

# COLLEGE OF EDUCATION

## Modern Language Requirement

A number of Clemson University degree programs require the completion of a modern language through a specific course level. Modern languages taught at Clemson University or accepted for transfer credit include American Sign Language, Arabic, Chinese, French, German, Italian, Japanese, Latin, Portuguese, Russian and Spanish. While many degree programs accept any of these modern languages for the requirement, certain programs may have specific modern language requirements. Students should consult their program's curriculum map for details.

## TEACHER EDUCATION PROGRAMS

The College of Education offers CAEP accredited teacher education undergraduate programs leading to teaching licensure in early childhood; elementary; secondary English, mathematics, science and social studies; special education; and agricultural education (in cooperation with the College of Agriculture, Forestry and Life Sciences).

Our excellent preparation in both content and methodology includes many collaborative experiences in local schools. It prepares our graduates to shape the economic future of South Carolina, the United States, and the world by preparing leaders, workers, and citizens for their future roles in society.

The mission of the teacher preparation programs in the College of Education is to prepare critically reflective practitioners who:

- advocate for all learners,
- understand the importance of students' developmental and sociocultural contexts to learning,
- implement research-based instructional practices,
- utilize current disciplinary knowledge to integrate educational theory, research and practice,
- understand the influence of educational policies on their instruction and educational system, and
- stand firm in their conviction that all students can learn.

Field and clinical practice are integral to teacher preparation. The College of Education is committed to providing candidates with purposeful, challenging, and diverse experiences. It is through a range of diverse, carefully constructed, and challenging field-based experiences, in conjunction with classroom instruction, that candidates recognize the inherent dignity and value of all individuals, value social justice, and advocate on behalf of children and families.

The Teacher Education Programs in Early Childhood, Elementary, Special Education, and secondary school programs in Agriculture, English, Mathematics, Science, and Social Studies are accredited by NCATE (now known as CAEP), the State of South Carolina, and discipline specialized national professional associations.

## Criminal Records Check

A criminal record could prevent a person enrolled in a teacher education program in South Carolina from being licensed as a teacher in this state in accordance with State Board of Education guidelines.

Section 59-25-115 of the South Carolina Code of Laws specifies that before beginning the full-time clinical teaching experience in South Carolina, a teacher education candidate shall undergo a state criminal records check by the South Carolina Law Enforcement Division (SLED) and a national criminal records check supported by fingerprints by the Federal Bureau of Investigation (FBI). The applicant is responsible for the cost associated with the FBI background checks. Information reported relative to prior arrests or convictions will be reviewed by the State Department of Education, and the State Board of Education when warranted, according to board guidelines. A teacher education candidate with prior arrests or convictions of a serious nature that could affect his/her fitness to teach in the public schools of South Carolina may be denied the opportunity to complete the clinical teaching experience, and thus affect eligibility for initial teacher licensure. An individual who is denied this opportunity as a result of prior arrests or convictions, after one year, may request reconsideration under guidelines established by the State Board of Education.

The criminal records check will be handled through the Office of Educator Services at the South Carolina State Department of Education and will be considered phase one of a person's application for a teaching credential. Provided the criminal records check is conducted within 18 months of the time the teacher candidate formally applies for a teaching license, the fingerprinting will not have to be repeated at the time of application. A graduate of a teacher education program applying for initial teacher licensure must have completed the FBI fingerprint process within 18 months of formally applying for initial teacher licensure or the fingerprint process must be repeated. The background check normally requires six (6) to eight (8) weeks to process. If the electronic fingerprints cannot be processed, the South Carolina State Department will inform the individual that it will be necessary to complete another electronic fingerprinting appointment.

Additionally, College of Education teacher candidates must complete a SLED check, a National Sex Offender check and a Tuberculosis (TB) test prior to beginning field and practicum experiences in public schools. Candidates complete field and practicum experiences prior to the full time clinical teaching experience. Therefore, the teacher education candidate will complete a SLED check for field and practicum experiences and a SLED and FBI background check for the full time clinical teaching experience.

## Admission

**Professional**—Application to the professional level of a program will be reviewed in the second semester of the sophomore year, the second year of enrollment in the education program. Admission to the professional level requirements include 60 semester hours of education program work, passing scores on all areas of the Praxis CORE and have a minimum cumulative grade-point average of 2.75. A candidate may exempt the CORE by meeting minimum ACT or SAT requirements as determined by the South Carolina Department of Education.

## Combined Degree Program BA/BS in Early Childhood Education, Elementary Education, Secondary Education, Science Teaching, or Mathematics Teaching, and MED in Teaching and Learning

Education majors at Clemson University may participate in a combined degree program option in any of the undergraduate majors offered in the College of Education, with the exception of Special Education. The undergraduate curricula allow up to 12 credits of mutually acceptable graduate course credits to satisfy requirements of both degrees.

### Undergraduate/Graduate Transition

1. Undergraduate students who have a minimum overall GPR of 3.4 and have completed a minimum of 90 credit hours may apply for acceptance by the Graduate School and to this combination program. If accepted, students must maintain an overall GPR of 3.4 in Education and a 3.0 average in the Teaching and Learning graduate courses to continue enrollment in this combined program.
2. In consultation with the Undergraduate Advising office and the Department Chair in Teaching and Learning, students in the combined program may choose up to 12 credit hours to satisfy the degree requirements of both degree programs. To count toward the BA/BS degree in Education, these courses must be approved as satisfying the requirements of the graduate curriculum in Teaching and Learning.
3. Students in the combined degree program are conditionally accepted to the graduate program until completion of the BA/BS degree requirements.
4. Graduate assistantships are not available for this program.

### Graduate Program

1. The MED in Teaching and Learning requires all students to complete five core classes and select an emphasis area. For this combined program, all students must select the emphasis in Teacher Residency.
2. Students must have at least 150 combined credit hours to earn the graduate degree
3. Complete information about the MED degree in Teaching and Learning may be found in the MED Teaching and Learning Handbook: <http://www.clemson.edu/education/academics/masters-specialist-programs/index.html>

### Information for Students

Students interested in the combined BA/BS/MED program should consult with the undergraduate academic advising office as early as possible. Students may also wish to consult with the Chair of the Department of Teaching and Learning. An application

should be submitted by the end of the junior year, but can be made at any time as long as the program requirements are fulfilled. Application is made via the GS6BS/MS form available from the Graduate School web site at <http://www.clemson.edu/graduate/files/pdfs/GS6BSMS.pdf>. Please note the GRE requirement for admission is eliminated for students approved via GS6BS/MS forms to pursue graduate degree programs.

#### Information for Departments

Departments should ensure the courses to be double counted meet the following requirements: All courses must be at least 6000-level courses. Students may not take more than 12 graduate credit hours during their undergraduate program. Students in the combined program are not eligible for graduate assistantships.

#### Enrollment in Professional Courses

Once admitted to the professional level, candidates must maintain a 2.75 GPA in order to continue through the coursework sequence. Please see the following pages for additional program-specific academic requirements. On occasion appeals may be reviewed by department chairs.

**Directed Teaching/Teaching Internship**—A candidate shall apply for student teaching with the Office of Field Experiences prior to the semester in which senior level teaching methods courses are to be scheduled. Admission and maintenance at the professional level and completion of at least 95 semester hours is required for registration to student teaching.

#### Change of Major

Changing majors into Education is highly competitive. Change of major decisions are made on an annual basis at the end of the fall semester. Applications are due December 1 and can only be obtained after meeting with a College of Education academic advisor. To apply, candidates must have a minimum grade-point average of 2.75.

#### Graduation and Licensure

To graduate, a candidate must have scores for all state-mandated licensure exams on file with the College of Education's Office of Field Experience. Candidates must pass all required Praxis II tests, including the PLT (Principles of Learning and Teaching) test, before receiving recommendation for South Carolina teaching licensure.

#### ATHLETIC LEADERSHIP MINOR

One minor is offered in the College of Education: Athletic Leadership. For more information on this minor and the requirements, please see the Minors, Programs and Degrees section.

#### ATHLETIC LEADERSHIP MINOR

Students completing a nationally recognized coaching certification through the Athletic Leadership Program at Clemson may be eligible to meet the requirements for Athletic Leadership Certification. For more information, contact the Coordinator of Athletic Leadership at 864-656-0434.

#### Graduate Study

The College of Education offers a comprehensive set of programs at the masters, specialist and doctoral levels in preschool to grade 12 education, educational

leadership, counselor education (clinical mental health counseling and school counseling), student affairs and higher education, and human resource development. Browse the Clemson University Office of Graduate Programs or College of Education websites for more information.

## AGRICULTURAL EDUCATION

### Bachelor of Science

The College of Education and the College of Agriculture, Forestry and Life Sciences conduct a cooperative program to produce agricultural teachers (grades 9–12) for South Carolina. See pages 44-45 for the curriculum.

