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Name of Institution: **Clemson University**

Name of Program (include concentrations, options, and tracks)

The purpose of this program modification is to provide an alternative non-certification option to each of following teaching education programs of study.

Degree	Title	CIP	Site	Options
BA	Special Education	131001	Clemson University (Main Campus)	Teacher Certification
				Non-Certification Option
BA	Elementary Education	131202	Clemson University (Main Campus)	Teacher Certification
				Non-Certification Option
BA	Secondary Education and Teaching, English	131205	Clemson University (Main Campus)	Teacher Certification
				Non-Certification Option
BA	Secondary Education and Teaching, Mathematics	131205	Clemson University (Main Campus)	Teacher Certification
				Non-Certification Option
BA	Secondary Education: Social Studies (History)	131205	Clemson University (Main Campus)	Teacher Certification History
				Non-Certification Option
BS	Secondary Education: Social Studies (History)	131205	Clemson University (Main Campus)	Teacher Certification History
				Non-Certification Option
BA	Early Childhood Education	131210	Clemson University (Main Campus)	Teacher Certification
				Non-Certification Option
			Blended Delivery @ University Center of Greenville	Teacher Certification
				Non-Certification Option
BS	Mathematics Teaching	131311	Clemson University (Main Campus)	Teacher Certification
				Non-Certification Option
BS	Science Teaching	131316	Clemson University (Main Campus)	Teacher Certification Biological Science
			Clemson University (Main Campus)	Teacher Certification Physical Science
				Non-Certification Option
BA	Science Teaching	131316	Clemson University (Main Campus)	Teacher Certification Biological Science
			Clemson University (Main Campus)	Teacher Certification Chemistry

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			Clemson University (Main Campus)	Teacher Certification Physics
				Non-Certification Option

Program Designation

- Associate's Degree
- Bachelor's Degree: 4 Year
- Bachelor's Degree: 5 Year
- Doctoral Degree: Professional Practice (e.g., Ed.D., D.N.P., J.D., Pharm.D., and M.D.)
- Master's Degree
- Specialist
- Doctoral Degree: Research/Scholarship (e.g., Ph.D. and DMA)

Does the program qualify for supplemental Palmetto Fellows and LIFE Scholarship awards?

- Yes
- No

Proposed Date of Implementation
1 December 2017

CIP Code
See Above

Delivery Site(s)
See Above

Delivery Mode
(SEE ABOVE)

- Traditional/face-to-face*
*select if less than 50% online
- Distance Education
 - 100% online
 - Blended (more than 50% online)
 - Other distance education

Program Contact Information (name, title, telephone number, and email address)

Dr. Jeff C. Marshall, Professor and Chair
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Institutional Approvals and Dates of Approval

Department Curriculum Committee: July 27, 2017

College Curriculum Committee: August 16, 2017 (Anticipated)
University Undergraduate Curriculum Committee: September 1, 2017 (Anticipated)

Background Information

Provide a detailed description of the proposed modification, including its nature and purpose and centrality to institutional mission. (1500 characters)

The purpose of this program modification is to provide undergraduate non-certification program options for those teacher preparation undergraduate students who: a) change their plans to pursue the required final teaching internship/clinical experience required for certification in South Carolina, or b) intend to enroll in one of Clemson's three planned MAT-based teacher residency programs that instead would provide this teaching experience at the graduate program level. Our current BS/BA teaching preparation programs will remain in place to serve the traditional undergraduate education student seeking certification on the basis of an approved and recognized undergraduate program.

If a teacher preparation student reaches the last stages of their BS/BA degree program and finds that a career in K-12 classroom education is not an appropriate career option, then the proposed non-certification program option becomes an avenue for the student to complete their undergraduate degree.

In addition, the non-certification option provides an avenue for students to participate in the College of Education's planned Teacher Residency master's program that will be proposed soon and that is intended as the location of classroom teaching experience leading to certification.

Clemson does not plan on admitting students into the non-certification option, but only using it as necessary for the rare student choosing to not complete the teaching certification requirements, or for those students electing to enter our planned Teaching Residency master's program that provides the student teaching practicum needed for certification.

