Mathematics - Applied Mathematics (B.S.)

The specific mission of the major in Mathematics is to produce a well-trained mathematician capable of both research and teaching in general. In particular a Howard University-trained mathematician must be comfortable when employed as an actuarial scientist, a computer scientist and/or a mathematician/researcher in schools, government, or industry.

Freshman Year - First Semester

Item #	Title	Credits
MATH 156	Calculus I	4
ENGW 101	Rhetoric, Inquiry, and Critical Writing	3
	Physical Education (Active)	1
	Humanities Course	3
FRSM 001	Freshman Seminar	1
CSCI 100	Intro to Computer Science	3
	Sub-Total Credits	**15**

Freshman Year - Second Semester

Item #	Title	Credits
MATH 157	Calculus II	4
MATH 101	Proof and Problem Seminar I	1
	ENGW 103/105	3
SLMC 101	Principles of Speech	3
CSCI 135	Computer Science I	4
	Sub-Total Credits	**15**

Sophomore Year - First Semester

Item #	Title	Credits
MATH 158	Calculus III	4
MATH 102	Proof & Prob Seminar II	1
MATH 795	Intro Anal I-Wrtg	3
	World Language and Culture Requirement (Options: See Elective Group Descriptions)	3
	Humanities Course	3
	Sub-Total Credits	**14**

Sophomore Year - Second Semester

Item #	Title	Credits
MATH 159	Differential Equations	4
MATH 180	Intro to Linear Algebra	3
	Philosophy Elective * (Options: Courses under Code PHIL 051, 053, 055, 057 and 059)	3
	Physical Education (Active)	1
	World Language and Culture Requirement (Options: See Elective Group Descriptions)	3
	Sub-Total Credits	**14**

Junior Year - First Semester

Item #	Title	Credits
MATH 189	Probability & Statistics I	3
	Social Sciences Course	3
	World Language and Culture Requirement (Options: See Elective Group Descriptions)	3
	General Elective (Options: To be determined in consultation with advisor) (3)	3
	General Elective (Options: To be determined in consultation with advisor) (3)	3
	Sub-Total Credits	**15**

Junior Year - Second Semester

Item #	Title	Credits
MATH 164	Numerical Analysis	3
	Specialization Course (3)	3
	Social Science Elective	3
	General Elective (Options: To be determined in consultation with advisor) (3)	3
	World Language and Culture Requirement (Options: See Elective Group Descriptions)	3
	Sub-Total Credits	**15**

Senior Year - First Semester

Item #	Title	Credits
	Specialization Course (4)	4
	Specialization Course (3)	3
	Specialization Course (3)	3
	Math Elective (Options: Courses under code MATH) (3)	3
	Social Science Elective	3
	Sub-Total Credits	**16**

Senior Year - Second Semester

Item #	Title	Credits
	Math Elective (Options: Courses under code MATH) (3)	3
	Social Science Elective	3
	Specialization Course (3)	3
	General Elective (Options: To be determined in consultation with advisor) (3)	3
	General Elective (Options: To be determined in consultation with advisor) (3)	3
	Physical Education (Active)	1
	Sub-Total Credits	**16**
	Total credits:	**120**

Category Descriptions

Physical Education (Active)

Humanities Course

ENGW 103/105

World Language and Culture Requirement (Options: See Elective Group Descriptions)

	Foreign Language - Amharic*	3
	Foreign Language - Arabic*	3
	Foreign Language - Chinese*	3
	Foreign Language - French*	3
	Foreign Language - German	3
	Foreign Language - Haitian Creole* (Options: Courses under code HACR)	3
	Foreign Language - Spanish*	3
	Foreign Language - Swahili*	3
	Foreign Language - Wolof*	3

Philosophy Elective * (Options: Courses under Code PHIL 051, 053, 055, 057 and 059)

PHIL 051	Principles of Reasoning	3
PHIL 055/057	Intro to Philosophy	3
PHIL 057	Intro to Ethics (Honors)	3

Social Sciences Course

General Elective (Options: To be determined in consultation with advisor) (3)

Specialization Course (3)

Social Science Elective

Specialization Course (4)

Math Elective (Options: Courses under code MATH) (3)