## EARLY CHILDHOOD EDUCATION

### Bachelor of Arts

The Early Childhood Education curriculum prepares students for teaching positions on the pre-kindergarten and primary levels (Pre-K–3).

#### Freshman Year

##### First Semester

- 2 - ED 1050 Orientation to Education
- 3 - MATH 1150 Contemporary Mathematics for Elementary School Teachers I
- 3 - History Requirement<sup>1</sup>
- 3 - Modern Language Requirement<sup>2</sup>
- 4 - Natural Science Requirement<sup>3</sup>

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##### Second Semester

- 3 - COMM 1500 Intro. to Human Comm. or 3 - COMM 2500 Public Speaking
- 3 - ENGL 1030 Composition and Rhetoric
- 3 - MATH 1160 Contemporary Mathematics for Elementary School Teachers II
- 3 - PSYC 2010 Introduction to Psychology
- 3 - Modern Language Requirement<sup>2</sup>
- 3 - Elective

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#### Sophomore Year

##### First Semester

- 3 - EDEC 3000 Foundations of Early Childhood Education<sup>4</sup>
- 1 - EDEC 3010 Practicum in Early Childhood Settings I<sup>4</sup>
- 3 - MATH 2160 Geometry for Elementary School Teachers
- 3 - Arts and Humanities (Literature) Requirement<sup>5</sup>
- 3 - Cross-Cultural Awareness Requirement<sup>6</sup>
- 4 - Natural Science Requirement<sup>3</sup>

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##### Second Semester

- 3 - EDEC 2200 Family, School, and Community Relationships<sup>7</sup>
- 1 - EDEC 3020 Practicum in Early Childhood Settings<sup>7</sup>
- 3 - EDF 3020 Educational Psychology
- 3 - EDF 3340 Child Growth and Development
- 3 - EDF 4800 Foundations of Digital Media and Learning
- 3 - Arts and Humanities (Non-Lit) Requirement<sup>6</sup>

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## Junior Year

### First Semester

- 1 - EDEC 3030 Practicum in Early Childhood Settings III<sup>8</sup>
- 3 - EDEC 3360 Concepts of Play and Social Development of Infants and Young Children<sup>8</sup>
- 3 - EDEL 3100 Arts in the Elementary School<sup>8</sup>
- 3 - EDSP 3700 Introduction to Special Education<sup>8</sup>
- 3 - EDSP 3750 Early Intervention for Infants and Children with Special Needs<sup>8</sup>
- 3 - Elective

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### Second Semester

- 1 - EDEC 3040 Practicum in Early Childhood Settings IV<sup>9</sup>
- 3 - EDEC 4200 Early Childhood Science<sup>9</sup>
- 3 - EDEC 4500 Early Childhood Curriculum and Social Studies Methods<sup>9</sup>
- 3 - EDEL 3210 Physical Education Methods and Content for Classroom Teachers<sup>9</sup>
- 3 - EDF 3010 Principles of American Education
- 3 - EDLT 4580 Early Literacy: Birth–Kindergarten<sup>9</sup>

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## Senior Year

### First Semester

- 3 - EDEC 4000 Observation and Assessment in Clinical Settings<sup>10</sup>
- 3 - EDEC 4300 Early Childhood Mathematics<sup>10</sup>
- 3 - EDEC 4400 Early Childhood Language Arts<sup>10</sup>
- 3 - EDEC 4600 Critical Issues and Cultural Diversity in Early Childhood Education<sup>10</sup>
- 3 - EDLT 4590 Teaching Reading in the Early Grades: K-3<sup>10</sup>

15

### Second Semester

- 9 - EDEC 4840 Directed Teaching in Early Childhood Education<sup>11</sup>
- 3 - EDEC 4850 Early Childhood Capstone<sup>11</sup>

12

125 Total Semester Hours

<sup>1</sup>Select from HIST 1010, 1020, 1720, 1730, or 1930

<sup>2</sup>Students must complete through 2020 in a modern language. See Modern Languages Requirement at Clemson University statement on page 27. Spanish is recommended.

<sup>3</sup>One biological science and one physical science course, each with laboratory, must be selected from General Education Requirements. See advisor.

<sup>4</sup>Must be taken the fall semester of the sophomore year.

<sup>5</sup>Select from ENGL 2120, 2130, 2140, or 2150

<sup>6</sup>See General Education Requirements.

<sup>7</sup>Must be taken the spring semester of the sophomore year.

<sup>8</sup>Must be taken the fall semester of the junior year.

<sup>9</sup>Must be taken the spring semester of the junior year.

<sup>10</sup>Must be taken the fall semester of the senior year.

<sup>11</sup>Must be taken the spring semester of the senior year.

## ELEMENTARY EDUCATION

### Bachelor of Arts

The Elementary Education curriculum prepares students to teach on the elementary school level (grades 2–6). Students select one of two Emphasis Areas: Literacy, Culture and Diversity; or Mathematics and Science.

## LITERACY, CULTURE AND DIVERSITY EMPHASIS AREA

### Freshman Year

#### First Semester

- 4 - BIOL 1090 Introduction to Life Science
  - 2 - ED 1050 Orientation to Education
  - 3 - GEOG 1030 World Regional Geography
  - 3 - MATH 1150 Contemporary Mathematics for Elementary School Teachers I
  - 3 - Modern Language Requirement<sup>1</sup>
- 
- 15

#### Second Semester

- 3 - ENGL 1030 Composition and Rhetoric
  - 3 - HIST 1010 History of the United States *or*
  - 3 - HIST 1020 History of the United States
  - 3 - MATH 1160 Contemporary Mathematics for Elementary School Teachers II
  - 4 - PHSC 1170 Intro. to Chemistry and Earth Science for Elementary Education Majors
  - 3 - Modern Language Requirement<sup>1</sup>
- 
- 16

### Sophomore Year

#### First Semester

- 3 - COMM 1500 Intro. to Human Comm. *or*
  - 3 - COMM 2500 Public Speaking
  - 3 - EDF 3340 Child Growth and Development
  - 3 - MATH 2160 Geometry for Elem. Sch. Teachers
  - 4 - PHSC 1180 Intro. to Physics, Astronomy and Earth Science for Elementary Education Majors
  - 3 - Arts and Humanities (Literature) Requirement<sup>2</sup>
- 
- 16

#### Second Semester

- 3 - EDEL 3100 Arts in the Elementary School
  - 3 - EDF 3010 Principles of American Education
  - 3 - EDF 3020 Educational Psychology
  - 3 - EDSP 3700 Introduction to Special Education
  - 3 - Arts and Humanities (Non-Lit.) Requirement<sup>3</sup>
  - 3 - Elective
- 
- 18

### Junior Year

#### First Semester

- 3 - EDEL 3210 Physical Education Methods and Content for Classroom Teachers
  - 3 - EDF 3080 Classroom Assessment
  - 3 - EDF 4800 Found. of Digital Media & Learning
  - 3 - EDLT 4600 Teach. Reading in Elem. Grades 2-6
  - 3 - MATH 3160 Problem Solving for Math. Teachers
- 
- 15

#### Second Semester

- 3 - EDEL 4050 Social Justice and 21st Cen. Learners
  - 3 - EDEL 4520 Elem. Methods in Math. Teaching
  - 3 - EDLT 4670 Prin. and Strat. for Teaching Engl. Speakers of Other Lang. in Elem. Schools
  - 3 - EDLT 4620 Reading and Responding to Literature in the Elementary School
  - 3 - EDLT 4630 Teaching Reading and Writing to English Language Learners
- 
- 15

### Senior Year

(Courses must be taken as listed in both semesters.)

#### First Semester

- 3 - EDEL 4010 Elementary Field Experience
  - 3 - EDEL 4510 Elem. Methods in Science Teaching
  - 3 - EDEL 4870 Elementary Methods in Social Studies Teaching
  - 3 - EDEL 4880 Elementary Methods in Language Arts Teaching
  - 3 - EDLT 4610 Content Area Reading: Grades 2-6
- 
- 15

#### Second Semester

- 3 - EDEL 4820 Capstone Sem. in Elem. Teaching
  - 9 - EDEL 4830 Directed Teaching in the Elementary School
- 
- 12

122 Total Semester Hours

<sup>1</sup>Students must complete through 2020 in a modern language. See Modern Languages Requirement at Clemson University statement on page 27.

<sup>2</sup>Select from ENGL 2120, 2130, 2140 or 2150

<sup>3</sup>See General Education Requirements.

