



**DEGREE WORKSHEET FOR:**  
**BS Mathematics, Applied Mathematical Sciences Emphasis**  
**Applied Computer Science Concentration**  
**2017-2018 Catalog**  
**Degree Requirements – 120 credits**

YEAR 1- FALL (14 credits)		YEAR 1- SPRING (16 credits)	
ENG 122 College Composition (LAC Area 1a)	3 credits	MATH 132 Calculus II (LAC Area 2)	4 credits
MATH 131 Calculus I (LAC Area 2)	4 credits	MATH 228 Discrete Mathematics	3 credits
CG 120 Computer Programming	3 credits	CS 102 Structured Programming	3 credits
Liberal Arts Core <sup>b</sup> /Electives <sup>c</sup>	3 credits	Liberal Arts Core <sup>b</sup> /Electives <sup>c</sup>	6 credits
MATH 102 Success in Math Sci (suggested elective)	1 credit		
YEAR 2- FALL (14 credits)		YEAR 2-SPRING (16 credits)	
MATH 221 Elementary Linear Algebra	3 credits	MATH 350 Elementary Probability Theory	4 credits
MATH 233 Calculus III	4 credits	CS 301 Algorithms and Data Structures	3 credits
CS 200 Object-Oriented Analysis, Design, & Program.	3 credits	Liberal Arts Core <sup>b</sup> /Electives <sup>c</sup>	9 credits
Liberal Arts Core <sup>b</sup> /Electives <sup>c</sup>	4 credits		
YEAR 3- FALL (15 credits)		YEAR 3- SPRING (15 credits)	
MATH 335 Differential Equations	3 credits	CS Elective <sup>d</sup>	3 credits
MATH 495 Topics in Mathematics <sup>a</sup>	3 credits	Liberal Arts Core <sup>b</sup> /Electives <sup>c</sup>	12 credits
Liberal Arts Core <sup>b</sup> /Electives <sup>c</sup>	9 credits		
YEAR 4- FALL (15 credits)		YEAR 4- SPRING (15 credits)	
CS Elective <sup>d</sup>	3 credits	MATH 375 <sup>a</sup> or any CS 300+ course	3 credits
Liberal Arts Core <sup>b</sup> /Electives <sup>c</sup>	12 credits	Liberal Arts Core <sup>b</sup> /Electives <sup>c</sup>	12 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/mathematical-sciences/>**

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.**

## BS Mathematics, Applied Mathematical Sciences Emphasis, Computer Science Concentration (cont.)

### Notes

- 1 <sup>a</sup> MATH 495 is only offered every ODD numbered fall; MATH 375 is only offered every ODD numbered spring.
- 2 <sup>b</sup> 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 may select courses from Areas 7 and 8 that also count for Areas 3, 4 or 5.**
- 3 <sup>c</sup> You need to complete 39 credits of University-wide Electives.
- 4 <sup>d</sup> You need to complete 6 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 Computer Science Concentration: One significant application of applied mathematics is in the area of software development. This concentration will allow the student to be better prepared to take a job with a computer software company or jobs involving a significant use of computer technology.