Because of these niche uses, we would prefer that the CHE Inventory of Programs not list this BS/BA non-certification option in their files on the website or within the SC Trac System.

In lieu of a capstone seminar and teaching internship/practicum in the extant BS/BA teacher preparation programs, the proposed non-teaching option requires students to select 12 credit hours from an approved course list in consultation with a faculty advisor.

The selection of the non-certification option during the student's senior year requires a formal request from the student to change from a Teacher Preparation option to a Non-Certification option. This requires signature approval of the student, faculty advisor, department chair and dean, and the request is filed with Clemson's Office of the Registrar.

List the objectives of the modified program. (1500 characters)

- 1. Provide an avenue to graduation for students who have identified that classroom teaching is not an appropriate career option.**
- 2. Assists students in selecting coursework that complements their existing content area and builds on their areas of interest.**

3. Provides an opportunity for students interested in a planned master's Teaching Residency program to place their teaching practicum work in the graduate program coursework.

Assessment of Need

Provide an assessment of the need for the program modification for the institution, the state, the region, and beyond, if applicable. (1500 characters)

1) The non-certification option will be rarely used for individual students and fulfills a CHE need for clarification that, on occasion, a student graduates from an approved teacher preparation degree program, but does not meet the qualifications for certification. On average one or two students a year across the seven teacher preparation programs have opted to not complete the final requirements for teacher certification.

This change highlights on their transcript the fact that a student is not certified to teach on the basis of their undergraduate degree or does not wish to pursue certification.

Such an option is analogous to that used in many graduate programs at myriad institutions of higher education: a stop-out or terminal masters. This is used when a doctoral student is unable or does not wish to complete doctoral studies, but has made sufficient progress to be awarded a master's degree.

By allowing non-certification option students to work with their faculty advisor, the 12 hours of elective coursework in the non-certification option can be used to help students supplement their program of study in a value-added fashion.

For example, this elective coursework could include graduate course work. Clemson University's policies allow undergraduate students with senior status and a minimum of 3.4 cumulative GPA to enroll in graduate coursework with permission of the faculty. No more than 12 hours of graduate credit may be taken as an undergraduate student. Once a set of proposed MATs in Teacher Residency are approved, the department anticipates 24 students annually may participate in the combined degrees.

2) Clemson education students planning to matriculate in our planned MAT program(s) in Teacher Residency would utilize the non-certification option proposed here in their bachelors BS/BA programs. Once the MATs are approved, we estimate 24 students would participate annually in the integrated BS/BA-MAT program.

Will the proposed modification impact any existing programs and services at the institution?

Yes

No

If yes, explain. (1000 characters)

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List of Similar Programs in South Carolina

Program Name	Institution	Similarities	Differences
There are no reported non-certification options identified associated with teacher preparation undergraduate programs on the CHE Inventory of Programs.			

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Description of the Program

Projected New Enrollment						
Year	Fall		Spring		Summer	
	Headcount	Credit Hours	Headcount	Credit Hours	Headcount	Credit Hours
2017-18	0	0	0	0	0	0
2018-19	0	0	0	0	0	0
2019-20	0	0	0	0	0	0
2020-21	0	0	0	0	0	0
2021-22	0	0	0	0	0	0

Curriculum

Attach a curriculum sheet identifying the courses required for the program. (see Attached)

Curriculum Changes

Note: Complete this table only if there are changes to the curriculum.

Courses Eliminated from Program	Courses Added to Program
Directed Teaching or Teaching Internship (9 credits)	12 hours of elective credit selected from courses available at the university in consultation with a faculty advisor
Capstone Seminar (3 credits)	
	Examples of courses include: ED 4380 Special Topics ED 4900/6900 Classroom management EDF 4060 Philosophy, Schooling, and Educational Policy ED 3970 or 4970 Creative Inquiry Education ED 4390 Independent Study EDF 4820 Advanced Educational Applications of Microcomputers ED 8650 Curriculum Theory ED 8080 Contemporary Issues in Assessment ED 8610 Cultural Diversity in Education

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Faculty

Provide a brief explanation of any additional institutional changes in faculty and/or administrative assignment that may result from implementing the proposed program modification. (1000 characters)

N/A

Resources

Identify any new library/learning resources, new instructional equipment, and new facilities or modifications to existing facilities needed to support the modified program. (2000 characters)

N/A

Financial Support

There are no new costs associated with this change.

