| **PROFESSOR:** |  |
| --- | --- |
| **OFFICE LOCATION:** |  |
| **OFFICE HOURS:** |  |
| **PHONE NUMBER:** |  |
| **E-MAIL:** |  |
| **SEMESTER:** |  |
| **DELIVERY METHOD:** |  |

# COURSE NUMBER AND TITLE, CATALOG DESCRIPTION, CREDITS:

## SCE 3310 Teaching Science in Elementary School (3 Credits)

Through this course the student will examine the theoretical and practical aspects of teaching science to the elementary student. The course will focus on developmentally appropriate effective instructional strategies for the elementary learner. Multiple methods of instruction and assessment will be explored for acquiring content knowledge and themes associated with science, the nature of science, earth and space science, physical science, and life science. The course will also explore the integration of content area literacy, technology, and cooperative learning experiences. The course will be inclusive of state standards, subject matter competencies, appropriate pedagogy, and assessment procedures. 15 hours of field experience is required with this course.

## PREREQUISITES FOR THIS COURSE:

ENC 1101, ENC 1102, 3 credits of college-level mathematics, EDG 3620, EDG 3410, EDG 4004 all with a grade of “C” or higher

### CO-REQUISITES FOR THIS COURSE:

None

## GENERAL COURSE INFORMATION:

Topic Outline

* Nature of Science
* The Practice of Science
* The Characteristics of Scientific Knowledge
* The Role of Theories, Laws, Hypotheses, and Models
* Science and Society
* Earth and Space Science
* Earth in Space and Time
* Earth Structures
* Earth Systems and Patterns
* Physical Science
* Properties of Matter
* Changes in Matter
* Forms of Energy
* Energy Transfer and Transformations
* Motion of Objects
* Forces and Changes in Motion
* Life Science
* Organization and Development of Living Organisms
* Diversity and Evolution of Living Organisms
* Heredity and Reproduction
* Interdependence
* Differentiation of Instruction for ELLs and Students with Exceptionalities

## ALL COURSES AT FLORIDA SOUTHWESTERN STATE COLLEGE CONTRIBUTE TO THE GENERAL EDUCATION PROGRAM BY MEETING ONE OR MORE OF THE FOLLOWING GENERAL EDUCATION COMPETENCIES:

**C**ommunicate clearly in a variety of modes and media.

**R**esearch and examine academic and non-academic information, resources, and evidence.

**E**valuate and utilize mathematical principles, technology, scientific and quantitative data.

**A**nalyze and create individual and collaborative works of art, literature, and performance.

**T**hink critically about questions to yield meaning and value.

**I**nvestigate and engage in the transdisciplinary applications of research, learning, and knowledge.

**V**isualize and engage the world from different historical, social, religious, and cultural approaches.

**E**ngage meanings of active citizenship in one’s community, nation, and the world.

1. General Education Competencies and Course Outcomes
2. Listed here are the course outcomes/objectives assessed in this course which play an integral part in contributing to the student’s general education along with the general education competency it supports.

* General Education Competency: Communicate
  + Course Outcomes or Objectives Supporting the General Education Competency Selected:
  + The student will plan and deliver standards-based science lessons demonstrating content knowledge and confidence in the teaching of science.
  + The student will synthesize instructional strategies, activities, and materials for the purpose of designing effective science inquiry acitivities that support student learning.
  + The student will employ appropriate diagnostic and assessment tools for science in the K-6 classroom.
  + The student will design a safe and supportive classroom environment for achievement in science.

1. Listed here are the course outcomes/objectives assessed in this course which play a supplemental role in contributing to the student’s general education along with the general education competency it supports.

* General Education Competency: Research
  + Course Outcomes or Objectives Supporting the General Education Competency Selected:
  + The student will utilize specific adaptive teaching strategies to maximize the learning of students who have difficulty with social studies, including ESE and ELL students.

**SPECIFIC COURSE COMPETENCIES:**

**Critical Task Assignments and/or Assessments**

At the conclusion of this course, teacher candidates will demonstrate competency in the following Preprofessional Florida Educator Accomplished Practices (FEAPs), Professional and Subject Area Educator Competencies and Skills, Florida Teacher Standards for ESOL Endorsement, Reading Competencies, and elements of the Uniform Core Curriculum.

