#### GEORGE MASON UNIVERSITY COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT DIVISION OF ELEMENTARY, LITERACY AND SECONDARY EDUCATION

EDPD 502.600

"Teacher as Researcher": Use Action Research to Increase Student Learning in Science 3 Credit Graduate Fall Semester/2015 Monday and Wednesday 4:30- 7:30 pm September 30, 2015 – November 23, 2015 Independent Hill Room 207

Instructor: Joy Greene Phone: (703)791-7423 FAX: (703) 791-8810 E-mail: <u>greeneje@pwcs.edu</u> Office Hours: By appointment only Address: Kelly Leadership Center 14715 Bristow Road Manassas, VA 20112

#### **COURSE DESCRIPTION:**

Teacher researchers will utilize the Action Research Cycle to improve professional practice resulting in continuously improving student learning. Educators will explore a variety of learning experiences and pedagogy applications that foster student interest, involve students in the inquiry process, advance critical thinking, and develop conceptual understanding of scientific topics.

#### **COURSE FORMAT:**

During the course participants will engage in class discussions, small group meetings, and oral presentations.

#### **LEARNER OUTCOMES:**

Upon completion of the course, learners will be able to accomplish the following:

- Define and design Action Research for individual use or for a PLC.
- Utilize the Action Research Cycle to improve professional practice resulting in continuously improving student learning.

#### **PROFESSIONAL STANDARDS:**

This professional development opportunity supports Prince William County Public Schools Professional Educator Performance Standard I (Knowledge of Students), Standard II (Instructional Planning), Standard III (Instructional Delivery), Standard IV (Assessment of and for Student Learning), Standard V (Learning Environment), Standard VI (Professionalism), and Standard VII (Student Academic Progress).

# **REQUIRED/SUPPLEMENTAL TEXTS AND/OR READINGS:**

#### **Provided Texts**:

Mills, G. E. (2014). Action Research: A Guide for the Teacher Researcher (5<sup>th</sup> edition). Prentice Hall, Upper Saddle River, New Jersey.

Supplemental readings and additional resources will be provided during course.

# COURSE REQUIREMENTS, PERFORMANCE-BASED ASSESSMENTS, EVALUATION CRITERIA, AND GRADING SCALE:

The assignments for this course include personal reflections, scientific journal summaries, and a formal write up of the Action Research report. All assignments should be written for clarity and edited carefully for grammatical errors. Use a consistent format (such as APA) for citing and listing references. All assignments should be submitted to the instructor electronically by the due date.

### Attendance & Participation (20%)

Attendance and active participation are vital to the successful completion of the course. Every class participant is expected to contribute to class activities and discussions. Participants must attend all class sessions.

Participation for discussion forum requirements:

- An original post between 100-200 words is required
- Participants must submit a100 word respond to at least two (2) classmates
- All responses must be submitted during the assigned timeframe

#### Article Summary (20%)

Journal summary requirements:

- 100-150 word summary of the article
- 12 point font, Times New Roman or Arial (or the font in Schoolfusion)
- Source sited in APA or MLA format or a copy of the article with source listed <u>Written reaction requirements:</u>
- 150-200 reaction statement
- 12 point font, Times New Roman or Arial (or the font in Schoolfusion)
- Reactions must be posted in the required location in the online discussion forum. Focus on how you will use information and strategies learned in class in your classroom instruction and tell your opinion of activities and class discussions.

# Action Research Report (40%)

Class participants will prepare a detailed Action Research Report. The report will include an area of focus statement, research questions, brief review of literature, data collection, data analysis, and your action plan. The course instructor will provide resources/rubric during the course. Participants will present a summary of area of focus, research questions, review of literature, data collection, data analysis, and your action plan to the entire class as a presentation.

Written Requirements:

• Visuals should be used to present the Action Research Report (example: PowerPoint and/or videos)

- Accurately site references using APA format (*course instructor will provide examples*)
- Copies of all resources/materials used or created for each class participant

## Oral Presentation (20%)

Prepare and give an oral presentation of your Action Research project and your Action Research Report. The presentation should be a summary of the research you conducted and not actually teaching the lesson(s). Each presentation must focus on all aspects of the research and report such as the area of focus statement, research questions, brief review of literature, data collection, data analysis, and your action plan. A time limit for the presentation will be established based on the number of class participants. The course instructor will establish the timeframe on the first night of class.