## MATHEMATICS AND SCIENCE EMPHASIS AREA

### Freshman Year

#### First Semester

- 4 - BIOL 1090 Introduction to Life Science
  - 2 - ED 1050 Orientation to Education
  - 3 - GEOG 1030 World Regional Geography
  - 3 - MATH 1150 Contemporary Mathematics for Elementary School Teachers I
  - 3 - Modern Language Requirement<sup>1</sup>
- 
- 15

#### Second Semester

- 3 - ENGL 1030 Composition and Rhetoric
  - 3 - HIST 1010 History of the United States *or*
  - 3 - HIST 1020 History of the United States
  - 3 - MATH 1160 Contemporary Mathematics for Elementary School Teachers II
  - 4 - PHSC 1170 Intro. to Chemistry and Earth Science for Elementary Education Majors
  - 3 - Modern Language Requirement<sup>1</sup>
- 
- 16

### Sophomore Year

#### First Semester

- 3 - COMM 1500 Intro. to Human Comm. *or*
  - 3 - COMM 2500 Public Speaking
  - 3 - EDF 3340 Child Growth and Development
  - 3 - MATH 2160 Geometry for Elementary School Teachers
  - 4 - PHSC 1180 Intro. to Physics, Astronomy, and Earth Science for Elementary Education Majors
  - 3 - Arts and Humanities (Literature) Requirement<sup>2</sup>
- 
- 16

#### Second Semester

- 3 - EDEL 3100 Arts in the Elementary School
  - 3 - EDF 3010 Principles of American Education
  - 3 - EDF 3020 Educational Psychology
  - 3 - EDSP 3700 Introduction to Special Education
  - 3 - Arts and Humanities (Non-Lit.) Requirement<sup>3</sup>
  - 3 - Elective
- 
- 18

### Junior Year

#### First Semester

- 3 - EDEL 3210 Physical Education Methods and Content for Classroom Teachers
  - 3 - EDF 3080 Classroom Assessment
  - 3 - EDF 4800 Found. of Digital Media & Learning
  - 3 - EDLT 4600 Teaching Reading in the Elementary Grades: 2-6
  - 3 - MATH 3160 Problem Solving for Math. Teachers
- 
- 15

#### Second Semester

- 3 - EDEL 4520 Elem. Methods in Math. Teaching
  - 3 - EDLT 4670 Prin. and Strat. for Teaching Engl. Speakers of Other Lang. in Elem. Schools
  - 3 - ENSP 2010 Intro. to Environ. Sci. for Ed. Majors
  - 3 - MATH 3150 Adv. Top. in Math. for Elem. Tchrs
  - 3 - Science Content Requirement<sup>4</sup>
- 
- 15

### Senior Year

(Courses must be taken as listed in both semesters.)

#### First Semester

- 3 - EDEL 4010 Elementary Field Experience
  - 3 - EDEL 4510 Elem. Methods in Science Teaching
  - 3 - EDEL 4870 Elementary Methods in Social Studies Teaching
  - 3 - EDEL 4880 Elementary Methods in Language Arts Teaching
  - 3 - EDLT 4610 Content Area Reading: Grades 2-6
- 
- 15

#### Second Semester

- 3 - EDEL 4820 Capstone Sem. in Elem. Teaching
  - 9 - EDEL 4830 Directed Teaching in the Elem. Sch.
- 
- 12
- 122 Total Semester Hours

<sup>1</sup>Students must complete through 2020 in a modern language. See Modern Languages Requirement at Clemson University statement on page 27.

<sup>2</sup>Select from ENGL 2120, 2130, 2140 or 2150.

<sup>3</sup>See General Education Requirements.

<sup>4</sup>Any ASTR, BIOL, CH, ENR, ENSP, ENT, FOR, FNR, GEN, GEOL or PHYS course chosen in conjunction with advisor.

## MATHEMATICS TEACHING

### Bachelor of Science

The program leading to a Bachelor of Science degree in Mathematics Teaching is designed for students planning to teach mathematics on the secondary school level (grades 9-12). (Note: The program leading to a Bachelor of Arts degree in Secondary Education with a Teaching Area of Mathematics is also designed for students planning to teach mathematics on the secondary school level.) To be recommended for licensure, students must earn a grade of C or higher in all required mathematics content and education courses.

### Freshman Year

#### First Semester

- 4 - CH 1050 Chemistry in Context I *or*
  - 4 - CH 1060 Chemistry in Context II
  - 2 - ED 1050 Orientation to Education
  - 4 - MATH 1060 Calculus of One Variable I
  - 3 - PHIL 1020 Introduction to Logic
  - 3 - Cross-Cultural Awareness Requirement<sup>1</sup>
- 
- 16

**Second Semester**

- 3 - ENGL 1030 Composition and Rhetoric
  - 4 - MATH 1080 Calculus of One Variable II
  - 3 - PHYS 1220 Physics with Calculus I
  - 1 - PHYS 1240 Physics Lab I
  - 3 - Science Requirement<sup>2</sup>
- 14

**Sophomore Year****First Semester**

- 3 - COMM 1500 Intro. to Human Comm. *or*
  - 3 - COMM 2500 Public Speaking
  - 3 - EDSC 2260 A Prof. Approach to Sec. Algebra
  - 4 - MATH 2060 Calculus of Several Variables
  - 3 - PHYS 2210 Physics with Calculus II
  - 1 - PHYS 2230 Physics Lab. II
  - 3 - Arts and Humanities (Literature) Requirement<sup>3</sup>
- 17

**Second Semester**

- 3 - EDF 3020 Educational Psychology
  - 4 - MATH 2080 Intro. to Ordinary Diff. Equations
  - 3 - MATH 3110 Linear Algebra
  - 3 - MATH 3190 Introduction to Proofs
  - 3 - Economics Requirement<sup>4</sup>
- 16

**Junior Year****First Semester**

- 3 - EDF 3010 Principles of American Education
  - 3 - EDLT 4800 Foundations of Adolescent Literacy
  - 3 - EDSC 3260 Practicum in Secondary Math.
  - 3 - MATH 3020 Statistics for Science and Engr.
  - 3 - History Requirement<sup>5</sup>
  - 3 - Science Requirement<sup>2</sup>
- 18

**Second Semester**

- 3 - EDF 3350 Adolescent Growth and Development
  - 3 - EDSC 4370 Technology in Secondary Math.
  - 3 - EDSP 3700 Introduction to Special Education
  - 3 - MATH 3080 College Geometry
  - 3 - MATH 4120 Algebra I
- 15

**Senior Year****First Semester**

- 3 - EDSC 4260 Teaching Secondary Mathematics<sup>6</sup>
  - 3 - EDLT 4980 Secondary Content Area Reading<sup>6</sup>
  - 3 - MATH 4000 Theory of Probability *or*
  - 3 - MATH 4020 Statics for Science and Eng. II
  - 3 - MATH 4080 Topics in Geometry
  - 3 - MATH 4530 Advanced Calculus I
- 15

**Second Semester**

- 9 - EDSC 4460 Teaching Internship in Sec. Math.<sup>7</sup>
  - 3 - EDSC 4560 Secondary Math. Capstone Sem.<sup>7</sup>
- 12

123 Total Semester Hours

<sup>5</sup>See General Education Requirements. Cross-Cultural Awareness Requirement must be in an area other than history.<sup>2</sup>Select from courses in ASTR, BIOL, CH, GEOL, PHYS<sup>3</sup>ENGL 2120, 2130, 2140, 2150<sup>4</sup>Select from ECON 2000, 2110, or 2120<sup>5</sup>Select from HIST 1010, 1020, 1720, 1730, or 1930<sup>6</sup>EDSC 4260 and EDLT 4980 must be taken concurrently prior to the teaching internship. Offered fall semester only.<sup>7</sup>EDSC 4460 and 4560 must be taken concurrently. Offered spring semester only.**SCIENCE TEACHING**

The programs leading to a Bachelor of Arts or Bachelor of Science degree in Science Teaching are designed for students planning to teach biological sciences, chemistry, or physical sciences on the secondary school level (grades 9-12). To be recommended for licensure, students must earn a grade of C or higher in all required science content and education courses.

**Double Majors in Science Teaching and Content Area**

The Bachelor of Arts Degree in Science Teaching could result in a double major in Science Teaching and the select content area (Biological Sciences, Chemistry, or Physics). To receive a double major in Science Teaching and the selected content area, a Change of Academic Program form must be completed to declare both majors. To achieve a double major, the appropriate plan of study listed under Science Teaching must be followed and all major requirements from both programs must be satisfied. The double major prepares students for teaching science on the secondary level and graduate work in the respective content field.