Estimated New Costs by Year						
Category	1 st	2 nd	3 rd	4 th	5 th	Total
Program Administration	0	0	0	0	0	0
Faculty and Staff Salaries	0	0	0	0	0	0
Graduate Assistants	0	0	0	0	0	0
Equipment	0	0	0	0	0	0
Facilities	0	0	0	0	0	0
Supplies and Materials	0	0	0	0	0	0
Library Resources	0	0	0	0	0	0
Other*	0	0	0	0	0	0
Total	0	0	0	0	0	0
Sources of Financing						
Category	1 st	2 nd	3 rd	4 th	5 th	Total
Tuition Funding	0	0	0	0	0	0
Program-Specific Fees	0	0	0	0	0	0
State Funding (i.e., Special State Appropriation)*	0	0	0	0	0	0
Reallocation of Existing Funds*	0	0	0	0	0	0
Federal Funding*	0	0	0	0	0	0
Other Funding*	0	0	0	0	0	0
Total	0	0	0	0	0	0
Net Total (i.e., Sources of Financing)	0	0	0	0	0	0

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Minus Estimated New Costs)						
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*Provide an explanation for these costs and sources of financing in the budget justification.

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Budget Justification

Provide a brief explanation for the other new costs and any special sources of financing (state funding, reallocation of existing funds, federal funding, or other funding) identified in the Financial Support table. (1000 characters)

Note: Institutions need to complete this budget justification *only* if any other new costs, state funding, reallocation of existing funds, federal funding, or other funding are included in the Financial Support table.

There are no costs associated with this change.

Evaluation and Assessment

Will any the proposed modification impact the way the program is evaluated and assessed?

- Yes
 No

If yes, explain. (1000 characters)

There are no changes in the program evaluation or assessment. The number of students that will select the non-certification option are limited and aggregate data will be unavailable. Students who choose the non-certification option to enroll in the Teacher Residency master's degree will be assessed as part of that program.

Will the proposed modification affect or result in program-specific accreditation?

- Yes
 No

If yes, explain; if the modification will result in the program seeking program-specific accreditation, provide the institution's plans to seek accreditation, including the expected timeline for accreditation. (500 characters)

Will the proposed modification affect or lead to licensure or certification?

- Yes
 No

If yes, explain how the program will prepare students for licensure or certification. (500 characters)

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Teacher or School Professional Preparation Programs

Is the proposed modified program a teacher or school professional preparation program?

Yes

No

If yes, complete the following components.

Area of Certification

This program modifications allows an alternative to the teacher preparation programs, this is not a change in the teacher preparation program. The SC Department of Education has been informed that the option is being submitted to CHE. The new option will be reflected in all formal reporting as appropriate.

Attach a document addressing the South Carolina Department of Education Requirements and SPA or Other National Specialized and/or Professional Association Standards.

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**EARLY CHILDHOOD EDUCATION
Bachelor of Arts
Non-Certification Option**

Freshman Year

First Semester

- 2 - ED 1050 Orientation to Education
 - 3 - MATH 1150 Contemporary Mathematics for Elementary School Teachers I
 - 3 - History Requirement¹
 - 3 - Modern Language Requirement²
 - 4 - Natural Science Requirement³
- 15

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 Requirement²
 - 3 - Elective
- 18

Sophomore Year

First Semester

- 3 - EDEC 3000 Foundations of Early Childhood Education⁴
 - 1 - EDEC 3010 Practicum in Early Childhood Settings I⁴
 - 3 - MATH 2160 Geometry for Elementary School Teachers
 - 3 - Arts and Humanities (Literature) Requirement⁵
 - 3 - Cross-Cultural Awareness Requirement⁶
 - 4 - Natural Science Requirement³
- 17

Second Semester

- 3 - EDEC 2200 Family, School, and Community Relationships⁷
 - 1 - EDEC 3020 Practicum in Early Childhood Settings⁷
 - 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) Requirement⁶
- 16

