

## Freshman Mathematics Courses at East Carolina University

Students who are not transferring in college or high school AP credit in mathematics have several options that will satisfy the 3-hour foundation curriculum mathematics requirement. These options are described below.

All students are placed into their first mathematics courses at ECU based upon [their major](#). Students should consult with their General College advisor when choosing a mathematics course. Keep in mind that different majors may require different specific math courses. **If you change your intended major, you may have to take an additional math course.**

The freshman mathematics courses at ECU normally used to satisfy the 3-hour foundation curriculum mathematics requirement are as follows:

**1050. Explorations in Mathematics (3) (F,S,SS) (FC:MA)** May not count toward MATH major or minor. Fulfills foundations curriculum MATH requirement for students whose major does not require a specific MATH course. Broad overview of mathematics and its relevance to life. Selected topics include at least four of the following: algebraic concepts, geometry, set theory and logic, number theory, discrete mathematics, statistics, consumer mathematics/finance, and history of mathematics. Admission into Math 1050 does not require a placement exam score.

**Who takes MATH 1050?** This course is appropriate for students intending to choose a liberal arts major such as

- College of Arts and Sciences Interdisciplinary Programs majors
- Anthropology
- Communications
- Criminal Justice
- English
- Foreign Languages and Literatures (the BA degree plans only)
- Geography (the BA degree plan only)
- History
- Political Science (the BA degree only)
- Philosophy
- Sociology
- Theatre and Dance (except for the BS in Dance Education)
- School of Art
- School of Music (except for the BM in Music Education)

**Warning:** MATH 1050 is **not** appropriate for students intending to choose

- a technical major requiring calculus or statistics
- a non-technical [major](#) but who want to [minor in business](#); such students should choose another math course such as MATH 1065 or 1066, depending on their minor.
- certain Secondary Education BS programs as their major; these require MATH 1065, 1066, or 2127.

**1065. College Algebra (3) (F,S,SS) (FC:MA)** May not be taken by students who have credit for MATH 1085.

P: Appropriate score on math placement test or SAT score of 540 or higher. Topics include sets; linear, quadratic, polynomial, and exponential functions; inequalities; permutations; combinations; binomial theorem; and mathematical induction.

**Who takes MATH 1065?** This course is appropriate for students intending to choose a major requiring basic calculus or statistics. Examples of such majors [include, but are not limited to](#)

- Biology
- Biochemistry
- Chemistry

- Economics
- Applied geography
- Foreign Languages and Literatures (the BS degree plans)
- Geology
- Physics
- Political science (the BS degree)
- Psychology
- Science education
- all School of Allied Health Sciences majors
- all School of Industry and Technology majors
- Department of Business, Vocational, and Technical Education
- all of the BS degrees in the School of Health and Human Performance
- School of Education majors with academic concentrations in chemistry or physics
- Department of Health Education and Promotion
- most majors in the School of Human Environmental Sciences
- Business minor

**Note:** By scoring high enough on the Math placement exam, a student may by-pass MATH 1065 and proceed directly to MATH 1083 or 1085. Contact the Mathematics Department for details (328-4111).

**1066. Applied Mathematics for Decision Making (3) (F,S,SS) (FC:MA)** Required for students planning to major in business administration or accounting. P: Appropriate score on the math placement test or SAT score of 540 or higher or approval of the dept chair. Skills in formulating models for and interpreting solutions to business word problems. Topics include linear and nonlinear equations, systems of linear equations, applications of matrix algebra, and applied basic differential calculus. No proofs included.

**Who takes MATH 1066?** This course is appropriate for students intending to choose a major in the School of Business. Students majoring in non-technical fields who want to minor in business may take 1065 or 1066. Certain majors in the School of Industry and Technology accept MATH 1066.

**Note:** The School of Business waives the MATH 1066 requirement **only if** a student has received credit for a **calculus** course.

**1067. Algebraic Concepts and Relationships (3) (F,S) (FC:MA)** May not count toward MATH or CSCI major or minor. P: Appropriate score on math placement test or SAT score of 540 or higher. Properties of integers, rationals, real and complex numbers, and polynomials from an algebraic point of view; conjectures and intuitive proofs in number theory; properties of linear and quadratic functions. Representations of real-world relationships with physical models, charts, graphs, equations and inequalities. Emphasis on development of problem-solving strategies and abilities.

**Who takes MATH 1067?** This course is appropriate for students intending to major in Middle Grades Education.

**1083. Introduction to Functions (3) (F,S,SS) (FC:MA)** May not be taken by students who have successfully completed MATH 1074 or MATH 1085. P: MATH 1065 with a minimum grade of C. Accelerated introduction to language of functions. Emphasis on trigonometry as a preparation for calculus sequence MATH 2171-73

**Who takes MATH 1083?** This course is appropriate for students **with a solid algebra background** who plan to major in the fields

- Mathematics (the B.A. degree)
- Physics
- Chemistry
- Biochemistry
- Quantitative economics
- Computer science with a concentration in mathematics

**Warning:** MATH 1083 is **not** appropriate for students intending to choose as their major the BS degree in Mathematics (Secondary Education); this major requires MATH 1085.

**1085. Pre-Calculus Mathematics (5) (F,S,SS) (FC:MA)** May not be taken by students who have credit for MATH 1074. P: MATH 1065 with minimum grade of C. Algebra and trigonometry for qualified students who plan to take calculus.

**Who takes MATH 1085?** Students planning to pursue a B.S. in Secondary Mathematics Education should take this course. MATH 1083 or 1085 satisfies the requirements of these majors:

- Mathematics (the B.A. degree)
- Physics
- Chemistry
- Biochemistry
- Quantitative economics
- Computer science with a concentration in mathematics

Students unsure about whether they should take 1083 or 1085 should contact the Mathematics Department for more details (328-4111).

**2127. Basic Concepts of Mathematics (3) (F,S,SS) (FC:MA)** May not count toward MATH or CSCI major or minor. P: Appropriate score on math placement test or SAT score of 540 or higher. System of real numbers and subsystems and their properties from an algebraic viewpoint. Statistics and number theory.

**Who takes MATH 2127?** This course is appropriate for students who plan to major in

- Elementary grades education
- Special education
- BS in Dance Education
- Department of Child Development and Family Relations