**FTCE - Florida Teacher Certification Examination Subject-Area Competencies and Skills: Social Science**

**FEAP - Florida Educator Accomplished Practices**

**ESOL T.S. - Florida Teacher Standards for ESOL Endorsement**

***\**** *The numbers and letters in the graph below correspond to the standards, indicators and competencies found above.*

| Critical Task | FTCE Competencies | FEAPs | Reading | ESOL T.S. |
| --- | --- | --- | --- | --- |
| Field Experience Lesson Plans | **1.1, 1.2, 1.3, 1.4** | **1f, 3i** | **2.A.1, 2.A.6, 2.A.8, 2.F.7, 2.6.2,**  **4.6, 4.15, 4.16** | **3.2.a., 3.2.b., 3.2.c., 3.2.d., 3.2.e., 3.2.f., 3.2.i., 3.2.j., 3.2.k.**  **4.1.a., 4.1.b., 4.1.c., 4.1.e., 4.2.a., 4.2.b., 4.2.c.**  **5.1.a., 5.1.b., 5.1.c., 5.1.d., 5.3.c.** |

**RELATIONSHIP OF COURSE TO PROGRAM GOALS AND NATIONAL SPECIALIZED PROGRAM ASSOCIATION STANDARDS:**

This course is part of the Florida SouthWestern State College, Baccalaureate program in Education, for teacher licensure in the State of Florida in the area of Elementary Education, K-6. This program complies with the standards for teacher licensure established by the Florida Department of Education and covers the Preprofessional Florida Educator Accomplished Practices, Florida State Standards, Professional Educator Competencies and Skills, ESOL Performance Standards, and Reading Competencies.

## DISTRICT-WIDE POLICIES:

### PROGRAMS FOR STUDENTS WITH DISABILITIES

Florida SouthWestern State College, in accordance with the Americans with Disabilities Act and the College’s guiding principles, offers students with documented disabilities programs to equalize access to the educational process. Students needing to request an accommodation in this class due to a disability, or who suspect that their academic performance is affected by a disability should contact the Office of Adaptive Services at the nearest campus. The office locations and telephone numbers for the Office of Adaptive Services at each campus can be found at <https://www.fsw.edu/adaptiveservices>.

### REPORTING TITLE IX VIOLATIONS

Florida SouthWestern State College, in accordance with Title IX and the Violence Against Women Act, has established a set of procedures for reporting and investigating Title IX violations including sexual misconduct. Students who need to report an incident or need to receive support regarding an incident should contact the Equity Officer at [equity@fsw.edu](mailto:equity@fsw.edu). Incoming students are encouraged to participate in the Sexual Violence Prevention training offered online. Additional information and resources can be found on the College’s website at <https://www.fsw.edu/sexualassault>.

## REQUIREMENTS FOR THE STUDENTS:

***Critical Tasks***

**Field Experience Lesson Plans**

During the 15-hour field experience, each student will be required to plan and teach three lessons under the guidance and supervision of their cooperating teacher, using the lesson planning template from the School of Education. In addition, the student will be responsible for recording the teaching of each lesson using GoReact, annotating the video according to the established guidelines, and providing reflective feedback within the lesson plan. Specific reflection guidelines for each of the three video-recorded lessons will be established by the instructor. Each of the three lesson plans will be submitted to Chalk and Wire via Canvas.

***Additional Assignments***

**Integrated Unit: Science Across the Curriculum**

The purpose of this project is for students to create active experiences for guiding elementary students in learning important concepts in science while integrating language arts, math, social and/or social studies. It is also an opportunity to align classroom learning experiences with state and national standards in all of the content areas. Overall, the unit should engage students in critical thinking and reflect a constructivist philosophy and inquiry approach through activities and experiences that bring science to life.

**Activity Centers**

Students will design and present to small groups in class a teacher-led activity inquiry center that supports the application of academic concepts to advance student learning. The activity should be designed to link science content standards to activity center tasks and skills; promote active participation and collaboration; and develop both everyday and academic language through opportunities for questioning, exploring, and hypothesizing. In the role of the teacher-leader, students will be expected to model processes the students are asked to perform; provide instructions or explanations; scaffold student learning by segmenting and sequencing tasks; assess student learning; and provide feedback and encouragement.

**Quizzes** **and Discussions**

Students will complete short quizzes as formative assessments of knowledge of content central to the teaching of science as determined by the Florida Standards. In addition, students will complete Discussion posts in response to video content and readings aligned with the Florida Standards.

**Exam**

Students will take a final exam covering course content.

## ATTENDANCE POLICY:

After missing three hours of class, students will not be admitted to class without

completing the School of Education Attendance Contract, which should be submitted to the

professor. Each absence thereafter will result in a 10% reduction of the overall grade. Issues of

appeal will be reviewed by the administrative office in the School of Education.

Students are expected to be in class on time. Each tardy will be counted as 30 minutes toward an absence.

## GRADING POLICY:

Include numerical ranges for letter grades; the following is a range commonly used by many faculty:

| **Grade Percent** | **Letter Grade** |
| --- | --- |
| 90 - 100 | A |
| 80 - 89 | B |
| 70 - 79 | C |
| 60 - 69 | D |
| Below 60 | F |

(Note: The “incomplete” grade [“I”] should be given only when unusual circumstances warrant. An “incomplete” is not a substitute for a “D,” “F,” or “W.” Refer to the policy on “incomplete grades.)

## REQUIRED COURSE MATERIALS:

(In correct bibliographic format.)

## RESERVED MATERIALS FOR THE COURSE:

Other special learning resources.

