## DEGREE WORKSHEET FOR:
### BS Mathematics, Applied Mathematical Sciences Emphasis
### Applied Mathematics Concentration
### 2016-2017 Catalog
### Degree Requirements – 120 credits

### YEAR 1 - FALL (14 credits)
- ENG 122 College Composition (LAC Area 1a) 3 credits
- MATH 131 Calculus I (LAC Area 2) 4 credits
- CG 120 Computer Programming 3 credits
- MATH 102 Success in Mathematical Sciences-suggested elective C 1 credit
- Liberal Arts Core^2/Electives^c 3 credits

### YEAR 1 - SPRING (16 credits)
- MATH 132 Calculus II (LAC Area 2) 4 credits
- MATH 228 Discrete Mathematics 3 credits
- CS 102 Structured Programming 3 credits
- Liberal Arts Core^b/Electives^c 6 credits

### YEAR 2 - FALL (15 credits)
- MATH 221 Elementary Linear Algebra 3 credits
- MATH 233 Calculus III 4 credits
- CS 200 Object-Oriented Analysis, Design, & Program. 3 credits
- Liberal Arts Core^b/Electives^c 5 credits

### YEAR 2-SPRING (15 credits)
- MATH 350 Elementary Probability Theory 4 credits
- Liberal Arts Core^b/Electives^c 11 credits

### YEAR 3 - FALL (15 credits)
- MATH 335 Differential Equations 3 credits
- STAT 406 Multiple Linear Regression OR Math 351 3 credits
- MATH 495 Topics in Mathematics^a OR LAC 3 credits
- Liberal Arts Core^b/Electives^c 6 credits

### YEAR 3 - SPRING (15 credits)
- MATH 351 Elementary Statistics Theory OR STAT 406 OR Elective 3 credits
- MATH 375 Elem Numerical Analysis OR MATH 336 OR Elective 3 credits
- Liberal Arts Core^b/Electives^c 9 credits

### YEAR 4 - FALL (15 credits)
- MATH 437 Mathematical Modeling 3 credits
- MATH 495 Topics in Mathematics^a OR LAC 3 credits
- Liberal Arts Core^b/Electives^c 9 credits

### YEAR 4 - SPRING (15 credits)
- MATH 375 Elem Numerical Analysis OR MATH 336 OR Elective 3 credits
- MATH Elective^d 3 credits
- Liberal Arts Core^b/Electives^c 9 credits

---

**Admission Requirement** – No separate admission requirement.

**Minor Required** – No Minor required.

**Notes** – see page 2.

**Contact Information** – School of Mathematical Sciences  
Ross Hall Room 2239, 970-351-2820  
School Web Page: [http://www.unco.edu/NHS/mathsci](http://www.unco.edu/NHS/mathsci)

This worksheet is a recommended schedule to complete your bachelor’s degree in 4 years. Every UNC student must meet the following requirements in order to graduate with a bachelor’s degree: earn a minimum of 120 semester credit hours; possess a minimum of a 2.00 cumulative grade point average; have at least 40 credit hours in courses designated as Liberal Arts Core; meet all degree requirements in the student’s major field of study. Each major and/or emphasis may have additional requirements necessary for graduation. **Students must consult with their major advisor to receive information on any additional graduation requirements.**

Mathematics – Applied Math 16-17  
8-10-16
BS Mathematics, Applied Mathematical Sciences Emphasis, Applied Math Concentration (cont.)

Notes

1. MATH 495 is only offered every ODD numbered fall, and is listed in two different places, indicating that it should be taken in either the 5th or 7th semester.

2. Liberal Arts Core courses can be taken any semester. It is strongly suggested that they be evenly distributed over the entire 4 years of study rather than concentrated in the first 2 years. **NOTE: You need to complete 40 LAC credits total. Two MATH courses have been pre-designated (8 credits). One writing course (ENG 122) has been pre-designated (3 credits). You must choose another writing course from LAC Area 1b (3 credits). The remaining electives must fall into LAC Areas 3, 4, 5, 6, 7, and 8. Remember you should select courses from Areas 7 and 8 that also count for Areas 3, 4 or 5.**

3. You need to complete 39 credits of University-wide Electives.

4. You need to complete 3 additional credits from the concentration electives. Choose from: MATH 321, 322, 336, 341, 342, 375, 391, 431, 432, 460, or any CS course at the 300-level or higher, or any STAT course at the 300-level or higher.

Applied Mathematics Concentration: This concentration focuses on applications of mathematics to real-life problems and includes some supporting computer science and statistics. Graduates are prepared for technical positions in such areas as environmental, governmental, industrial, military, and social settings and for additional graduate study in mathematics and other related disciplines.