SECONDARY EDUCATION (SED)

SED507. Fieldwork I Second Language Education. 1 Credit.
Fieldwork and targeted observations toward the teaching and learning of English learners (ELs) at the elementary level. Roles consist of observer, assistant, and teacher for one-on-one, small group, and whole class instruction.
Restrictions:
• Must be enrolled in the following field(s) of study (major, minor or concentration): Second Language Education (065)
Corequisites:
• SED573
May not be repeated for credit

SED509. Fieldwork II Second Language Education. 1 Credit.
Fieldwork and targeted observations toward the teaching and learning of English learners (ELs) at the secondary level. Roles consist of observer, assistant, and teacher for one-on-one, small group, and whole class instruction.
Restrictions:
• Must be enrolled in the following field(s) of study (major, minor or concentration): Second Language Education (065)
Corequisites:
• SED576
May not be repeated for credit

SED525. Digital Literacies and Learning in Secondary Education. 1 Credit.
An introduction to issues and research related to digital literacies and learning in face-to-face and virtual environments. Students will examine relevant research and strategies for integrating digital tools and resources in secondary classrooms and in the professional work of teachers.
Restrictions:
• Must have the following level: Graduate
May not be repeated for credit

SED540. Graduate Foundations of Secondary Education Seminar. 1 Credit.
In a series of classroom activities, students will inquire into key curriculum issues in secondary education within the broader philosophical, psychological, social, and sociocognitive contexts of schools and schooling.
Restrictions:
• Must have the following level: Graduate
• Must be enrolled in the following field(s) of study (major, minor or concentration):
  • Adolescence Ed: Biology (101A)
  • Adolescence Ed: Chemistry (104A)
  • Adolescence Ed: Earth Science (102A)
  • Adolescence Ed: French (105A)
  • Adolescence Ed: Mathematics (107A)
  • Adolescence Ed: Social Studies (109A)
  • Adolescence Ed: Spanish (110A)
  • Adolescence Ed:Biology (101B)
  • Adolescence Ed:Chemistry (104B)
  • Adolescence Ed:Earth Science (102B)
  • Adolescence Ed:English (103B)
  • Adolescence Ed:French (105B)
  • Adolescence Ed:Mathematics (107B)
  • Adolescence Ed:Social Studies (109B)
  • Adolescence Ed:Spanish (110B)
May not be repeated for credit
SED541. Constructing Scientific Conceptual Knowledge. 3 Credits.
A study of the nature of science and the ways students learn about science. Topics include students’ conceptions (and misconceptions) about natural phenomena and instructional strategies to promote meaningful learning, especially conceptual change.

Restrictions:
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: Biology (031A)
  - Adolescence Ed: Biology (101A)
  - Adolescence Ed: Chemistry (032A)
  - Adolescence Ed: Chemistry (104A)
  - Adolescence Ed: Earth Science (033A)
  - Adolescence Ed: Earth Science (102A)
  - Adolescence Ed: Biology (031B)
  - Adolescence Ed: Biology (101B)
  - Adolescence Ed: Chemistry (032B)
  - Adolescence Ed: Chemistry (104B)
  - Adolescence Ed: Earth Science (033B)
  - Adolescence Ed: Earth Science (102B)
  - Adolescence Ed: Earth Science (102A)
  - BA/MAT Chemistry (104C)
  - BA/MAT Earth Science (102E)
  - Chemistry (50CH)
  - Geology/Earth Science (51ES)

May not be repeated for credit

SED542. Meaningful Problem Solving in Science. 3 Credits.
A study of how students solve science problems and how teachers can enhance the likelihood that their students will solve such problems meaningfully, i.e., by understanding the relevant concepts rather than by mechanically following a prescribed set of rules.

Restrictions:
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: Biology (031A)
  - Adolescence Ed: Biology (101A)
  - Adolescence Ed: Chemistry (032A)
  - Adolescence Ed: Chemistry (104A)
  - Adolescence Ed: Earth Science (033A)
  - Adolescence Ed: Earth Science (102A)
  - Adolescence Ed: Biology (031B)
  - Adolescence Ed: Biology (101B)
  - Adolescence Ed: Chemistry (032B)
  - Adolescence Ed: Chemistry (104B)
  - Adolescence Ed: Earth Science (033B)
  - Adolescence Ed: Earth Science (102B)
  - BA/MAT Chemistry (104C)
  - BA/MAT Earth Science (102E)
  - Chemistry (50CH)
  - Geology/Earth Science (51ES)

May not be repeated for credit

SED543. Science in the Secondary School. 3 Credits.
Science as a process of inquiry with examples from current research. Cultural implications of scientific and technological development and their effect upon the secondary school science curriculum. Course will also include a series of structured instructional experiences intended to further students’ first-hand knowledge of secondary schools and schooling.

Restrictions:
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: Biology (031A)
  - Adolescence Ed: Chemistry (104A)
  - Adolescence Ed: Earth Science (102A)
  - Adolescence Ed: Biology (101B)
  - Adolescence Ed: Chemistry (104B)
  - Adolescence Ed: Earth Science (102B)
  - BA/MAT Chemistry (104C)
  - BA/MAT Earth Science (102E)
  - Chemistry (50CH)
  - Geology/Earth Science (51ES)

Prerequisites:
- EDS539 Minimum Grade of D-
- EDS730 Minimum Grade of D-

May not be repeated for credit

SED545. Mathematics in the Secondary School. 3 Credits.
This course will provide methods and techniques for effective teaching of mathematics in secondary schools. It will help the pre-service teacher develop the knowledge, skills and attitudes necessary for successful mathematics teaching. Course will also include a series of structured instructional experiences intended to further students’ first-hand knowledge of secondary schooling.

Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: Mathematics (107A)
  - Adolescence Ed: Mathematics (107B)

Prerequisites:
- EDS539 Minimum Grade of D-
- EDS730 Minimum Grade of D-
- EDS549 Minimum Grade of D-

May not be repeated for credit
SED546. Social Studies in the Secondary School. 3 Credits.
Students will analyze various methods of secondary school social studies instruction and will prepare several types of instructional strategies, both short and long term. Course will also include a series of structured instructional experiences intended to further students’ firsthand knowledge of secondary schools and schooling.
Restrictions:
• Must have the following level: Graduate
• Must be enrolled in the following field(s) of study (major, minor or concentration):
  • Adolescence Ed: Social Studies (109A)
  • Adolescence Ed: Social Studies (109B)
Prerequisites:
• EDS539 Minimum Grade of D-
• EDS730 Minimum Grade of D-
• EDS549 Minimum Grade of D-
May not be repeated for credit

SED547. Foreign Language in the Secondary School. 3 Credits.
Acquaints foreign language teachers with elements of organization, classroom management, lesson planning and teaching strategies appropriate to the needs and abilities of students in secondary foreign language classrooms. Students will be exposed to the best sources of information available to foreign language teachers as well as to traditional and new approaches in teaching.
Restrictions:
• Must have the following level: Graduate
• Must be enrolled in the following field(s) of study (major, minor or concentration):
  • Adolescence Ed: French (105A)
  • Adolescence Ed: French (105B)
May not be repeated for credit

SED548. Literacy Instruction in the Secondary School. 3 Credits.
Initiation, organization, and development of secondary literacy programs. Interpretation and use of reading and writing assessments (e.g., standardized tests, portfolios, informal assessment) with the goal of recognizing and addressing literacy difficulties. Selection of appropriate reading materials. Development of classroom libraries and literacy projects.
Restrictions:
• Must have the following level: Graduate
• Must be enrolled in the following field(s) of study (major, minor or concentration):
  • Adolescence Ed: Social Studies (040B)
  • Adolescence Ed: Biology (031A)
  • Adolescence Ed: Biology (101A)
  • Adolescence Ed: Chemistry (032A)
  • Adolescence Ed: Chemistry (104A)
  • Adolescence Ed: Earth Science (033A)
  • Adolescence Ed: Earth Science (102A)
  • Adolescence Ed: English (034A)
  • Adolescence Ed: English (103A)
  • Adolescence Ed: French (035A)
  • Adolescence Ed: French (105A)
  • Adolescence Ed: Mathematics (037A)
  • Adolescence Ed: Mathematics (107A)
  • Adolescence Ed: Social Studies (109A)
  • Adolescence Ed: Spanish (039A)
  • Adolescence Ed: Spanish (110A)
  • Adolescence Ed: Biology (031B)
  • Adolescence Ed: Biology (101B)
  • Adolescence Ed: Chemistry (032B)
  • Adolescence Ed: Chemistry (104B)
  • Adolescence Ed: Earth Science (033B)
  • Adolescence Ed: Earth Science (102B)
  • Adolescence Ed: English (034B)
  • Adolescence Ed: English (103B)
  • Adolescence Ed: French (035B)
  • Adolescence Ed: French (105B)
  • Adolescence Ed: Mathematics (037B)
  • Adolescence Ed: Mathematics (107B)
  • Adolescence Ed: Social Studies (109B)
  • Adolescence Ed: Spanish (039B)
  • Adolescence Ed: Spanish (110B)
Prerequisites:
• EDS372 Minimum Grade of D-
May not be repeated for credit
SED549. Teaching Literacy Across the Disciplines 6-12. 3 Credits.
Examines strategies for developing literacy and thinking across the disciplines, focusing on text "comprehension" and its variety of guises. Topics include reading and writing processes related to the understanding of literary and expository texts, instructional and assessment strategies designed to improve text comprehension, developing integrated curricula, selection and evaluation of classroom materials.

Restrictions:
• Must have the following level: Graduate

May not be repeated for credit

SED550. Teaching Mathematics for All. 3 Credits.
Special instructional strategies and tactics for effective teaching of mathematics for all students.

Restrictions:
• Must have the following level: Graduate
• Must be enrolled in the following field(s) of study (major, minor or concentration):
  • Adolescence Ed: Mathematics (107A)
  • Adolescence Ed: Mathematics (107B)

May not be repeated for credit

SED551. Field Experience I. 1 Credit.
Students will immerse themselves in secondary school settings, cultures, and teaching-related activities. This includes interviewing, observing, and interacting with students, teachers, administrators and staff. COURSE FEE FOR WATERMARK.