**TEACHING AREA:  
BIOLOGICAL SCIENCES****Bachelor of Arts****Freshman Year****First Semester**

- 3 - BIOL 1030 General Biology I *and*
  - 1 - BIOL 1050 General Biology Lab. I *or*
  - 5 - BIOL 1100 Principles of Biology
  - 4 - CH 1010 General Chemistry
  - 2 - ED 1050 Orientation to Education
  - 4 - MATH 1060 Calculus of One Variable I
  - 3 - Modern Language Requirement<sup>1</sup>
- 17-18

**Second Semester**

- 3 - BIOL 1040 General Biology I *and*
  - 1 - BIOL 1060 General Biology Lab. II *or*
  - 5 - BIOL 1110 Principles of Biology II
  - 4 - CH 1020 General Chemistry
  - 3 - ENGL 1030 Composition and Rhetoric
  - 3 - Modern Language Requirement<sup>1</sup>
  - 3 - Statistics Requirement<sup>2</sup>
- 17-18

**Sophomore Year****First Semester**

- 3 - CH 2010 Survey of Organic Chemistry
  - 1 - CH 2020 Survey of Organic Chemistry Lab.
  - 3 - HIST 1220 History, Technology and Society *or*
  - 3 - HIST 1240 Environmental History Survey
  - 3 - PHYS 2070 General Physics I
  - 1 - PHYS 2090 General Physics I Lab.
  - 3 - Arts and Humanities (Literature) Requirement<sup>3</sup>
  - 3 - Biochemistry or Genetics Requirement<sup>4</sup>
- 17

**Second Semester**

- 3 - EDF 3010 Principles of American Education
  - 3 - EDF 3020 Educational Psychology
  - 3 - PHYS 2080 General Physics II
  - 1 - PHYS 2100 General Physics II Lab.
  - 3 - Biochemistry or Genetics Requirement<sup>4</sup>
  - 4 - Organismal Diversity Requirement<sup>5</sup>
- 17

**Junior Year****First Semester**

- 3 - ANTH 2010 Introduction to Anthropology *or*
  - 3 - GEOG 1030 World Regional Geography
  - 3 - BIOL 4610 Cell Biology
  - 2 - BIOL 4620 Cell Biology Laboratory
  - 3 - EDLT 4800 Foundations of Adolescent Literacy
  - 3 - EDSC 3270 Practicum in Secondary Science
  - 3 - Ecology Requirement<sup>6</sup>
- 17

**Second Semester**

- 3 - BIOL 3350 Evolutionary Biology
  - 3 - BIOL (EDSC) 4820 Laboratory Techniques for Teaching Science
  - 3 - EDF 3350 Adolescent Growth and Development
  - 3 - ENGL 3150 Scientific Writing and Comm.
  - 3 - Functional Biology Requirement<sup>7</sup>
- 15

**Senior Year****First Semester**

- 3 - COMM 1500 Intro. to Human Comm. *or*
  - 3 - COMM 2500 Public Speaking
  - 3 - EDSP 3700 Introduction to Special Education
  - 3 - EDSC 4270 Teaching Secondary Science<sup>8</sup>
  - 3 - EDLT 4980 Secondary Content Area Reading<sup>8</sup>
  - 3 - Arts and Humanities (Non-Lit.) Requirement<sup>3</sup>
- 15

**Second Semester**

- 9 - EDSC 4470 Teaching Internship in Sec. Sci.<sup>9</sup>
  - 3 - EDSC 4570 Sec. Science Capstone Seminar<sup>9</sup>
- 12

127-129 Total Semester Hours

<sup>1</sup>Students must complete through 2020 in a modern language. See Modern Languages Requirement at Clemson University statement on page 27.<sup>2</sup>STAT 2300 or 3090<sup>3</sup>See General Education Requirements<sup>4</sup>One lecture course must be completed for both biochemistry (BCHM 3010 or BCHM 3050) and for genetics (GEN 3000 or GEN 3020).<sup>5</sup>One lecture and associated laboratory must be selected from BIOL 3010; BIOL 3020/3060; BIOL 3030/3070; BIOL 3040/3080; BIOL 3200; BIOL 4060/4070; or BIOL 4250/4260.<sup>6</sup>At least one selected from BIOL 4410, 4420, 4430, 4460, 4700, or MICR 4010.<sup>7</sup>At least one selected from BIOL 3160, 4010, 4080, 4590, 4750, or 4800.<sup>8</sup>To be taken the semester prior to EDSC 4470 and 4570. EDSC 4270 and EDLT 4980 must be taken concurrently.<sup>9</sup>EDSC 4470 and 4570 must be taken concurrently. Offered spring semester only.**TEACHING AREA:  
BIOLOGICAL SCIENCES****Bachelor of Science****Freshman Year****First Semester**

- 3 - BIOL 1030 General Biology I *and*
  - 1 - BIOL 1050 General Biology Lab. I *or*
  - 5 - BIOL 1100 Principles of Biology I
  - 4 - CH 1010 General Chemistry
  - 4 - MATH 1060 Calculus of One Variable I
  - 3 - Oral Communication Requirement<sup>1</sup>
- 15-16

**Second Semester**

- 3 - BIOL 1040 General Biology II and
  - 1 - BIOL 1060 General Biology Lab. II or
  - 5 - BIOL 1110 Principles of Biology II
  - 4 - CH 1020 General Chemistry
  - 2 - ED 1050 Orientation to Education
  - 3 - ENGL 1030 Composition and Rhetoric
  - 3 - Statistics Requirement<sup>2</sup>
- 16-17

**Sophomore Year****First Semester**

- 3 - CH 2010 Survey of Organic Chemistry
  - 1 - CH 2020 Survey of Organic Chemistry Lab.
  - 3 - EDF 3020 Educational Psychology
  - 3 - HIST 1220 History, Technology, and Society or
  - 3 - HIST 1240 Environmental History Survey
  - 3 - PHYS 2070 General Physics I
  - 1 - PHYS 2090 General Physics I Lab.
  - 3 - Genetics Requirement<sup>3</sup>
- 17

**Second Semester**

- 3 - BIOL 3350 Evolutionary Biology
  - 3 - EDF 3010 Principles of American Education
  - 3 - PHYS 2080 General Physics II
  - 1 - PHYS 2100 General Physics II Lab.
  - 3 - Biochemistry Requirement<sup>3</sup>
  - 3 - Ecology Requirement<sup>4</sup>
- 16

**Junior Year****First Semester**

- 3 - BIOL 4610 Cell Biology
  - 2 - BIOL 4620 Cell Biology Laboratory
  - 3 - EDLT 4800 Foundations of Adolescent Literacy
  - 3 - EDSC 3270 Practicum in Secondary Science
  - 4 - Organismal Diversity Requirement<sup>5</sup>
- 15

**Second Semester**

- 3 - ANTH 2010 Introduction to Anthropology or
  - 3 - GEOG 1030 World Regional Geography
  - 3 - BIOL (EDSC) 4820 Laboratory Techniques for Teaching Science
  - 3 - EDF 3350 Adolescent Growth and Development
  - 3 - Arts and Humanities (Literature) Requirement<sup>1</sup>
  - 4 - Functional Biology Requirement<sup>6</sup>
- 16

**Senior Year****First Semester**

- 3 - EDSP 3700 Introduction to Special Education
  - 3 - EDSC 4270 Teaching Secondary Science<sup>7</sup>
  - 3 - EDLT 4980 Secondary Content Area Reading<sup>7</sup>
  - 3 - Art and Humanities (Non-Lit.) Requirement<sup>1</sup>
  - 1 - Elective
- 13

**Second Semester**

- 9 - EDSC 4470 Teaching Internship in Sec. Sci.<sup>8</sup>
  - 3 - EDSC 4570 Sec. Science Capstone Seminar<sup>8</sup>
- 12

120-122 Total Semester Hours

<sup>1</sup>See General Education Requirements.

<sup>2</sup>STAT 2300 or 3090

<sup>3</sup>One lecture course must be completed for both biochemistry (BCHM 3010 or 3050) and for genetics (GEN 3000 or 3020).

<sup>4</sup>At least one course selected from BIOL 4410, 4420, 4430, 4460, or 4700

<sup>5</sup>One lecture and associated laboratory must be selected from BIOL 3010, 3020/3060, 3030/3070, 3040/3080, 3200, 4060/4070, or 4250/4260.

<sup>6</sup>At least one course selected from BIOL 3160, 4010, 4080, 4590, 4750, or 4800. If a three-credit hour course is selected, the remaining one-credit hour must be satisfied with an elective credit.

<sup>7</sup>To be taken the semester prior to EDSC 4470 and 4570. EDSC 4270 and EDLT 4980 must be taken concurrently. Offered fall semester only.

<sup>8</sup>EDSC 4470 and 4570 must be taken concurrently. Offered spring semester only.

