

**Murray State University
COURSE SYLLABUS**

DEPARTMENT: EARLY CHILDHOOD AND ELEMENTARY EDUCATION

COURSE PREFIX: EDU

COURSE NUMBER: EDU 667

CREDIT HOURS: 3

I. TITLE: International Environmental Education

II. CATALOG DESCRIPTION AND PREREQUISITE(S): Residential study of the mathematical, scientific, social studies, language arts, fine arts, and health connections to the environment in international locations. This class takes place in an international location (field experiences required).

Prerequisite(s): Permission of instructor.

III. COURSE OBJECTIVES:

Class activities will be centered on the attainment of the course objectives listed below. These objectives are understood to be reflective of, but not limited to those behaviors aligned with the Kentucky Education Reform Act (KERA) and the Kentucky Core Academic Standards (KCAS). Following each objective, and enclosed in parentheses, are numbers that reference the Kentucky Teacher Standards for Preparation and Certification (KTS) and the North American Association for Environmental Education and the Environmental Education Standards (NAAEE) addressed by that objective. Upon successful completion of this class, students will

- A. acquire, reinforce, and/or extend the skills of assessing environmental issues using mathematical, scientific and other tools in the arts, humanities, sciences and social sciences and to express this in visual, auditory, and other forms of communication (KTS 1, 2, 4, 8, 10; NAAEE 1-5);
- B. be able to make connections between mathematical, scientific, and social problem-solving skills to make informed decisions about environmental issues (KTS 1, 2, 6, 8 - 10; NAAEE 1-5);
- C. compare and contrast the use of natural resources in an international setting with one's own country and community; (KTS 1-6, 8, 10; NAAEE 1-4);
- D. compare the concept of sustainability as they relate to practice in an international setting with one's own country and community (KTS 1-5, 8, 10; NAAEE 1-3, 4);
- E. prepare a list of conceptual, skill, and curricular connections that can be made between mathematics, science, social studies, language arts, and other subjects and the concepts of sustainability and its relation to ecosystems (KTS 1, 2, 4, 8, 10; NAAEE 1-5);
- F. develop and apply techniques to provide a context for mathematics, science, social studies, language arts, the fine arts, and health so students may use the environment as a topic to conjecture, verify, think hypothetically, comprehend cause and effect, generalize, and abstract (KTS 1, 2, 4, 6, 8, 10; NAAEE 1-5).

By using the Environment as an integrating context, connections will be made to the subjects of mathematics, science, social studies, language arts, the fine arts, and health. Mathematical, scientific, and social studies collection procedures will be used to compare and contrast the forest, river/stream, and human habitat in the international location with other international locations and/or the United States.

IV. COURSE OUTLINE:

- A. Assessing the Environment (Assessment tools that require the use of multiple intelligences and reflection)
- B. Making Informed Decisions about the Environment (Interdisciplinary use of Mathematics, Science, Social Studies, Language Arts, Fine Arts, and Humanities)
- C. Concept of Natural, Renewable, and Nonrenewable Resources (Using Observation, Inquiry, Inferences and Multiple Data Sources)
- D. Sustainability and Economics (Using Data to Project Impacts on Plant and Animal Life)
- E. Landfills and Recycling (Using data to compare and contrast need to address this issue in a culture that uses 30 percent of the world's resources and yet represents less than 3 percent of the world's

- population. What does this mean to our throw away society in terms of sheer volume of need for landfills at the current rate of use?
- F. Energy Generation, Use and Consumption: Is there an energy crisis and what statistical data is there to prove or disprove this? What mathematical models can we use to predict energy use in the future comparing U.S. to the other country? What are they doing to meet continued need for energy and how will this impact the air, land, and water?
 - G. Schools and the Environment: What are schools doing for projects in the use of the environment as an integrating context? How do they all integrate all school subjects in these eco-schools? How are these schools contributing to sustainability and energy self-sufficiency?
 - H. Societal Values and Resource use: How much of the world's natural resources does the topic country use? What values support this in these cultures and how are they different from the United States?
 - I. Change over Time: Over the last 40 years what have the topic countries done to impact the environment positively? What can we learn from them and what can we do to change our environment?
 - J. Comparing Recycling/Reusing at Home and Abroad: What are the similarities and differences between the topic country and the US looking at the recycling process? What is done with the trash and how does that compare with the U.S.? For example, 85 percent of trash going to the landfills in Austria is recycled and reused. Is there a discrepancy between the topic country and the US? If there were a difference then what would account for this difference? What does this mean in relation to landfill use in our respective countries?

V. INSTRUCTIONAL ACTIVITIES:

Students will be engaged in a number of hands-on environmental activities throughout the course that will include the use of mathematics, science, social studies, language arts, the fine arts, and health. Connections will be made with these disciplines as it relates to problem solving necessary to solve and resolve environment issues and problems associated with concepts such as carrying capacity and limiting factors.

Readings will be assigned and/or self-selected to assist in generating pertinent questions and concerns that would evolve into the use of mathematics, science, and other subjects to respond in an informed way.

Resource individuals will be used to connect the current state of the international environment with the tools necessary to make this assessment.

Active and positive participation in large and small group discussion and presentation will take place.

Excursions will take place throughout the course to provide data, information, and observations to allow participants to draw conclusions about the viability of sustainable practices and to allow them to compare these with those in their own cities and municipalities.

Demonstration of acceptable performance on writing and data collection activities will be culminated with a final project that will provide an in-depth look at how mathematics, science, and other subjects can be used as tools in the classroom to address the environment and environmental questions/issues.

Each participant will provide ways in which they will be able to collaborate with their colleagues and resource persons in the U.S. to explore ways of using the environment as an integrating context and thus a way to improve the learning and use of mathematics, science, and other disciplines.

VI. FIELD, CLINICAL AND/OR LABORATORY EXPERIENCES: Students are required to attend all field and in-class sessions during the international experience.

VII. TEXT(S) AND RESOURCES:

Multiple environmental experts will facilitate the delivery of the program on-site. Additional resources pertinent to the destination and nature of the course will be provided to the students via Canvas.

VIII. EVALUATION AND GRADING PROCEDURES:

Students will be graded based on the successful completion of varied activities, including:

- A. Pre-trip activities – students will read and respond to articles and assignments posted on Canvas. This will count for 25 percent of the final grade for the class.
- B. The Field Experience – students will attend all classes and field trips during the international residential experience. Participation in all class discussion and assignments will be worth 50 percent of the final grade.
- C. Final project – students will submit a final project within three weeks after their return to the United States. Students will choose a project that meets their professional needs, aligns with the course goals and objectives, and integrates environmental topics across the curriculum. Therefore, the students should be able to apply their newfound knowledge to connect environmental elements to their current mathematics, science, social studies, and literacy curricula.

The students will also be able to discern, recognize, and make use of environmental resources to support the faculty at their schools. This assignment is worth 25 percent of the final grade for the class. A detailed rubric will be provided.

IX. ATTENDANCE POLICY: Students are expected to adhere to the MSU Attendance Policy outlined in the current MSU *Bulletin*. Students are expected to attend ALL class meetings.

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 Equal Opportunity. 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).