MICKELSON EXXONMOBIL TEACHERS ACADEMY SYLLABUS
GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
DIVISION OF ELEMENTARY, LITERACY, AND SECONDARY EDUCATION
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: Marilyn Griego, marilyngriego@sbcglobal.net
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

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT STATEMENT OF 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 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.

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*
	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
Key **Color Groups:** Red Green Blue Purple	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*
Classrooms:	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