Junior Year

First Semester

- 1 - EDEC 3030 Practicum in Early Childhood Settings III⁸
 - 3 - EDEC 3360 Concepts of Play and Social Development of Infants and Young Children⁸
 - 3 - EDEL 3100 Arts in the Elementary School⁸
 - 3 - EDSP 3700 Introduction to Special Education⁸
 - 3 - EDSP 3750 Early Intervention for Infants and Children with Special Needs⁸
 - 3 - Elective
- 16

Second Semester

- 1 - EDEC 3040 Practicum in Early Childhood Settings IV⁹
 - 3 - EDEC 4200 Early Childhood Science⁹
 - 3 - EDEC 4500 Early Childhood Curriculum and Social Studies Methods⁹
 - 3 - EDEL 3210 Physical Education Methods and Content for Classroom Teachers⁹
 - 3 - EDF 3010 Principles of American Education
 - 3 - EDLT 4580 Early Literacy: Birth–Kindergarten⁹
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Senior Year

First Semester

- 3 - EDEC 4000 Observation and Assessment in Clinical Settings¹⁰
- 3 - EDEC 4300 Early Childhood Mathematics¹⁰
- 3 - EDEC 4400 Early Childhood Language Arts¹⁰
- 3 - EDEC 4600 Critical Issues and Cultural Diversity in Early Childhood Education¹⁰
- 3 - EDLT 4590 Teaching Reading in the Early Grades: K-3¹⁰

15

Second Semester

- 3 – Elective¹¹
- 3 – Elective¹¹
- 3 – Elective¹¹
- 3 – Elective¹¹

12

125 Total Semester Hours

¹Select from HIST 1010, 1020, 1720, 1730, or 1930

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

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

⁴Must be taken the fall semester of the sophomore year.

⁵Select from ENGL 2120, 2130, 2140, or 2150

⁶See General Education Requirements.

⁷Must be taken the spring semester of the sophomore year.

⁸Must be taken the fall semester of the junior year.

⁹Must be taken the spring semester of the junior year.

¹⁰Must be taken the fall semester of the senior year.

¹¹ Must be selected in consultation with faculty advisor after changing into the non-certification option.

ELEMENTARY EDUCATION

Bachelor of Arts

Non-Certification Option

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 Requirement¹

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 Requirement¹

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Sophomore Year

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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) Requirement²
- 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.) Requirement³
 - 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 – Elective⁴
 - 3 – Elective⁴
 - 3 – Elective⁴
 - 3 – Elective⁴
- 12

122 Total Semester Hours

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

²Select from ENGL 2120, 2130, 2140 or 2150

³See General Education Requirements.

⁴Must be selected in consultation with faculty advisor after changing into the non-certification option.

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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 Requirement¹
- 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 Requirement¹
- 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) Requirement²
- 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) Requirement³
 - 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 Requirement⁴

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

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3 - EDEL 4880 Elementary Methods in Language Arts Teaching

3 - EDLT 4610 Content Area Reading: Grades 2–6

15

Second Semester

3 – Elective⁵

3 – Elective⁵

3 – Elective⁵

3 – Elective⁵

12

122 Total Semester Hours

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

²Select from ENGL 2120, 2130, 2140 or 2150.

³See General Education Requirements.

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

⁵Must be selected in consultation with faculty advisor after changing into the non-certification option.

MATHEMATICS TEACHING
Bachelor of Science
Non-Certification Option

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 Requirement¹

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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 Requirement²

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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) Requirement³

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Second Semester

3 - EDF 3020 Educational Psychology

4 - MATH 2080 Intro. to Ordinary Diff. Equations

3 - MATH 3110 Linear Algebra

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3 - MATH 3190 Introduction to Proofs

3 - Economics Requirement⁴

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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 Requirement⁵

3 - Science Requirement²

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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 Mathematics⁶

3 - EDLT 4980 Secondary Content Area Reading⁶

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

3 – Elective⁷

3 – Elective⁷

3 – Elective⁷

3 – Elective⁷

12

123 Total Semester Hours

¹See General Education Requirements. Cross-Cultural Awareness Requirement must be in an area other than history.

