

B. S. in Mathematics

The program prepares students with a strong background to progress into career in actuarial sciences, biostatistics, and computational science, in the financial industry or federal agencies. The graduates can also enter graduate school for further studies in mathematics, applied mathematics, or other math intensive disciplines like physics and engineering.

MATHEMATICS CURRICULUM WORKSHEET

Natural and Applied Sciences Department
Bachelor of Science Degree
2011-2014 AY

NAME:				ADVISOR:						
EMAIL:				ENTERED:						
PHONE:				ANT. GRADUATION:						
				DATE LAST UPDATED:						
GENERAL EDUCATION				MAJOR COURSES						
COURSE NUMBER	COURSE NAME	CR	Sem	Grade	COURSE NUMBER	COURSE NAME	Cr	sem	Grade	
I. CORE REQUIREMENTS				REQUIRED MAJOR COURSES (32 credits)						
Essential Skills (15 Credits)				MAT270 Calculus II				4		
HEN112	English I	3			MAT301	Calculus III (Upper)- +	4			
HEN113	English II	3			MAT202	Discrete Math	3			
HEN114	Speech	3			MAT313	Linear Algebra I (Upper)++	3			
EDU110	Intro to Interpretation & Analysis	3			MAT321	Differential Equations (Upper)- +	3			
HPH110	Critical Thinking	3			MAT325	Probability and Statistics I (Upper)*	3			
					MAT352	Introduction to Abstract Algebra (Upper)+	3			
	Mathematics (4 credits)				MAT335	Elementary Number Theory (Upper)- +	3			
MAT160	Calculus I	4			MAT355	Statistics II (Upper)- +	3			
					MAT401	Intro to Real Analysis (Upper)++	3			
African American Experience (3 credits)										
AAS210	A-A Experience In a Global Context	3			ADVANCED MATH ELECTIVES (9 credits)					
					MAT403	Linear Algebra II (Upper)*	3			
	Freshmen Experience (2 credits)				MAT331	Numerical Analysis (Upper)- +	3			
GAG101	Freshmen Seminar I	1			MAT362	Modern Geometry (Upper)- +	3			
GAC102	Freshman Seminar II	1			MAT411	Intro to Complex Variables (Upper)- +	3			
Note: All Core requirements must be completed before a student is considered a Junior				MAT451				3		
					MAT360	History of Mathematics (Upper)- +	3			
II. DISTRIBUTION REQUIREMENTS (Can Not Be Major Courses)				MAT361				3		
	Humanities (6 credits)				MAT499	Independent Study Math (Upper)- +	3			
	Humanities Elective I	3			Total Required Major Credits				41	
	Humanities Elective II	3								
Satisfactory courses include Literature, Language, theater, music, art and Philosophy				REQUIRED PROGRAMMING COURSES (6 Credits)						
	Foreign Language (6 credits)				CIS101	Computer Programming I	3			
	Foreign Language I	3			CIS102	Computer Programming II	3			
	Foreign Language II	3			Total Required Major Related Credits				6	
Must be in the same language										
	Social Sciences (6 credits)				FREE ELECTIVES (19 credits)					
	Social Science Elective I	3				Free Elective 1	3			
	Social Science Elective II	3				Free Elective 2	3			
Courses include Anthropology, economics, geography, history, political science & sociology										
	Natural Science (8 credits)"					Free Elective 3 (Can be a 1, 2 or 3 cr.)	2			
SPY315	Physics I (Calculus Based)	4				Free Elective 1	3			
SPY316	Physics II (Calculus Based)	4				Free Elective 2 (Upper)- +	3			
Satisfactory courses include biology, chemistry, physics, earth or space science.										
	Health & Wellness (4 credits)					Free Elective 3 (Upper)- +	3			
REC111	Health & Wellness	2				Free Elective 4 (Upper)*	2			
REC	Physical Education	1			Total Free Electives Credits				19	
REC	Physical Education	1								
Total Credits In General Education		54			TOTAL CREDITS FOR GRADUATION		120			
III. INTENSIVE COURSES				CR	Sem	Grade	DEVELOPMENTAL REMEDIAL COURSES+++:			
	Writing Course (W)						ERE 001	Reading Study Skills+++		

Writing Course (W)				HEN011 Elements of Writing			
Writing Course (W)				(MAT001,002)+++			
Global Course (G)							
A-A Heritage Course (A)							
Information Literacy Course (I)							

1. A minimum of 2.0 overall cumulative GPA and a minimum of 120 credits
2. all Major Courses must be completed with a "C" or higher

SEMESTER-BY-SEMESTER CURRICULUM GUIDE		
BACHELOR OF SCIENCE IN MATHEMATICS		
NATURAL AND APPLIED SCIENCES DEPARTMENT		
CHEYNEY UNIVERSITY OF PA AY 2013-2014		

COURSE	CR	COURSE
FIRST YEAR FALL		
HEN 112 ENGLISH I	3	HEN 113 ENGLISH II
MAT 160 CALCULUS I	4	MAT 270 CALCULUS II
EDU 110 INTERP & ANALYSIS	3	MAT 202 DISCRETE MATH
GAC 101 FRESHMAN SEMINAR	1	GAC 102 FRESHMAN SEMINAR II
REC PHYSICAL ACTIVITY	1	REC 111 HEALTH & WELLNESS
HUMANITIES ELECTIVE I	3	HUMANITIES ELECTIVE II
TOTAL	15	TOTAL
SOPHOMORE FALL		
HPH 110 CRITICAL THINKING	3	HEN 114 SPEECH
FOREIGN LANGUAGE I	3	FOREIGN LANGUAGE II
REC PHYSICAL ACTIVITY	1	AAS 210 AA EXP IN GLOBAL
MAT 301 CALCULUS III *	4	MAT 313 LINEAR ALGEBRA*
SPY315 (CALC) PHYSICS I *	4	SPY316 (CALC) PHYSICS II *
TOTAL	15	TOTAL
JUNIOR FALL		
SOCIAL SCIENCE ELECTIVE I	3	SOCIAL SCIENCE ELECTIVE II
MAT321 DIFF EQUATIONS*	3	MAT355 STAT II*
MAT325 PROB & STAT*	3	MAT335 ELEM NUM THY*
CIS101 COMP PROG I	3	CIS102 COMP PROG II
MAT352 ABSTRACT ALG*	3	ADV MATH ELECTIVE I*
TOTAL	15	TOTAL
SENIOR FALL		
ADV MATH ELECTIVE II*	3	ADV MATH ELECTIVE III*
MAT401 INT TO REAL ANA*	3	FREE ELECTIVE IV
FREE ELECTIVE I	3	FREE ELECTICE V
FREE ELECTIVE II	3	FREE ELECTICE VI
FREE ELECTICE III	3	FREE ELECTICE VII
TOTAL	15	TOTAL

* refers to upper level courses, usually 300 or 400 level courses. A Total of 42 out of the 120 credit hours have to be at upper level.

- GRADUATION REQUIREMENTS:** 1. A MINIMUM OF 2.0 GRADE POINT AVERAGE AND A MINIMUM OF 120 CREDIT HOURS EXCLUDING ANY DEVELOPMENTAL COURSES (ERE001, HEN011, MAT001, 002, 104, 105, 106, 111, 150) ARE REQUIRED FOR GRADUATION.
2. ALL MAJOR COURSES HAVE TO BE "C" OR BETTER.

