ATHENS STATE UNIVERSITY

COLLEGE OF ARTS & SCIENCES 2011-12 BS Mathematics – 27.0101

▶MINIMUM HOURS FOR GRADUATION: 124 SEMESTER HOURS.
MUST INCLUDE A MINIMUM OF 60 SEMESTER HOURS OF UPPER LEVEL COLLEGE/UNIVERSITY CREDIT (300/400 LEVEL CREDIT).
A MINIMUM OF 33 SEMESTER HOURS MUST BE COMPLETED WITH ATHENS STATE UNIVERSITY. 3/11

***PLEASE READ NOTES ON BACK OF THIS FORM

1 APPLICABLE GENERAL UNIVERSITY REQUIREMENTS ..... See " ▶" above and Catalog

2. GENERAL EDUCATION REQUIREMENTS AND PRE-PROFESSIONAL REQUIREMENTS

I. Written Composition ..... 6 semester hours

II. Humanities & Fine Arts (12 semester hours)
At least one fine arts course ..... 3 semester hours
At least one literature course ..... 3 semester hours
Additional Humanities/Fine Arts courses ..... 6 semester hours

III. Natural Sciences & Mathematics (11 semester hours)
Precalculus Algebra ..... 3 semester hours
Natural Science (lab-based) required ..... 8 semester hours
Calculus-based Physics I and II recommended

IV. History, Social & Behavioral Sciences (12 semester hours)
At least one history course ..... 3 semester hours
Additional History/Behavioral and Social Science Courses ..... 9 semester hours

TOTAL GENERAL EDUCATION REQUIREMENTS ..... 41 SEMESTER HOURS

3. **MAJOR PREREQUISITE COURSES (PRE-PROFESSIONAL):**
CIS 146 Microcomputer Application **or**
CIS 301 Problem Solving With Computers.....3 semester hours
Precalculus Trigonometry.....3 semester hours
Calculus Sequence.....12 semester hours
HU 321 Research Sources and Skills **or** its equivalent..... 1 semester hour

TOTAL MAJOR PREREQUISITE HOURS.....19 SEMESTER HOURS
TOTAL GEN. ED. REQ. & MAJOR PREREQUISITE HOURS ....60 semester hours

4. **PROFESSIONAL COURSES:**
CS 317 Computer Science I** **or** its equivalent..... 3 semester hours
MA 308 Discrete Mathematics ..... 3 semester hours
MA 310 Matrices and Linear Algebra **or** its equivalent ..... 3 semester hours
MA 320 Introduction to Abstract Algebra ..... 3 semester hours
MA 321 Differential Equations ..... 3 semester hours
MA 330 Advanced Mathematical Software ..... 3 semester hours
MA 431 Introduction to Mathematical Statistics **or** ..... 3 semester hours
MA 331 Applied Probability and Statistics
MA 470 Senior Mathematics Seminar*..... .3 semester hours

Plus THREE (3) mathematics electives from the following: .....9 semester hours
MA 314 College Geometry (take as a General Elective if you are an Alternative B certification student)
MA 316 Vector Analysis
MA 331 Applied Probability and Statistics ****
MA 401 Complex Variables***
MA 423 Numerical Analysis
MA 428 Partial Differential Equations
MA 431 Introduction to Mathematical Statistics ****
MA 445 Mathematical Modeling and Simulation
MA 450 Advanced Calculus I
MA 451 Advanced Calculus II
MA 452 Introductory Real Analysis***
MA 480 Special Topics in Mathematics ****

Choose one two-semester sequence from the three options below .....6 semester hours
MA 401 Complex Variables and MA 452 Introductory Real Analysis **or**
MA 445 Math Modeling and Simulation and MA 423 Numerical Analysis

Date:

Name: ____ I.D. #: ____ Date of enrollment: ____ Advisor: ____

PLEASE BE AWARE THAT PROGRAM REQUIREMENTS ARE SUBJECT TO CHANGE, AND ARE DEPENDENT ON YOUR ACTUAL DATE OF ENROLLMENT.

TOTAL PROFESSIONAL HOURS ..... **33 SEMESTER HOURS**

*Exit exam will be administered in this class. Either the Departmental Math Exit Exam OR PRAXIS II Mathematics Content Test 0061 MUST be taken to qualify for graduation.
**If a programming course has not been taken, take CS 305 Introduction to Programming as a general elective before taking CS 317.
***Recommended if planning to attend graduate school.
****If one of these statistics courses has been taken to satisfy the professional core, then the other may be taken as an elective.

5 The Mathematics major must complete a minimum of 12 semester hours of upper division 300/400 level mathematics coursework at Athens State University. To be used toward completing a Mathematics major at Athens State, any mathematics course transferred to Athens State must be grade of C or higher. Mathematics majors must maintain a 2.5 G.P.A. in mathematics courses taken at Athens State University.

6 **A minimum 18 semester hour MINOR is required and must be approved by a Mathematics faculty advisor.....18-24 semester hours**

7 **General Electives (as needed)**.....**13 semester hours**

8 **TOTAL HOURS FOR GRADUATION** **124-130 SEMESTER HOURS**

9 **EXIT EXAM**
An exit exam is required. The Track I major may choose the PRAXIS II Mathematics Content Exam or the departmental exit exam may be taken in the MA 470 course. It is the student's responsibility to schedule the test, if the PRAXIS II exam is chosen, and to report the results to their advisor.

NOTE: Junior college (lower level--100/200) courses which are accepted to meet a particular upper level (300/400) course requirement **DO NOT** count toward the **required 60 semester hours of upper level credit.**

PROSPECTIVE STUDENTS: If you obtain this program of study checksheet before enrolling at ASU, please be aware that it is provided to assist you in planning only. Program requirements are subject to change; official program requirements are those that are in effect at the date of official enrollment at ASU.

NOTES:

ADVISING NOTES

You are encouraged to meet with your advisor during your first term at ASU.

DATE	COMMENTS