

MATHEMATICS, BS, SECONDARY EDUCATION CONCENTRATION

The program of study for the BS in Mathematics with a Concentration in Secondary Education is designed to prepare the graduate for a career as a certified professional in teaching Mathematics at the secondary level.

Program Learning Outcomes

Graduates of this program will be able to:

- Apply critical thinking skills to solve problems that can be modeled mathematically.
- Read and construct mathematical arguments and proofs.
- Communicate a depth and breadth of mathematical knowledge, both orally and in writing.

Program Requirements

Code	Title	Credit Hours
Core IMPACTS		42
All core curriculum recommendations are shown under the Core IMPACTS section of the Undergraduate Graduation Requirements. (https://nextcatalog.clayton.edu/graduation-requirements/undergraduate-graduation-requirements/core-curriculum/#nonsciencemajorstext)		
Field of Study - Mathematics		18
CSCI 1301	Computer Science I ¹	0 or 3
or CSCI 1371	Computing for Engineers	
MATH 1501	Calculus I	4
MATH 2140	Introductory Linear Algebra	3
MATH 2502	Calculus II ²	1 or 4
MATH 2503	Calculus III	4
MATH 1401	Elementary Statistics (0 if taken in Area D2)	0 or 3
MATH 2020	Introductory Discrete Math ³	3
Upper Division Major Requirements (Sec. Ed.)		25
MATH 3005	A Transition to Higher Math	3
MATH 3006	Communication in Mathematics	1
MATH 3110	Survey of Algebra	3
MATH 3220	Applied Statistics	3
MATH 3303	Differential Equations	3
MATH 3520	Introduction to Analysis	3
MATH 4050	Methods of Teaching Sec. Math	3
MATH 4231	Modern Geometry	3
MATH 4250	Elementary Number Theory	3
MATH 4989	Senior Capstone Project	0
Education Related Electives		27
EDUC 2110	Invest. Critical/Contem. Issue	3

EDUC 2120	Exploring Socio-Culture	3
EDUC 2130	Exploring Teaching and Learning	3
EDUC 3030	Exploring the Exceptional Learner	3
EDUC 3200	Secondary Curr. & Assessment	3
EDUC 3210	Classroom Methods & Mgmt.	3
EDUC 4003	Secondary Level Seminar	1
EDUC 4725	Secondary Practicum	2
EDUC 4730	Secondary Level Internship	3
EDUC 4731	Secondary Level Internship	3
Electives		8
Choose at least eight hours of electives. ^{4,5}		
Total Credit Hours		120

¹ CSCI 1301 Computer Science I is 0 hours if taken in Core IMPACTS; CSCI 1371 Computing for Engineers cannot be used in Field of Study if CSCI 1301 Computer Science I is used in Core IMPACTS.

² One hour of carry-over if MATH 2502 Calculus II was taken in Core IMPACTS, otherwise must take 4 hours to satisfy this requirement.

³ If MATH 2502 Calculus II was taken in Core IMPACTS.

⁴ MATH 2020 Introductory Discrete Math Discrete Mathematics must be taken if not satisfied in Field of Study.

⁵ Courses that will not be counted toward the degree are:

- MATH 1101 Intro to Mathematical Modeling
- MATH 1111 College Algebra
- MATH 2008 Fndtns of Numbers & Operations
- MATH 2010 Number Concepts & Relations
- MATH 3020 Concepts of Algebra
- MATH 3030 Concepts of Geometry
- MATH 3040 Algebra & Alg. Think Elem Tch
- MATH 3050 Geometry & Measurement
- MATH 4010 Mathematical Problem Solving
- MATH 4020 Concepts of Discrete Math.

For the BS in Mathematics (Concentration in Secondary Education), no course labeled MATH or EDUC with a grade of D may be used for credit towards graduation. No more than one (1) D in any course may be used towards credit for graduation.

Education Policies and Procedures

Education students are bound by the rules and policies stated in the Teacher Education Unit Policy Manual and in the Intern Handbook. Both can be viewed at the School of Education website (<https://www.clayton.edu/arts-sciences/school-of-education/students/>).

Suggested Course Sequence

Course	Title	Credit Hours
First Year		
First Semester		
MATH 1111	College Algebra ¹	3
ENGL 1101	English Composition I	3
CRIT 1101	Critical Thinking	3
POLS 1101	American Government	3

2 Mathematics, BS, Secondary Education Concentration

HIST 1111 or HIST 1112 or HIST 2750 or POLS 2401	Survey-PreModern World History or Survey of Modern World History or Critical Trends and Issues or Intro to Global Issues	3
COMM 1001	Presentational Speaking	1
Credit Hours		16
Second Semester		
MATH 1112	Trigonometry & Analytic Geom	3
MATH 1401	Elementary Statistics	3
ENGL 1102	English Composition II	3
Literature, Philosophy, or Language Course	Core Area C1	3
Art, Philosophy, or Language Course	Core Area C2	3
EDUC 2110	Invest. Critical/Contem. Issue	3
Credit Hours		18
Second Year		
First Semester		
CSCI 1301 or CSCI 1371	Computer Science I or Computing for Engineers	3
MATH 1501	Calculus I	4
MATH 2020	Introductory Discrete Math	3
HIST 2111 or HIST 2112	Survey of US History to 1877 or US HIST Since Reconstruction	3
EDUC 2120	Exploring Socio-Culture	3
Credit Hours		16
Second Semester		
MATH 2502	Calculus II	4
MATH 3005	A Transition to Higher Math	3
MATH 3006	Communication in Mathematics	1
Science with Lab	Core Area D1	4
EDUC 2130	Exploring Learning & Teaching	3
General Elective		3
Credit Hours		18
Third Year		
First Semester		
MATH 2503	Calculus III	4
MATH 2140	Introductory Linear Algebra	3
MATH 4250	Elementary Number Theory	3
Science with Lab	Core Area D1	4
EDUC 3030	Exploring-Exceptional Learner	3
Credit Hours		17
Second Semester		
MATH 3220	Applied Statistics	3
MATH 3110	Survey of Algebra	3
MATH 4231	Modern Geometry	3
EDUC 3210	Classroom Methods & Mgmt.	3
Behavioral Sciences	Core Area E4	3
Credit Hours		15
Fourth Year		
First Semester		
MATH 3303	Differential Equations	3
MATH 3520	Introduction to Analysis	3
MATH 4050	Methods of Teaching Sec. Math	3
EDUC 3200	Secondary Curr. & Assessment	3
EDUC 4725	Secondary Practicum	2
General Elective		3
Credit Hours		17
Second Semester		
MATH 4989	Senior Capstone Project	0
EDUC 4003	Secondary Level Seminar	1
EDUC 4730	Secondary Level Internship	3

EDUC 4731	Secondary Level Internship	3
Credit Hours		7
Total Credit Hours		124