UNIVERSITY OF THE PHILIPPINES MINDANAO

BACHELOR OF SCIENCE IN APPLIED MATHEMATICS Curriculum (2018)

First Year First Semester

Course	Subject	Units	Pre-requisites
AMAT 19	Finite Mathematics	3	
MATH 17	Algebra and Trigonometry	5	
GE1 - ETHICS 1	Ethics and Moral Reasoning in Everyday Life	3	
GE2 - ARTS 1	Critical Perspectives in the Arts	3	
GE3 - KAS 1	Kasaysayan ng Pilipinas	3	
PE 1	Foundation of Physical Education	(2)	
NSTP 1	National Service Training Program I	(3)	
		17	

First Year Second Semester

Course	Subject	Units	Pre-requisites
MATH 36	Mathematical Analysis I	5	MATH 11 & MATH 14 or MATH 17
STAT 1	Elementary Statistics	3	MATH 11 or MATH 17
AMAT 152	Computer Programming I	3	
GE3 - MATH 10	Math, Culture and Society	3	
GE4 - MIN STUD 1	Mindanao Studies 1	3	
GE 7			
PE 2/3		(2)	
NSTP 2	National Service Training Program II	(3)	
		17	

Second Year First Sem

Course	Subject	Units	Pre-requisites
AMAT 153	Data Structures and Applications	3	AMAT 19 or CMSC 57 and AMAT 152 or CMSC 11
MATH 37	Mathematical Analysis II	5	MATH 36
AMAT 131	Statistical Methods and Expiremental Design	3	STAT 1
PHYS 71	Elementary Physics I	3	MATH 11 & MATH 14 / MATH 17
GE 8		3	
GE 9		3	
PE 2/3/4		(2)	
		20	

Second Year Second Semester

Course	Subject	Units	Pre-requisites
AMAT 110	Mathematical Modeling	3	MATH 37, STAT 1
MATH 38	Mathematical Analysis III	3	MATH 37
MATH 101	Logic and Set Theory	3	MATH 37
AMAT 132	Introductory Forecasting	3	AMAT 131
GE6- STS1	Science Technology and Society	3	
GE 10		3	
PE 2/3/4		(2)	
		18	

Third Year First Semester

Course	Subject	Units	Pre-requisites
MATH 120	Linear Algebra	3	MATH 38
MATH 151	Ordinary Differential Equations	3	MATH 28 or MATH 38
MATH 176	Numerical Analysis I	3	MATH 38 & AMAT 152
MATH 181	Introduction to Probability Theory	3	MATH 28 or MATH 38
AMAT 192	Geospatial Tools and Their Applications I	3	COI
ELECTIVE		3	
		18	

Third Year Second Semester

Course	Subject	Units	Pre-requisites
AMAT 160	Linear Programming	3	MATH 120
AMAT 161	Nonlinear Programming	3	MATH 120
AMAT 167	Mathematical Models in Operations Research I	3	MATH 181
AMAT 168	Mathematical Models in Operations Research II	3	AMAT 110 & MATH 120
AMAT 193	Geospatial Tools and Their Applications Ii	3	AMAT 192
AMAT 200a	Undergraduate Thesis	2	Junior Standing
NSM 192	Scientific Research Process	3	STAT 1 and Junior Standing
		20	

Third Year Summer

Course	Subject	Units	Pre-requisites
AMAT 198	Practicum	3	COI

Fourth Year First Semester

Course	Subject	Units	Pre-requisites
MATH 141	Introductory Combinatorics	3	MATH 38 and MATH 101
MATH 177	Numerical Analysis II	3	MATH 176
AMAT 115	Introduction to Decision Theory	3	MATH 181
AMAT 162	Integer and Dynamic Programming	3	AMAT 160
AMAT 200b	Undergraduate Thesis	2	
ELECTIVE		3	
		17	

Fourth Year Second Semester

Course	Subject	Units	Pre-requisites
MATH 111	Abstract Algebra	3	MATH 38 & MATH 101
MATH 155	Advanced Calculus I	3	MATH 38 and MATH 101
AMAT 200c	Undergraduate Thesis	2	
AMAT 199	Undergraduate Seminar	1	COI
PI 100	Life and Works of Rizal	3	Junior Standing
ELECTIVE		3	
		15	

Total Units: 149

Required GE: STS 1, MinStud 1, MATH 10, KAS 1, ARTS 1, ETHICS 1,

Free Electives (9 units) any 3-unit courses offered by the University provided approved by the Adviser.

Junior Standing = earned total of 76 units

Required Electives and its Prerequisites

AMAT 191

Other Electives and its Prerequisites offered by the Department:

AMAT 130	MATH 26, BIO 1 & BIO 2
AMAT 191	COI
MATH 143	MATH 101 or CMSC 55
MATH 152	MATH 151
MATH 182	MATH 181 or STAT 143
STAT 151	MATH 120 & STAT 101 / STAT 135

Retention Policy:

1. Based on existing UP Code, and in addition
2. Student is required to shift or transfer if any of the following is incurred:
   a. failed twice in any of the following: MATH 17, MATH 36, MATH 37, MATH 38;
   b. failed once in all of the following: MATH 17, MATH 36, MATH 37;
   c. failed once in all of the following: MATH 17, MATH 36, MATH 38;
   d. failed once in all of the following: MATH 17, MATH 37, MATH 38;
   e. failed once in all of the following: MATH36, MATH 37, MATH 38.

CONFORME: _____

Signature over printed name