

**GEORGE MASON UNIVERSITY**  
**COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT**  
**PROFESSIONAL DEVELOPMENT STUDIES**

EDPD 502.6R5 and EDPD.6R4:

Teacher Leadership and Policy: STEM A

Summer 2014

June 22-June 27 (on-campus), July (online). Course ends July 18  
Thompson L019; off campus locations and online.

**PROFESSOR(S):**

Name: Margret Hjalmarson

Office hours: By appointment

Office phone: 703-993-4818

Email address: mhjalmar@gmu.edu

Name: Toya Frank

Office hours: By appointment

Office phone: 703-993-5015

Email address: tfrank4@gmu.edu

**COURSE DESCRIPTION:**

This course provides advanced professional development for experienced teachers in teacher leadership, educational policy, technology, data driven decision making and effective instructional practices for diverse learners. Offered through the Virginia Center for Excellence in Teaching. Selection process is state-wide and competitive. The course has four versions, each specific to a set of disciplines or to interdisciplinary competence.

**LEARNER OUTCOMES or OBJECTIVES:**

These outcomes cover Parts A and B of the course. All students will take Part A in summer 2014 and Part B in fall/spring, 2014-15.

- (1) Develop increased knowledge of instructional and curricular issues in their fields and/or in interdisciplinary instruction.
- (2) Develop knowledge and skills as teacher leaders.
- (3) Gain knowledge and skills related to educational policy at the national, state and local levels.
- (4) Gain knowledge and skills in using data for educational decision-making.
- (5) Increase their understanding of diverse learners.
- (6) Use technology as a teacher, learner, and teacher leader.
- (7) Share their increased knowledge, skills, and understandings with others in their educational communities.
- (8) Develop understanding of STEM integration, standards, and practices

**Approach:**

Will be taught using a highly interactive approach that encourages discussion, active learning, and thoughtful reflection. A one-day field trip to D.C. will be included to give hands-on experience in national policy as well as discipline-based learning at museums or other sites.

**REQUIRED TEXTS:**

Three texts for the course will be used in the summer class and the follow-up class in the fall. (Samaras, 2011; Vasquez, Sneider, & Comer, 2013; West & Cameron, 2013)

- Samaras, A. P. (2011). *Self-study teacher research: improving your practice through collaborative inquiry*. Thousand Oaks, CA: SAGE Publications, Inc.
- Vasquez, J. A., Sneider, C., & Comer, M. (2013). *STEM lesson essentials, grades 3-8: Integrating science, technology, engineering, and mathematics*. Portsmouth, NH: Heinemann.
- West, L., & Cameron, A. (2013). *Agents of change: How content coaching transforms teaching and learning*. Portsmouth, NH: Heinemann.

Additional readings will be drawn from:

- National Council of Supervisors of Mathematics. (2008). The PRIME Leadership Framework. Denver: NCSM.*
- Skrla, L., McKenzie, K., Scheurich, J. (2009). Becoming an equity-oriented change agent. In *Using equity audits to create equitable and excellent schools* (pp. 69-79). Thousand Oaks, CA: Corwin.

**COURSE ASSIGNMENTS:****1. Action Plan/Equity Study**

Each students will conduct a STEM equity study based on your school's VDOE Report Card. You will analyze and interpret the data and conduct a policy brief and literature review based on your analysis. Students will create an action plan and implement one facet of it to effect change in your local setting.

**2. Self-study Research Plan**

Based on the action plan, students will design a self-study research project to be implemented in the follow-up course in Fall 2014. This project plan will include a literature review, data collection and analysis plan and the selection of one component of your action plan to investigate in the fall.

**3. Portfolio Development and Reflective Blog**

Throughout the week, students will be designing a portfolio with two components. The first component is a reflection blog for sharing what students have been doing and learning during VCET with your colleagues. The second component is an archive of work on VCET projects and assignments.

**4. Participation and Engagement**

This VCET experience has been designed for students to engage and work with other teacher leaders in STEM from throughout Virginia. Therefore, participation and engagement is expected throughout the week on campus and in online follow-up activities in July.

**GRADING:**

A	At least one assignment submitted as the exceeds expectations level, all other assignments at the meets expectations level
B	All assignments submitted at the meets expectations level
C	One or more assignments submitted below meets expectations (at unsatisfactory level)
F	Multiple assignments missing, unsatisfactory or incomplete.

**MODULES:**

Throughout the week, guest instructors will present modules on three topics to address additional content and knowledge you will need as STEM teacher leaders.

1. Teacher Leadership (Stephanie Dodman)

Teachers will define the role of the teacher leader and examine what teacher leadership means for their work. In doing so, they will develop an understanding of their own dispositions and strengths related to teacher leadership. Teachers will also explore activities of teacher leadership and surface potential barriers and solutions to enacting teacher leadership activities in their schools.

2. Technology (Nada Dabbagh)

Teachers will learn about portfolio creation tools, blogging technology, and other technology-based tools for communication and collaboration.

3. Data-driven Decision-making (Lori Bland)

Teachers will learn how school and district data can be used to inform instruction, planning and leadership decisions. Data will be drawn from their own districts and contexts.

