

Alabama State University
CURRICULUM GUIDE
MATHEMATICS
(Leading to the Bachelor of Science Degree)

NAME _____ SID# _____ DATE _____

AREAS I-V - CORE CURRICULUM - 42 Hours

Course	Hrs	Grade	Term
ENGLISH COMPOSITION - 6 Hours			
ENG 131 English Comp. (or 140 Honors)	3		
ENG 132 English Comp. (or 141 Honors)	3		
HUMANITIES AND FINE ARTS - 12 Hours			
HUM 103 Hum. through the African.*	3		
ENG 209 Introduction to Literature **	3		
ENG 210 Introduction to Literature**	3		
<i>Choose 1 from the following.....</i>			
ART 131 Art Appreciation	3		
THE 111 Introduction to Theatre Arts	3		
MUS 121 Music Appreciation	3		
<i>Humanities Electives (Choose one of the following)**</i>			
CMS 200 Voice & Diction	3		
CMS 205 Public Speaking	3		
PHL 201 Logical Reasoning	3		
HUM 101 Interdisciplinary Humanities	3		
HUM 102 Interdisciplinary Humanities	3		
ORIENTATION - 1 Hour			
ORI 100 Freshman Orientation	1		

Course	Hrs	Grade	Term
HISTORY, SOCIAL AND BEHAVIORAL SCIENCES - 12 Hours			
GEO 206 World Geography *	3		
HIS 131 World History **	3		
HIS 132 World History **	3		
<i>History, Social, and Behavioral Sciences Electives (Choose two)**</i>			
ANT 113 Societies Around the World	3		
ECO 251 Principles of Economics I	3		
ECO 254 Introduction to Economics	3		
POS 207 American Government	3		
PSY 251 General Psychology	3		
SOC 110 Introduction to Sociology	3		
NATURAL SCIENCES AND MATHEMATICS - 11 Hours ***			
<i>Natural Sciences (Choose one sequence)</i>			
BIO 127/128 General Biology (Including Lab) OR	8		
PSC 231/232 Physical Science Survey (Including Lab)	8		
<i>Mathematics (Choose one of the following)</i>			
MAT 137 Precalculus Algebra	3		
MAT 165 Precalculus Trigonometry	5		
MAT 265 Calculus & Analytic Geometry I	4		
TOTAL REQUIRED CORE HOURS		42	

*Students originating at ASU requirement.

**Students satisfying the 6 semester hour literature sequence (ENG 209 and 210) are only required to complete 3 semester hours of history sequence (HIS 131 or 132) and are not required to take a humanities elective. Students satisfying the 6 semester hour history only required to take one history, social and behavioral science elective. sequence (HIS 131 and 132) are not required to complete the 6 semester hour literature sequence (ENG 209 or 210) and are only required to take one (1) history, social science, and behavior science elective.

***MAT 165 Precalculus Trig (BIO Majors)

***MAT 265 Calculus and Geometry (PHY and CHE Majors)

PRE-PROFESSIONAL COURSES – 19 HOURS

Course	Hrs	Grade	Term
PHY 210/211 General Physics I/II OR	8		
CHE 141/142 General Chemistry I/II	8		

Course	Hrs	Grade	Term
CSC 210 Introduction to Computer Science	3		
CSC 211 Program Concepts, Standards, Methods & Algorithms	4		
CSC 212 Introduction to Data Structure	4		
TOTAL PRE-PROFESSIONAL HOURS		19	

AREA VI – REQUIRED MAJOR COURSES – 41 HOURS

Course	Hrs	Grade	Term
MAT 165 Precalculus Trigonometry*	5		
MAT 251 Introduction to Linear Algebra	3		
MAT 265 Calculus & Analytic Geometry I**	4		
MAT 266 Calculus & Analytic Geometry II	4		
MAT 267 Calculus & Analytic Geometry III	4		
MAT 373 Introduction to Modern Algebra I	3		

Course	Hrs	Grade	Term
MAT 375 Differential Equations	3		
MAT 401 Advanced Calculus	3		
MAT 472 Probability & Statistics I	3		
MAT 473 Probability & Statistics II	3		
MAT 486 Introduction to Real Analysis	3		
MAT 487 Senior Seminar	3		
TOTAL REQUIRED MAJOR COURSE HOURS	41		

*Students using MAT 165 as the Core Curriculum Mathematics Course must take five (5) additional hours of Major Course Electives from Area VII below in order to satisfy the Required Major Course semester hour requirements. This modification will increase the total number of required Major Course Elective hours to 14 hours.

**Students using MAT 265 as the Core Curriculum Mathematics Course must take nine (9) additional hours of Major Course Electives from Area VII below in order to satisfy the Required Major Course semester hour requirements. This modification will increase the total number of required Major Course Elective hours to 18 hours.

AREA VII – MAJOR COURSE ELECTIVES* – 9 HOURS

Course	Hrs	Grade	Term
MAT 256 Discrete Mathematics	3		
MAT 374 Introduction to Modern Algebra II	3		
MAT 376 Numerical Analysis & Computer Applications	3		
MAT 410 Introduction to Partial Differential Equations	3		
MAT 425 Operations Research	3		
MAT 430 Mathematics of Compound Interest	3		

Course	Hrs	Grade	Term
MAT 470 Design & Analysis of Experiment	3		
MAT 471 Elementary Stochastic Processes	3		
MAT 484 Modern Geometry	3		
MAT 490 Topics in Applied Mathematics	3		
MAT 491 Research and Independent Study	3		
MAT 495 History of Mathematics	3		
TOTAL MAJOR COURSE ELECTIVE HOURS	9		

*Students must select a minimum of 9 hours of coursework from the Major Course Elective list above.

AREA VIII – GENERAL ELECTIVE COURSES – 9 HOURS

Course	Hrs	Grade	Term

Course	Hrs	Grade	Term
TOTAL GENERAL ELECTIVE HOURS	9		

TOTAL SEMESTER HOURS _____ **120**

Expected Date of Graduation _____

REMINDERS - FULFILL BEFORE GRADUATION: All Students

- ALL GRADES below a "C" must be repeated before graduation - University Policy.
- The UNIVERSITY READING requirement is to score a minimum of 13.0 on the Nelson Denny Reading Test. (currently suspended)
- The ENGLISH PROFICIENCY EXAMINATION is required to exit University College. (currently suspended)
- The SENIOR COMPREHENSIVE EXAMINATION is required before graduation. (currently suspended)
- The BACCALAUREATE WRITING COMPETENCY TEST is required before being admitted to senior status and must be passed before being eligible to file for a degree from ASU. (currently suspended)
- ALL GRADES below a "C" must be repeated before graduation - University Policy.

REMINDERS - FULFILL BEFORE GRADUATION: Mathematics Majors

- The SENIOR COMPREHENSIVE EXAMINATION is required before graduation.

SIGNATURES

_____	_____
Student Signature	Date
_____	_____
Advisor Signature	Date
_____	_____
Chairperson Signature	Date
Effective date of curriculum	_____