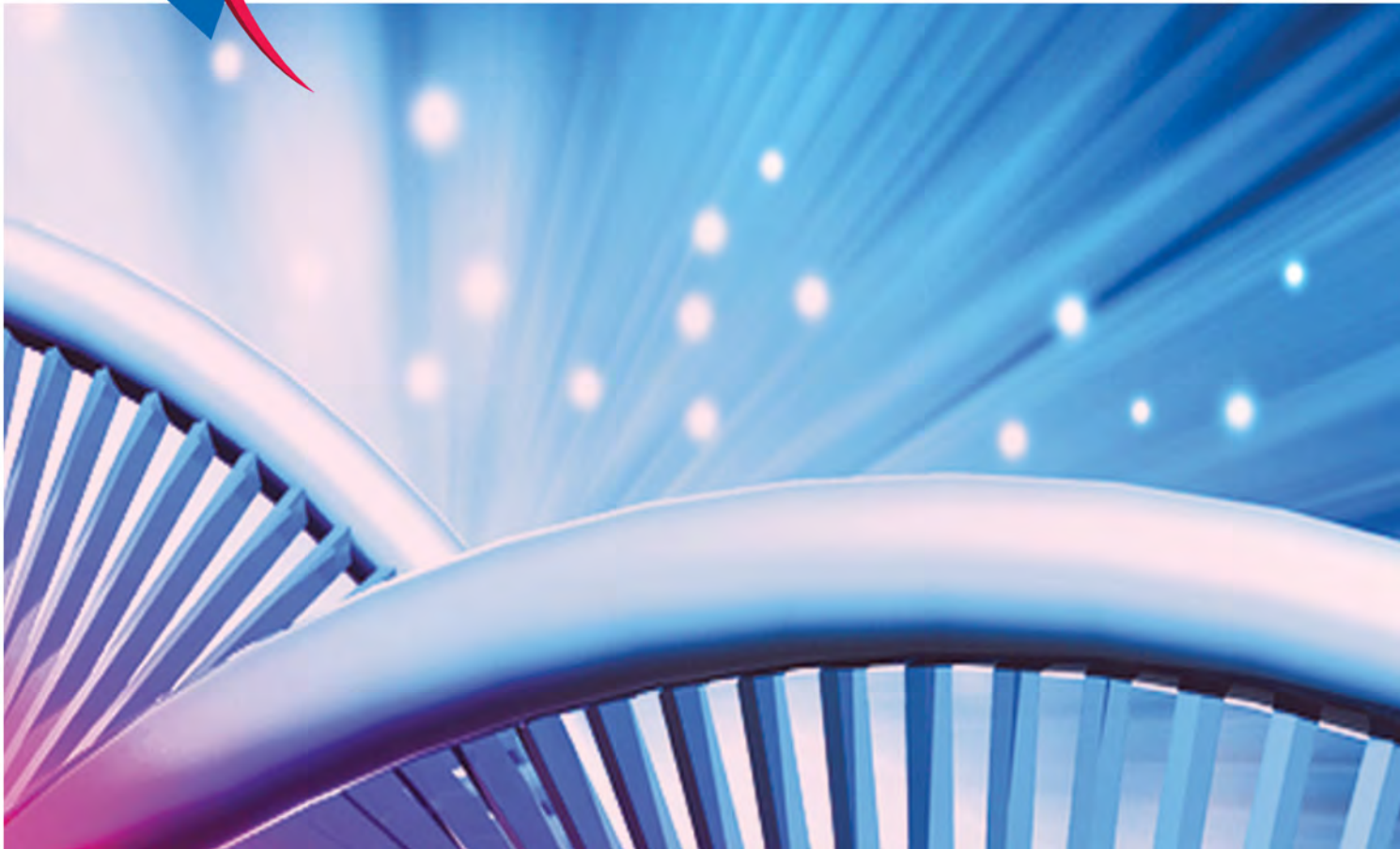




the stars
challenge

Science, Creativity, and
Experimental Design

Fall 2011



In the description for this course we tried to connect with you using these statements:

"If the thought of challenging your creativity intrigues you, that's all you need to bring on the first evening!"

"...regardless of the tools used, students will be challenged each week with opportunities to creatively investigate topics in a variety of scientific disciplines. Our experience has shown that our more creative students usually ask the best questions."

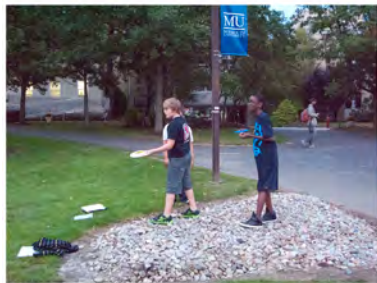
It is our hope that we were successfully able to challenge your creativity and show you what that has to do with the design of experiments.

