

Murray State University
COURSE SYLLABUS

DEPARTMENT: Early Childhood and Elementary Education

COURSE PREFIX: ELE COURSE NUMBER: 608 CREDIT HOURS: 3

I. TITLE: Integrating Science Across the Curriculum

II. COURSE DESCRIPTION AND PREREQUISITES : A laboratory-centered course planned for the development of skills in the design and evolution of experiences for teaching science in the elementary school. Experiences dealing with new elementary science curricula and current research are provided.

Prerequisite: None

III. COURSE OBJECTIVES:

Class activities will be centered on the attainment of the course objectives listed below. Following each objective, and enclosed in parentheses, are numbers that reference the Kentucky Experienced Teacher Standards (KTS), Interstate Teacher Assistance and Support (InTASC) standards, and National Science Education Standards (NSAT). At the end of this course, students will be able to

- A. Describe the role of the National Science Education Standards in current science teaching; (KTS 2, 4, 5, 7/InTASC 1, 2, 3/NSAT 4)
- B. Demonstrate the ability to design effective science experiences for elementary children; (KTS 3, 4, 8/InTASC 1, 2, 3, 4, 5, 6, 7, 8/NSAT 2, 3, 5, 8)
- C. Explain how to create a learning environment that supports inquiry-based science teaching; (KTS 5/InTASC 1, 2, 3, 6, 7, 8/NSTA 2, 3, 5, 8)
- D. Demonstrate effective questioning techniques for science lesson; (KTS 3, 8/InTASC 6, 7, 8/NSTA 3, 5, 8)
- E. Identify science program materials and commercial products used in elementary science teaching; (KTS 3, 4, 5/InTASC 6, 7, 8/NSTA 5, 6, 8)
- F. Describe and show how other subject areas can be integrated with the teaching of science; (KTS 4, 7/InTASC 6, 7, 8/NSTA 3, 5)
- G. Demonstrate proficiency with a computer in science related activities; (KTS 4, 5/InTASC 6, 7, 8/NSTA 5)
- H. Demonstrate the ability to reflect on one's teaching, analyze its effectiveness, and make appropriate changes; and (KTS 2, 6, 9/InTASC 7, 8/NSTA 4, 6, 10)
- I. Demonstrate an understanding of the role of collaboration, the importance of the rights of individuals, and accepted professional behavior. (KTS 1, 2, 6/InTASC 10/NSTA 4, 6, 10)

The Theme of Educator as Reflective Decision-Maker is addressed in this course by requiring students to reflect upon best practices in science teaching based upon Kentucky documents and national science standards.

The EPSB Themes of Assessment and Closing the Achievement Gap are major themes explored in the course through various laboratory-centered activities and reflection upon best practices in science teaching.

IV. CONTENT OUTLINE:

- A. Science Autobiography
- B. Science Journaling

- C. Powerful Positions in Science Issues
- D. Scientist Interview
- E. Understanding Science Content
- F. Developing Quality Hands-On Activities
- G. Locating Quality Science Resources
- H. Integrating Science Across the Curriculum

V. INSTRUCTIONAL ACTIVITIES:

- A. Group discussions
- B. Literature Research
- C. Observations
- D. Standards Synthesis
- E. Interviewing Skills
- F. Integrating Around a Central Theme

VI. FIELD, CLINICAL, AND/OR LABORATORY EXPERIENCES: NONE

VII. TEXTS AND RESOURCES:

- A. Waterfield Library – MSU main campus
- B. NASA Educational Resource Center
- C. Center for Environmental Education
- D. Computer laboratory
- E. Online Resources Provided by the Professor

VIII. EVALUATION AND GRADING PROCEDURES:

Students' work will be evaluated based upon their ability to successfully complete instructional activities such as group investigations, individual projects, reflections, and assessments. Grades will be awarded using the following scale:

Percentage	Grade
94-100	A
86-93	B
76-85	C
66-75	D
0-65	E

IX. ATTENDANCE POLICY This course adheres to the policy published in the current *MSU Bulletin*.

X. ACADEMIC HONESTY POLICY:

Murray State University takes seriously its moral and educational obligation to maintain high standards of academic honesty and ethical behavior. Instructors are expected to evaluate students' academic achievements accurately, as well as ascertain that work submitted by students is authentic and the result of their own efforts, and consistent with established academic standards. Students are obligated to respect and abide by the basic standards of personal and professional integrity.

Violations of Academic Honesty include:

Cheating - Intentionally using or attempting to use unauthorized information such as books, notes, study aids, or other electronic, online, or digital devices in any academic exercise; as well as unauthorized communication of information by any means to or from others during any academic exercise.

Fabrication and Falsification - Intentional alteration or invention of any information or citation in an academic exercise. Falsification involves changing information whereas fabrication involves inventing or counterfeiting information.

Multiple Submission - The submission of substantial portions of the same academic work, including oral reports, for credit more than once without authorization from the instructor.

Plagiarism - Intentionally or knowingly representing the words, ideas, creative work, or data of someone else as one's own in any academic exercise, without due and proper acknowledgement.

Instructors should outline their expectations that may go beyond the scope of this policy at the beginning of each course and identify such expectations and restrictions in the course syllabus. When an instructor receives evidence, either directly or indirectly, of academic dishonesty, he or she should investigate the instance. The faculty member should then take appropriate disciplinary action.

Disciplinary action may include, but is not limited to the following:

- 1) Requiring the student(s) to repeat the exercise or do additional related exercise(s).
- 2) Lowering the grade or failing the student(s) on the particular exercise(s) involved.
- 3) Lowering the grade or failing the student(s) in the course.

If the disciplinary action results in the awarding of a grade of E in the course, the student(s) may not drop the course.

Faculty reserve the right to invalidate any exercise or other evaluative measures if substantial evidence exists that the integrity of the exercise has been compromised. Faculty also reserve the right to document in the course syllabi further academic honesty policy elements related to the individual disciplines.

A student may appeal the decision of the faculty member with the department chair in writing within five working days. Note: If, at any point in this process, the student alleges that actions have taken place that may be in violation of the Murray State University Non-Discrimination Statement, this process must be suspended and the matter be directed to the Office of Institutional Diversity, Equity and Access. Any appeal will be forwarded to the appropriate university committee as determined by the Provost.

XI. **NON-DISCRIMINATION POLICY AND STUDENTS WITH DISABILITIES:** Policy Statement

Murray State University endorses the intent of all federal and state laws created to prohibit discrimination. Murray State University does not discriminate on the basis of race, color, national origin, gender, sexual orientation, religion, age, veteran status, or disability in employment, admissions, or the provision of services and provides, upon request, reasonable accommodation including auxiliary aids and services necessary to afford individuals with disabilities equal access to participate in all programs and activities. For more information, contact the Executive Director of Institutional Diversity, Equity and Access, 103 Wells Hall, (270) 809-3155 (voice), (270) 809-3361 (TDD).

Students with Disabilities

Students requiring special assistance due to a disability should visit the Office of Student Disability Services immediately for assistance with accommodations. For more information, students should contact the Office of Student Disability Services, 423 Wells Hall, Murray, KY 42071. 270-809-2018 (voice) 270-809-5889(TDD).