²Select from courses in ASTR, BIOL, CH, GEOL, PHYS

³ENGL 2120, 2130, 2140, 2150

⁴Select from ECON 2000, 2110, or 2120

⁵Select from HIST 1010, 1020, 1720, 1730, or 1930

⁶EDSC 4260 and EDLT 4980 must be taken concurrently prior to the teaching internship. Offered fall semester only.

⁷Must be selected in consultation with faculty advisor after changing into the non-certification option.

**SCIENCE TEACHING
Bachelor of Arts
Non-Certification Option**

**TEACHING AREA: BIOLOGICAL SCIENCES
Bachelor of Arts: Non-Certification Option**

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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 Requirement¹
- 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 Requirement¹
 - 3 - Statistics Requirement²
- 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) Requirement³
 - 3 - Biochemistry or Genetics Requirement⁴
- 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 Requirement⁴
 - 4 - Organismal Diversity Requirement⁵
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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 Requirement⁶
- 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 Requirement⁷
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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 Science⁸
 - 3 - EDLT 4980 Secondary Content Area Reading⁸
 - 3 - Arts and Humanities (Non-Lit.) Requirement³
- 15

Second Semester

- 3 – Elective⁹
 - 3 – Elective⁹
 - 3 – Elective⁹
 - 3 – Elective⁹
- 12

127–129 Total Semester Hours

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

²STAT 2300 or 3090

³See General Education Requirements

⁴One lecture course must be completed for both biochemistry (BCHM 3010 or BCHM 3050) and for genetics (GEN 3000 or GEN 3020).

⁵One 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.

⁶At least one selected from BIOL 4410, 4420, 4430, 4460, 4700, or MICR 4010.

⁷At least one selected from BIOL 3160, 4010, 4080, 4590, 4750, or 4800.

⁸To be taken the semester prior to EDSC 4470 and 4570. EDSC 4270 and EDLT 4980 must be taken concurrently.

⁹Must be selected in consultation with faculty advisor after changing into the non-certification option.

TEACHING AREA: CHEMISTRY

Bachelor of Arts: Non-Certification Option

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 Requirement¹
- 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 Requirement¹
- 18

Sophomore Year

First Semester

- 3 - CH 2230 Organic Chemistry
- 1 - CH 2270 Organic Chemistry Laboratory

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- 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.) Requirement²
- 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 Science³
 - 3 - EDLT 4980 Secondary Content Area Reading³
 - 3 - Arts and Humanities (Literature) Requirement²
- 15

Second Semester

- 3 – Elective ⁴
 - 3 – Elective ⁴
 - 3 – Elective ⁴
 - 3 - ED 4390 Independent Study
 - 3 – Elective ⁴
- 15

127–129 Total Semester Hours

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

²See General Education Requirements.

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

⁴Must be selected in consultation with faculty advisor after changing into the non-certification option.

TEACHING AREA: PHYSICS

Bachelor of Arts: Non-Certification Option

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.) Requirement¹
 - 3 - Oral Communication Requirement¹
- 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 Requirement¹
- 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 Requirement²

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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 Requirement²

3 - Social Science Requirement¹

18

Senior Year

First Semester

3 - EDSC 4270 Teaching Secondary Science³

3 - EDLT 4980 Secondary Content Area Reading³

3 - PHYS 4410 Electromagnetics I

3 - PHYS 4550 Quantum Physics I

3 - Arts and Humanities (Literature) Requirement¹

15

Second Semester

3 – Elective⁴

3 – Elective⁴

3 – Elective⁴

3 – Elective⁴

3 – ED 4390 Independent Study

15

132-134 Total Semester Hours

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

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

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

⁴Must be selected in consultation with faculty advisor after changing into the non-certification option.

**SCIENCE TEACHING
Bachelor of Science
Non-Certification Option**

TEACHING AREA: BIOLOGICAL SCIENCES

Bachelor of Science: Non-Certification Option

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 Requirement¹

15-16

Second Semester

3 - BIOL 1040 General Biology II *and*

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Agenda Item 3a

- 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 Requirement²

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 Requirement³

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 Requirement³
- 3 - Ecology Requirement⁴

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 Requirement⁵

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) Requirement¹
- 4 - Functional Biology Requirement⁶

16

Senior Year

First Semester

- 3 - EDSP 3700 Introduction to Special Education
- 3 - EDSC 4270 Teaching Secondary Science⁷
- 3 - EDLT 4980 Secondary Content Area Reading⁷
- 3 - Art and Humanities (Non-Lit.) Requirement¹

1 - Elective

13

Second Semester

- 3 - Elective⁸
- 3 - Elective⁸
- 3 - Elective⁸
- 3 - Elective⁸

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12

120–122 Total Semester Hours

¹See General Education Requirements.

