

# MATHEMATICS CURRICULUM WORKSHEET 2015-2016 AY

## Bachelor of Science Degree

Natural and Applied Sciences Department

NAME: \_\_\_\_\_  
 EMAIL: \_\_\_\_\_  
 PHONE: \_\_\_\_\_

ADVISOR: \_\_\_\_\_  
 ENTERED: \_\_\_\_\_  
 ANT. GRADUATION: \_\_\_\_\_  
 DATE LAST UPDATED: \_\_\_\_\_

### GENERAL EDUCATION

COURSE NUMBER	COURSE NAME	CR	Sem	Grade
<b>I. CORE REQUIREMENTS (22 CREDITS)</b>				
<b>Essential Skills (9 Credits)</b>				
HEN 112	English I ©	3		
HEN 113	English II ©	3		
HEN 114	Speech	3		
<b>Critical Skills (3 Credits)</b>				
EDU110	Introductory Interpretation & Analysis			
<b>OR</b>				
HPH110	Critical Thinking			
<b>Mathematics (3 credits) ©±</b>				
MAT 160	Calculus I ©±	4		
<b>Health &amp; Wellness (2 credits)</b>				
REC 111	Health & Wellness	2		
<b>African-American Experience (3 credits)</b>				
AAS210	A-A Experience in a Global Context	3		
<b>Freshmen Experience (2 credits)</b>				
GAC 101	Freshmen Seminar I	1		
GAC 102	Freshman Seminar II	1		
<b>II. DISTRIBUTION REQUIREMENTS (19 CREDITS; CANNOT BE IN MAJOR)</b>				
<b>Humanities (6 credits ¶)*</b>				
	Humanities Elective I	3		
	Humanities Elective II	3		
*Satisfactory courses include graphic design, literature, language, theater, music, arts, & philosophy.				
<b>Social Sciences (6 credits ¶)***</b>				
	Social Science Elective I	3		
	Social Science Elective II	3		
***Courses include anthropology, economics, geography, history, political science, psychology & sociology.				
<b>Natural Sciences (6 credits or higher)©</b>				
SPY 315	Physics I (Calculus)	4		
SPY 316	Physics II (Calculus)	4		
©Satisfactory courses include biology, chemistry, physics, earth or space science.				
<b>Health &amp; Wellness (1 credit)</b>				
REC	Physical Education	1		
<b>TOTAL CREDITS IN GENERAL EDUCATION</b>		<b>44</b>		

A 2.0 overall cumulative GPA is required for graduation.

COURSE NUMBER	COURSE NAME	Sem	Grade
<b>III. INTENSIVE COURSES</b>			
_____	Writing Course (W)		
_____	Writing Course (W)		
_____	A-A Heritage Course (A)		
_____	Information Literacy Course (I)		
_____	Global Course (G)		

©This course requires completion of the prerequisite with a C or higher.  
 ¶Courses superimposed on this distribution requirement must be included in Required Major Credits; max 42 or 60  
 ±This course may have one or more prerequisites that students must display proficiency in through successful completion of the prerequisite course(s).

### MAJOR COURSES

COURSE NUMBER	COURSE NAME	CR	Sem	Grade
<b>REQUIRED MAJOR COURSES (up to 60 credits)</b>				
MAT 270	Calculus II ◇	4		
MAT 301	Calculus III ◇++	4		
MAT 202	Discrete Math ◇	3		
MAT 313	Linear Algebra I ◇++	3		
MAT 321	Differential Equations ◇++	3		
MAT 325	Probability and Statistics I ◇++	3		
MAT 352	Introduction to Abstract Algebra ◇++	3		
MAT 335	Elementary Number Theory ◇++	3		
MAT 355	Statistics II ◇++	3		
MAT401	Intro to Real Analysis ◇++	3		
<b>Total Required Credits</b>		<b>32</b>		
<b>ADVANCED MATH ELECTIVES (9 credits)++</b>				
MAT 403	Linear Algebra II ◇	3		
MAT 331	Numerical Analysis ◇	3		
MAT 362	Modern Geometry ◇	3		
MAT 411	Intro to Complex Variables ◇	3		
MAT 451	Introduction to Topology ◇	3		
MAT 360	History of Mathematics ◇	3		
MAT 461	Applied Mathematics ◇	3		
MAT 499	Independent Study Math ◇	3		
<b>Total Elective Credits</b>		<b>9</b>		
<b>REQUIRED PROGRAMMING COURSES (6 Credits)</b>				
CIS 101	Computer Programming I ◇	3		
CIS 102	Computer Programming II ◇	3		
<b>Total Required Programming Credits</b>		<b>6</b>		
<b>TOTAL MAJOR CREDITS (up to 60 cr.)</b>		<b>47</b>		

1. All major courses have to be "C" or better. 2. Only 2 "D"s are allowed in non-major courses

### FREE ELECTIVES+ (19 or more credits)++

_____	Upper Level Free Elective 1++	3		
_____	Upper Level Free Elective 2++	3		
_____	Upper Level Free Elective 3++	3		
	Free Elective 1	3		
	Free Elective 2	3		
	Free Elective 3	3		
	Free Elective 4	3		
	Free Elective 5	3		
	Free Elective 6	3		
	Free Elective 7 (2, or 3 credit course)	2		
<b>TOTAL FREE ELECTIVE CREDITS</b>		<b>29</b>		
<b>TOTAL CREDITS FOR GRADUATION</b>		<b>120</b>		

COURSE NUMBER	COURSE NAME	CR	Sem	Grade
<b>DEVELOPMENTAL/REMEDIAL COURSES+++:</b>				
ERE 001	Reading Study Skills+++			
HEN 011	Elements of Writing+++			
MAT 001	Basic Math+++			
MAT 002	Elementary Algebra+++			

+PASSHE Policy 1990-06-A holds that elective course selection is encouraged.  
 ++PASSHE Policy 1990-06-A holds that 48 credits of the total 120 must be upper level courses.  
 +++Credits earned for developmental/remedial courses do not count towards the 120 credits required for graduation.  
 ◇Courses listed with a diamond are used to calculate major gpa.