Four-Year Study Plan of Applied Mathematics Programme (2023 cohort)

Rev 20231106

MATH1053			Rev 20231106							
Sem 1 Sem 2 Sem	Course Code	Course Title	Year	· One	Year	Two	Year Three		Year Four	
MATH1053	Course Coue	Course Title	Sem 1	Sem 2	Sem 1	Sem 2	Sem 1	Sem 2	Sem 1	Sem 2
MATH1073	. Major Required Courses (51 Units)									
COMPIGES Foundations of C Programming 3	MATH1053	Linear Algebra I	3							
MATH1063	MATH1073	Calculus I	3							
MATH1083	COMP1023	Foundations of C Programming								
COMP2003 Data Structures and Algorithms 3 3	MATH1063			3						
MATH2043	MATH1083			3						
MATH2033 Mathematical Analysis 3 3 5 5 5 5 5 5 5 5		<u> </u>								
STAT2063	MATH2043	<u> </u>								
MATH4083		2			<u> </u>					
DR4023	STAT2063				3					
STAT3083 Applied Statistics	MATH4083	ž								
MATH4093 Complex Analysis	OR4023	1								
MATH403 Mathematical Modelling						3				
MATH3033										
MATH4123	MATH4103						3			
MATH4123	MATH3033									
III. Major Elective Courses (15 Units)	MATH3163	Real Analysis						3	, ,	
MEOI MEO2 MEO3 MEO4 MEO5 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MATH4123	Final Year Project I (MATH)							3 ⁽³⁾	
	II. Major Elective (Courses (15 Units)								
University Chinese 3	ME01 ME02 ME03	ME04 ME05				3	3	3	3	3
DCLC1013	III. University Core	e Courses (37 Units)								
UCLC1013	UCLC1003	University Chinese	3	l	1					
DCLC1023		5								†
CHI1103				3						
CHII103		5				3				†
CHI1203		· · · · · · · · · · · · · · · · · · ·	3							†
CHI1063					3					
CHI1253 Contemporary Chinese Society and Thought II 3 2	CHI1063					3				
CHI1253 Contemporary Chinese Society and Thought II 3 2	CHI1073			3						
CHII193 Contemporary World and China MIlitary Training 2										
MT1003 Military Training 2	CHI1193					2				
WPEX1013 Emotional Intelligence WPEX2013 Experiential Arts® WPEX2023/ WPEX2033 Voluntary Service®, or Environmental Awareness® UCHLIXX3 Healthy Lifestyle® 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MT1003		2							
WPEX2013 Experiential Arts	WPEX1013			1						
WPEX2023/ WPEX2033 Voluntary Service®, or Environmental Awareness® UCHL1XX3 Healthy Lifestyle® 1 1 1 1 1 VV. General Education Courses (18 Units) Level 1 History and Civilization® Quantitative Reasoning® 3 Courses Values and the Meaning of Life® 3 Level 2 Interdisciplinary Thematic Courses Level 3 Service-Learning Course®, or Service Leadership GE Capstone Courses Course						1				†
WPEX2033 Voluntary Service®, or Environmental Awareness® 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1								
Course Healthy Lifestyle Description History and Civilization Quantitative Reasoning Augustian Courses Values and the Meaning of Life Culture, Creativity and Innovation Outside Courses Culture, Creativity and Innovation Outside Courses Culture, Creativity and Innovation Outside Courses Outside Course Outsi		Voluntary Service, or Environmental Awareness			1					
Course History and Civilization Augustitative Augustit	UCHL1XX3	Healthy Lifestyle [©]	1	1		1				
Level 1 Foundational Courses Values and the Meaning of Life® Level 2 Interdisciplinary Thematic Courses Level 3 Service-Learning Course®, or Service Leadership GE Capstone Courses Interdisciplinary Independent Study® V. Free Elective Courses (27 Units) FE01 FE02 FE03 FE04 FE05 FE06 FE07 FE08 FE09 History and Civilization® 3 Culture, Creativity and Innovation®, or Science, Technology and Innovation®, or Science, Technology and Society®, or Sustainable Communities® 3 3 3 4 5 6 7 8 8 8 8 8 8 8 8 8 8 8 8	IV. General Educat				•			•		
Foundational Courses Values and the Meaning of Life® Level 2 Interdisciplinary Thematic Courses Level 3 Service-Learning Course®, or Service Leadership GE Capstone Courses Interdisciplinary Independent Study® V. Free Elective Courses (27 Units) FE01 FE02 FE03 FE04 FE05 FE06 FE07 FE08 FE09 Quantitative Reasoning® 3 Quantitative Reasoning® 3 Culture, Creativity and Innovation®, or Science, Technology and Society®, or Sustainable Communities® 3 3 3 3 4 5 6 7 8 8 8 9 6 9 6 9		,		I	3	I		l	I	T
Courses Values and the Meaning of Life® 3 Level 2 Interdisciplinary Thematic Courses Level 3 Service-Learning Course®, or Service Leadership GE Capstone Courses Interdisciplinary Technology and Society®, or Sustainable Communities® GE Capstone Courses Interdisciplinary Independent Study® V. Free Elective Courses (27 Units) FE01 FE02 FE03 FE04 FE05 FE06 FE07 FE08 FE09 3 3 3 3 3 3 3 3 4 3 5 3 6 9 6 9			-		3					-
Level 2 Interdisciplinary Thematic Courses Level 3 Service-Learning Course®, or Service Leadership GE Capstone Courses Interdisciplinary Independent Study® V. Free Elective Courses (27 Units) FE01 FE02 FE03 FE04 FE05 FE06 FE07 FE08 FE09 Culture, Creativity and Innovation®, or Science, Technology and Society®, or Sustainable Communities® 3 3 3 3 3 3 4 3 5 5 6 7 8 8 8 8 8 8 8 8 8 8 8 8			3							ļ
Interdisciplinary Thematic Courses Technology and Society®, or Sustainable Communities® Level 3 Service-Learning Course®, or Service Leadership GE Capstone Courses Interdisciplinary Independent Study® V. Free Elective Courses (27 Units) FE01 FE02 FE03 FE04 FE05 FE06 FE07 FE08 FE09 Technology and Innovation®, or Science, Technology and Society®, or Sustainable Communities® 3 3 3 3 3 4 4 5 5 6 7 7 8 8 8 8 8 9 8 9 8 9 9 9 9 9 9 9 9 9		Values and the Meaning of Life	<u> </u>	3						
Interdisciplinary Thematic Courses Technology and Society®, or Sustainable Communities® Level 3 Service-Learning Course®, or Service Leadership GE Capstone Courses Interdisciplinary Independent Study® V. Free Elective Courses (27 Units) FE01 FE02 FE03 FE04 FE05 FE06 FE07 FE08 FE09 Technology and Society®, or Sustainable Communities® 3 3 3 3 3 3 3 4 5 5 6 6 9 6 9		Culture, Creativity and Innovation [©] , or Science.								
Level 3 Service-Learning Course®, or Service Leadership GE Capstone Education Course®, or Experiential Learning Course®, or Courses Interdisciplinary Independent Study® V. Free Elective Courses (27 Units) FE01 FE02 FE03 FE04 FE05 FE06 FE07 FE08 FE09 3 9 6 9							3	3		
GE Capstone Education Course®, or Experiential Learning Course®, or Interdisciplinary Independent Study® V. Free Elective Courses (27 Units) FE01 FE02 FE03 FE04 FE05 FE06 FE07 FE08 FE09 3 9 6 9	Thematic Courses									
Courses Interdisciplinary Independent Study [©] V. Free Elective Courses (27 Units) FE01 FE02 FE03 FE04 FE05 FE06 FE07 FE08 FE09 3 9 6 9	Level 3	Service-Learning Course [®] , or Service Leadership	1							
Courses Interdisciplinary Independent Study [©] V. Free Elective Courses (27 Units) FE01 FE02 FE03 FE04 FE05 FE06 FE07 FE08 FE09 3 9 6 9	GE Capstone	Education Course [©] , or Experiential Learning Course [©] or	1							3
Interdisciplinary independent Study	Courses		1							-
FE01 FE02 FE03 FE04 FE05 FE06 FE07 FE08 FE09 3 9 6 9					<u> </u>	<u> </u>			<u> </u>	
					2		0	6	0	
Total Units: 148 21 23 22 21 18 15 6	1201112021120311			-						 _
		Total Units: 148	21	23	22	22	21	18	15	6