Restrictions:
• Must have the following level: Graduate
• Must be enrolled in the following field(s) of study (major, minor or concentration):
  • Adolescence Ed: Biology (101A)
  • Adolescence Ed: Chemistry (104A)
  • Adolescence Ed: Earth Science (102A)
  • Adolescence Ed: English (103A)
  • Adolescence Ed: French (105A)
  • Adolescence Ed: Mathematics (107A)
  • Adolescence Ed: Social Studies (109A)
  • Adolescence Ed: Spanish (110A)
  • Adolescence Ed: Biology (101B)
  • Adolescence Ed: Chemistry (104B)
  • Adolescence Ed: Earth Science (102B)
  • Adolescence Ed: English (103B)
  • Adolescence Ed: French (105B)
  • Adolescence Ed: Mathematics (107B)
  • Adolescence Ed: Social Studies (109B)
  • Adolescence Ed: Spanish (110B)

Prerequisites:
• SED551
• SED370 Minimum Grade of D-

Corequisites:
• SED703

May not be repeated for credit

SED552. Field Experience II. 1 Credit.
Students will immerse themselves in secondary school settings, cultures and direct discipline-related activities. This includes interviewing, observing, and interacting with students, discipline-specific teachers, administrators and staff. Co-requisite with a discipline-specific methods course (SED370, SED371, SED373, SED374, SED375, SED381, SED391).

Restrictions:
• Must have the following level: Graduate
• Must be enrolled in the following field(s) of study (major, minor or concentration):
  • Adolescence Ed: Biology (101A)
  • Adolescence Ed: Chemistry (104A)
  • Adolescence Ed: Earth Science (102A)
  • Adolescence Ed: English (103A)
  • Adolescence Ed: French (105A)
  • Adolescence Ed: Mathematics (107A)
  • Adolescence Ed: Social Studies (109A)
  • Adolescence Ed: Spanish (110A)
  • Adolescence Ed: Biology (101B)
  • Adolescence Ed: Chemistry (104B)
  • Adolescence Ed: Earth Science (102B)
  • Adolescence Ed: English (103B)
  • Adolescence Ed: French (105B)
  • Adolescence Ed: Mathematics (107B)
  • Adolescence Ed: Social Studies (109B)
  • Adolescence Ed: Spanish (110B)

Prerequisites:
• SED551
• SED370 Minimum Grade of D-

Corequisites:
• SED703

May not be repeated for credit
SED 553: Field Experience III. 1 Credit.
Students will immerse themselves in particular secondary school settings with the purpose of understanding the school culture in which they will be student teaching. This will involve interviewing, observing, and interacting with students, teachers, administrators and staff in a broad range of “normal” school-related activities. Co-requisite with a discipline-specific student teaching course (SED 404, SED 405).
Restrictions:
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: Biology (101A)
  - Adolescence Ed: Chemistry (104A)
  - Adolescence Ed: Earth Science (102A)
  - Adolescence Ed: English (103A)
  - Adolescence Ed: French (105A)
  - Adolescence Ed: Mathematics (107A)
  - Adolescence Ed: Social Studies (109A)
  - Adolescence Ed: Spanish (110A)
  - Adolescence Ed: Biology (101B)
  - Adolescence Ed: Chemistry (104B)
  - Adolescence Ed: Earth Science (102B)
  - Adolescence Ed: English (103B)
  - Adolescence Ed: French (105B)
  - Adolescence Ed: Mathematics (107B)
  - Adolescence Ed: Social Studies (109B)
  - Adolescence Ed: Spanish (110B)
  - BA/MAT Chemistry (104C)
  - BA/MAT Earth Science (102E)
  - Chemistry (50CH)
  - Geology/Earth Science (51ES)
Prerequisites:
- SED 552
- SED 604
- SED 605
- SED 606
May not be repeated for credit

SED 554: HVWP Invitational Institute I: Teachers as Writers. 3 Credits.
Engage in personal and professional writing while developing skills as a writing teacher. Learn how to model writing and other research-proven teaching strategies. Work with a Hudson Valley Writing Project coach to design a professional development workshop based on what works in your classroom. For application, go to http://www.newpaltz.edu/hvwp/
Restrictions:
- Must be enrolled in the following class: Graduate
May be repeated for credit

SED 555: HVWP Invitational Institute II: Teachers as Learners. 3 Credits.
Deepens understanding of writing instruction, writing assessment, digital learning environments, and professional development leadership. Work with Hudson Valley Writing Project colleagues to plan and lead a writing workshop for teachers, student writers, and their families.
Prerequisites:
- SED 554 Minimum Grade of D-
May be repeated for credit

SED 556: Storytelling, Folklore and the English Language Arts Curriculum. 3 Credits.
Explores the central role of oral narrative as a learning tool for diverse cultures throughout the centuries. Students will experience and research stories from a wide range of genre and examine the potential of story to foster community and develop critical literacy skills in K-12 classrooms.
Restrictions:
- Must have the following level: Graduate
May not be repeated for credit
**SED557. Computers in Secondary School Mathematics Education. 3 Credits.**
Study the various ways of analyzing mathematics software, teaching programming and developing applications of the computer as it relates to the NYS Mathematics curriculum.

