The Hong Kong University of Science and Technology
School of Science
An Example on Student's Pathway

<< *Declaration of major*

School:		School of Science												
Department:		Department of Mathematics				Pathway 1								
Program:		BSc in Mathematics				Background: HKDSE 4 Core + 1 Elec + MATH M1/M2 Profile: Normative. Students to graduate with BSc MATH following Applied Mathematics Track								

Student's Pathways (i.e. Study Pattern)

Course Offering Dept (course code prefix)	Course Code	Course Title / Courses List	Credits	Major Pre-requisite	Year 1 Fall	Year 1 Spring	Year 2 Fall	Year 2 Spring	Year 3 Fall	Year 3 Spring	Year 4 Fall	Year 4 Spring	Sub-total	Remarks
School Requirements														
SCIE	1000	Science School Induction	0		0	0							0	
COMP		Note: COMP 1021 OR COMP 1022P OR COMP 2011	3-4											
COMP	1021	Introduction to Computer Science	3				3						3	
COMP	1022P	Introduction to Computing with Java	3											
COMP	2011	Programming with C++	4											
LANG	2010	English for Science I	3				3						3	
MATH		Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020] (Students following IRE track can only use MATH 1023 and MATH 1024 to fulfill the requirement)	4-7											
MATH	1012	Calculus IA	4	@	3	3							6	
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											
CHEM	1004	Chemistry in Everyday Life	3		3								3	
CHEM	1010	General Chemistry IA	3										0	
CHEM	1020	General Chemistry IB	3										0	
CHEM	1030	General Chemistry II	3										0	
CHEM	1050	Laboratory for General Chemistry I	1										0	
CHEM	1055	Laboratory for General Chemistry II	1										0	
LIFS	1030	Environmental Science	3										0	
LIFS	1901	General Biology I	3			3							3	
LIFS	1902	General Biology II	3										0	
LIFS	1903	Laboratory for General Biology I	1										0	
LIFS	1904	Laboratory for General Biology II	1										0	
LIFS	1930	Nature of Life Sciences	3										0	
LIFS	2210	Biochemistry I	3										0	
MATH	2023	Multivariable Calculus	4				4						4	
MATH	2121	Linear Algebra	4				{4}						0	
MATH	2131	Honors in Linear and Abstract Algebra I	4										0	
OCES	1030	Environmental Science	3										0	
PHYS	1001	Physics and the Modern Society	3										0	
PHYS	1111	General Physics I	3										0	
PHYS	1112	General Physics I with Calculus	3		3								3	
PHYS	1113	Laboratory for General Physics I	1		1								1	
PHYS	1114	General Physics II	3			3							3	
PHYS	1115	Laboratory for General Physics II	1										0	
PHYS	1312	Honors General Physics I	3										0	
PHYS	1314	Honors General Physics II	3										0	
Required credits for School / Major Pre-requisite Requirements														29	
Major Requirements														
Major Required Courses and Electives														
MATH	2023	Multivariable Calculus	4				(4)						0	
MATH		Note: MATH 2033 OR MATH 2043 [Students following IRE Track or Pure Mathematics (Advanced) Track can only use MATH 2043 to fulfill the requirement.]	4					4					4	
MATH	2033	Mathematical Analysis	4											
MATH	2043	Honors Mathematical Analysis	4											