^① This 2-unit course requires student to attend at least 10 lectures within his/her first two years of study.

^② This denotes a course category in which a list of courses may be developed for students' selection. Students are expected to refer to the Online Course Selection System for courses available under each category.

³ Students who continue with the final year project in the second semester of Year 4 should register MATH4163 Final Year Project II (MATH) as a major elective during the Online Course Selection (or Course Add/Drop) period.

⁴ Students are required to take GFVM1033 Ethics in An Era of Artificial Intelligence and Robotics or GFVM1043 Ethics in Daily Life and Life Sciences under this category.

ME Course List of AM (2023 cohort)

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Course Code	Course Title	Units
BIOL2003	General Biology	3
DS4023	Machine Learning	3
FINM3013	Introduction to Financial Derivatives	3
FINM3113	Financial Engineering Workshop	3
FINM3123	Introduction to Econometrics	3
FINM3133	Time Series for Finance and Macroeconomics	3
FINM3143	Financial Mathematics	3
MATH3013	Discrete Mathematics	3
MATH3143	Differential Geometry	3
MATH3173	Applied Stochastic Process	3
MATH4003	Graph Theory	3
MATH4033	Computational Finance	3
MATH4113	Selected Topics in Applied Analysis	3
MATH4143	Functional Analysis	3
MATH4153	Numerical Methods for Differential Equations	3
MATH4163	Final Year Project II (MATH)#	3
OR3013	Linear Programming and Integer Programming	3
OR3023	Simulation	3
PHYS2003	Principles of Physics	3
STAT4013	Multivariate Analysis	3
STAT4073	Data Mining	3

[#] Students who continue with the final year project in the second semester of Year 4 should, with the approval of the Programme, register MATH4163 Final Year Project II (MATH) as a major elective in that semester.