MICKELSON EXXONMOBIL TEACHERS ACADEMY SYLLABUS
GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
Division of Elementary, Literacy, and Secondary Education
EDPD502.611
Fall 2013
Sunday – Friday
7:45 am – 4:30 pm
July 21, 2013 through November 1, 2013
Liberty Science Center, Jersey City, New Jersey

Instructors: *Mickelson ExxonMobil Teachers Academy Faculty*

COURSE DESCRIPTION:
Strengthen pedagogy and content knowledge in math and science for teachers in grades 3 – 5 the Mickelson ExxonMobil Teachers Academy is a five-day residential intensive course.

COURSE PURPOSE AND INTENDED AUDIENCE:
Goals for the Academy are to focus on Improving the Teaching and Learning of Mathematics and Science:

Members of the academy teams will:
• Deepen their understanding of mathematics and science content in the areas of data and statistics, measurement, force and motion;
• Build expertise in facilitating student learning through problem solving and inquiry;
• Use links between math and science to support student learning;
• Understand how children learn and apply that knowledge to classroom instruction;
• Increase their knowledge and use of instructional resources to support student learning; and
• Network with others involved in elementary school mathematics and science education.

COURSE FORMAT:
Please see agenda

PROFESSIONAL STANDARDS:
National Board for Professional Teaching Standard, Core Proposition 2

REQUIRED/SUPPLEMENTAL/RECOMMENDED TEXTS AND/OR READINGS:
Required Texts:
- Uncovering Ideas in Physical Science, Page Keeley, Ph.D.
- Stop Faking It: Force and Motion, William Robertson, Ph. D.
- Companion Classroom Activities for Stop Faking It: Force and Motion William Robertson, Ph.D.
- Stop Faking It: Math, William Robertson, Ph.D.
- Math Matters 2nd Edition, Suzanna Chapin and Art Johnson
- Science for the Next Generation: Preparing for the New Standards William Banko, Marshall Grant, Michael Jabot, Alan McCormack and Thomas O'Brien
- Guide to Understanding the Next Generation Science Standards: Harold Pratt
- Questions for Math Teaching by Peter Sullivan and Pat Lilburn

Supplemental Readings:

- Article: Science and Children, November 2010 – Science Notebooking
- Article: Science and Children, January 2011 – Date Collection
- Others as assigned

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

- All participants are required to attend ALL whole group, color group and number group sessions. The total course hours range from 35 – 45 hours.
- Participants must also complete the 10-hour Force and Motion Sci-Pack through the NSTA Learning Center.
- **Participants are also required to complete follow-up reflection due November 1, 2013.**

***Reflection: (1 -3 pages typed)**

These questions guided your "Planning for Instruction" at the end of the Mickelson ExxonMobil Teachers Academy.

- *What one significant change do you plan to make in your mathematics and science instruction when you return to your classroom? If you are not a classroom teacher, respond from the perspective of your role in supporting mathematics and science instruction.*
- *Why is this a change you want to make?*
- *What impact do you expect this change to make on student learning? On other's learning?*
- *What support do you need to make this change happen?*

Your Reflection Task (1-3 pages double-spaced typed) builds on the plan. Use the questions below to guide this reflection.

- Describe how this change has impacted your teaching and your students' learning.
- Share both challenges and success stories.
- Share examples of student work or other evidence reflecting this change in your teaching.

Examples: scan samples of your students' notebooks, share a 5E lesson plan, ask your students for feedback on a lesson, etc.

- Describe your "next steps" in changing your personal teaching practice to model the objectives of the Mickelson ExxonMobil Teachers Academy.

Please send all reflection papers s to your course instructor on or before, November 1, 2013 at 5:00 pm.

GRADING SCALE:
A = 10 points
A- = 7 – 9 points
B+ = 5 – 6 points
B = 3 – 4 points
C = 2 -1 points

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/**.