MATH		Note: MATH 2121 OR MATH 2131 [Students following IRE Track or Pure Mathematics (Advanced) Track can only use MATH 2131 to fulfill the requirement.]	4					4					4	
MATH	2121	Linear Algebra	4											
MATH	2131	Honors in Linear and Abstract Algebra I	4											
MATH		Note: MATH 3033 OR MATH 3043 [Students following IRE Track or Pure Mathematics (Advanced) Track can only use MATH 3043 to fulfill the requirement.]	4							4			4	
MATH	3033	Real Analysis	4											
MATH	3043	Honors Real Analysis	4											
LANG	3021	Science Communication in English (Mathematics)	3							3			3	
Required credits for Major Required Courses and Electives			19										15	
Track Study														
Applied Mathematics Track														
MATH		Note: MATH 4992 OR MATH 4999	3								3		3	
MATH	2352	Differential Equations	4					4					4	
MATH	2411	Applied Statistics	4					4					4	
MATH	3312	Numerical Analysis	3						3				3	
MATH		MATH Depth Electives (4 courses from the specified elective list)	12						3	3	3	3	12	
Required credits for Applied Mathematics Track			26										26	
AI Requirements														
Recommended Background Courses														
COMP/ISOM		Note: COMP 1021 OR COMP 1022P OR ISOM 3230	3				(3)						0	
COMP	1021	Introduction to Computer Science	3											
COMP	1022P	Introduction to Computing with Java	3											
ISOM	3230	Business Applications Programming	3											
MATH		Note: MATH 1004 OR MATH 1020 OR MATH 1024	3-4				(3)						0	
MATH	1014	Calculus II	3											
MATH	1020	Accelerated Calculus	4											
MATH	1024	Honors Calculus II	3											
ISOM/MATH		Note: ISOM 2500 OR MATH 2411	3-4					(4)					0	
ISOM	2500	Business Statistics	3											
MATH	2411	Applied Statistics	4											
Required credits for AI Recommended Background Courses			9-11										0	
Major Required Courses and Electives														
EMIA	2010A	Cross-disciplinary Seminar in Artificial Intelligence	0				0						0	
EMIA	2020	Cross-disciplinary Design Thinking	3				3						3	
COMP		Note: COMP 2011 OR COMP 2012 OR COMP 2012H	4-5											
COMP	2011	Programming with C++	4				4						4	
COMP	2012	Object-Oriented Programming and Data Structures	4											
COMP	2012H	Honors Object-Oriented Programming and Data Structures	5											
COMP		Note: COMP2211 OR COMP3211	3											
COMP	2211	Exploring Artificial Intelligence	3						3				3	
COMP	3211	Fundamentals of Artificial Intelligence	3											
COMP/EMIA/MATH		Note: COMP 4211 OR EMIA 4110 OR MATH 4432												
COMP	4211	Machine Learning	3							3			3	
EMIA	4110	Practical Machine Learning	3											
MATH	4432	Statistical Machine Learning	3											
EMIA		Note: EMIA 4990 OR EMIA 4991	0-3											
EMIA	4990	Interdisciplinary Capstone Design	0								0		0	
EMIA	4991	Interdisciplinary Capstone Project	3											
SBM/SENG/ SSCI/IPO		Note: Students taking EMIA4990 should take a minimum of 9 credits; students taking EMIA4991 should take a minimum of 6 credits AI Electives	6-9							3		6	9	
Required credits for AI Required Courses and Electives			22-23										22	
University CORE														
CORE	C3 - C12	U CORE - Others	30		3	3	0	3	3	9	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)