**TEACHING AREA: CHEMISTRY****Bachelor of Arts****Freshman Year****First Semester**

- 4 - CH 1010 General Chemistry
  - 1 - CH 1410 Chemistry Orientation
  - 3 - ENGL 1030 Composition and Rhetoric
  - 4 - MATH 1060 Calculus of One Variable I
  - 3 - Modern Language Requirement<sup>1</sup>
- 15

**Second Semester**

- 4 - CH 1020 General Chemistry
  - 3 - CH 1520 Chemistry Communication
  - 4 - MATH 1080 Calculus of One Variable II
  - 3 - PHYS 1220 Physics with Calculus I
  - 1 - PHYS 1240 Physics Laboratory I
  - 3 - Modern Language Requirement<sup>1</sup>
- 18

**Sophomore Year****First Semester**

- 3 - CH 2230 Organic Chemistry
  - 1 - CH 2270 Organic Chemistry Laboratory
  - 2 - ED 1050 Orientation to Education
  - 4 - MATH 2060 Calculus of Several Variables
  - 3 - PHYS 2210 Physics with Calculus II
  - 1 - PHYS 2230 Physics Laboratory II
  - 3 - Arts and Humanities (Non-Lit.) Requirement<sup>2</sup>
- 17

**Second Semester**

- 3 - CH 2050 Intro. to Inorganic Chemistry
  - 3 - CH 2240 Organic Chemistry
  - 1 - CH 2280 Organic Chemistry Laboratory
  - 3 - CH 3130 Quantitative Analysis
  - 1 - CH 3170 Quantitative Analysis Laboratory
  - 3 - EDF 3010 Principles of American Education
  - 3 - HIST 1220 History, Technology and Society or
  - 3 - HIST 1240 Environmental History Survey
- 17

**Junior Year****First Semester**

- 3 - BIOL 1030 General Biology I and
  - 1 - BIOL 1050 General Biology Laboratory I or
  - 5 - BIOL 1100 Principles of Biology I
  - 3 - CH 3310 Physical Chemistry
  - 3 - EDLT 4800 Foundations of Adolescent Literacy
  - 3 - EDSC 3270 Practicum in Secondary Science
- 13-14

**Second Semester**

- 3 - BIOL 1040 General Biology II and
  - 1 - BIOL 1060 General Biology Laboratory II or
  - 5 - BIOL 1110 Principles of Biology II
  - 3 - BIOL (EDSC) 4820 Lab. Techniq. for Teach. Sci.
  - 3 - CH 3320 Physical Chemistry
  - 1 - CH 4520 Chemistry Communication II
  - 3 - EDF 3020 Educational Psychology
  - 3 - EDF 3350 Adolescent Growth and Develop.
- 17-18

**Senior Year****First Semester**

- 3 - ANTH 2010 Introduction to Anthropology or
  - 3 - GEOG 1030 World Regional Geography
  - 3 - EDSP 3700 Introduction to Special Education
  - 3 - EDSC 4270 Teaching Secondary Science<sup>3</sup>
  - 3 - EDLT 4980 Secondary Content Area Reading<sup>3</sup>
  - 3 - Arts and Humanities (Literature) Requirement<sup>2</sup>
- 15

**Second Semester**

- 3 - CH 4500 Chemistry Capstone
  - 9 - EDSC 4470 Teaching Internship in Sec. Sci.<sup>4</sup>
  - 3 - EDSC 4570 Sec. Science Capstone Seminar<sup>4</sup>
- 15

127-129 Total Semester Hours

<sup>1</sup>Students must complete through 2020 in a modern language. See Modern Languages Requirement at Clemson University statement on page 27.

<sup>2</sup>See General Education Requirements.

<sup>3</sup>To be taken the semester prior to EDSC 4470 and 4570. EDSC 4270 and EDLT 4980 must be taken concurrently. Offered fall semester only.

<sup>4</sup>EDSC 4470 and 4570 must be taken concurrently. Offered spring semester only.

**TEACHING AREA: PHYSICAL SCIENCES****Bachelor of Science****Freshman Year****First Semester**

- 4 - CH 1010 General Chemistry
  - 3 - COMM 1500 Introduction Human Comm. or
  - 3 - COMM 2500 Public Speaking
  - 2 - ED 1050 Orientation to Education
  - 3 - HIST 1220 History, Technology, and Society or
  - 3 - HIST 1240 Environmental History Survey
  - 4 - MATH 1060 Calculus of One Variable I
- 16

**Second Semester**

- 4 - CH 1020 General Chemistry
  - 3 - ENGL 1030 Composition and Rhetoric
  - 4 - MATH 1080 Calculus of One Variable II
  - 3 - PHYS 1220 Physics with Calculus I
  - 1 - PHYS 1240 Physics Lab. I
- 15

**Sophomore Year****First Semester**

- 3 - BIOL 1030 General Biology I and
  - 1 - BIOL 1050 General Biology Lab. I or
  - 5 - BIOL 1100 Principles of Biology I
  - 3 - CH 2010 Survey of Organic Chemistry
  - 1 - CH 2020 Survey of Organic Chemistry Lab.
  - 4 - MATH 2060 Calculus of Several Variables
  - 3 - PHYS 2210 Physics with Calculus II
  - 1 - PHYS 2230 Physics Lab. II
- 16-17

**Second Semester**

- 3 - BIOL 1040 General Biology II *and*
  - 1 - BIOL 1060 General Biology Lab. II *or*
  - 5 - BIOL 1110 Principles of Biology II
  - 3 - CH 2050 Intro. to Inorganic Chemistry
  - 3 - EDF 3010 Principles of American Education
  - 3 - PHYS 2220 Physics with Calculus III
  - 1 - PHYS 2240 Physics Lab. III
  - 3 - Arts and Humanities (Literature) Requirement<sup>1</sup>
- 17-18

**Junior Year****First Semester**

- 3 - ASTR 1050 Physics of the Universe *or*
  - 3 - ASTR 1020 Stellar Astronomy *and*
  - 1 - ASTR 1040 Stellar Astronomy Lab.
  - 3 - CH 3130 Quantitative Analysis
  - 1 - CH 3170 Quantitative Analysis Lab.
  - 3 - CH 3300 Introduction to Physical Chemistry
  - 3 - EDLT 4800 Foundations of Adolescent Literacy
  - 3 - EDSC 3270 Practicum in Secondary Science
- 16-17

**Second Semester**

- 3 - BIOL (EDSC) 4820 Laboratory Techniques for Teaching Science
  - 3 - EDF 3020 Educational Psychology
  - 3 - EDF 3350 Adolescent Growth and Development
  - 3 - Social Science Requirement<sup>2</sup>
  - 3 - Statistics Requirement<sup>3</sup>
- 15

**Senior Year****First Semester**

- 3 - EDSP 3700 Introduction to Special Education
  - 3 - EDLT 4980 Secondary Content Area Reading<sup>4</sup>
  - 3 - EDSC 4270 Teaching Secondary Science<sup>4</sup>
  - 3 - PHIL 3240 Philosophy of Technology *or*
  - 3 - PHIL 3250 Philosophy of Science *or*
  - 3 - PHIL 3260 Science and Values
  - 3 - PHYS 3110 Intro. to Meth. of Theoretical Phys.
- 15

**Second Semester**

- 9 - EDSC 4470 Teaching Internship in Sec. Sci.<sup>5</sup>
- 3 - EDSC 4570 Sec. Science Capstone Seminar<sup>5</sup>

122-125 Total Semester Hours

<sup>1</sup>ENGL 2120, 2130, 2140, or 2150

<sup>2</sup>ANTH 2010, GEOG 1030, POSC 1020, or 1040

<sup>3</sup>STAT 2300 or 3090

<sup>4</sup>To be taken the semester prior to EDSC 4470 and 4570. EDF 4250, EDSC 4270 and EDLT 4980 must be taken concurrently. Offered fall semester only.

<sup>5</sup>EDSC 4470 and 4570 must be taken concurrently. Offered spring semester only.