PROPOSED CLASS SCHEDULE:

Schedules are placed in registration packets.

JERSEY CITY

SUNDAY 21-Jul-13	MONDAY 22-Jul-13	TUESDAY 23-Jul-13	WEDNESDAY 24-Jul-13	THURSDAY 25-Jul-13	FRIDAY 26-Jul-13
	R: G: B: P:	R: G: B: P:	R: G: B: P:	R: G: B: P:	R: G: B: P:
	7:00–7:45 **Breakfast**	7:00–7:45 **Breakfast**	7:00–7:45 **Breakfast**	7:00–7:45 **Breakfast**	7:00–7:45 **Breakfast**
	8:00 – 8:55 **Whole Group** LuAnn/Sherri *Theatre* *55 mins*	8:00–9:45 **Color Group** *Walking Directions* *1 hour and 45 mins*	8:00 - 9:00 **Whole Group** *NGSS w/Vanessa Westbrook* *1 hour*	8:00–10:30 **Color Groups** *Origami Boxes* *2 hours and 30 mins*	8:00–10:30 **Color Group** *Iron Scientist* *2 hour and 30 mins*
Key **Color Groups:** Red Green Blue Purple **Classrooms:**	8:55–9:00 **Break** *restroom only* *5 mins*	9:45–9:50 **Break** *restroom only* 5 mins	9:00–9:05 **Break** *restroom only* *5 mins*	10:30–10:45 **Break** 15 mins	10:30–10:45 **Break** 15 mins
	9:00–10:45 **Color Group** *Egg Drop* *1 hour and 45 mins*	9:50–11:20 **Color Group** *Gravity on a Roll* *Speed & Acceleration* *1 hour and 30 mins*	9:05 - 11:05 **Color Group** *Measurement Menu* *2 hours*	10:45–11:45 **Networking** State/Regional Meeting *1 hour*	10:45–11:30 **Whole Group** **Learning Center** *45 mins*
	10:45–11:00 **Break** *15 mins*	11:20 - 11:35 15 mins	11:05-11:20 **Break** 15 mins	11:45–12:45 **LUNCH** 1 hour	11:30–12:30 **LUNCH** 1 hour
	11:00–12:45 **Color Group** *What's Typical* *1 hour and 45 mins*	11:35 -12:30 **Color Group** *Science/Math Notebooks* *55 minutes*	11:20-1:00 **Color Group** *Thirds the Charm* *1 hour and 40 mins*	12:45–2:30 **Color Group** *Pendulums* *1 hour and 45 mins*	12:30–2:00 **Whole Group** *Special Session* *1 hour*
3:00–5:00 **Registration**	12:45-1:45 **LUNCH** *1 hour*	12:30-1:30 **LUNCH** *1 hour*	1:00 **LUNCH** **End of the Day**	*2:30 - 2:45* ***Break*** *15 mins*	2:00 **Departure** Group Photos
5:30 **Reception**					
6:30 **Dinner** -- *Ballroom*	1:45-2:45 **Whole Group** *Cathy Seeley* *1 hour*	1:30-2:45 **Color Group** *How Children Learn* *1 hour and 15 mins*	2:30 - 3:30 Faculty meeting	2:45- 3:45 **Whole Group** *Calvin Mackie -- Keynote* *1 hour*	
	2:45-3:00 **Break** *15 mins*	2:45-3:00 **Break** *15 mins*		5:30-6:30 **Reception** 1 hour	
	3:00-4:00 **Color Groups** *Four Points* *1 hour*	3:00-4:30 **Color Group** *May the Force Be With You* *1 hour and 30 mins*		6:30-9:00 **Dinner** *David Evans -- Remarks from NSTA* *Barbara Morgan -- Keynote Speaker* *Manhattan Ballroom*	
	4:30 - 5:30 Faculty meeting	5:00 - 6:00 Faculty meeting			

Will need the Theater
Snack/food breaks
Reception/Dinner at the Hyattt