	6	U Core	English Language	6	U Core	English Language	6	university requirement
LANG 2030	Technical Communication I	3	LABU 2040	Business Case Analyses	3	LANG 2030	Technical Communication I	3	SENG requirement
LANG 4032	Technical Communication II for Industrial Engineering and Decision Analytics	3	LABU 2060	Effective Communication in Business	3	LABU 2040	Business Case Analyses	3	SBM requirement
						LABU 2060	Effective Communication in Business	3	SBM requirement
						LANG 4032	Technical Communication II for Industrial Engineering and Decision Analytics	3	SENG requirement
	Total	12		Total	12		Total	18	

English Language Requirements of SENG, SBM and DDP students

4Y

SENG

SBM

DDP (EECON/FINA/GBM/MGMT/MARK)

Course code_SENG	Course title_SENG	Credits_SENG	Course code_SBM	Course title_SBM	Credits_SBM	Course code_DDP	Course title_DDP	Credits_DDP	Remarks
U Core	English Language	6	U Core	English Language	6	U Core	English Language	6	university requirement
LANG 2030	Technical Communication I	3	LABU 2040	Business Case Analyses	3	LANG 2030	Technical Communication I	3	SENG requirement
LANG 4031	Technical Communication II for ECE & CPEG	3	LABU 2060	Effective Communication in Business	3	LABU 2040	Business Case Analyses	3	SBM requirement
						LABU 2060	Effective Communication in Business	3	SBM requirement
						LANG 4031	Technical Communication II for ECE & CPEG	3	SENG requirement
	Total	12		Total	12		Total	18	

English Language Requirements of SENG, SBM and DDP students

4Y SENG			SBM			DDP (IEECON/FINA/GBM/MGMT/MARK)			Remarks
Course code_SENG	Course title_SENG	Credits_SENG	Course code_SBM	Course title_SBM	Credits_SBM	Course code_DDP	Course title_DDP	Credits_DDP	
U Core	English Language	6	U Core	English Language	6	U Core	English Language	6	university requirement
LANG 2030	Technical Communication I	3	LABU 2040	Business Case Analyses	3	LANG 2030	Technical Communication I	3	SENG requirement
LANG 4032	Technical Communication II for Industrial Engineering and Decision Analytics	3	LABU 2060	Effective Communication in Business	3	LABU 2040	Business Case Analyses	3	SBM requirement
						LABU 2060	Effective Communication in Business	3	SBM requirement
						LANG 4032	Technical Communication II for Industrial Engineering and Decision Analytics	3	SENG requirement
	Total	12		Total	12		Total	18	

English Language Requirements of SENG, SBM and DDP students

4Y

SENG

SBM

DDP (MEECON/FINA/GBM/MGMT/MARK)

Course code_SENG	Course title_SENG	Credits_SENG	Course code_SBM	Course title_SBM	Credits_SBM	Course code_DDP	Course title_DDP	Credits_DDP	Remarks
U Core	English Language	6	U Core	English Language	6	U Core	English Language	6	university requirement
LANG 2030	Technical Communication I	3	LABU 2040	Business Case Analyses	3	LANG 2030	Technical Communication I	3	SENG requirement
LANG 4034	Technical Communication II for Mechanical and Areospace Engineering	3	LABU 2060	Effective Communication in Business	3	LABU 2040	Business Case Analyses	3	SBM requirement
						LABU 2060	Effective Communication in Business	3	SBM requirement
						LANG 4034	Technical Communication II for Mechanical and Areospace Engineering	3	SENG requirement
	Total	12		Total	12		Total	18	