## CLASS SCHEDULE:

This section includes assignments for each class meeting or unit, along with scheduled Library activities and other scheduled support, including scheduled tests.

## ANY OTHER INFORMATION OR CLASS PROCEDURES OR POLICIES:

**Academic Integrity**

Cheating/Plagiarism is defined as the intentional misrepresentation of another person's work as one's own work. Academic Dishonesty includes, but is not limited to, cheating, plagiarism, and fabrication of information. Students should refer to the policies of the college in the handbook for further information.

1. **Cheating** – The improper taking or tendering of any information or material, which shall be used to determine academic credit. Taking of information includes, but is not limited to, copying graded homework assignments from another student; working together with another individual(s) on a take-home test or homework when not specifically permitted by the professor; or looking or attempting to look at text or notes during an examination when not permitted. Tendering of information includes, but is not limited to, giving your work to another student to be used or copied; giving someone answers to exam questions either when the exam is being given or after having taken an exam; giving or selling a term paper or other written materials to another student; or sharing information on a graded assignment.
2. **Plagiarism** – The attempt to represent the work of another as the product of one's own thought, whether the other's work is published or unpublished, or simply the work of a fellow student. Plagiarism includes, but is not limited to, quoting oral or written materials without citation or with improper citation on an exam, term paper, homework, or other written materials or oral presentations. Plagiarism also includes submitting all or part of a previous assignment without documenting it is original work from another course, semester, or assignment, even if it is one’s own work.  
     
   The FSW State College academic integrity policy procedures in the student handbook (<http://www.fsw.edu/academics/catalog1516>) will be followed in the event of academic dishonesty.

**APA 7th Edition:** All students will be expected to follow the guidelines delineated in the American Psychological Association (APA) Publication Manual (7th Edition) when completing writing tasks. Although not required, it is strongly suggested that students have a copy of the manual on hand for reference when writing. Numerous resources are available online. Resources will also be provided by the professor. Points will be deducted for incorrect APA 7th formatting for critical tasks.

**Course Participation:** This course requires active participation. Students should be prepared to participate during all class activities and complete quizzes/writing assignments based on weekly readings. Participation points will reflect the quality of weekly participation and quizzes/writing assignments.

**Course Technology:** The FSW Canvas portal is an integral part of the curriculum. Students will find course content and information, assignment submission links and grades, and other critical information. All online communication should take place within the portal. If the portal is unfamiliar it would be beneficial to work through the Canvas Student Orientation activities. A link can be found on the course welcome page.

In this day of technology, technical issues are not an excuse for late or lost work. Students are encouraged to submit their work prior to deadlines to allow for scheduled technical upgrades, weather problems, or personal technology issues. Back up work to a USB Drive or external hard drive so it can be uploaded from any computer even if primary technology develops a virus, crashes, or experiences any other issue. If an assignment needs to be submitted via Chalk and Wire and/or Canvas and either is not available for some reason, the assignment may be emailed to the professor’s school email so that it is date and time stamped then keep trying to submit via the required portal.

**Critical Task Revision Policy:** Any Critical Task receiving a grade less than 75% must be resubmitted to the professor. ***The Critical Task must be revised and resubmitted within two weeks of the Critical Task being returned to the teacher candidate***. For example, if a Critical Task is returned by the professor to the teacher candidate on October 15th, the Critical Task must be resubmitted by October 29th. Failure to receive a 75% or higher on all assigned Critical Tasks will result in a failing grade for the course regardless of the overall course average. If the two-week revision window expires after the last day of final exams, the professor will issue a grade of “Incomplete” for the course. ***If the Critical Task is not resubmitted within the two-week window, or does not receive a 75% or higher, it will result in a failing grade for the course regardless of the overall course average***. Revising a Critical Task may not necessarily result in a change in the overall course average.

**Field Experience:** Field experience is ***active field experience participation*** (not observation). Students will work with the Field Experience Coordinator for placement with a cooperating teacher. Cooperating teachers will complete an ungraded mid-semester checkpoint as well as a final evaluation. It is strongly suggested that the hours be spread throughout the semester so that cooperating teachers can more accurately assess a student’s strengths/needs prior to completing the final evaluation. For more information regarding field experience, including the evaluation rubric, please refer to FSW’s Field Experience Handbook.

**Late Assignment Policy:** The penalties for late critical task assignments are as follows:

* 1 day late = 10% grade reduction of task
* 2-6 days late = 20% grade reduction of task
* 7+ days late = zero points earned towards course grade

The critical task must still be completed according to the critical task revision policy.

Non-critical tasks will not be accepted late. If a teacher candidate misses the deadline for a non-critical task, zero points will be awarded for the task.

**Personal Technology:** All personal communication technology should be turned off or silenced during instructional time unless it is being used for a class activity or to access course resources. If a student must take/make a call during class, please try to minimize disruption as much as possible by stepping outside until business is finished. There should be no text messaging during instructional time within the classroom setting. Some course activities require technology with Flash capability; notice will be given in advance so teacher candidates may come prepared on those days.