



DEGREE WORKSHEET FOR:

BS Mathematics, Computer Science

2022-2023 Catalog

Degree Requirements – 120 credits

YEAR 1- FALL (14 credits)		YEAR 1- SPRING (16 credits)	
ENG 122 College Composition (LAW1*)	3 credits	MATH 132 Calculus II (LAX1*)	4 credits
MATH 131 Calculus I (LAX1*)	4 credits	MATH 228 Discrete Mathematics	3 credits
CS 120 Computer Programming	3 credits	CS 160 Structured Programming	3 credits
Liberal Arts Curriculum ^b (choose one LAA1, LAA2, LAA3, or LAA4 that is also a LAMS and/or LAIS*)	3 credits	Liberal Arts Curriculum ^b (choose one LAB1, LAB2 or LAB3 that is also a LAMS and/or LAIS*)	3 credits
MATH 102 Success in Math Science (suggested elective)	1 credit	Liberal Arts Curriculum ^b (LAW2*)	3 credits
YEAR 2- FALL (15 credits)		YEAR 2-SPRING (15 credits)	
MATH 233 Calculus III	4 credits	MATH 221 Elementary Linear Algebra	3 credits
MATH 350 Elementary Probability Theory	4 credits	CS 301 Algorithms and Data Struct	3 credits
CS 200 Object-Oriented Analysis, Design & Prog	3 credits	Liberal Arts Curriculum ^b (LAA1, LAA2, LAA3, LAA4*)	3 credits
Liberal Arts Curriculum ^b (LAS1; LAS1L*)	4 credits	Liberal Arts Curriculum ^b (LAH1*)	3 credits
		University-wide Electives ^c	3 credits
YEAR 3- FALL (15 credits)		YEAR 3- SPRING (15 credits)	
MATH 335 Differential Equations	3 credits	Major Electives ^d	6 credits
Major Elective ^d	3 credits	Liberal Arts Curriculum ^b (LAS1*)	3 credits
Liberal Arts Curriculum ^b (choose one additional LAA, LAH or LAB*)	3 credits	University-wide Electives ^c	6 credits
University-wide Electives ^c	6 credits		
YEAR 4- FALL (15 credits)		YEAR 4- SPRING (15 credits)	
MATH 495 Topics in Mathematics ^a	3 credits	CS 456 or Major Elective ^{ad}	3 credits
CS 454 or Major Elective ^{ad}	3 credits	University-wide Electives ^c	12 credits
University-wide Electives ^c	9 credits		

*See the [Liberal Arts Curriculum](#) webpage for more information

This four-year plan 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 31 credit hours in courses designated as Liberal Arts Curriculum; meet all degree requirements in the student's major field of study. Each major and/or concentration may have additional requirements necessary for graduation. **Students must consult with their major advisor to receive information on any additional graduation requirements.**

Admission Requirement – No separate admission requirement.

BS Mathematics, Computer Science Concentration (cont.)

Minor Required – No Minor required.

Contact Information – School of Mathematical Sciences Ross Hall Room 2239, 970-351-2820

School Web Page: <http://www.unco.edu/nhs/mathematical-sciences/>

Notes

- ^a MATH 495 is only offered every ODD numbered fall; CS 454 is only offered every Even numbered fall; CS 456 is only offered every Even numbered spring.
- ^b Liberal Arts Curriculum 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 31 LAC credits total. Math 131 and Math 132 are required in the program and also satisfy the 3 credit LAC area 2 requirement. Most students will take ENG 122 for their first composition class unless they have placed out of the introductory composition requirement. Students need to take 6 credits total of composition courses, 7 credits of natural and physical sciences credits, and 15 credits from Arts & Humanities, History, Social & Behavioral Sciences, U.S. Multicultural, and International Studies. Of these 15 credits, one must be designated as a Multicultural Studies [MS] class, and one must be designated as an International Studies [IS] class.
- ^c You need to complete 35-37 credits of University-wide Electives.
- ^d You need to complete 12 additional credits from the concentration electives. Choose from: MATH 321, 322, 336, 341, 342, 351, 375, 391, 431, 432, 437, 460, 495 (under second title); CS 302, 350, 395, 440, 442, 454, 456, 460, 480; STAT 411 or 451.
- Courses in **bold** are Mathematical Sciences Core courses.
- Courses in *italics* are Concentration requirements.

The 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.

*Liberal Arts Curriculum Course Indicators			
LAA1	Arts & Humanities: Arts & Expression	LAIS	International Studies
LAA2	Arts & Humanities: Literature & Humanities	LAMS	U.S. Multicultural Studies
LAA3	Arts & Humanities: Ways of Thinking	LAS1	Natural & Physical Sciences
LAA4	Arts & Humanities: World Languages	LASL	Natural & Physical Sciences LAB
LAB1	Social & Behavior Sciences: Economic or Political Systems	LAW1	Introductory Written Communication
LAB2	Social & Behavior Sciences: Geography	LAW2	Intermediate Written Communication
LAB3	Social & Behavior Sciences: Human Behavior, Culture or Social Frameworks	LAW3	Advanced Written Communication
LAH1	History	LAX1	Mathematics