

4-YEAR CURRICULAR MAP
Bachelor of Science in Mathematics – Applied Mathematics, Modeling, & Optimization

FALL	YEAR 1		SPRING
‡UK Core CC1	3	UK Core CC2	3
⌘Foreign language 101	4	⌘Foreign language 102	4
^UK Core QFO (MA113: Calculus I <u>AND</u> MA 193: Supp. Workshop I)	5	^MA 114: Calculus II <u>AND</u> MA 194: Supp. Math Workshop II	5
UK Core HUM	3	^CS 115: Introduction to Computer Programming	3
	Total Credits: 15		Total Credits: 15
FALL	YEAR 2		SPRING
⌘Foreign language 201	3	⌘Foreign language 202	3
^UK Core NPM (PHY 231: General Univ. Physics I recommended)	4	^MA 320: Introductory Probability	3
^UK Core NPM (PHY 241: General Univ. Physics Lab recommended)	1	^MA 322: Matrix Algebra	3
^MA 213: Calculus III	4	^A&S NS (PHY 232: General Univ. Physics II recommended)	4
^UK Core SIR (STA 210 or STA 296)	3	^A&S Lab (PHY 242: General Univ. Physics Lab II recommended)	1
	Total Credits: 15		Total Credits: 14
FALL	YEAR 3		SPRING
^*Math Track Guided Elective 1 of 4	3	^*Math Track Guided Elective 2 of 4	3
A&S HUM	3	^✓Math Elective 1 of 2	3
UK Core SSC	3	A&S SS (ECO 201: Principles of Economics I recommended)	3
UK Core ACR	3	UK Core CCC	3
^Elective (CS 215 recommended)	4	UK Core GDY	3
	Total Credits: 16		Total Credits: 15
FALL	YEAR 4		SPRING
^*Math Track Guided Elective 3 of 4	3	^*Math Track Guided Elective 4 of 4	3
^MA 391 GCCR	3	^✓Math Elective 2 of 2	3
Elective	3	Elective	3
Elective	3	Elective	3
◇ Elective	3	◇ Elective	3
	Total Credits: 15		Total Credits: 15

- ‡ Incoming students are strongly encouraged to take WRD 112 to fulfill the CC1 and CC2 requirements if they have any of the following: an ACT English score of 32 or Higher, an SAT Verbal score of 720 or Higher, or an AP English Composition score of 4 or 5. If the Student has been accepted into the University Honors Program, the Student is required to take WRD 112 to fulfill CC1 and CC2.
- ⌘ Students who have taken at least 2 years of a language in high school can complete the A&S Foreign Language Requirement with 3 college semesters of a different language. Students choosing this option should replace the 4th semester of language with electives. Also note that if you take a foreign language placement exam, you may be exempt from 1 or more of the beginning semesters of that language. In this case, replace the by-passed language courses with electives. Any language sequence may be used to satisfy the foreign language requirements.
- ^ Complete at least 60 credit hours in the physical, biological and/or mathematical sciences.
- * Complete four track guided electives from: MA 327, MA 337, MA 340, MA 415G, MA 416G, and MA 432G.
- ✓ Complete an additional 6 credit hours of MA credit above MA 213, excluding MA 241, MA 308, MA 322 and MA 391. Of these 6 credit hours, a maximum of 3 hours can be independent work in mathematics (MA 395).
- ◇ 6 hours of 'free' electives - that do not count toward any other requirement - must be taken. Additional electives may be required to reach the required minimum of 120 hours.
- Many People, One Community: The college of Arts & Sciences requires its students to complete an approved course related to Many People, One Community. Students may double-dip courses to satisfy the MPOC requirement with any other requirement, e.g. UK Core, college requirements (except the A&S Electives), or major requirements.

UK Core Abbreviations	
HUM =Intellectual Inquiry in the Humanities	CC2= Composition and Communication II
NPM=Intellectual Inquiry in the Natural/Physical/Mathematical Science	QFO= Quantitative Foundations
SSC=Intellectual Inquiry in Social Sciences	SIR= Statistical Inferential Reasoning
ACR=Intellectual Inquiry in Arts & Creativity	CCC= Community, Culture and Citizenship in U.S.
CC1= Composition and Communication I	GDY= Global Dynamics
	GCCR= Graduation Composition and Communication
College of Arts & Sciences Abbreviations	
SS: Social Sciences	NS: Natural Sciences
Lab: College Laboratory or Field Experience	HUM: Humanities