



**BACHELOR OF SCIENCE IN MATHEMATICS
(138 units)**

Approved: 149th UPD UC (19 June 2018)

FIRST YEAR			
1st Semester 19 units		2nd Semester 16 units	
GE 1 : Philo 1	3	GE 4 : Eng 13	3
GE 2 : Fil 40	3	Math 22	4
GE 3 : KAS 1	3	Math 108	4
Math 21*	4	Physics 71	4
CS 11	3	Physics 71.1	1
Stat 101	3	P.E.	(2)
P.E.	(2)		

SECOND YEAR			
1st Semester 17 units		2nd Semester 18 units	
GE 5 : ARTS 1	3	GE 6 : Speech 30	3
Math 23	4	GE 7 : Soc Sci 1 / Soc Sci 2	3
Math 110.1	3	Math 110.2	3
Math 140	3	Math 122	3
Physics 72	4	Math 123.1	3
P.E.	(2)	Math 117	3
NSTP	(3)	P.E.	(2)
		NSTP	(3)

THIRD YEAR			
1st Semester 18 units		2nd Semester 17 units	
GE 8 : STS 1	3	GE 9 : GE Course in S&T ⁶	3
Math 110.3	3	Math 128	3
Math 123.2	3	Math 150.2	3
Math 150.1	3	Math 171	3
Math Elective ⁴	3	Math 190	2
Elective ³	3	Elective ³	3

FOURTH YEAR			
1st Semester 18 units		2nd Semester 15 units	
Math 133	3	GE 10 : GE Course ⁶	3
Math 142	3	Math Elective ⁴	3
Math 200 ⁵	3	Math Elective ⁴	3
Geometry Elective ²	3	Foreign Language II ¹	3
PI 100	3	Elective ³	3
Foreign Language I ¹	3		

¹ Six (6) units of the same Foreign Language course except English

² Math 146 or Math 147 or Math 148

³ To be approved by adviser; MATH 10 may be taken as a free elective provided it is taken during the first year

⁴ Any Math elective (upon approval by adviser) including Math 146, Math 147 and Math 148

⁵ Math 200 requires oral presentation and submission of bound copies and softcopy of the thesis manuscript

⁶ Any GE course except MATH 10 or Math 2

* All students required to take Math 21 must have passed any of the following: (1) High School Basic Calculus from the STEM or equivalent strand of K-12; (2) the Validation Examination for Math 20 (Pre-Calculus: Functions and their Graphs) administered by the UPD Institute of Mathematics; or (3) Math 20 as a non-credit course.

Note: As a requirement for graduation, all students must take six (6) units in one of the following National Service Training Program (NSTP) components: Civic Welfare Training Service (CWTS), Literacy Training Service (LTS), and Reserved Officer's Training Corps Military Science (ROTC Mil Sci). These are offered by UPD.

The University regularly reviews course curricula and may revise them. Students admitted into this program shall follow the existing curriculum until such time that a new curriculum replacing it has been duly approved for implementation. All courses prescribed and taken under this existing curriculum shall be credited under the new curriculum.

MATH CORE COURSES

Course No.	Course Title	Prerequisite(s)
Math 21	Elementary Analysis I	HS Basic Calculus or Math 20/equiv
Math 22	Elementary Analysis II	Math 21/equiv
Math 23	Elementary Analysis III	Math 22/equiv
Math 108	Foundations of Abstract Mathematics	Math 21/equiv or COI
Math 110.1	Abstract Algebra I	Math 108/equiv or COI
Math 110.2	Abstract Algebra II	Math 110.1
Math 110.3	Abstract Algebra III	Math 110.1
Math 117	Elementary Theory of Numbers	Math 108/equiv or COI
Math 122	Differential Equations and Applications	Math 22/equiv or Math 30/equiv
Math 123.1	Advanced Calculus I	Math 23/equiv and Math 108/equiv or COI
Math 123.2	Advanced Calculus II	Math 123.1
Math 128	Complex Analysis	Math 123.1/equiv
Math 133	Introduction to Mathematical Modeling	Math 122/equiv and CS11/equiv
Math 142	Elementary Topology	Math 123.1 or COI
Math 140	Modern Geometry	Math 108/equiv or COI
Math 150.1	Mathematical Statistics I	Math 23/equiv and Stat 101/equiv
Math 150.2	Mathematical Statistics II	Math 150.1
Math 171	Introduction to Numerical Analysis	Math 122/equiv and Math 110.2/equiv
Math 190	Introduction to Mathematical Research and Writing	(Junior Standing)
Math 200	Undergraduate Thesis	(Senior Standing)

MATH ELECTIVES

Course No.	Course Title	Prerequisite(s)
Math 126	Real Analysis	Math 123.1
Math 146	Introduction to Differential Geometry	Math 23/equiv and Math 140/equiv or COI
Math 147	Introduction to Algebraic Geometry	Math 140 and Math 110.1
Math 148	Introduction to Projective Geometry	Math 140 and Math 110.1
Math 158	Introduction to Discrete Mathematics	Math 108/equiv or COI
Math 162	Theory of Interest	Math 22/equiv or Math 30/equiv
Math 164	Mathematics of Life Contingencies	Math 150.1 and Math 162/equiv
Math 166	Mathematics of Finance	Math 162
Math 180.1	Operations Research I	Math 40/equiv
Math 180.2	Operations Research II	Math 180.1
Math 197	Special Topics (topic has to be specified)	(may be taken three times)