**TEACHING AREA: PHYSICS****Bachelor of Arts****Freshman Year****First Semester**

- 4 - CH 1010 General Chemistry
- 2 - ED 1050 Orientation to Education
- 3 - ENGL 1030 Composition and Rhetoric
- 4 - MATH 1060 Calculus of One Variable I
- 3 - PHYS 1220 Physics with Calculus I
- 1 - PHYS 1240 Physics Laboratory I

17

**Second Semester**

- 4 - CH 1020 General Chemistry
  - 4 - MATH 1080 Calculus of One Variable II
  - 3 - PHYS 2210 Physics with Calculus II
  - 1 - PHYS 2230 Physics Laboratory II
  - 3 - Arts and Humanities (Non-Lit.) Requirement<sup>1</sup>
  - 3 - Oral Communication Requirement<sup>1</sup>
- 18

**Sophomore Year****First Semester**

- 5 - BIOL 1100 Principles of Biology I *or*
  - 3 - BIOL 1030 General Biology I *and*
  - 1 - BIOL 1050 General Biology I Lab.
  - 4 - MATH 2060 Calculus of Several Variables
  - 3 - PHYS 2220 Physics with Calculus III
  - 3 - PHYS 3250 Experimental Physics I
- 14-15

**Second Semester**

- 3 - ASTR 1010 Solar System Astronomy
  - 5 - BIOL 1110 Principles of Biology II *or*
  - 3 - BIOL 1040 General Biology II *and*
  - 1 - BIOL 1060 General Biology II Lab.
  - 3 - EDF 3010 Principles of American Education
  - 4 - MATH 2080 Intro. to Ordinary Diff. Equations
  - 3 - Social Science Requirement<sup>1</sup>
- 17-18

**Junior Year****First Semester**

- 3 - CH 3300 Intro. to Physical Chemistry *or*
  - 3 - CH 3310 Physical Chemistry
  - 3 - EDLT 4800 Foundations of Adolescent Literacy
  - 3 - EDSC 3270 Practicum in Secondary Science
  - 3 - MATH 3600 Intermed. Math. Computing *or*
  - 3 - PHYS 3150 Intro to Computational Physics
  - 3 - PHYS 3210 Mechanics I
  - 3 - Modern Language Requirement<sup>2</sup>
- 18

**Second Semester**

- 3 - BIOL (EDSC) 4820 Laboratory Techniques for Teaching Science
  - 3 - EDF 3020 Educational Psychology
  - 3 - EDF 3350 Adolescent Growth and Develop.
  - 3 - MATH 4340 Advanced Engineering Math. *or*
  - 3 - PHYS 3110 Intro. to the Methods of Theoretical Physics
  - 3 - Modern Language Requirement<sup>2</sup>
  - 3 - Social Science Requirement<sup>1</sup>
- 18

**Senior Year****First Semester**

- 3 - EDSC 4270 Teaching Secondary Science<sup>3</sup>
  - 3 - EDLT 4980 Secondary Content Area Reading<sup>3</sup>
  - 3 - PHYS 4410 Electromagnetics I
  - 3 - PHYS 4550 Quantum Physics I
  - 3 - Arts and Humanities (Literature) Requirement<sup>1</sup>
- 15

**Second Semester**

- 3 - EDSP 3700 Introduction to Special Education
- 9 - EDSC 4470 Teaching Internship in Secondary Science<sup>4</sup>
- 3 - EDSC 4570 Sec. Science Capstone Seminar<sup>4</sup>

15

132-134 Total Semester Hours

<sup>1</sup>See General Education Requirements. Six of these credit hours must also satisfy the Cross-Cultural Awareness and Science and Technology in Society General Education Requirements.

<sup>2</sup>Students must complete through 2020 in a modern language. See Modern Languages Requirement at Clemson University statement on page 27.

<sup>3</sup>To be taken the semester prior to EDSC 4470 and 4570. EDSC 4270 and EDLT 4980 must be taken concurrently.

<sup>4</sup>EDSC 4470 and 4570 must be taken concurrently. Offered during spring semester only.

**SECONDARY EDUCATION**

The Bachelor of Arts degree in Secondary Education is available to students preparing to teach English, mathematics, or social studies on the secondary school level (grades 9–12). The teaching field should be selected as early as possible so appropriate freshman and sophomore courses may be taken.

Each curriculum may lead to a double major composed of the major concentration in the teaching field and the corresponding content major. To receive a double major in Secondary Education and the selected content area, a Change of Academic Program form must be completed to declare both majors. To achieve a double major, the appropriate plan of study under Secondary Education must be followed and all major requirements from both programs must be satisfied. Specific courses and sequences have been designated to meet requirements for those planning to teach. The professional education courses should be completed in sequence.

**TEACHING AREA: ENGLISH**

The Bachelor of Arts Degree in Secondary Education—English offers a double major in Secondary Education—English and English. To be recommended for licensure, students must earn a C or higher in all required English content and education courses.

**Freshman Year****First Semester**

- 3 - COMM 1500 Intro. to Human Comm. *or*
  - 3 - COMM 2500 Public Speaking
  - 2 - ED 1050 Orientation to Education
  - 3 - ENGL 1030 Composition and Rhetoric
  - 3 - Modern Language Requirement<sup>1</sup>
  - 3 - Mathematics Requirement<sup>2</sup>
- 14

**Second Semester**

- 3 - BIOL 2000 Biology in the News<sup>3</sup>
  - 3 - ENGL 2120 World Literature
  - 3 - HIST 1730 The West and the World II
  - 3 - Modern Language Requirement<sup>1</sup>
  - 4 - Natural Science Requirement<sup>2</sup>
- 16

**Sophomore Year****First Semester**

- 3 - EDF 3010 Principles of American Education
- 3 - EDF 3020 Educational Psychology
- 3 - ENGL 3100 Critical Writing About Literature
- 3 - HIST 3160 American Social History *or*
- 3 - HIST 3610 History of England to 1688 *or*
- 3 - HIST 3630 Britain Since 1688 *or*
- 3 - HIST 3650 British Cultural History
- 3 - Arts and Humanities (Non-Lit) Req.<sup>4</sup>
- 3 - English Literature Survey Requirement<sup>5</sup>

18

**Second Semester**

- 3 - EDF 3350 Adolescent Growth and Development
  - 3 - ENGL 3860 Adolescent Literature<sup>6</sup>
  - 3 - ENGL 4110 Shakespeare
  - 3 - HIST 1720 The West and the World I
  - 3 - English Literature Survey Requirement<sup>5</sup>
  - 3 - Fine Arts Requirement<sup>7</sup>
- 
- 18

**Junior Year****First Semester**

- 3 - EDLT 4800 Found. in Adolescent Literacy
  - 3 - EDSC 3240 Prac. in Teaching Secondary Engl.<sup>8</sup>
  - 3 - EDSP 3700 Introduction to Special Education
  - 3 - English Literature Survey Requirement<sup>5</sup>
  - 3 - Literature Emphasis Area Requirement I<sup>9</sup>
- 
- 15

**Second Semester**

- 3 - ENGL 4850 Composition for Teachers
  - 3 - English Literature Requirement<sup>10</sup>
  - 3 - Literary Theory Requirement<sup>11</sup>
  - 3 - Literature Emphasis Area Requirement II<sup>12</sup>
  - 3 - Social Science Requirement<sup>2</sup>
- 
- 15

**Senior Year****First Semester**

- 3 - EDLT 4980 Secondary Content Area Reading<sup>13</sup>
  - 3 - EDSC 4240 Teaching Secondary English<sup>13</sup>
  - 3 - ENGL 4960 English Senior Seminar
  - 3 - Literature Emphasis Area Diversity Req.<sup>14</sup>
  - 3 - Literature Emphasis Area Requirement III<sup>15</sup>
- 
- 15

**Second Semester**

- 9 - EDSC 4440 Teaching Internship in Secondary English<sup>16</sup>
  - 3 - EDSC 4540 Secondary English Capstone Sem.<sup>16</sup>
- 
- 12

123 Total Semester Hours

<sup>1</sup>Students must complete through 2020 in a modern language. See Modern Languages Requirement at Clemson University statement on page 27.

<sup>2</sup>See General Education Requirements.

<sup>3</sup>Any other Mathematics or Natural Science General Education course that satisfies the General Education Science and Technology in Society requirement may be substituted.

<sup>4</sup>Select from PHIL 1010, 1020, or 1030.

<sup>5</sup>Select from ENGL 3960, 3970, 3980, or 3990. One course each of British and American Survey are required. The additional course satisfies the upper level ENGL requirement.

<sup>6</sup>This course qualifies as a Literature Emphasis Area Requirement for a BA in English.

<sup>7</sup>Select from AAH 1010 or ART 2100; ENGL 3570; HUM 3010, 3020, or 3060; MUSC 2100, 3110, 4150, or 4160; or THEA 2100.

<sup>8</sup>Students must complete 45 hours of field experience in a public school.

<sup>9</sup>Select from ENGL 4030, 4070, 4080, 4100, 4140, 4200, (THEA) 4290, 4440, or 4630.

<sup>10</sup>Select from ENGL 4030, 4070, 4100, 4140, 4150, 4160, 4170, 4180, 4190, 4200, 4210, 4250, 4260, 4280, 4290, 4300, 4310, 4320, 4330, 4340, 4350, 4360, 4420, 4430, 4440, 4500, 4510/4511, 4520, 4550, 4560, 4590, 4630, 4640, 4650, 4820, 4830, 4910, 4920

<sup>11</sup>Select from ENGL 4350, 4360, 4400, or 4420, or other course approved by the department.

<sup>12</sup>Select from ENGL 4150, 4160, 4170, 4180, 4210, 4250, 4260, or 4640.

<sup>13</sup>EDLT 4980, EDSC 4240, and ENGL (EDSC) 4850 must be taken concurrently during fall semester of senior year. Students must also enroll in the laboratory sections of EDSC 4240 and EDLT 4980.

<sup>14</sup>Select from ENGL 3530, 3800, 4190, (HUM) 4560, 4820, or 4830.