²STAT 2300 or 3090

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

⁴At least one course selected from BIOL 4410, 4420, 4430, 4460, or 4700

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

⁶At 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.

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

⁸Must be selected in consultation with faculty advisor after changing into the non-certification option.

TEACHING AREA: PHYSICAL SCIENCES

Bachelor of Science: Non-Certification Option

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) Requirement¹

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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 Requirement²

3 - Statistics Requirement³

15

Senior Year

First Semester

3 - EDSP 3700 Introduction to Special Education

3 - EDLT 4980 Secondary Content Area Reading⁴

3 - EDSC 4270 Teaching Secondary Science⁴

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

3 – Elective ⁵

3 – Elective ⁵

3 – Elective ⁵

3 – Elective ⁵

12

122–125 Total Semester Hours

¹ENGL 2120, 2130, 2140, or 2150

²ANTH 2010, GEOG 1030, POSC 1020, or 1040

³STAT 2300 or 3090

⁴To 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.

⁵Must be selected in consultation with faculty advisor after changing into the non-certification option.

**SECONDARY EDUCATION
Bachelor of Arts
Non-Certification Option**

TEACHING AREA: ENGLISH

Bachelor of Arts: Non-Certification Option

Freshman Year

First Semester

3 - COMM 1500 Intro. to Human Comm. *or*

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- 3 - COMM 2500 Public Speaking
 - 2 - ED 1050 Orientation to Education
 - 3 - ENGL 1030 Composition and Rhetoric
 - 3 - Modern Language Requirement¹
 - 3 - Mathematics Requirement²
- 14

Second Semester

- 3 - BIOL 2000 Biology in the News³
 - 3 - ENGL 2120 World Literature
 - 3 - HIST 1730 The West and the World II
 - 3 - Modern Language Requirement¹
 - 4 - Natural Science Requirement²
- 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.⁴
 - 3 - English Literature Survey Requirement⁵
- 18

Second Semester

- 3 - EDF 3350 Adolescent Growth and Development
 - 3 - ENGL 3860 Adolescent Literature⁶
 - 3 - ENGL 4110 Shakespeare
 - 3 - HIST 1720 The West and the World I
 - 3 - English Literature Survey Requirement⁵
 - 3 - Fine Arts Requirement⁷
- 18

Junior Year

First Semester

- 3 - EDLT 4800 Found. in Adolescent Literacy
 - 3 - EDSC 3240 Prac. in Teaching Secondary Engl.⁸
 - 3 - EDSP 3700 Introduction to Special Education
 - 3 - English Literature Survey Requirement⁵
 - 3 - Literature Emphasis Area Requirement I⁹
- 15

Second Semester

- 3 - ENGL 4850 Composition for Teachers
 - 3 - English Literature Requirement¹⁰
 - 3 - Literary Theory Requirement¹¹
 - 3 - Literature Emphasis Area Requirement II¹²
 - 3 - Social Science Requirement²
- 15

Senior Year

First Semester

- 3 - EDLT 4980 Secondary Content Area Reading¹³
- 3 - EDSC 4240 Teaching Secondary English¹³
- 3 - ENGL 4960 English Senior Seminar
- 3 - Literature Emphasis Area Diversity Req.¹⁴
- 3 - Literature Emphasis Area Requirement III¹⁵

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15

Second Semester

3 – Elective¹⁶

3 – Elective¹⁶

3 – Elective¹⁶

3 – Elective¹⁶

12

123 Total Semester Hours

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

²See General Education Requirements.

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

⁴Select from PHIL 1010, 1020, or 1030.

⁵Select 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.

⁶This course qualifies as a Literature Emphasis Area Requirement for a BA in English.

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

⁸Students must complete 45 hours of field experience in a public school.

