

## 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 general education 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. So 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 general education mathematics requirement are as follows:

☐ **MATH 1050 – Explorations in Mathematics**-This course is designed for students intending to choose non-technical majors that do not require calculus or statistics in their degree programs. It covers a wide variety of topics including 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
- ☐ ☐ Nursing
- ☐ ☐ 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.

☐ **MATH 1065 – College Algebra**-This course is designed for students intending to choose majors outside the School of Business that require either calculus or statistics. This course covers standard topics in college algebra such as graphing and solving equations/inequalities involving polynomials, exponential, and logarithmic functions, etc. Admission into MATH 1065 **requires** a placement exam score.

**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 1065 by-pass exam, a student may by-pass MATH 1065 and proceed directly to MATH 1083 or 1085. Contact the Mathematics Department for details (328-6703).

- MATH 1066 – Applied Mathematics for Decision Making**-This course is designed for students intending to major in business and is required for admission into the School of Business. It covers linear and nonlinear equations, systems of equations, applications of matrix algebra, and applied basic differential calculus. These topics are treated from the standpoint to help the student develop skills in formulating models for and interpreting solutions to business word problems. Admission into MATH 1066 **requires** a placement exam score.

➤ **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.

- MATH 1067 – Algebraic Concepts and Relationships**-This course is designed for students planning to major in middle grades education. It emphasizes the development of problem-solving strategies and abilities. Topics covered include properties of the integers, rationals, real and complex numbers and polynomials, number theory, linear and quadratic functions, and real-world relationships with physical models, charts, graphs, equations and inequalities. Admission into MATH 1067 **requires** a placement exam score.

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

**MATH 1083 – Introduction to Functions**-This is a streamlined precalculus course designed for students with a solid background in algebra who are planning to choose a major that requires the 12-hour calculus sequence, MATH 2171, 2172, 2173. MATH 1083 includes a brief review of algebra and exponential/logarithmic functions, but the emphasis of the course is trigonometry.

**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.

**MATH 1085 – Precalculus**-This precalculus course is designed for students who are planning to choose a major that requires the 12-hour calculus sequence, MATH 2171, 2172, 2173. This course covers standard precalculus topics: algebra and trigonometry. Admission into MATH 1085 **requires** a score of at least 25 on the mathematics placement exam **or** completion of MATH 1065 with a minimum grade of C.

**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 a Mathematics Department advisor (328-6461).

**MATH 2127 – Basic Concepts of Mathematics**-This course is designed for students planning to major in certain degree programs in the School of Education. Topics covered include the system of real numbers and its subsystems and their properties from an algebraic viewpoint, as well as statistics and number theory. Admission into MATH 2127 **requires** a mathematics placement exam score.

**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