

# Mathematics – Pre-Med/Pre- Dental Concentration (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 101/102/104	3
BIOL 101	General Biology Lec/Lab	4
CHEM 005	Gen Chem Lab I	1
FRSM 001	Freshman Seminar	1
CHEM 003	Gen Chemistry I	4
	<b>Sub-Total Credits</b>	<b>17</b>

## Freshman Year Second Semester

Item #	Title	Credits
MATH 157	Calculus II	4
MATH 101	Proof and Problem Seminar I	1
	ENGW 102/104	3
BIOL 102	General Biology Lec/ Lab	4
CHEM 004	Gen Chemistry II	4
CHEM 006	General Chem Lab II	1
	<b>Sub-Total Credits</b>	<b>17</b>

## Sophomore Year First Semester

Item #	Title	Credits
MATH 158	Calculus III	4
MATH 102	Proof & Prob Seminar II	1
	World Language and Culture Requirement (Options: See Elective 3 Group Descriptions)	3
CHEM 141	Organic Chemistry I (Lecture)	3
	Philosophy Elective * (Options: Courses under Code PHIL 051, 053, 055, 057 and 059)	3
	HHPL Requirement	1
	<b>Sub-Total Credits</b>	<b>15</b>

## Sophomore Year Second Semester

Item #	Title	Credits
MATH 159	Differential Equations	4
CHEM 142	Organic Chemistry II	3
CHEM 145	Organic Chem Lab	3
	World Language and Culture Requirement (Options: See Elective 3 Group Descriptions)	3
	HHPL Requirement	1
	<b>Sub-Total Credits</b>	<b>14</b>

## Junior Year First Semester

Item #	Title	Credits
PHYS 001	General Physics Lec-Rec-Lab I	5
	World Language and Culture Requirement (Options: See Elective 3 Group Descriptions)	3
MATH 795	Intro Anal I-Wrtg	3
CHEM 151	Biochemistry I	3
	<b>Sub-Total Credits</b>	<b>14</b>

## Junior Year Second Semester

Item #	Title	Credits
MATH 180	Intro to Linear Algebra	3
MATH 164	Numerical Analysis	3
PHYS 002	General Physics Lec-Rec-Lab II	5
	World Language and Culture Requirement (Options: See Elective 3 Group Descriptions)	3
CHEM 152	Biochemistry II	3
	<b>Sub-Total Credits</b>	<b>17</b>

## Senior Year First Semester

Item #	Title	Credits
MATH 189	Probability & Statistics I	3
MATH 160	Adv Calculus for Sci & Eng	3
	Social Science Elective	3
	General Electives (Options: To be determined in consultation with advisor) (4)	4
	Physical Education (Active)	1
	<b>Sub-Total Credits</b>	<b>14</b>

## Senior Year Second Semester

Item #	Title	Credits
MATH 190	Probability & Statistics II	3
	Social Sciences Course	3
	Humanities (Options: see Elective Group Descriptions)	3
SLMC 101	Principles of Speech	3
	<b>Sub-Total Credits</b>	<b>12</b>
	<b>Total credits:</b>	<b>120</b>

## Category Descriptions

### ENGW 101/102/104

Choose between ENGW 101, ENGW 102, OR ENGW 104

### ENGW 102/104

ENGW: Placement based on ACTE/SATW scores used by the English department.

### 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

## HHPL Requirement

## Social Science Elective

## General Electives (Options: To be determined in consultation with advisor) (4)

### Physical Education (Active)

### Social Sciences Course

## Humanities (Options: see Elective Group Descriptions)

CLAS 014	Honors Humanities I	3
CLAS 015	Humanities II	3
ENGL 014	Intro to Humanities I	3
ENGL 015	Humanities II	3
SPAN 014	Introduction to Humanities	3
SPAN 100	Hispanic Lit in English	3
SPAN 015	Intro to Humanities II	3
GERM 015	Intro to Humanities II	3
FREN 015	Intro to Humanities II	3
CLAS 016	Ideas in Antiquity	3
CLAS 101	Greek Literature in English	3
CLAS 102	Roman Literature in English	3
CLAS 103	Classical Art	3
CLAS 108	Greek Drama in English	3
CLAS 109	Classical Mythology	3
CLAS 111	Satire and Comedy	3
CLAS 113	Women in the Ancient World	3
CLAS 114	Love in Antiquity	3
ENGL 054	Afro-American Lit to 1940	3
ENGL 055	Afro-American Lit From 1940	3
ENGL 056	Introduction to Caribbean Lit	3
HUMA 107	Women in Literature	3
GERM 100	Individual & Society	3
GERM 101	Literature of Love	3
GERM 111	Classic Films in English	3
RUSS 100	Russian Great Short Stories	3
RUSS 101	Literature of Revolution	3
RUSS 103	Love & Hate in Russia	3
FREN 106	African Films	3
MUSC 100	Introduction to Music	3
ARTH 161	Art Appreciation	3
THFD 010	Intro to the Theatre	3