4. Education Policy (Penny Earley)

Teachers will visit policymakers during a day-trip to Washington DC and learn about how teacher leadership can effect and respond to education policy.

**SCHEDULE**

	Monday - 23	Tuesday -24	Wednesday - 25	Thursday - 26	Friday - 27
8:00-11:30	Academy	8:00-9:30 - Academy 9:30 – 11 Teacher Leadership	DC All Day	Academy	Academy
12:30-3:00	Technology	Data Driven Decision Making		12:30 – 1:45 – Data Driven Decision Making 1:45 – 3:00 -	12:30 – 1:45 – Teacher Leadership 1:45 – 3:00 - Academy

				Technology	
3:00-4:00	Academy	Academy		Academy	Academy
Evening		4:00-5:00 Policy			6:00 – Closing Dinner

## 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 <http://ods.gmu.edu/>).
- 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: <http://cehd.gmu.edu/values/>. For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website <http://gse.gmu.edu/>.

### ***Rubric for Research Project***

Criteria for Evaluating the Research Report

**NOTE: This rubric has been revised and adapted from the sample syllabus at <http://www.sagepub.com/samaras/resources.htm> created by Anastasia Samaras (2011).**

#### **Abstract** *(Meets/Exceeds Expectations if all components included)*

1. Have you provided a single, articulate, concise paragraph of no more than 150 words
2. Does your abstract concisely describe your purpose, context, method, key findings, and significance?

#### **Rationale** *(Meets/Exceeds Expectations if all components included)*

1. Have you clearly and concisely explained why this research is important to you?  
Have you offered perspectives that shaped this question for you?
2. Did you provide a rationale for why this research is important?
3. Have you addressed the educational, community or social significance of this research?

#### **Statement of the Research Problem/Question** *(Meets/Exceeds Expectations if all components included)*

1. Have you clearly and concisely stated the research problem?
2. Have you clearly and concisely stated your research question?

#### **Review of Literature and Conceptual Framework** *(Meets/Exceeds Expectations if all components included)*

1. Did you conduct an ongoing literature review to inform your research?
2. Is the review relevant and connected to your study?
3. Is the review adequate, coherent, and analytical?
4. Does the review include references from a variety of sources?

#### **Research Method** *(Meets/Exceeds Expectations if all components included)*

1. Have you described your research context; community, school, and classroom context, and demographic information of participants?

2. Did you include your reflection of the problem? e.g., observations, possible causes?
3. Have you explained the reasons for your interventions based on your noticing of your classroom/school/community and the literature reviewed?
4. Have you described in detail what data you collected, how you collected it, and when you collected it, including data generated from your pedagogies and strategies?
5. Does your data include a variety of sources from multiple sources?
6. Did you include a timeline for the data you collected and your planned interventions?
7. Did you explain how you analyzed your data and include a complete data audit trail?
8. Have you included and explained the role of your critical friends in your data interpretations?
9. Did you explore using visuals and technologies for analyzing and displaying your findings in a coherent manner?

**Findings** (*Meets/Exceeds Expectations if all components included*)

1. Did you circle back to your research question(s) and discuss how they relate your findings?
2. Are the findings thoroughly and adequately presented?
3. Is there convincing evidence to support your themes?
4. Is there connection and coherence among the separate themes?
5. Did you share your findings with your critical friend?

**Discussion, Self-Study of Teaching, and Implications**

*(Meets/Exceeds Expectations if all components included)*

1. Have you explained the possible implications to your students/classroom/school?
2. Have you explained the possible implications of to your understanding of teaching or learning?
3. Have you discussed how you reshaped your practice from critical friend feedback?
4. Does your discussion include evidence of your deep reflection and self-study of teaching?
5. Revisit your original research questions. Reflect back on the “self” or your role and the conscious (and perhaps at the time unconscious) consequences of your actions in the process of studying your teaching practice.
6. Have you adequately explained the possible implications to the education field?
7. Have you adequately explained the possible implications of your study to national and state education standards or policy?
8. Have you discussed any limitations and identified future research possibilities?

**References and Appendix**

*(Meets/Exceeds Expectations if all components included)*

1. Did you follow the APA style for the report, references, citations, and appendix?
2. Have you provided a complete list of all print and non-print (internet) references?

**Organization** (*Meets/Exceeds Expectations if all components included*)

1. Does the report include a cover page, title, author's name and professional affiliation?
2. Is your report well organized, grammatically correct, coherent and complete?
3. Does the report have your distinctive focus and voice? Have you used professional language?, i.e., no jargon Have you written in an accessible style and presentation?
4. Are all references cited in the research report included in the references?

**Presentation of Research (20 points)**

You are required to present your research project to your peers at the VCET Symposium in February 2015. For the presentation create a one-page handout that summarizes the research about the intervention you have conducted.

Grading Scale for Research Project:

**Exceeds Expectations:** 75% of categories at the “exceeds expectations” level. Majority of remaining components at the “meets expectations” level. Exceeds “accomplished” criteria, multiple sources of evidence that substantially exceeds requirements.

**Meets Expectations:** Majority of components at the “meets expectations” level. Provides convincing evidence of sound work, substantially meets requirements.

**Unsatisfactory:** Most components below “meets expectations” level. Multiple components are missing from the report.

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