**Restrictions:**
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: Social Studies (040B)
  - Adolescence Ed: Biology (031A)
  - Adolescence Ed: Chemistry (032A)
  - Adolescence Ed: Chemistry (104A)
  - Adolescence Ed: Earth Science (033A)
  - Adolescence Ed: Earth Science (102A)
  - Adolescence Ed: English (034A)
  - Adolescence Ed: English (103A)
  - Adolescence Ed: French (035A)
  - Adolescence Ed: French (105A)
  - Adolescence Ed: Mathematics (037A)
  - Adolescence Ed: Mathematics (107A)
  - Adolescence Ed: Social Studies (109A)
  - Adolescence Ed: Spanish (039A)
  - Adolescence Ed: Spanish (110A)
  - Adolescence Ed: Biology (031B)
  - Adolescence Ed: Biology (101B)
  - Adolescence Ed: Chemistry (032B)
  - Adolescence Ed: Chemistry (104B)
  - Adolescence Ed: Earth Science (033B)
  - Adolescence Ed: Earth Science (102B)
  - Adolescence Ed: English (034B)
  - Adolescence Ed: English (103B)
  - Adolescence Ed: French (035B)
  - Adolescence Ed: French (105B)
  - Adolescence Ed: Mathematics (037B)
  - Adolescence Ed: Mathematics (107B)
  - Adolescence Ed: Social Studies (109B)
  - Adolescence Ed: Spanish (039B)
  - Adolescence Ed: Spanish (110B)

May not be repeated for credit

**SED558. Dealing with Diversity in the Foreign Language Classroom. 3 Credits.**
Deals with diversity and its scope and impact in the foreign language classroom. Participants will be helped to define diversity and multiculturalism and its place within the foreign language classroom. Understanding diversity, teaching diversity, confronting issues of diversity, and lesson planning to promote diversity and student involvement will be the focus of the course.

**Restrictions:**
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: French (035A)
  - Adolescence Ed: French (105A)
  - Adolescence Ed: Spanish (039A)
  - Adolescence Ed: Spanish (110A)
  - Adolescence Ed: French (035B)
  - Adolescence Ed: French (105B)
  - Adolescence Ed: Spanish (039B)
  - Adolescence Ed: Spanish (110B)

May not be repeated for credit

**SED559. Problem Solving for Mathematics Teachers. 3 Credits.**
Problem solving is a major focus of the current upper elementary and secondary mathematics curricula. A study and investigation of methods for solving problems in mathematics, and teaching these problem solving skills to our students.

**Restrictions:**
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: Mathematics (037A)
  - Adolescence Ed: Mathematics (107A)
  - Adolescence Ed: Mathematics (037B)
  - Adolescence Ed: Mathematics (107B)

May not be repeated for credit
SED560. Technology in the Classroom. 3 Credits.
Designed to introduce students to the microcomputer and related technologies and how they may be used to support teaching and learning. Students will learn how to integrate the microcomputer and related technologies to achieve curriculum goals.

Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: Biology (101A)
  - Adolescence Ed: Chemistry (104A)
  - Adolescence Ed: Earth Science (102A)
  - Adolescence Ed: English (103A)
  - Adolescence Ed: French (105A)
  - Adolescence Ed: Mathematics (107A)
  - Adolescence Ed: Social Studies (109A)
  - Adolescence Ed: Spanish (110A)
  - Adolescence Ed: Biology (101B)
  - Adolescence Ed: Chemistry (104B)
  - Adolescence Ed: Earth Science (102B)
  - Adolescence Ed: English (103B)
  - Adolescence Ed: French (105B)
  - Adolescence Ed: Mathematics (107B)
  - Adolescence Ed: Social Studies (109B)
  - Adolescence Ed: Spanish (110B)
  - Literacy Education: 5 - 12 (030B)
  - Second Language Education (065)

SED566. Education Across Borders: International Ideas and Experience. 3 Credits.
Through interdisciplinary study of the policies, practices, histories, and guiding ideals of educational systems internationally, we will gain some understanding of other systems and also a broader perspective on our own.

Attributes:
- Liberal Arts

Restrictions:
- Must be enrolled in the following class: Graduate

May not be repeated for credit

SED564. Reconstructing Social Studies Using Diverse Perspectives. 3 Credits.
While learning diverse perspectives on the history and teaching of social studies, students will reflect on their practices by asking: Toward what end should I teach social studies so that all students learn better?.

Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: Social Studies (040B)
  - Adolescence Ed: Social Studies (040)
  - Adolescence Ed: Social Studies (109A)
  - Adolescence Ed: Social Studies (109B)

May not be repeated for credit

SED565. World History Institute. 3 Credits.
Students will develop a conceptual understanding of the field of World History in order to make effective choices concerning content to be taught in a high school course.

Restrictions:
- Must be enrolled in the following class: Graduate

May not be repeated for credit

SED567. HVWP Invitational Institute III: Teachers as Leaders. 3 Credits.
Participants deepen their understanding of leadership and professional development, considering purposeful and practical opportunities in an ever-shifting context of school reform. Work includes strategic planning, engagement, and evaluation of leadership in the teaching of writing. This class will be taught at an off-campus site.

Prerequisites:
- SED554 Minimum Grade of D-
- SED555 Minimum Grade of D-

May be repeated for credit

SED573. Teaching English as a New Language I. 3 Credits.
Examination of methods, materials, and assessment for teaching English as a new language at the elementary (P-6) level. Includes differentiation of instruction for learners of English as a new language at different proficiency levels. Focus on teaching language modalities (listening, speaking, reading, and writing), second language acquisition, and multicultural perspectives.

Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration): Second Language Education (065)

May not be repeated for credit

SED575. Teaching Literacy in English as a New Language. 3 Credits.
Examination of literacy skills, methods, and assessments, including reading enrichment and remediation, for teaching English to speakers of a new language and to English learners with disabilities at elementary and secondary levels. Includes study of phonetic and phonological awareness through reading instruction.

Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration): Second Language Education (065)

Prerequisites:
- SED573 Minimum Grade of D-

May not be repeated for credit
SED576. Teaching English as a New Language II. 3 Credits.
Examination of methodologies, materials, and assessments used in teaching language and content (e.g., mathematics, social studies, and science) to learners of English as a new language, including those with disabilities. Focus on incorporating language modalities into 7-12 content instruction, as well as second language acquisition and multicultural perspectives.
Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration): Second Language Education (065)

Prerequisites:
- SED573 Minimum Grade of D-

May be repeated for credit

SED577. Applied Linguistics for Teachers of English as a New Language (ENL). 3 Credits.
Examination of the structure of the English language, including discussion and evaluation of techniques for teaching the phonological, morphological, and syntactical components of English to learners of English as a new language.
Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration): Second Language Education (065)

May not be repeated for credit

SED578. Second Language Learning. 3 Credits.
Discussion of the psychological, sociological and anthropological aspects of language. Provides an overview of bilingualism and second language acquisition theory and research as related to the teaching and learning of other languages. Co-requisite: SED575, SED576.
Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration): Second Language Education (065)

May not be repeated for credit

SED579. Practicum in Teaching English as a Second Language. 6 Credits.
A college-supervised experience in the Teaching of English to Speakers of Other Languages required of all students in the TESOL concentration during their final semester. A research project based on the practicum experience will be required.
Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration): Second Language Education (065)

May not be repeated for credit

SED580. English Grammar for Teachers of English as a New Language (ENL). 3 Credits.
Provides candidates with a systematic understanding of English grammar and its implications for writing, reading, and oral communication. This course focuses on the role of grammar and syntax in classroom instruction, including a review of techniques and materials for teaching English grammar to learners of English as a new language.
Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration): Second Language Education (065)

Prerequisites:
- SED577 Minimum Grade of D-

May not be repeated for credit

SED585. Materials Development for the Foreign Language Classroom. 3 Credits.
Focuses on the development of effective foreign language instructional materials in light of SLA theoretical views, state and national standards, findings in the areas of cognition, individual learner styles, multiple intelligences, differentiation, and teacher/learner beliefs.
Restrictions:
- Must have the following level: Graduate

May not be repeated for credit

SED591. Inquiry Learning in Science Education. 3 Credits.
Student develop critical abilities to explore, plan and implement inquiry-based educational practices, and demonstrate how inquiry questioning and problem-based/project-based lessons develop critical thinking and process skills during the creation of student-oriented scientific investigative design.
Restrictions:
- Must have the following level: Graduate

May not be repeated for credit
SED593. Secondary Ed Selected Topic. 12 Credits.
Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: Social Studies (040B)
  - Adolescence Ed: Biology (031B)
  - Adolescence Ed: Biology (101B)
  - Adolescence Ed: Chemistry (032B)
  - Adolescence Ed: Chemistry (104B)
  - Adolescence Ed: Earth Science (033B)
  - Adolescence Ed: Earth Science (102B)
  - Adolescence Ed: English (034B)
  - Adolescence Ed: English (103B)
  - Adolescence Ed: French (035B)
  - Adolescence Ed: French (105B)
  - Adolescence Ed: Mathematics (037B)
  - Adolescence Ed: Mathematics (107B)
  - Adolescence Ed: Social Studies (109B)
  - Adolescence Ed: Spanish (039B)
  - Adolescence Ed: Spanish (110B)
  - BA/MAT Chemistry (104C)
  - BA/MAT Earth Science (102E)
  - Chemistry (50CH)
  - Geology/Earth Science (51ES)

May be repeated for credit

SED594. Fieldwork in Second Language Education. 1-12 Credits.
Designed to give the graduate student the opportunity to observe the methods and materials used by educators in a variety of fieldwork settings including an internship experience.
Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration): Second Language Education (065)

May not be repeated for credit

SED595. Indep Study Secondary Ed. 1-12 Credits.
Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: Social Studies (040B)
  - Adolescence Ed: Biology (031A)
  - Adolescence Ed: Biology (101A)
  - Adolescence Ed: Chemistry (032A)
  - Adolescence Ed: Chemistry (104A)
  - Adolescence Ed: Earth Science (033A)
  - Adolescence Ed: Earth Science (102A)
  - Adolescence Ed: English (034A)
  - Adolescence Ed: English (103A)
  - Adolescence Ed: French (035A)
  - Adolescence Ed: French (105A)
  - Adolescence Ed: Mathematics (037A)
  - Adolescence Ed: Mathematics (107A)
  - Adolescence Ed: Social Studies (109A)
  - Adolescence Ed: Spanish (039A)
  - Adolescence Ed: Spanish (110A)
  - Adolescence Ed: Biology (031B)
  - Adolescence Ed: Biology (101B)
  - Adolescence Ed: Chemistry (032B)
  - Adolescence Ed: Chemistry (104B)
  - Adolescence Ed: Earth Science (033B)
  - Adolescence Ed: Earth Science (102B)
  - Adolescence Ed: English (034B)
  - Adolescence Ed: English (103B)
  - Adolescence Ed: French (035B)
  - Adolescence Ed: French (105B)
  - Adolescence Ed: Mathematics (037B)
  - Adolescence Ed: Mathematics (107B)
  - Adolescence Ed: Social Studies (109B)
  - Adolescence Ed: Spanish (039B)
  - BA/MAT Chemistry (104C)
  - BA/MAT Earth Science (102E)
  - Chemistry (50CH)
  - Geology/Earth Science (51ES)