16	15	17	19	16	18	15	12

128#

<< *Declaration of 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.

{ } indicates the course overlapping with another requirement will not be necessarily counted towards the School Requirements.

To graduate, students should complete at least 120 credits in approved courses. They may need to take courses additional to the required and elective courses as specified above to meet this minimum credit requirement.

>> 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 Hong Kong University of Science and Technology
School of Science
An Example on Student's Pathway

<< *Declaration of major*

School:	School of Science		Student's Pathways (i.e. Study Pattern)
Department:	Department of Ocean Science		Pathway 1
Program:	BSc in Ocean Science and Technology		Background: HKDSE 4 Core + 2 Elec
			Profile: Student to graduate with option

Course Offering Dept (course code prefix)	Course Code	Course Title / Courses List	Credits	Major Pre-requisite	Year 1 Fall	Year 1 Spring	Year 2 Fall	Year 2 Spring	Year 3 Fall	Year 3 Spring	Year 4 Fall	Year 4 Spring	Sub-total	Remarks
School Requirements														
SCIE	1000	Science School Induction	0		0	0							0	
COMP		Note: COMP 1021 OR COMP 1022P OR COMP 2011	3-4											
COMP	1021	Introduction to Computer Science	3					3					3	
COMP	1022P	Introduction to Computing with Java	3											
COMP	2011	Programming with C++	4											
LANG	2010	English for Science I	3					3					3	
OCES	1001	The Earth as a Blue Planet	3	@	3								3	
OCES/LIFS		Note: OCES 1030 OR LIFS 1030	3											
OCES	1030	Environmental Science	3	@		3							3	
LIFS	1030	Environmental Science	3											
CHEM	1004	Chemistry in Everyday Life	3										0	
CHEM	1010	General Chemistry IA	3		3								3	
CHEM	1020	General Chemistry IB	3										0	
CHEM	1030	General Chemistry II	3			(3)							0	
CHEM	1050	Laboratory for General Chemistry I	1										0	
CHEM	1055	Laboratory for General Chemistry II	1										0	
LIFS	1901	General Biology I	3			3							3	
LIFS	1902	General Biology II	3				3						3	
LIFS	1903	Laboratory for General Biology I	1			1							1	
LIFS	1904	Laboratory for General Biology II	1										0	
LIFS	1930	Nature of Life Sciences	3										0	
LIFS	2210	Biochemistry I	3										0	
MATH	1012	Calculus IA	4										0	
MATH	1013	Calculus IB	3		3								3	
MATH	1014	Calculus II	3			3							3	
MATH	1020	Accelerated Calculus	4										0	
MATH	1023	Honors Calculus I	3										0	
MATH	1024	Honors Calculus II	3										0	
MATH	2023	Multivariable Calculus	4										0	
MATH	2121	Linear Algebra	4										0	
MATH	2131	Honors in Linear and Abstract Algebra I	4										0	
PHYS	1001	Physics and the Modern Society	3										0	
PHYS	1111	General Physics I	3										0	
PHYS	1112	General Physics I with Calculus	3		3								3	
PHYS	1113	Laboratory for General Physics I	1										0	
PHYS	1114	General Physics II	3										0	
PHYS	1115	Laboratory for General Physics II	1										0	
PHYS	1312	Honors General Physics I	3										0	
PHYS	1314	Honors General Physics II	3										0	
		Required credits for School / Major Pre-requisite Requirements											31	
Major Requirements														
Major Required Courses and Electives														
OCES	2001	Survey of Ocean Science	3						3	[3]			3	
OCES	2002	Marine Chemistry	3						3				3	
OCES	2003	Descriptive Physical Oceanography	3				3						3	
OCES	2100	Conservation Field Trips	1				1						1	
OCES	3002	Remote Sensing, GIS and GPS	3						3	[3]			3	
OCES	3003	Field Methods in Marine Studies	3						3	[3]			3	
OCES	3130	Marine Biology	3						3	[3]			3	
OCES	3160	Ecology	3						3	[3]			3	
OCES/SCIE		Note: OCES 4964 OR (OCES 4974 AND OCES 4984) OR (SCIE 3500 AND SCIE 4500) (Students following IRE Track can only use (SCIE 3500 AND SCIE 4500) to fulfill the requirement.)	3-6											
OCES	4964	Ocean Science and Technology Capstone Project Research	3								3		3	
OCES	4974	Ocean Science and Technology Research Project I	3											
OCES	4984	Ocean Science and Technology Research Project II	3											
SCIE	3500	IRE Research Project I	3											
