

## Mathematics Major and Secondary Education Cognate Major Requirements

Catalog Year: 2015-16

Degree: Bachelor of Science

Credit Hours: 77+ (Math 41+; Secondary Cognate 36)

"PR" indicates a pre-requisite. "CO" indicates a co-requisite.

Courses within this major may also satisfy general education requirements. Please consult <http://registrar.cofc.edu/general-edu> for more information.

### Teacher Education Track (Grades 9-12)

Students interested in teacher certification in math must complete the math with teacher education track major and the secondary education cognate major requirements. See the School of Education, Health and Human Performance section of the undergraduate catalog for a listing of the required secondary education cognate major courses. Students should apply for acceptance to this program no later than the second semester of their sophomore year. Requirements for this program include admission to and successful completion of the approved teacher education program. Students must successfully complete all requirements for certification in secondary education.

When declaring teacher certification in math through the Program of Study Management System (POSM), students must first select "Declare or Add a Major" and then "Secondary Education Cognate" from the major list. Once this selection is made, a second menu box will appear with a list of the associated majors. Select the math major and follow the on-screen instructions.

### Required Courses

- MATH 120     Introductory Calculus (4) PR: Placement or C- or better in MATH 111
- MATH 220     Calculus II (4) PR: MATH 120 or HONS 115
- MATH 203     Linear Algebra (3) PR: MATH 120 or instructor permission
- MATH 221     Calculus III (4) PR: MATH 220
- MATH 246     Mathematical Computing and Programming Lab (1) PR: MATH 220 or instructor permission
- MATH 250     Statistical Methods I (3) PR: MATH 105 with a C- grade or better or MATH 111 or MATH 120 or permission of instructor
- MATH 295     Introduction to Abstract Mathematics (3) PR: MATH 203 or MATH 221
- MATH 303     Abstract Algebra I (3) PR: MATH 203 and MATH 295
- MATH 311     Advanced Calculus I (3) PR: MATH 221 and MATH 295
- OR**
- MATH 315     Introduction to Complex Variables (3) PR: MATH 221 with a grade of C or better
- MATH 323     Differential Equations (3) PR: MATH 221, and MATH 203 or instructor permission
- MATH 340     Axiomatic Geometry (3) PR: MATH 295 or instructor permission
- MATH 417     Reading and Research (1-3) PR: Senior standing; instructor and department chair permission
- MATH 430     Mathematical Statistics I (3) PR: MATH 221
- MATH 470     Mathematical Modeling (3) PR: MATH 203, MATH 323 and MATH 246 or CSCI 220 or instructor permission

**Notes:** When declaring teacher certification in math through the Program of Study Management System (POSM), students must first select "Declare or Add a Major" and then "Secondary Education Cognate" from the major list. Once this selection is made, a second menu box will appear with a list of the associated majors. Select the math major and follow the on-screen instructions.

### Secondary Cognate Major Requirements

"PR" indicates a pre-requisite. "CO" indicates a co-requisite.

Courses within this major may also satisfy general education requirements. Please consult <http://registrar.cofc.edu/general-edu> for more information.

Students interested in teacher certification in secondary education must complete a content major, additional coursework required for certification (if applicable), and the secondary education cognate major requirements. Content majors are available in biology (Bachelor of Science Teaching Option), chemistry (Bachelor of Arts), English (Bachelor of Arts), history (Bachelor of Arts, for certification in social studies), mathematics (Bachelor of Science teacher education track), and physics (Bachelor of Arts). Students must successfully complete all requirements for certification in secondary education.

### Required Courses

- COMM 104 Public Speaking (3) *PR: None*
- EDFS 201\* Foundations of Education (3) *PR: Sophomore standing.*

**Note:** \*EDFS 201 is prerequisite to all other education courses with a grade of C or better.

- EDFS 303 Human Growth and Development and the Educational Process (3) *PR: None*
- EDFS 326\* Integrating Technology Into Teaching (3)
- EDFS 330\* Classroom and Behavior Management (3) *PR: junior or above*
- EDFS 345 Introduction to the Education of Exceptional Children and Youth (3) *PR: EDFS 303.*
- EDFS 455 Literacy and Assessment in the Content Areas (3)
- EDFS 456 Teaching Strategies in the Content Areas (English, Math, Science, Social Studies) (3)

**Note:** \*Candidates who have received credit for PSYC 224 (previously listed as PSYC 311) prior to beginning a teacher education program should not take EDFS 303 (credit will not be awarded). Students must enroll in the Secondary sections for each of the courses marked with an asterisk. (See associate department chair to register for courses.) Each course requires a school-based field experience. Students will need a 3-hour block of time per week between the hours of 7 a.m. and 2 p.m. Monday through Friday, to complete each school-based experience.

### Clinical Practice Internship Requirement

- EDFS 460\* Clinical Practice in the Content Area (12) *PR: Admission to a teacher education program and completion of all education requirements. This course is graded pass-fail. A grade of "P" carries only earned hours. It does not carry quality hours or quality points.*

**Note:** \*Students seeking recommendation for South Carolina certification in Secondary Education must complete the program of study above and meet the admission, retention, and exit requirements of the program and the School of Education, Health, and Human Performance. Recommendation to the South Carolina Department of Education for certification in South Carolina is contingent upon successful completion of Clinical Practice, and achievement of passing scores on the necessary Praxis II test(s) for recommendation. Students who do not take Clinical Practice may not earn a degree in Secondary Education and will not be recommended for certification. See your faculty advisor for additional information.

### Notes:

- You should apply for admission (this is NOT declaring your major) to the Teacher Education Program the semester you are enrolled in EDFS 201 Foundations of Education. Requirements for admission:
  - Minimum overall GPA of 2.75 and 60 earned credit hours.
  - Passing score on the 3 components of the PRAXIS 1: Pre-Professional Skills Test (Reading, Writing, and Mathematics) as designated by the South Carolina Department of Education OR qualifying SAT or ACT scores.
  - Disposition forms from (a) a general education faculty member, (b) your EDFS 201 professor, and (c) someone who has observed you working with children.
  - If a student has transfer credit for a course that is equivalent to EDFS 201, they must meet with the Teacher Education department chair and complete 1 hour of work.

- A grade of C or better in EDFS 201 Foundations of Education.
- Your admission process must be completed before beginning the professional program.
- You must complete a major in the content area and the cognate major to be forwarded to the State Department of Education for certification.