Presentation requirements:

- Visuals must be used to present research (example: PowerPoint or videos)
- Handouts (*as applicable*) of data collection instruments and other resources used during project

#### **GRADING SCALE:**

- A 95 100 percent
- **A-** 90 94 percent
- **B**+ 85 89 percent
- **B** 80 84 percent
- $\mathbf{C}$  70 75 percent
- **F** 69 percent or below

#### GMU POLICIES AND RESOURCES FOR STUDENTS

- a. Students must adhere to the guidelines of the George Mason University Honor Code [See http://oai.gmu.edu/honor-code/].
- b. Students must follow the university policy for Responsible Use of Computing [See http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/].
- c. Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.
- d. The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See http://caps.gmu.edu/].
- e. Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <u>http://ods.gmu.edu/</u>].
- f. Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- g. The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support

students as they work to construct and share knowledge through writing [See http://writingcenter.gmu.edu/].

#### **PROFESSIONAL DISPOSITIONS**

Students are expected to exhibit professional behaviors and dispositions at all times.

#### **CORE VALUES COMMITMENT**

The College of Education & Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles. <u>http://cehd.gmu.edu/values/</u>

Date	Topic/Learning Experiences	Readings/Assignments
<b>Introduction:</b> Wednesday, September 30	<ul> <li>Course overview, objectives, expectations</li> <li>What is Action Research?</li> </ul>	
<b>Session One:</b> Wednesday, October 7, 2015 (KLC Room 3011) 4:30 – 7:30 PM	• Identify types of Action Research	<ul> <li>Complete starting point questions.</li> <li>Read Chapters 1 and 2 Mills, G. E.</li> </ul>
<b>Session Two:</b> Wednesday, October 14, 2015 (KLC Room 1502 A & B) 4:30 – 7:30 PM	<ul> <li>Review Action Research Planning Guide</li> <li>Discuss how Action Research works</li> <li>Introduce the Action Research cycle</li> <li>Discuss methods of Action Research</li> </ul>	<ul> <li>Complete the Action Research Planning Guide provided by the instructor.</li> <li>Complete all the required discussions.</li> <li>Read Chapter 3 Mills, G. E</li> </ul>
<b>Session Three:</b> Monday, October 19, 2015 (KLC Room 3011) 4:30 – 7:30 PM	<ul> <li>Discuss and debate what good research questions are</li> <li>Participate in small group discussions focused on Action Research Planning Guide</li> </ul>	<ul> <li>Solicit feedback from content co- workers, PLC, and other work groups to gather information about your research questions.</li> <li>Complete all the required discussions.</li> <li>Read Chapter 4 Mills, G. E</li> </ul>
<b>Session Four:</b> Wednesday, October 21, 2015 (KLC Room 3011) 4:30 – 7:30 PM	<ul> <li>Group discussion on developing a good research question</li> <li>Refine the question</li> <li>Working towards a research plan</li> <li>Conduct a brain writing activity in class</li> </ul>	<ul> <li>Collect work samples from two students for the next session</li> <li>Continue finalize your Action Research Planning Guide, research question development and data collection instruments</li> <li>Complete all the required discussions.</li> <li>Complete all required reading assignments from textbooks and provided articles.</li> </ul>
<b>Session Five:</b> Monday, October 26, 2015 (KLC Room 3011) 4:30 – 7:30 PM	<ul> <li>Discuss how to collect data in a classroom setting</li> <li>Discuss why researchers triangulate data</li> <li>Explore and discuss how to triangulate data</li> </ul>	<ul> <li>Finalize your Action Research Planning Guide, research questions, and data collection instruments</li> <li>Complete all the required discussions.</li> <li>Read Chapter 5 Mills, G. E</li> </ul>
<b>Session Six:</b> Wednesday, October 28, 2015 (KLC Room 3011) 4:30 – 7:30 PM	<ul> <li>Finalize Action Research Planning Guide, research questions, and data collection instruments</li> <li>Discuss how to analyze data</li> <li>Discuss expectations for data collect and expectations for communication during this time</li> </ul>	• Complete all the required discussions and supplemental readings.

Session Seven: Monday, November 2, 2015	<ul> <li>Collect classroom and student data using instrument you developed</li> <li>Review data regularly and reflect on professional practice</li> </ul>	
Session Eight: Wednesday, November 4, 2015 (KLC Room 3011) 4:30 – 7:30 PM	<ul> <li>Continue discussing how to analyze data</li> <li>Discuss how to write an Action Research report</li> <li>Discuss why a teacher researcher should write an Action Research report</li> <li>Presenting Action Research (report)</li> </ul>	• Continue to finalize Action Research report and presentation of findings.
Monday, November 9, 2015 (KLC Room 3011) 4:30 – 7:30 PM		
<b>Session Ten:</b> Monday, November 16, 2015 (KLC Room 3011) 4:30 – 7:30 PM	Presenting Action Research (report	rts and data)
<b>Session Eleven:</b> Wednesday, November 18, 2015 (KLC Room 3011) 4:30 – 7:30 PM	Presenting Action Research (report	rts and data)
	rs will be obtained through partice of Student Learning- Science	±