

Mathematics, B.S. 2022-2023 Catalog

Academic Advising Center

2nd Floor Lanier Hall 478-445-2361 advising@gcsu.edu

The recommended four-year plan is designed to provide a blueprint for students to complete their degrees within four years. These plans include the recommended sequences of courses. Individual plans will vary based on previously earned credit such as Dual Enrollment and AP credit as well as student's academic goals. Students will work with an Academic Advisor to develop a more individualized plan to complete their degree.

The GC Journeys Program will transform your way of thinking and experiencing college. By participating in five inside and outside the classroom transformative experiences during your time at Georgia College, you will step outside of your usual surroundings, gain authentic experiences, solve problems, become a leader, participate in real-world settings and put ideas into action.

All students will complete the First-Year Experience, Career Planning Milestones, and a Capstone course in your major. Students will choose two additional experiences from: Intensive Leadership Experiences, Mentored Undergraduate Research, Community-Based Engaged Learning, Internships, and Study Abroad/Study Away.

This recommended Four-Year Plan is applicable to students admitted during the 2022-2023 academic year.

Total Credits Required: 120 credits

Required GPA for Graduation: 2.0 (overall)

Legend is available on the last page of this document.

| | | | | Yea | ır 1 | | | | |
|----------------|--|-----------|------------|--------|----------------|-----------------------------------|---------------|-------|----------|
| | Fall | | Spring | | | | | | |
| Course | Title | Hours | Area | ✓ | Course | Title | Hours | Area | √ |
| MATH 0001 | First year Academic Seminar | 1 | | | MATH 1262 | Calculus II | 4 | D | |
| ENGL 1101 | English Composition I | 3 | Α | | CSCI 1302 | Computer Science II | 3 | Major | |
| MATH 1261 | Calculus I | 4 | Α | | ENGL 1102 | English Composition II | 3 | A | |
| CSCI 1301 | Computer Science I | 3 | Major | | MATH 2150 | Linear Algebra | 3 | Major | |
| GC1Y 1000 | Critical Thinking | 3 | В | | XXXX 1002 | Foreign Language 1002 | 3 | Major | |
| XXXX 1001 | Foreign Language I | 3 | Major | | | | | | |
| Semester Hours | | 17 | | | | Semester Hours | 16 | | |
| Summer | If starting MATH in Area A with MAT | H 1113: P | re-Calculu | s, stu | dent will need | to consider taking MATH 1262 in s | summer of Yea | r 1. | |
| Notes: | Area A and GC1Y 1000 must be completed by 30 earned hours. Math 0001 does not count toward 120 hours required for graduation. | | | | | | | | |

| | | | | Yea | ır 2 | | | | |
|-------------|--|--------------------------------------|--------------------------|--------|-----------------|--------------------------------|-------|-------|----------|
| | Fall | Spring | | | | | | | |
| Course | Title | Hours | Area | ✓ | Course | Title | Hours | Area | √ |
| MATH 2263 | Calculus III | 4 | Major | | MATH 4340 | Differential Equations | 3 | Major | |
| MATH 3030 | Foundations of Mathematics | 3 | Major | | MATH 4510* | Geometry | 3 | Major | |
| MATH 1401 | Probability & Statistics | 3 | Major | | GC2Y 2000 | Global Perspectives | 4 | В | |
| Core Choice | Area C1 Humanities and Ethics | 3 | С | | Core Choice | Area C2 Fine Arts | 3 | С | |
| Core Choice | Area E Social Science Choice 1 | 3 | Е | | Core Choice | Area E Social Science Choice 2 | 3 | Е | |
| | Semester Hours | 16 | | | | Semester Hours | 16 | | |
| Summer | GC2Y 2000 can be completed as a | study abro | ad in the s | umm | er | | | | |
| Notes: | Student must complete a Foreign La (https://www.gcsu.edu/artsandsciend GC2Y 2000 must be taken between *MATH 4510 is taught only in sprin Named MATH courses should be tal | es/wlc/tes 30-59 eari ng terms | ting) to de ned hours | termii | ne placement fo | or first course. | | | |

| | | | | Yea | r 3 | | | | | | |
|-------------------------------|------------------------------------|------------|------------|---------|-----------------|-----------------------------------|-------|-------|---|--|--|
| | Fall | | | | | Spring | | | | | |
| Course | Title | Hours | Area | ✓ | Course | Title | Hours | Area | ✓ | | |
| MATH 4300* | Complex Variables | 3 | Major | | MATH 4261** | Mathematical Analysis I | 3 | Major | | | |
| MATH 4110* | Number Theory | 3 | Major | | MATH 4989 | Intro to Research in Math | 1 | Major | | | |
| Area D Course | CHEM 1211K or PHYS 2211/lab | | | | Area D Course | CHEM 1212K or PHYS 2212/lab | 4 | Major | | | |
| Elective | Any 1000-4000 level elective | | | | Core Choice | Area E Social Science Choice 3 | 3 | Ē | | | |
| Elective | Any 1000-4000 level elective | | | | Elective | Any 1000-4000 level elective | 3 | Elec. | | | |
| Semester Hours 6 Semester Hou | | | | | Semester Hours | 14 | | | | | |
| | Students must secure research advi | sor and ar | range regi | stratio | on for MATH 498 | 89 in the spring of the 3rd year. | | | | | |

Notes: *MATH 4300 and 4110 are taught only in fall terms. **MATH 4261 is taught only in spring terms.

| | | | | Yea | r 4 | | | | |
|------------|------------------------------|-------|------|----------|-----------|---|-------|-------|---|
| | Fall | | | | | Spring | | | |
| Course | Title | Hours | Area | √ | Course | Title | Hours | Area | ✓ |
| MATH 4990 | Senior Project | 3 | | | MATH 4XXX | Upper level MATH Elective | 3 | Major | |
| MATH 4081* | Abstract Algebra | 3 | | | Elective | Any 1000-4000 level elective | 3 | Elec | |
| Elective | Any 1000-4000 level elective | 3 | | | Elective | Any 1000-4000 level elective | 3 | Elec | |
| Elective | Any 1000-4000 level elective | 3 | | | Elective | Any 1000-4000 level elective | 3 | Elec | |
| Elective | Any 1000-4000 level elective | 3 | | | Elective | Any 1000-4000 level elective | 3 | Elec | |
| | Semester Hours 15 | | | | | Semester Hours | 15 | | |
| | , | | | | | , | 15 | | _ |

MATH 4990 is a continuation of the capstone experience and should immediately follow MATH 4989. Arrangements for registration should be coordinated thru your research advisor.

*MATH 4081 is taught only in fall terms. Notes:

*One 4000-level MATH elective will be offered per year. Students are advised to take a 4000-level MATH elective when it is offered (provided they meet the prerequisite).

| | Legend |
|--------------------|---|
| Area | This section of the plan references the area of the curriculum the course fulfills. |
| Α | Core Area A: Communication and Quantitative Skills |
| В | Core Area B: Institutional Options |
| С | Core Area C: Humanities and Fine Arts |
| D | Core Area D: Science, Technology, and Math |
| E | Core Area E: Social Sciences |
| F | Core Area F: Major Directed Core |
| Major | Major Required Course |
| Elective (Elec) | Course(s) a student selects. Hours are needed meet overall graduation hours. Number of electives varies per major. Electives can be used towards GC Journeys, minors, professional/graduate school pre-requisites or to take courses of interest. |
| Cognate | Cognate courses are required courses within a students curriculum. These courses are connected to the major but may be from other academic disciplines. |