SCIE	4500	IRE Research Project II	3											
ENVS	3001**	Pollution Monitoring and Measurement**	3						3	[3]			3	
ENVS	3004**	Global Climate Change**	3							3			3	
CHEM		Note: CHEM 1010 OR CHEM 1020	3											
CHEM	1010	General Chemistry IA	3		(3)								0	
CHEM	1020	General Chemistry IB	3											
CHEM	1030	General Chemistry II	3			3							3	
LIFS		Note: Students with level 3 or above in HKDSE 1x Biology are exempted from taking LIFS 1901	0-3											
LIFS	1901	General Biology I	3			(3)							0	
LIFS	1902	General Biology II	3				(3)						0	
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)							0	
MATH	1014	Calculus II	3											
MATH	1020	Accelerated Calculus	4											
MATH	1023	Honors Calculus I	3											
MATH	1024	Honors Calculus II	3											
PHYS		Note: PHYS 1111 OR PHYS 1112 OR PHYS 1312	3											
PHYS	1111	General Physics I	3		(3)								0	
PHYS	1112	General Physics I with Calculus	3											
PHYS	1312	Honors General Physics I	3											
COMP	1021	Introduction to Computer Science	3			(3)							0	
LANG	3025	Science Communication in English (Environmental Science)	3						3				3	
OCES/ENVS/LIFS/MATH/ISDN		Ocean Science and Technology Electives (Courses from the specified elective list. Students taking the Marine Ecology Option must use ENVS 4001 (to be re-coded as OCES 4203) and ENVS 4301 (to be re-coded as OCES 4301) to count towards this elective requirement, while those taking the Oceanography Option must use OCES 3201 and OCES 3202. Courses taken to fulfill the Track/Option requirements may not be counted towards this elective requirement.)	12						3	3	3	3	12	
		Required credits for Major Required Courses and Electives	65-74										49	
Option Requirements														
Marine Ecology Option														
OCES		Marine Ecology Electives (2 courses from the specified elective list)	6								3	3	6	
		Required credits for Marine Ecology Option	6										6	
AI Requirements														
Recommended Background Courses														
COMP/ISOM		Note: COMP 1021 OR COMP 1022P OR ISOM 3230	3											
COMP	1021	Introduction to Computer Science	3			(3)							0	
COMP	1022P	Introduction to Computing with Java	3											
ISOM	3230	Business Applications Programming	3											
MATH		Note: MATH 1014 OR MATH 1020 OR MATH 1024	3-4											
MATH	1014	Calculus II	3			(3)							0	
MATH	1020	Accelerated Calculus	4											
MATH	1024	Honors Calculus II	3											
ISOM/MATH		Note: ISOM 2500 OR MATH 2411	3-4											
ISOM	2500	Business Statistics	3			3							3	
MATH	2411	Applied Statistics	4											
		Required credits for AI Recommended Background Courses	9-11										3	
Major Required Courses and Electives														
EMIA	2010A	Cross-disciplinary Seminar in Artificial Intelligence	0				0						0	
EMIA	2020	Cross-disciplinary Design Thinking	3				3						3	
COMP		Note: COMP 2011 OR COMP 2012 OR COMP 2012H	4-5											
COMP	2011	Programming with C++	4					4					4	
COMP	2012	Object-Oriented Programming and Data Structures	4											
COMP	2012H	Honors Object-Oriented Programming and Data Structures	5											
COMP		Note: COMP2211 OR COMP3211	3											
COMP	2211	Exploring Artificial Intelligence	3						3				3	
COMP	3211	Fundamentals of Artificial Intelligence	3											
COMP/EMIA/MATH		Note: COMP 4211 OR EMIA 4110 OR MATH 4432	3											
COMP	4211	Machine Learning	3								3		3	
EMIA	4110	Practical Machine Learning	3											
MATH	4432	Statistical Machine Learning	3											
EMIA		Note: EMIA 4990 OR EMIA 4991	0-3											
EMIA	4990	Interdisciplinary Capstone Design	0								0		0	
EMIA	4991	Interdisciplinary Capstone Project	3											
SBM/SENG/SSCI/IPO		Note: Students taking EMIA4990 should take a minimum of 9 credits; students taking EMIA4991 should take a minimum of 6 credits. AI Electives	6-9								3	6	9	
		Required credits for AI Required Courses and Electives	22-23										22	
University CORE														
CORE	C3 - C12	U CORE - Others	30				6	6		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)								
	15	19	19	19	18	18	21	18	