<sup>15</sup>Select from ENGL 4280, (THEA) 4300, 4310, 4320, 4330, 4340, 4550, or 4650.

<sup>16</sup>EDSC 4440 and EDSC 4540 must be taken concurrently during spring semester of senior year.

**TEACHING AREA: MATHEMATICS**

The Bachelor of Arts degree in Secondary Education—Mathematics offers a double major in Secondary Education—Mathematics and Mathematical Sciences. To be recommended for licensure, students must earn a C or higher in all required mathematics content and education courses.

**Bachelor of Arts****Freshman Year****First Semester**

- 2 - ED 1050 Orientation to Education
  - 3 - ENGL 1030 Composition and Rhetoric
  - 4 - MATH 1060 Calculus of One Variable I
  - 3 - Modern Language Requirement<sup>1</sup>
  - 4 - Natural Science Requirement<sup>2</sup>
- 
- 16

**Second Semester**

- 4 - MATH 1080 Calculus of One Variable II
  - 3 - PHIL 1020 Introduction to Logic
  - 3 - PHYS 1220 Physics with Calculus I
  - 1 - PHYS 1240 Physics Laboratory I
  - 3 - History Requirement<sup>3</sup>
  - 3 - Modern Language Requirement<sup>1</sup>
- 
- 17

**Sophomore Year****First Semester**

- 3 - EDSC 2260 A Prof. Approach to Sec. Algebra
  - 4 - MATH 2060 Calculus of Several Variables
  - 1 - MATH 2500 Intro. to Mathematical Sciences
  - 3 - Arts and Humanities (Literature) Requirement<sup>4</sup>
  - 3 - Computer Science Requirement<sup>5</sup>
  - 3 - Economics Requirement<sup>6</sup>
- 
- 17

**Second Semester**

- 3 - EDF 3020 Educational Psychology
  - 4 - MATH 2080 Intro. to Ordinary Diff. Equations
  - 3 - MATH 3110 Linear Algebra
  - 3 - MATH 3190 Introduction to Proof
  - 3 - Cross-Cultural Awareness Requirement<sup>2</sup>
- 
- 16

**Junior Year****First Semester**

- 3 - EDF 3010 Principles of American Education
  - 3 - EDLT 4800 Foundations of Adolescent Literacy
  - 3 - EDSC 3260 Practicum in Secondary Math.
  - 3 - MATH 3020 Statistics for Science and Engr.
  - 3 - MATH 4000 Theory of Probability
- 
- 15

**Second Semester**

- 3 - EDF 3350 Adolescent Growth and Development
  - 3 - EDSP 3700 Introduction to Special Education
  - 3 - EDSC 4370 Technology in Secondary Math.
  - 3 - MATH 3080 College Geometry
  - 3 - MATH 4120 Algebra I
- 
- 15

**Senior Year****First Semester**

- 3 - COMM 1500 Intro to Human Comm *or*
  - 3 - COMM 2500 Public Speaking
  - 3 - EDLT 4980 Secondary Content Area Reading<sup>7</sup>
  - 3 - EDSC 4260 Teaching Secondary Mathematics<sup>7</sup>
  - 3 - MATH 4080 Topics in Geometry
  - 3 - MATH 4530 Advanced Calculus I
- 
- 15

**Second Semester**

- 9 - EDSC 4460 Teaching Internship in Secondary Mathematics<sup>8</sup>
  - 3 - EDSC 4560 Secondary Math. Capstone Sem.<sup>8</sup>
- 
- 12

123 Total Semester Hours

<sup>1</sup>Students must complete through 2020 in a modern language. See Modern Languages Requirement at Clemson University statement on page 27.

<sup>2</sup>See General Education Requirements. Natural Science with Lab requirement selection must also meet the Science and Technology in Society requirement. Cross-Cultural Awareness requirement must be selected from non-history courses.

<sup>3</sup>Select from HIST 1010, 1020, 1720, 1730, or 1930

<sup>4</sup>ENGL 2120, 2130, 2140, or 2150

<sup>5</sup>CPSC 1010, 1110, 1150, 1610, or 2200

<sup>6</sup>Select from ECON 2000, 2110, or 2120

<sup>7</sup>EDSC 4260 and EDLT 4980 must be taken concurrently prior to the teaching internship. Offered fall semester only.

<sup>8</sup>EDSC 4460 and 4560 must be taken concurrently. Offered spring semester only.

**TEACHING AREA: SOCIAL STUDIES (HISTORY)**

The Bachelor of Arts Degree in Secondary Education—Social Studies (History) offers a double major in Secondary Education—Social Studies (History) and History. To be recommended for licensure, students must earn a C or higher in all required history content and education courses.

**Freshman Year****First Semester**

- 2 - ED 1050 Orientation to Education
  - 3 - ENGL 1030 Composition and Rhetoric
  - 3 - Mathematics Requirement<sup>1</sup>
  - 3 - Modern Language Requirement<sup>2</sup>
  - 4 - Natural Science Requirement<sup>1</sup>
- 
- 15

**Second Semester**

- 3 - ANTH 2010 Introduction to Anthropology
  - 3 - BIOL 2000 Biology in the News<sup>3</sup>
  - 3 - ENGL 2140 American Literature
  - 3 - GEOG 1010 Introduction to Geography *or*
  - 3 - GEOG 1030 World Regional Geography
  - 3 - PSYC 2010 Introduction to Psychology
  - 3 - Modern Language Requirement<sup>2</sup>
- 
- 18

**Sophomore Year****First Semester**

- 3 - ECON 2000 Economic Concepts
  - 3 - EDF 3020 Educational Psychology
  - 3 - HIST 1010 History of the United States
  - 3 - HIST 1720 The West and the World I
  - 3 - POSC 1010 American National Government
- 
- 15

**Second Semester**

- 3 - HIST 1020 History of the United States
  - 3 - HIST 1730 The West and the World II
  - 3 - HIST 2990 Seminar: The Historian's Craft
  - 3 - Advanced Humanities Requirement<sup>4</sup>
  - 3 - Arts and Humanities (Non-Lit.) Requirement<sup>5</sup>
- 15

**Junior Year****First Semester**

- 3 - EDF (HIST) 3200 History of U.S. Public Educ.
  - 3 - EDLT 4800 Found of Adolescent Literacy
  - 3 - EDSC 3280 Practicum in Secondary Social Studies
  - 9 - Teaching Major<sup>6</sup>
- 18

**Second Semester**

- 3 - SOC 2010 Introduction to Sociology
  - 3 - Advanced Humanities Requirement<sup>4</sup>
  - 3 - Arts and Humanities (Literature) Requirement<sup>1</sup>
  - 9 - Teaching Major<sup>6</sup>
- 18

**Senior Year****First Semester**

- 3 - EDF 3350 Adolescent Growth & Devel
  - 3 - EDLT 4980 Secondary Content Area Reading<sup>7</sup>
  - 3 - EDSP 3700 Introduction to Special Education
  - 3 - EDSC 4280 Teaching Secondary Social Studies<sup>7</sup>
  - 3 - HIST 4900 Senior Seminar<sup>7</sup>
  - 3 - Advanced Humanities Requirement<sup>4</sup>
- 18

**Second Semester**

- 9 - EDSC 4480 Teaching Internship in Secondary Social Studies<sup>8</sup>
  - 3 - EDSC 4580 Secondary Social Studies Capstone Seminar<sup>8</sup>
- 12

129 Total Semester Hours

<sup>1</sup>See General Education Requirements.

<sup>2</sup>Students must complete through 2020 in a modern language. See Modern Languages Requirement at Clemson University statement on page 27.

<sup>3</sup>Any other Mathematics or Natural Sciences General Education course that satisfies the General Education Science and Technology in Society requirement may be substituted.

<sup>4</sup>Select from ART 2100, MUSC 2100, THEA 2100, or any AAH, COMM (except 3640, 3680), ENGL (except 3040, 3120, 3140, 3330, 4850, 4900, 4950), HUM, MUSC, PHIL, REL, THEA (except 3770, 4870, 4970), WS, or modern language course numbered 3000 or higher.

<sup>5</sup>See General Education Requirements. This course may not fulfill both the General Education Arts and Humanities (Non-Literature) and the Advanced Humanities requirement.