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

¹⁰Select 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

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

¹²Select from ENGL 4150, 4160, 4170, 4180, 4210, 4250, 4260, or 4640.

¹³ 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.

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

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

¹⁶Must be selected in consultation with faculty advisor after changing into the non-certification option.

TEACHING AREA: MATHEMATICS

Bachelor of Arts: Non-Certification Option

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 Requirement¹

4 - Natural Science Requirement²

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 Requirement³

3 - Modern Language Requirement¹

17

Sophomore Year

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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) Requirement⁴
 - 3 - Computer Science Requirement⁵
 - 3 - Economics Requirement⁶
- 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 Requirement²
- 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 Reading⁷
 - 3 - EDSC 4260 Teaching Secondary Mathematics⁷
 - 3 - MATH 4080 Topics in Geometry
 - 3 - MATH 4530 Advanced Calculus I
- 15

Second Semester

- 3 – Elective⁸
 - 3 – Elective⁸
 - 3 – Elective⁸
 - 3 – Elective⁸
- 12

123 Total Semester Hours

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

²See 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.

³Select from HIST 1010, 1020, 1720, 1730, or 1930

⁴ENGL 2120, 2130, 2140, or 2150

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⁵CPSC 1010, 1110, 1150, 1610, or 2200

⁶Select from ECON 2000, 2110, or 2120

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

⁸Must be selected in consultation with faculty advisor after changing into the non-certification option.

TEACHING AREA: SOCIAL STUDIES (HISTORY)

Bachelor of Arts: Non-Certification Option

Freshman Year

First Semester

- 2 - ED 1050 Orientation to Education
- 3 - ENGL 1030 Composition and Rhetoric
- 3 - Mathematics Requirement¹
- 3 - Modern Language Requirement²
- 4 - Natural Science Requirement¹

15

Second Semester

- 3 - ANTH 2010 Introduction to Anthropology
- 3 - BIOL 2000 Biology in the News³
- 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 Requirement²

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 Requirement⁴
- 3 - Arts and Humanities (Non-Lit.) Requirement⁵

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 Major⁶

18

Second Semester

- 3 - SOC 2010 Introduction to Sociology
- 3 - Advanced Humanities Requirement⁴
- 3 - Arts and Humanities (Literature) Requirement¹
- 9 - Teaching Major⁶

18

Senior Year

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First Semester

- 3 - EDF 3350 Adolescent Growth & Devel
 - 3 - EDLT 4980 Secondary Content Area Reading⁷
 - 3 - EDSP 3700 Introduction to Special Education
 - 3 - EDSC 4280 Teaching Secondary Social Studies⁷
 - 3 - HIST 4900 Senior Seminar⁷
 - 3 - Advanced Humanities Requirement⁴
- 18

Second Semester

- 3 – Elective⁸
 - 3 – Elective⁸
 - 3 – Elective⁸
 - 3 – Elective⁸
- 12

129 Total Semester Hours

¹See General Education Requirements.

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

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

⁴Select 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.

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

⁶Students 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

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

⁸Must be selected in consultation with faculty advisor after changing into the non-certification option.

SECONDARY EDUCATION

Bachelor of Science

Non-Certification Option

TEACHING AREA: SOCIAL STUDIES (HISTORY)

Bachelor of Science: Non-Certification Option

Freshman Year

First Semester

- 2 - ED 105 Orientation to Education
- 3 - ENGL 103 Accelerated Composition

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- 3 - GEOG 101 Introduction to Geography
 - 3 - HIST 122 History, Technology, and Society
 - 3 - MTHSC 101 Essential Math. for Informed Soc.
 - 4 - Natural Science Requirement¹
- 18

Second Semester

- 3 - ANTH 201 Introduction to Anthropology
 - 3 - BIOSC 200 Biology in the News
 - 3 - ENGL 214 American Literature
 - 3 - GEOG 103 World Regional Geography
 - 3 - PSYCH 201 Introduction to Psychology
- 15

Sophomore Year

First Semester

- 3 - ECON 211 Principles of Microeconomics
 - 3 - ED F302 Educational Psychology
 - 3 - HIST 101 History of the United States
 - 3 - HIST 172 The West and the World I
 - 3 - PO SC 101 American National Government
- 15

