

MATHEMATICS (B.A.)

The Bachelor of Arts (B.A.) in Mathematics provides opportunities for students to develop general analytical and problem-solving skills as well as gain specific knowledge. Students study up-to-date discoveries in mathematics that are being used in modern theory and applications, making use of the latest technological tools for investigating mathematical and statistical concepts and problems. Students practice solving real-world problems. The program is also suited for students who wish to teach mathematics at the high school level after graduation but who prefer to study mathematics more in-depth than a traditional education major.

Program Progression and Additional Graduation Requirements

- Attend an orientation session.
- Sign an Advising Agreement document.

In addition to the program requirements, students must:

- Complete a minimum of 120 credits.
- Complete a minimum of 48 of the 120 credits at the upper division (3000 - 4999 level).
- Earn a cumulative GPA of 2.0 for all coursework attempted at FGCU.
- Satisfy the College-Level Skills and foreign language entrance requirements.
- Satisfy the Service-Learning requirement.
- Satisfy the Civic Literacy requirement.
- Satisfy the residency requirement: 30 of the last 60 credits must be completed at FGCU.
- Complete the summer course enrollment requirement.
- Submit an Application for Graduation by the deadline listed in the FGCU Academic Calendar.

Program Requirements

Code	Title	Credits
FGCU General Education Program (https://www.fgcu.edu/academics/undergraduatestudies/generaleducation/)		

To prevent or minimize excess hours, select general education courses that satisfy common prerequisite requirements for your intended major.

Common Prerequisites

For this major, common prerequisite courses with an asterisk (*) require prior knowledge and skills demonstrated through degree acceleration programs (e.g., the College Board's Advanced Placement Program [AP], International Baccalaureate Program [IB], College-Level Examination Program [CLEP], Advanced International Certificate of Education Program [AICE]); dual enrollment; placement exam; or college coursework.

A minimum grade of C is required in each course

COP 1500	Intro to Computer Science ^{*,1,2}	3
or COP 2001	Programming Methodology	
or COP 2006	Programming I	
MAC 2311	Calculus I (Acceptable Substitute: MACX311) ^{*,3}	4
MAC 2312	Calculus II (Acceptable Substitute: MACX312)	4
MAC 2313	Calculus III (Acceptable Substitute: MACX313)	4

MAP 2302	Differential Equations (Acceptable Substitute: MAPX302)	3
PHY 2048 & 2048L	General Physics I and General Physics I Laboratory (Acceptable Substitute: BSCX010C or (BSCX010 and BSCX010L) or CHMX045C or (CHMX045 and CHMX045L) or PHYX048C or (PHYX048 and PHYX048L) or GLYX010C or (GLYX010 and GLYX010L))	4

Required Courses in the Major (34 credits)

A minimum grade of C is required in each course

IDS 3143	Issues in Technology	3
IDS 3300	Foundations of Civic Engagement	3
IDS 3385	Issues in Science	3
MAA 4226	Analysis I	3
MAP 3161	Math for Science & Engineering	4
MAP 3162	Probability & Statistics	4
MAP 3163	Operations Research I	3
MAS 3105	Linear Algebra	3
MAS 4301	Abstract Algebra I	3
MAT 4937	Senior Seminar (capstone)	2
MHF 2191	Mathematical Foundations	3

Restricted Electives in the Major (12 credits)

A minimum grade of C is required in each course

Select 3 credits of the following (depth requirement): ⁴

MAA 4227	Analysis II	3
MAP 4314	Dynamical Systems	3
MAS 4106	Matrix Methods & Data Science	3
MAS 4302	Abstract Algebra II	3
STA 4234	Intro. to Regression Analysis	3

Select 9 upper division (3000-4999 level) credits from the following prefixes: MAA, MAD (except MAD X107), MAP, MAS, MAT, MHF, or STA ⁴

Sustainability Course Graduation Requirement (3 credits)

Select at least 3 credits in sustainability coursework (SCGR Attribute)

Additional Electives

As needed to reach total credits required for the degree

¹ Acceptable Substitute: COPX001 or COPX006 or COPX210 or COPX270 or COPX271C or COPX272C or COPX500

² Prerequisites of MAT 1033 Intermediate Algebra minimum grade of C then MAC 1105 College Algebra minimum grade of C; or relevant accelerated credit; or placement exam

³ Prerequisites of MAT 1033 Intermediate Algebra minimum grade of C then MAC 1105 College Algebra minimum grade of C then MAC 1147 Precalculus minimum grade of C; or relevant accelerated credit; or placement exam

⁴ A course used to satisfy the depth requirement may not also be used to satisfy this restricted elective requirement.

Total Credits Required: 120