

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: Crystal Brookens, clbrookens@smcps.org
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 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 P	R P	R P	R P	R P
	G	G	G	G	G
	B	B	B	B	B
	7:00-7:45 Breakfast 8:00-8:55 Whole Group <i>LaAnn Sherrill Theme</i> 5 mins	7:00-7:45 Breakfast 8:00-9:45 Color Group <i>Walking Directions</i> 1 hour and 45 mins	7:00-7:45 Breakfast 8:00-9:00 Whole Group <i>NCSS w/ Kansas Westbrook</i> 1 hour	7:00-7:45 Breakfast 8:00-10:30 Color Groups <i>Origami Boxes</i> 2 hours and 30 mins	7:00-7:45 Breakfast 8:00-10:30 Color Group <i>Iron Scientist</i> 2 hour and 30 mins
	8:55-9:00 Break <i>restroom only</i> 5 mins	9:45-9:50 Break <i>restroom only</i> 5 mins	9:00-9:05 Break <i>restroom only</i> 5 mins	10:30-10:45 Break 15 mins	10:30-10:45 Break 15 mins
	9:00-10:45 Color Group <i>Egg Drop</i> 1 hour and 45 mins	9:50-11:20 Color Group <i>Gravity on a Roll Speed & Acceleration</i> 1 hour and 30 mins	9:05-11:05 Color Group <i>Measurement Menu</i> 2 hours	10:45-11:45 Networking State/Regional Meeting 1 hour	10:45-11:30 Whole Group <i>Learning Center</i> 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 <i>What's Typical</i> 1 hour and 45 mins	11:35-12:30 Color Group <i>Science/Math Notebooks</i> 55 minutes	11:20-1:00 Color Group <i>Thanks the Cham</i> 1 hour and 40 mins	12:45-2:30 Color Group <i>Pendulums</i> 1 hour and 45 mins	12:30-2:00 Whole Group <i>Special Session</i> 1 hour
	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
	1:45-2:45 Whole Group <i>Cathy Steeby</i> 1 hour	1:30-2:45 Color Group <i>How Children Learn</i> 1 hour and 15 mins	2:30-3:30 Faculty meeting	2:45-3:45 Whole Group <i>Cabin Make - Keynote</i> 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 <i>Four Points</i> 1 hour	3:00-4:30 Color Group <i>May the Force Be With You</i> 1 hour and 30 mins		6:30-9:00 Dinner <i>David Evans -- Remarks from NSTA Barbara Morgan -- Keynote Speaker</i> <i>Manhattan Ballroom</i>	
	4:30-5:30 Faculty meeting	5:00-6:00 Faculty meeting			

Key
Red
Green
Blue
Purple

Classrooms:

3:00-5:00 Registration
5:30 Reception
6:30 Dinner -- Ballroom

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