Department of Mathematics
Bachelor of Science in Mathematics (Applied Mathematics)
Major Code: MATH
Concentration Code: AMTH
Effective Date: 2019-2020 Academic Year

Curriculum Guide

Course	CR	Course	CR
Freshman Year: First Semester		**Freshman Year: Second Semester**	
MATH 131: Calculus I *(MLAR)*	4	MATH 132: Calculus II *(MLAR)*	4
MATH 105: Ori for Fr and New Math Major	1	Foreign Language[1]/Elective	3
ENGL 100: Ideas and Their Expressions I *(WC)*	3	ENGL 101: Ideas and Their Expressions II *(WC)*	3
Foreign Language[1]/Elective	3	MATH 140[3]: Fund of Sci Prog Python	3
Global Awareness[2] *(GA)*	3	MATH 106: Intro Math Reason Prob Solv	1
FRST 101: College Success *(SS)*	1	African American History and Culture[4] *(AA)*	3
Semester Total	**15**	**Semester Total**	**17**
Sophomore Year: First Semester		**Sophomore Year: Second Semester**	
MATH 231: Calculus III	4	MATH 211: Mathematical Logic & Proof Tec	4
SPCH 250: Speech Fundamentals *(HFA)*	3	PHYS 242: General Physics II *(SR)*	3
MATH 240: Intro to Sci Pro for Math Major	3	PHYS 252: General Physics II Lab *(SR)*	1
PHYS 241: General Physics I *(SR)*	3	Social/Behavioral Sciences[5] *(SBS)*	3
PHYS 251: General Physics I Lab *(SR)*	1	MATH 224: Intro Probability & Statistics	3
MATH 215: Intro to Math Lit and Re Tools	1		
Semester Total	**15**	**Semester Total**	**14**
Junior Year: First Semester		**Junior Year: Second Semester**	
MATH 320: History of Mathematics	3	MATH 341: Intro Differential Equations	3
MATH 351: Linear Algebra & Matrix Theory	3	MATH 340: Numerical Methods **or** MATH 365: Introduction to Data Science	3
MATH 377: Intermediate Analysis I	3	Applications Area Electives[6]	3
Applications Area Electives[6]	3	STAT 324: Stat Methods for Data Analysis	3
Ethical Reasoning Elective[7]	3	Elective	3
Semester Total	**15**	**Semester Total**	**15**
Senior Year: First Semester		**Senior Year: Second Semester**	
MATH 432: Intro to Applied Mathematics	3	MATH 496: Capstone Experience in Math	3
Applications Area Electives[6]	3	Applications Area Electives[6]	3
Applications Area Electives[6]	3	Electives	8
Electives	6		
Semester Total	**15**	**Semester Total**	**14**

Total Credit Hours: 120

[1] Two courses of FREN 101, FREN 102; **or** GERM 101, GERM 102; **or** SPAN 101, SPAN 102; **or** RUSS 101, RUSS102 taken in sequence.
[2] One course from: HIST 130, 207, 216 or 231, or PHIL 103 or 201.

[3] For students starting in Math 103, Math 104, or Math 110, the programming courses should be replaced with electives in the first year. Then **MATH 140** and MATH 240 should be taken prior to MATH 340/365. See the Mathematics Student Handbook for a sample program guide.
[4] One course from: HIST 103, 106 or 107, or LIBS 202, or MUSI 220.
[5] One course from: BUED 279, ECON 200 or 201, HIST 104 or 105, POLI 110, PSYC 101, or SOCI 100 or 200
[6] Must include a total of 15 credit hours taken in one of the applications areas, including but not limited to: Applied and Computational Mathematics, Statistics, Physical Sciences, Engineering and Applied Sciences, Life Sciences, or Business and Economics, and approved by the Applied Mathematics Undergraduate Program Committee. A list of suggested core courses for each of the applications areas is available from the Department of Mathematics.
[7] One course from: PHIL 104, 201, 263, 316, 317, or 320

MAJOR PROGRAM REQUIREMENTS

A student must earn a C or better grade except one passing grade below C if the student has GPA of at least 2.0 but less than 2.3, or two passing grades below C if the student has GPA of at least 2.3 in the following courses:

Course	Course
MATH 105	MATH 340/365
MATH 106	MATH 341
MATH 131	MATH 432
MATH 132	MATH 340
MATH 140	MATH 351
MATH 215	MATH 377
MATH 211	MATH 496
MATH 224	STAT 324
MATH 231	Applications Area Electives (5)
MATH 240	