May be repeated for credit

SED604. Practicum in Secondary Ed 7-9. 6 Credits.
Practicum experience in Secondary Ed 7-9.
Attributes:
- Practicum - Non-Clinical
Corequisites:
- SED553
- SED605
- SED606

May not be repeated for credit
SED605. Practicum in Secondary Ed 10-12. 6 Credits.
A full-time experience in teaching the subject in grades 10-12.
Attributes:
• Practicum - Non-Clinical
Restrictions:
• Must have the following level: Graduate
Corequisites:
• SED553
• SED604
• SED606
May not be repeated for credit

SED606. Practicum Seminar. 1 Credit.
All secondary education students must take this seminar while student teaching. The goals of the seminar are to provide practical support for candidates and time to reflect on their experiences so as to enhance teaching and learning in schools.
Restrictions:
• Must have the following level: Graduate
Corequisites:
• SED553
• SED604
• SED605
May not be repeated for credit

SED607. Practicum Seminar: Second Language Education. 1 Credit.
Sec Lang Ed Students must take this seminar while student teaching. The goals are to provide practical support for candidates and time to reflect on their experiences so as to enhance teaching and learning in schools.
Restrictions:
• Must have the following level: Graduate
• Must be enrolled in the following field(s) of study (major, minor or concentration):
  • Adolescence Ed:Social Studies (040B)
  • Adolescence Ed: Biology (031A)
  • Adolescence Ed: Biology (101A)
  • Adolescence Ed: Chemistry (032A)
  • Adolescence Ed: Chemistry (104A)
  • Adolescence Ed: Earth Science (033A)
  • Adolescence Ed: Earth Science (102A)
  • Adolescence Ed: English (034A)
  • Adolescence Ed: English (103A)
  • Adolescence Ed: French (035A)
  • Adolescence Ed: French (105A)
  • Adolescence Ed: Mathematics (037A)
  • Adolescence Ed: Mathematics (107A)
  • Adolescence Ed: Social Studies (109A)
  • Adolescence Ed: Spanish (039A)
  • Adolescence Ed: Spanish (110A)
  • Adolescence Ed:Biology (031B)
  • Adolescence Ed:Biology (101B)
  • Adolescence Ed:Chemistry (032B)
  • Adolescence Ed:Chemistry (104B)
  • Adolescence Ed:Earth Science (033B)
  • Adolescence Ed:Earth Science (102B)
  • Adolescence Ed:English (034B)
  • Adolescence Ed:English (103B)
  • Adolescence Ed:French (035B)
  • Adolescence Ed:French (105B)
  • Adolescence Ed:Mathematics (037B)
  • Adolescence Ed:Mathematics (107B)
  • Adolescence Ed:Social Studies (109B)
  • Adolescence Ed:Spanish (039B)
  • Adolescence Ed:Spanish (110B)
  • Childhood Education 1-6 (013C)
  • Early Childhood Education (011A)
  • Early Childhood: B-2 (13EC)
  • Economics (040E)
  • Geography (040G)
  • History (040H)
  • Political Science (040P)
  • Reading/Literacy (13RL)
  • Sci
  • Tech
  • Engr & Math (STEM) (13ST)
  • Second Language Education (065)
May not be repeated for credit

SED701. Inquiry into Teaching, Learning, and School:
Part I. 3 Credits.
First course in a two-semester sequence in which candidates read, discuss, debate, and write about educational research and its intersection with teaching and learning. An "action research" investigation will be designed and carried out during the second semester.
Attributes:
• Research
Restrictions:
• Must have the following level: Graduate
• Must be enrolled in the following field(s) of study (major, minor or concentration):
  • Adolescence Ed:Social Studies (040B)
  • Adolescence Ed: Biology (031A)
  • Adolescence Ed: Biology (101A)
  • Adolescence Ed: Chemistry (032A)
  • Adolescence Ed: Chemistry (104A)
  • Adolescence Ed: Earth Science (033A)
  • Adolescence Ed: Earth Science (102A)
  • Adolescence Ed: English (034A)
  • Adolescence Ed: English (103A)
  • Adolescence Ed: French (035A)
  • Adolescence Ed: French (105A)
  • Adolescence Ed: Mathematics (037A)
  • Adolescence Ed: Mathematics (107A)
  • Adolescence Ed: Social Studies (109A)
  • Adolescence Ed: Spanish (039A)
  • Adolescence Ed: Spanish (110A)
  • Adolescence Ed:Biology (031B)
  • Adolescence Ed:Biology (101B)
  • Adolescence Ed:Chemistry (032B)
  • Adolescence Ed:Chemistry (104B)
  • Adolescence Ed:Earth Science (033B)
  • Adolescence Ed:Earth Science (102B)
  • Adolescence Ed:English (034B)
  • Adolescence Ed:English (103B)
  • Adolescence Ed:French (035B)
  • Adolescence Ed:French (105B)
  • Adolescence Ed:Mathematics (037B)
  • Adolescence Ed:Mathematics (107B)
  • Adolescence Ed:Social Studies (109B)
  • Adolescence Ed:Spanish (039B)
  • Adolescence Ed:Spanish (110B)
  • Childhood Education 1-6 (013C)
  • Early Childhood Education (011A)
  • Early Childhood: B-2 (13EC)
  • Economics (040E)
  • Geography (040G)
  • History (040H)
  • Political Science (040P)
  • Reading/Literacy (13RL)
  • Sci
  • Tech
  • Engr & Math (STEM) (13ST)
  • Second Language Education (065)
SED702. Inquiry into Teaching, Learning, and School: Part II Every Semester. 3 Credits.
Second course in a two-semester sequence in which candidates, under the guidance of the professor, carry out an empirical study designed in Inquiry into Teaching, Learning, and School: Part 1 (SED701).