We also tried to work in a little about the psychology of fun and playfulness as many of us truly believe that play is at the source that leads to new discoveries. For those of you able to attend the session with members of the Experimental Research Group at HTHS, I'm certain you picked up on their sense of playfulness. I'm hoping to see many of you being just as scientifically playful when you're in high school.

Thanks for a great Fall Semester.

Most Sincerely,

Mr. Roche





"If the thought of challenging your creativity intrigues you, that's all you need to bring on the first evening!" This fine group showed up with a whole lot more...



The first evenings... (when the sun was still shining as you arrived) ...and Jane's coordinate coding suggestion was realized!





1. Click the large button on the right to begin.
 2. Wait for the stoplight to turn green.
 3. When the stoplight turns green, click the large button quickly!
 4. Click the large button again to continue to the next test.

Test Number	Reaction Time	The stoplight to watch.	The button to click.
1			
2			
3			
4			
5			
AVG.			

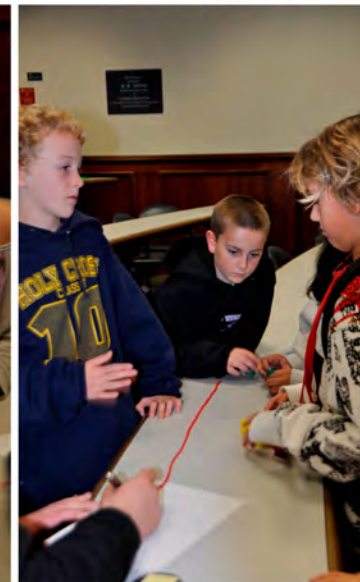
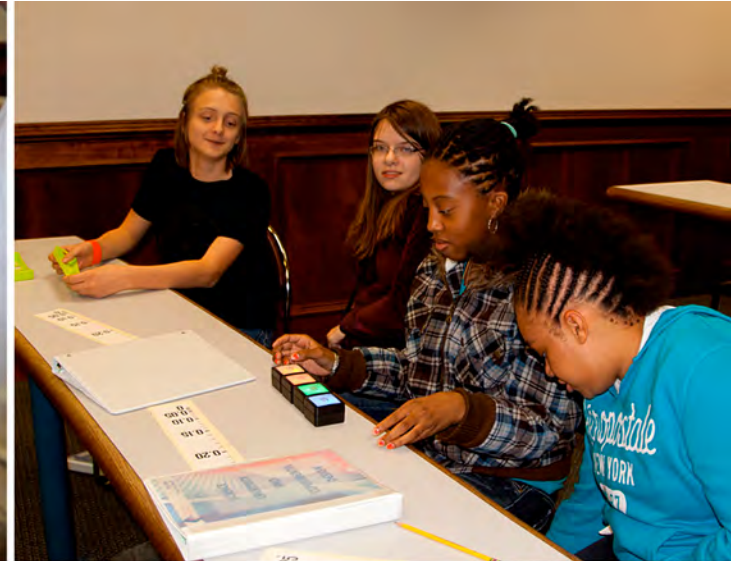


Hmmm... what was it that we thought might motivate 7th grade students? (hint on page 8)





Stars alumnus and current TA, Craig, shares his most current award winning research (First Place - UPenn NanoDay, 2011!)



Wiki Pages & Files

VIEW

Syllabus

last edited by M.T. Roche 1 month ago

Welcome to Science, Creativity and Experimental Design

Course Syllabus
Teacher: Michael T. Roche
Teaching Assistants: Isaac "Max" Gillet & Craig Hiller

1. Welcome to Science, Creativity and Experimental Design
 - i. Session_1
 - ii. Session_2
 - iii. Session_3
 - iv. Session_4
 - v. Session_5
 - vi. Session_6
 - vii. Session_7
 - viii. Session_8
 - ix. Offsite @ HFHS - December 13th 7:40 am to 7:00 pm

Session 1

Hoping to cover the following activities on the first evening:

- Frisbee challenge / prep for Intros (most likely inside based on weather forecast)
- Intros
- Rochester registration
- Craig wiki page demo
- "The amazing Max" (intro to hypothesis testing) - may need to wait until session 2

Session 2

- in Bay Hall



Scientists play with things everyday. Using games as starting points for investigations also brought out the competitive nature of some. :-) Challenging creativity / creating games out of everyday objects





Critters can challenge creativity, as well...





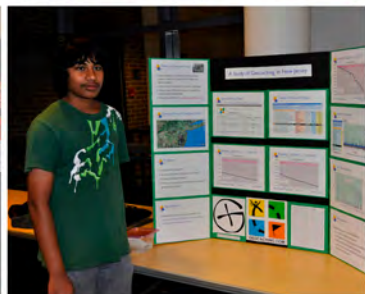
Stars alumnus and guest speaker, Kunal "K-man" shared his award winning JSSF project from last year's class.





Heliothermal Design Challenge 2011! Three teams, three designs, three data logging sessions, but only one winner...







Science, Creativity, and Experimental Design

The Stars Challenge at Monmouth University