<sup>6</sup>Students must complete a minimum of 18 credits of history coursework: A minimum of three credits of United States history at the 3000 or 4000 level; a minimum of three credits of European history at the 3000 or 4000 level; a minimum of six credits of non-Western history coursework at the 3000 or 4000 level; one three-credit HIST course at the 4000 level; and one additional HIST course at the 1000-4000 level (except HIST 1980 or 2000)

*U.S. history*—Three credits selected from HIST 3000, 3010, 3020, 3030, 3040, 3050, 3060, 3080, 3110, 3120, 3130, 3140, 3160, 3170, 3180, 3190, 3230, 3250, 3260, 3270, 3280, 3290, 3900, 3920, 4000

*European history*—Three credits selected from HIST 3210, 3220, 3530, 3540, 3550, 3610, 3630, 3670, 3700, 3720, 3730, 3740, 3750, 3770, 3780, 3800, 3810, 3840, 3850, 3860, 3870, 4500, 4510, 4600, 4700, 4710

*Non-Western history*—Six credits selected from HIST 3300, 3330, 3340, 3370, 3380, 3390, 3400, 3410, 3420, 3510, 3520, 3910, 3940, 3960, 3970, 4360, 4380, 4400

<sup>7</sup>EDSC 4280, HIST 4900, and EDLT 4980 must be taken concurrently in the fall semester of the senior year.

<sup>8</sup>EDSC 4480 and 4580 must be taken concurrently. Offered spring semester only.

**SPECIAL EDUCATION****Bachelor of Arts**

The Bachelor of Arts degree in Special Education prepares students to teach individuals with mild disabilities in grades P-12. The curriculum is designed to meet the competencies outlined by the Council for Exceptional Children for beginning special education teachers. Students completing the program receive instruction and practical experiences that lead to Multi-Categorical Special Education Licensure in South Carolina. Once admitted to the professional level, candidates must maintain a 2.75 GPA in order to advance through the professional level coursework sequence. To be recommended for certification, candidates must earn a C or higher in all education courses at the professional level and a B or higher in EDSP 4960 and EDSP 4980.

**Freshman Year****First Semester**

- 2 - ED 1050 Orientation to Education
  - 3 - HIST 1240 Environmental History Survey *or* 3 - HIST 1220 History, Technology, and Society
  - 3 - MATH 1150 Contemporary Mathematics for Elementary School Teachers I
  - 3 - Modern Language Requirement<sup>1</sup>
  - 4 - Natural Science Requirement<sup>2</sup>
- 15

**Second Semester**

- 3 - ENGL 1030 Composition and Rhetoric
  - 3 - GEOG 1030 World Regional Geography
  - 3 - MATH 1160 Contemporary Mathematics for Elementary School Teachers II
  - 3 - Modern Language Requirement<sup>1</sup>
  - 4 - Natural Science Requirement<sup>2</sup>
- 16

**Sophomore Year****First Semester**

- 3 - EDF 3010 Principles of American Education
  - 3 - EDSP 3700 Introduction to Special Education
  - 3 - MATH 2160 Geometry for Elementary School Teachers
  - 3 - Arts and Humanities (Literature) Requirement<sup>3</sup>
  - 4 - Natural Science Requirement<sup>2</sup>
- 16

**Second Semester**

- 3 - COMM 1500 Intro. to Human Comm. *or* 3 - COMM 2500 Public Speaking
  - 3 - EDF 3020 Educational Psychology
  - 3 - EDF 3340 Child Growth and Development
  - 3 - Arts and Humanities (Non-Lit.) Requirement<sup>4</sup>
  - 3 - History Requirement<sup>5</sup>
- 15

**Junior Year****First Semester**

- 3 - EDEL 3100 Arts in the Elementary School
  - 3 - EDF 4800 Foundations of Digital Media and Learning
  - 3 - EDLT 4600 Teaching Reading in the Elementary Grades: 2-6<sup>6</sup>
  - 3 - EDSP 3720 Char. and Instruction of Individuals with Learning Disabilities<sup>6</sup>
  - 3 - EDSP 3740 Char. and Strat. for Individuals with Emotional/Behavioral Disorders<sup>6</sup>
- 15

**Second Semester**

- 3 - EDEL 4510 Elem. Meth. in Science Teaching<sup>7</sup>
  - 3 - EDEL 4870 Elementary Methods in Social Studies Teaching<sup>7</sup>
  - 3 - EDSP 3730 Characteristics and Instruction of Individuals with Intellectual Disabilities and Autism<sup>7</sup>
  - 3 - EDSP 3750 Early Intervention Strategies for Young Children with Special Needs<sup>7</sup>
  - 3 - EDSP 4910 Educational Assessment of Individuals with Disabilities<sup>7</sup>
- 15

**Senior Year****First Semester**

- 1 - EDSP 4900 Teaching Writing to Students with Disabilities<sup>8</sup>
  - 3 - EDSP 4920 Mathematics Instruction for Individuals with Mild Disabilities<sup>8</sup>
  - 3 - EDSP 4930 Classroom and Behavior Management for Special Educators<sup>8</sup>
  - 3 - EDSP 4940 Teaching Reading to Students with Mild Disabilities<sup>8</sup>
  - 3 - EDSP 4960 Special Education Field Experience<sup>8</sup>
  - 3 - EDSP 4970 Secondary Methods for Individuals with Disabilities<sup>8</sup>
- 16

**Second Semester**

- 3 - EDSP 4950 Communication and Collaboration in Special Education<sup>9</sup>
  - 12 - EDSP 4980 Directed Teaching in Special Ed.<sup>9</sup>
- 15

123 Total Semester Hours

<sup>1</sup>Students must complete through 2020 in a modern language. See Modern Languages Requirement at Clemson University statement on page 27.

<sup>2</sup>See General Education Requirements. Eight credit hours must be in a sequence. Biological and physical sciences must be represented. PHSC 1070, 1080, and BIOL 1090 are recommended.

<sup>3</sup>ENGL 2120, 2130, 2140, or 2150.

<sup>4</sup>See General Education Requirements.

<sup>5</sup>HIST 1010, 1020, 1720, 1730, or 1930.

<sup>6</sup>EDLT 4600 and EDSP 3720 and 3740 must be taken concurrently during the fall semester of junior year.

<sup>7</sup>EDEL 4510 and 4870, EDSP 3730, 3750, and 4910 must be taken concurrently during the spring semester of the junior year.

<sup>8</sup>EDSP 4900, 4920, 4930, 4940, 4960, and 4970 must be taken concurrently during the fall semester of the senior year.

<sup>9</sup>EDSP 4950 and 4980 must be taken concurrently during the spring semester of the senior year.

## MINORS

Following are minors acceptable for students in the College of Education. Students cannot major and minor in the same field or acquire a minor that is not allowed by the degree program.

|   |  |
|---|--|
| Accounting  | Horticulture   |
| Adult/Extension Education   | Human Resource Management  |
| Aerospace Studies   | Italian Studies  |
| Agricultural Business Management  | Japanese Studies   |
| Agricultural Mechanization and Business   | Legal Studies  |
| American Sign Language Studies  | Management   |
| Animal and Veterinary Sciences  | Management Information Systems   |
| Anthropology  | Mathematical Sciences— <i>not open to Mathematics Teaching or Secondary Education—Mathematics majors</i> |
| Architecture  | Microbiology   |
| Art   | Middle Eastern Studies   |
| Athletic Leadership   | Military Leadership  |
| Biochemistry  | Music  |
| Biological Sciences— <i>not open to Science Teaching—Biological Sciences majors</i> | Natural Resource Economics   |
| Brand Communications  | Nonprofit Leadership   |
| British and Irish Studies   | Nuclear Engineering and Radiological Sciences  |
| Business Administration   | Packaging Science  |
| Chemistry— <i>not open to Science Teaching—Chemistry majors</i>                     | Pan African Studies  |
| Chinese Studies   | Park and Protected Area Management   |
| Cluster   | Philosophy   |
| Communication Studies   | Physics— <i>not open to Science Teaching—Physical Sciences or Science Teaching—Physics majors</i>        |
| Computer Science  | Plant Pathology  |
| Creative Writing  | Political and Legal Theory   |
| Crop and Soil Environmental Science   | Political Science  |
| Digital Production Arts   | Precision Agriculture  |
| East Asian Studies  | Psychology   |
| Economics   | Public Policy  |
| English— <i>not open to Secondary Education—English majors</i>                      | Race, Ethnicity and Migration  |
| Entomology  | Religious Studies  |
| Entrepreneurship  | Russian Area Studies   |
| Environmental Science and Policy  | Science and Technology in Society  |
| Equine Industry   | Screenwriting  |
| Film Studies  | Sociology  |
| Financial Management  | Spanish Studies  |
| Food Science  | Spanish-American Area Studies  |
| Forest Products   | Sustainability   |
| Forest Resource Management  | Theatre  |
| French Studies  | Travel and Tourism   |
| Gender, Sexuality and Women's Studies   | Turfgrass  |
| Genetics  | Urban Forestry   |
| Geography   | Wildlife and Fisheries Biology   |
| Geology   | Women's Leadership   |
| German Studies  | Writing  |
| Global Politics   | Youth Development Studies  |
| Great Works   |  |
| History— <i>not open to Secondary Education: Social Studies (History) majors</i>    |  |

See Minors section for details.