Attributes:
- Research

Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: Social Studies (040B)
  - Adolescence Ed: Biology (031A)
  - Adolescence Ed: Biology (101A)
  - Adolescence Ed: Chemistry (032A)
  - Adolescence Ed: Chemistry (104A)
  - Adolescence Ed: Earth Science (033A)
  - Adolescence Ed: Earth Science (102A)
  - Adolescence Ed: English (034A)
  - Adolescence Ed: English (103A)
  - Adolescence Ed: French (035A)
  - Adolescence Ed: French (105A)
  - Adolescence Ed: Mathematics (037A)
  - Adolescence Ed: Mathematics (107A)
  - Adolescence Ed: Social Studies (109A)
  - Adolescence Ed: Spanish (039A)
  - Adolescence Ed: Spanish (110A)
  - Adolescence Ed: Biology (031B)
  - Adolescence Ed: Biology (101B)
  - Adolescence Ed: Chemistry (032B)
  - Adolescence Ed: Chemistry (104B)
  - Adolescence Ed: Earth Science (033B)
  - Adolescence Ed: Earth Science (102B)
  - Adolescence Ed: English (034B)
  - Adolescence Ed: English (103B)
  - Adolescence Ed: French (035B)
  - Adolescence Ed: French (105B)
  - Adolescence Ed: Mathematics (037B)
  - Adolescence Ed: Mathematics (107B)
  - Adolescence Ed: Social Studies (109B)
  - Adolescence Ed: Spanish (039B)
  - Adolescence Ed: Spanish (110B)
  - Childhood Education 1-6 (013C)
  - Early Childhood Education (011A)
  - Early Childhood: B-2 (13EC)
  - Economics (040E)
  - Geography (040G)
  - History (040H)
  - Political Science (040P)
  - Reading/Literacy (13RL)
  - Sci
  - Tech
  - Engr & Math (STEM) (13ST)
  - Second Language Education (065)

Prerequisites:
- SED Fieldwork Form Minimum Score of Y

May not be repeated for credit

SED703. Curriculum: Designs for Literacy, Learning, and Assessment in Secondary Schools. 3 Credits.
Teacher candidates will read, discuss, debate, and write on philosophies and practices related to curriculum assessment, and adolescent literacy. The co-requisite, Field Experience 1, permits candidates to observe and analyze curriculum, assessment, and literacy as it is enacted by local teachers and students.

Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: Biology (101A)
  - Adolescence Ed: Chemistry (104A)
  - Adolescence Ed: Earth Science (102A)
  - Adolescence Ed: English (103A)
  - Adolescence Ed: French (105A)
  - Adolescence Ed: Mathematics (107A)
  - Adolescence Ed: Social Studies (109A)
  - Adolescence Ed: Spanish (110A)
  - Adolescence Ed: Biology (101B)
  - Adolescence Ed: Chemistry (104B)
  - Adolescence Ed: Earth Science (102B)
  - Adolescence Ed: English (103B)
  - Adolescence Ed: French (105B)
  - Adolescence Ed: Mathematics (107B)
  - Adolescence Ed: Social Studies (109B)
  - Adolescence Ed: Spanish (110B)

Prerequisites:
- SED Fieldwork Form Minimum Score of Y

May not be repeated for credit

SED712. Recent Research in Education. 3 Credits.
Current research methods and findings and their significance for education in the United States. Each student explores an intensive research program.

Restrictions:
- Must have the following level: Graduate

May not be repeated for credit
SED741. Teaching English in the Secondary School. 3 Credits.
Examines effective methods of secondary school English instruction in heterogeneous classrooms and helps the pre-service teacher develop the knowledge, skills and dispositions necessary for successful English teaching. Course will also include a series of structured instructional experiences intended to further students’ first-hand knowledge of secondary schools and schooling.

Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: English (103A)
  - Adolescence Ed: English (103B)

Prerequisites:
- SED703 Minimum Grade of D-

May not be repeated for credit

SED742. Teaching Dramatic Literature in the Secondary School. 3 Credits.
An examination of performance as a method of comprehension and engagement. Participants will learn to make dramatic literature accessible to all students as well as to make literature dramatic (e.g., readers’ theatre, storytelling).