145 (w/o option) | 151 (w/ option)#

<< *Declaration of 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 terms subject to advice by the program office.
{ } indicates the course overlapping with another requirement will not be necessarily counted towards the School Requirements.
To graduate, students should complete at least 120 credits in approved courses. They may need to take courses additional to the required and elective courses as specified above to meet this minimum credit requirement.

**Remarks on course(s):
- ENVS 3001: The course code will be changed to OCES 3001 starting from Fall, 2021-22.
- ENVS 3001: The course title will be changed to "Coastal Environmental Monitoring" starting from Fall, 2021-22.
- ENVS 3004: The course code will be changed to OCES 4001 starting from Fall, 2021-22.
- ENVS 3004: The course title will be changed to "Ocean and Climate Change" starting from Fall, 2021-22.

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The Hong Kong University of Science and Technology
School of Science
An Example on Student's Pathway

<< Declaration of major

School:	School of Science	Student's Pathways (i.e. Study Pattern)		
Department:	Department of Physics	Pathway 1		
Program:	BSc in Physics + Artificial Intelligence	Background: HKDSE 4 Core + 2 Elec (incl. 1/2x PHYS)		
		Profile: Normative. Students to graduate with PHYS major without option.		

Course Offering Dept (course code prefix)	Course Code	Course Title / Courses List	Credits	Major Pre-requisite	Year 1 Fall	Year 1 Spring	Year 2 Fall	Year 2 Spring	Year 3 Fall	Year 3 Spring	Year 4 Fall	Year 4 Spring	Sub-total	Remarks
School Requirements														
SCIE	1000	Science School Induction	0		0	0							0	
COMP		Note: COMP 1021 OR COMP 1022P OR COMP 2011	3-4											
COMP	1021	Introduction to Computer Science	3				3						3	
COMP	1022P	Introduction to Computing with Java	3											
COMP	2011	Programming with C++	4											
LANG	2010	English for Science I	3				3						3	
PHYS		Note: PHYS 1111 OR PHYS 1112 OR PHYS 1312	3											
PHYS	1111	General Physics I	3	@	3								3	
PHYS	1112	General Physics I with Calculus	3											
PHYS	1312	Honors General Physics I	3											
PHYS		Note: PHYS 1114 OR PHYS 1314	3											
PHYS	1114	General Physics II	3	@		3							3	
PHYS	1314	Honors General Physics II	3											
CHEM	1004	Chemistry in Everyday Life	3		3								3	
CHEM	1010	General Chemistry IA	3										0	
CHEM	1020	General Chemistry IB	3										0	
CHEM	1030	General Chemistry II	3										0	
CHEM	1050	Laboratory for General Chemistry I	1										0	
CHEM	1055	Laboratory for General Chemistry II	1										0	
LIFS	1030	Environmental Science	3										0	
LIFS	1901	General Biology I	3			3							3	
LIFS	1902	General Biology II	3										0	
LIFS	1903	Laboratory for General Biology I	1										0	
LIFS	1904	Laboratory for General Biology II	1										0	
LIFS	1930	Nature of Life Sciences	3										0	
LIFS	2210	Biochemistry I	3										0	
MATH	1012	Calculus IA	4										0	
MATH	1013	Calculus IB	3		3								3	
MATH	1014	Calculus II	3			3							3	
MATH	1020	Accelerated Calculus	4										0	
MATH	1023	Honors Calculus I	3										0	
MATH	1024	Honors Calculus II	3										0	
MATH	2023	Multivariable Calculus	4					4					4	
MATH	2121	Linear Algebra	4					(4)					0	
MATH	2131	Honors in Linear and Abstract Algebra I	4										0	
OCES	1030	Environmental Science	3										0	
PHYS	1001	Physics and the Modern Society	3										0	
PHYS	1113	Laboratory for General Physics I	1		1								1	
PHYS	1115	Laboratory for General Physics II	1			(1)							0	
		Required credits for School / Major Pre-requisite Requirements											29	
Major Requirements														
Major Required Courses and Electives														
PHYS	1113	Laboratory for General Physics I	1		(1)								0	
PHYS	1115	Laboratory for General Physics II	1			1							1	
PHYS	2022	Modern Physics	3				3						3	
PHYS	2023	Modern Physics Laboratory	1				1						1	
PHYS	2080	Physics Seminar and Tutorial I	1				1						1	
PHYS/MATH		Note: PHYS 2124 OR MATH 2352 (Students taking the Physics and Mathematics Option may take either MATH 2352 or PHYS 2124. Other students can only take PHYS 2124 to fulfill the requirement.)	3-4					3					3	
PHYS	2124	Mathematical Methods in Physics I	3											
MATH	2352	Differential Equations	4											
PHYS	3032	Classical Mechanics	3					3					3	
PHYS		Note: PHYS 3033 OR PHYS 3053 (Students taking IRE Track or Honors Physics Option can only use PHYS 3053 to fulfill the requirement.)	3-4						3				3	
PHYS	3033	Electricity and Magnetism I	3											
PHYS	3053	Honors Electricity and Magnetism I	4											