Second Semester

- 3 - ECON 212 Principles of Macroeconomics
 - 1 - ED F(CTE) 315 Technology Skills for Learning
 - 3 - HIST 102 History of the United States
 - 3 - HIST 173 The West and the World II
 - 3 - PO SC 102 Intro. to International Relations
 - 3 - Teaching Major²
- 16

Junior Year

First Semester

- 3 - ED F301 Principles of American Education
 - 3 - ED F335 Adolescent Growth and Development
 - 3 - EDSEC 328 Practicum in Secondary Social Studies
 - 6 - Teaching Major²
- 15

Second Semester

- 3 - COMM 150 Intro. to Human Comm. or
 - 3 - COMM 250 Public Speaking
 - 3 - SOC 201 Introduction to Sociology
 - 3 - Arts and Humanities (Non-Lit.) Requirement¹
 - 6 - Teaching Major²
- 15

Senior Year

First Semester

- 1 - ED F425 Instructional Technology Strategies³
 - 3 - ED SP 370 Introduction to Special Education
 - 3 - EDSEC 428 Teaching Secondary Social Studies³
 - 3 - READ 498 Secondary Content Area Reading³
 - 6 - Teaching Major²
- 16

Second Semester

- 3 – Elective⁴
- 3 – Elective⁴
- 3 – Elective⁴

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3 – Elective⁴

12

122 Total Semester Hours

¹See General Education Requirements.

²See advisor. Select from HIST 299, 300-, and 400-level courses in history. Must include at least three hours each in U.S. history, European history, and nine hours in non-Western history. HIST 313 is recommended for those planning to teach in South Carolina.

³ED F425, EDSEC 428, and READ 498 must be taken concurrently. Offered fall semester only.

⁴Must be selected in consultation with faculty advisor after changing into the non-certification option.

**SPECIAL EDUCATION
Bachelor of Arts
Non-Certification Option**

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 Requirement¹
- 4 - Natural Science Requirement²

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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 Requirement¹
- 4 - Natural Science Requirement²

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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) Requirement³
- 4 - Natural Science Requirement²

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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.) Requirement⁴
- 3 - History Requirement⁵

15

Junior Year

First Semester

- 3 - EDEL 3100 Arts in the Elementary School
- 3 - EDF 4800 Foundations of Digital Media and Learning

ACAP

9/14/17

Agenda Item 3a

- 3 - EDLT 4600 Teaching Reading in the Elementary Grades: 2–6⁶
 - 3 - EDSP 3720 Char. and Instruction of Individuals with Learning Disabilities⁶
 - 3 - EDSP 3740 Char. and Strat. for Individuals with Emotional/Behavioral Disorders⁶
- 15

Second Semester

- 3 - EDEL 4510 Elem. Meth. in Science Teaching⁷
 - 3 - EDEL 4870 Elementary Methods in Social Studies Teaching⁷
 - 3 - EDSP 3730 Characteristics and Instruction of Individuals with Intellectual Disabilities and Autism⁷
 - 3 - EDSP 3750 Early Intervention Strategies for Young Children with Special Needs⁷
 - 3 - EDSP 4910 Educational Assessment of Individuals with Disabilities⁷
- 15

Senior Year

First Semester

- 1 - EDSP 4900 Teaching Writing to Students with Disabilities⁸
- 3 - EDSP 4920 Mathematics Instruction for Individuals with Mild Disabilities⁸
- 3 - EDSP 4930 Classroom and Behavior Management for Special Educators⁸
- 3 - EDSP 4940 Teaching Reading to Students with Mild Disabilities⁸
- 3 - EDSP 4960 Special Education Field Experience⁸
- 3 - EDSP 4970 Secondary Methods for Individuals with Disabilities⁸

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Second Semester

- 3 – Elective⁹
- 3 – Elective⁹
- 3 – Elective⁹
- 3 – Elective⁹
- 3 – Elective⁹

15

123 Total Semester Hours

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

²See 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.

³ENGL 2120, 2130, 2140, or 2150.

⁴See General Education Requirements.

⁵HIST 1010, 1020, 1720, 1730, or 1930.

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

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

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

⁹Must be selected in consultation with faculty advisor after changing into the non-certification option.