Restrictions:
- Must have the following level: Graduate

May not be repeated for credit

SED743. Teaching Writing and Thinking in the Secondary School. 3 Credits.
Examines writing as a constructive process and mode of learning. Topics include the development of writing abilities; creating classroom ecologies that support critical thinking and creativity; differentiating instruction in heterogeneous, multicultural classrooms; opening texts through writing and writing through texts; preparing students for high-stakes writing examinations; responding to and evaluating writing.

Restrictions:
- Must have the following level: Graduate

May not be repeated for credit

SED747. Teaching Geometry and Algebra in the Secondary School. 3 Credits.
From the study of geometry, criteria for identifying objectives for various subsets of the student body. Methods and materials to accomplish these goals.

Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: Mathematics (037A)
  - Adolescence Ed: Mathematics (107A)
  - Adolescence Ed: Mathematics (037B)
  - Adolescence Ed: Mathematics (107B)

May not be repeated for credit

SED748. Teaching Literature in the High School. Spring. 3 Credits.
Students will examine and research quality literature appropriate for in-depth study at the high school level. Topics include pedagogies that support literary thinking; curriculum development for heterogeneous, multicultural classrooms; using writing, the arts, and various media to teach literature; assessing and grading literature learning; developing school-wide literature programs.

Restrictions:
- Must have the following level: Graduate

May not be repeated for credit

SED761. Instruction and Curriculum in Secondary Mathematics. 3 Credits.

Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: Earth Science (033A)
  - Adolescence Ed: Mathematics (037A)
  - Adolescence Ed: Mathematics (107A)
  - Adolescence Ed: Earth Science (033B)
  - Adolescence Ed: Mathematics (037B)
  - Adolescence Ed: Mathematics (107B)

May not be repeated for credit
SED793. Secondary Ed Selected Topic. 3-12 Credits.
Restrictions:
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: Social Studies (040B)
  - Adolescence Ed: Biology (031A)
  - Adolescence Ed: Biology (101A)
  - Adolescence Ed: Chemistry (032A)
  - Adolescence Ed: Chemistry (104A)
  - Adolescence Ed: Earth Science (033A)
  - Adolescence Ed: Earth Science (102A)
  - Adolescence Ed: English (034A)
  - Adolescence Ed: English (103A)
  - Adolescence Ed: French (035A)
  - Adolescence Ed: French (105A)
  - Adolescence Ed: Mathematics (037A)
  - Adolescence Ed: Mathematics (107A)
  - Adolescence Ed: Social Studies (109A)
  - Adolescence Ed: Spanish (039A)
  - Adolescence Ed: Spanish (110A)
  - Adolescence Ed: Biology (031B)
  - Adolescence Ed: Biology (101B)
  - Adolescence Ed: Chemistry (032B)
  - Adolescence Ed: Chemistry (104B)
  - Adolescence Ed: Earth Science (033B)
  - Adolescence Ed: Earth Science (102B)
  - Adolescence Ed: English (034B)
  - Adolescence Ed: English (103B)
  - Adolescence Ed: French (035B)
  - Adolescence Ed: French (105B)
  - Adolescence Ed: Mathematics (037B)
  - Adolescence Ed: Mathematics (107B)
  - Adolescence Ed: Social Studies (109B)
  - Adolescence Ed: Spanish (039B)
  - Adolescence Ed: Spanish (110B)
  - BA/MAT Chemistry (104C)
  - BA/MAT Earth Science (102E)
  - Chemistry (50CH)
  - Geology/Earth Science (51ES)

May be repeated for credit

SED795. Indep Study Secondary Ed. 1-12 Credits.
Restrictions:
- Must have the following level: Graduate
- Must be enrolled in the following field(s) of study (major, minor or concentration):
  - Adolescence Ed: Biology (031A)
  - Adolescence Ed: Biology (101A)
  - Adolescence Ed: Chemistry (032A)
  - Adolescence Ed: Chemistry (104A)
  - Adolescence Ed: Earth Science (033A)
  - Adolescence Ed: Earth Science (102A)
  - Adolescence Ed: English (034A)
  - Adolescence Ed: English (103A)
  - Adolescence Ed: French (035A)
  - Adolescence Ed: French (105A)
  - Adolescence Ed: Mathematics (037A)
  - Adolescence Ed: Mathematics (107A)
  - Adolescence Ed: Social Studies (109A)
  - Adolescence Ed: Spanish (039A)
  - Adolescence Ed: Spanish (110A)
  - Adolescence Ed: Biology (031B)
  - Adolescence Ed: Biology (101B)
  - Adolescence Ed: Chemistry (032B)
  - Adolescence Ed: Chemistry (104B)
  - Adolescence Ed: Earth Science (033B)
  - Adolescence Ed: Earth Science (102B)
  - Adolescence Ed: English (034B)
  - Adolescence Ed: English (103B)
  - Adolescence Ed: French (035B)
  - Adolescence Ed: French (105B)
  - Adolescence Ed: Mathematics (037B)
  - Adolescence Ed: Mathematics (107B)
  - Adolescence Ed: Social Studies (109B)
  - Adolescence Ed: Spanish (039B)
  - Adolescence Ed: Spanish (110B)
  - BA/MAT Chemistry (104C)
  - BA/MAT Earth Science (102E)
  - Chemistry (50CH)
  - Geology/Earth Science (51ES)

May be repeated for credit