

EDRS 590 – Education Research

* Coding in **bold** reflects ISTE NETS standards for Educational Computing and Technology Facilitation

I. Course Description

This three credit hour class focuses on the development of skills, insights, and understandings basic to performing research with emphasis on interpretation and application of research results. Critique of research and use of findings in educational settings will be emphasized. In addition, students will develop expertise in action research methods and designing and implementing action research proposals

II. Course Methodology

The course is structured around readings, reflections on those readings, class projects, on-line discussions and activities, and participation in a series of model lessons designed to reflect strategies for the integration of technology with the teaching/learning process. Using this collection of activities, the methodology of the course seeks to build clear bridges between technology know how, theoretical/research perspectives, and classroom practice.

III. Course Objectives

Student mastery of the objectives below provide a framework of support for NETS Standards for Educational Computing and Technology Facilitation II-B, IV-A, B, C, V-B.

1. Students will be able to describe the purposes and processes associated with action research.
2. Students will understand differences between action research and more traditional approaches to research.
3. Students will be able to describe the purposes and uses of descriptive research, comparative research, and experimental research.
4. Students will be able to distinguish the purposes and uses of quantitative and qualitative research.
5. Students will be able to identify the components of a research proposal or research article: introduction, problem statement, questions/hypotheses, review of literature, design, subjects, instrumentation, treatment, procedure, and data analysis.
6. Students will participate in a research study.
7. Students will complete a collaborative research project.
8. Students will complete an action research proposal to be implemented in their teaching environment.

IV. Course Readings

1. Fleming, Douglas. The AEL Guide to Action Research ERIC # ED 450105
2. Collection of 4 copied action research studies.

V. Course Requirements

1. Attendance in class is mandatory, as discussions, lectures, and hands-on activities are important parts of the course.
2. Each student is expected to complete all readings and participate in all on-line discussions.
3. Each student is expected to participate in and complete all classroom projects.
4. Students who must miss a class are responsible for notifying the instructor (preferably in advance) and for completing any assignments, readings, etc. before the start of the next class.
5. All written assignments must be completed on a word processor. Assignments are to be turned in at the beginning of class on the date due. Late assignments will not be accepted without making prior arrangements with the instructor.

VI. Course Assignments

1. Online Portfolio (20 points): Throughout their program of study, students are required to create and continually revise a professional, online portfolio. This portfolio should not be a collection of what the student has done, but rather a reflection of what they have learned. Templates and assistance will be provided during class to assist students in the creation and maintenance of this portfolio. All exhibits in the online portfolio will include a short reflection. At the end of the semester, a comprehensive, semester-wide reflection and supporting samples of work will be added to the portfolio reflecting student learning related the semester's work. **Performance-based outcome for objectives 1 through 8.**
2. An In-Class collaborative research project: In a collaborative group, students will design, implement, and analyze data related to an action research project designed by the group. Students will formulate a problem, construct an instrument(s), collect data, and analyze data directed toward researching some aspect of the Virginia Standards of Learning. The final product will be a written research report using the format distributed in class. **Performance-based outcome for objective 7.**
3. Research Article Critiques: Students will identify and critique two research articles of their choice. One article must be quantitative and the other must be qualitative. Articles must be approved by the instructor. Once approved, students are to write a one to two page critique of the research pointing out the ways in which the author(s) have addressed the main components of research and discussing the merits of the research. **Performance-based outcome for objectives 1, 2, 3, 4, & 5.**

4. An Action Research Proposal: Following the format discussed in class, students will write an action research proposal that can be implemented in their teaching situation during the Fall semester. The research period should fall within a six to eight week treatment period. **Performance-based outcome for objective 8.**

VII. Course Evaluation

Since this is a graduate level course, high quality work is expected on all assignments and in class. Points for all graded assignments (see section 6) will be based on the scope, quality, and creativity of the assignments. All assignments are due at the beginning of class. Late assignments will not be accepted without making arrangements with the instructor.

Points will be assigned to all graded assignments using a rubric process. Both class participants and the course instructor will be involved in assessment of graded assignments. Prior to the due date for any assignment, the class will participate in the development of an assessment rubric. This rubric will result from a discussion of applicable course objectives and an elaboration of qualities and components associated with excellence in completion of the assignment.

When assignments are presented on the designated due date, class participants and the instructor will complete an assessment of the assignment using the rubric created in class. Class participants' ratings on the rubric will be averaged. Then the class participants' average will be averaged with the instructor's ratings on the rubric to compute a final point value for assignments. In this way, the development of the rubric will inform the final completion of the assignments as well as serve as the instrument for assessment and determination of points awarded.

VIII. Graduate School of Education Expectations

The Graduate School of Education (GSE) expects that all students abide by the following:

Students are expected to exhibit professional behavior and dispositions. See <http://gse.gmu.edu> for a listing of these dispositions.

Students must follow the guidelines of the University Honor Code. See http://www.gmu.edu/catalog/apolicies/#TOC_H12 for the full honor code.

Students must agree to abide by the university policy for Responsible Use of Computing. See <http://mail.gmu.edu> and click on Responsible Use of Computing at the bottom of the screen.

Students with disabilities who seek accommodations in a course must be registered with the GMU Disability Resource Center (DRC) and inform the instructor, in writing, at the beginning of the semester. See www.gmu.edu/student/drc or call 703-993-2474 to access the DRC.