PHYS		Note: PHYS 3036 OR PHYS 3037 (Students taking IRE Track or Honors Physics Option can only use PHYS 3037 to fulfill the requirement.)	3-4							3			3	
PHYS	3036	Quantum Mechanics I	3											
PHYS	3037	Honors Quantum Mechanics I	4											
PHYS/MATH		Note: PHYS 3142 OR MATH 3312 (Students taking the Physics and Mathematics Option may take either MATH 3312 or PHYS 3142. Other students can only take PHYS 3142 to fulfill the requirement.)	3							3			3	
PHYS	3142	Computational Methods in Physics	3											
MATH	3312	Numerical Analysis	3											
PHYS	3152	Methods of Experimental Physics I	3						3				3	
PHYS	3153	Methods of Experimental Physics II	3							3			3	
PHYS	4050	Thermodynamics and Statistical Physics	3								3		3	
PHYS	4080	Physics Seminar and Tutorial II	1								1		1	
PHYS/SCIE		Note: PHYS 4191 OR PHYS 4291 OR (SCIE 3500 AND SCIE 4500) (Students taking IRE Track can only use (SCIE 3500 AND SCIE 4500) to fulfill the requirement; those taking Honors Physics Option can only use PHYS 4291 to fulfill the requirement.)	4-6								4		4	
PHYS	4191	Capstone Project	4											
PHYS	4291	Capstone Research	6											
SCIE	3500	IRE Research Project I	3											
SCIE	4500	IRE Research Project II	3											
PHYS		Note: PHYS 4811 OR PHYS 4812 OR PHYS 4813 (2 courses out of 3)	2								2		2	
PHYS	4811	Contemporary Applications of Physics: Machine Learning in Physics	1											
PHYS	4812	Contemporary Applications of Physics: Quantum Information Technology	1											
PHYS	4813	Contemporary Applications of Physics: Atmospheric Physics - Making Sense of Weather and Climate	1											
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)							0	
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					(4)					0	
MATH		Note: MATH 2121 OR MATH 2131	4											
MATH	2121	Linear Algebra	4					4					4	
MATH	2131	Honors in Linear and Abstract Algebra I	4											
LANG	3023	Science Communication in English (Physics)	3							3			3	
		Required credits for Major Required Courses and Electives	53-61										44	
AI Requirements														
Recommended Background Courses														
COMP/ISOM		Note: COMP 1021 OR COMP 1022P OR ISOM 3230	3				(3)						0	
COMP	1021	Introduction to Computer Science	3											
COMP	1022P	Introduction to Computing with Java	3											
ISOM	3230	Business Applications Programming	3											
MATH		Note: MATH 1004 OR MATH 1020 OR MATH 1024	3-4											
MATH	1014	Calculus II	3			(3)							0	
MATH	1020	Accelerated Calculus	4											
MATH	1024	Honors Calculus II	3											
ISOM/MATH		Note: ISOM 2500 OR MATH 2411	3-4											
ISOM	2500	Business Statistics	3				3						3	
MATH	2411	Applied Statistics	4											
		Required credits for AI Recommended Background Courses	9-11										3	
Major Required Courses and Electives														
EMIA	2010A	Cross-disciplinary Seminar in Artificial Intelligence	0				0						0	
EMIA	2020	Cross-disciplinary Design Thinking	3				3						3	
COMP		Note: COMP 2011 OR COMP 2012 OR COMP 2012H	4-5											
COMP	2011	Programming with C++	4					4					4	
COMP	2012	Object-Oriented Programming and Data Structures	4											
COMP	2012H	Honors Object-Oriented Programming and Data Structures	5											
COMP		Note: COMP 2211 OR COMP 3211	3											
COMP	2211	Exploring Artificial Intelligence	3						3				3	
COMP	3211	Fundamentals of Artificial Intelligence	3											
COMP/EMIA/MATH		Note: COMP 4211 OR EMIA 4110 OR MATH 4432	3											
COMP	4211	Machine Learning	3								3		3	
EMIA	4110	Practical Machine Learning	3											
MATH	4432	Statistical Machine Learning	3											
EMIA		Note: EMIA 4990 OR EMIA 4991	0-3											
EMIA	4990	Interdisciplinary Capstone Design	0								0		0	
EMIA	4991	Interdisciplinary Capstone Project	3											
SBM/SENG/ SSCI/IPO		Note: Students taking EMIA4990 should take a minimum of 9 credits; students taking EMIA4991 should take a minimum of 6 credits — AI Electives	6-9								3	6	9	
		Required credits for AI Required Courses and Electives	22-23										22	
University CORE														
CORE	C3 - C12	U CORE - Others	30		3	3		3	6	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)									
16	19	19	16	19	16	15	18	16	15
134#									

<< Declaration of 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.

( ) indicates the course overlapping with another requirement will not be necessarily counted towards the School Requirements.

To graduate, students should complete at least 120 credits in approved courses. They may need to take courses additional to the required and elective courses as specified above to meet this minimum credit requirement.

>> 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.