Take Our Daughters & Sons to Work 2016 – Evanston

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**GIRLS ONLY**

**YOUNGER, AGES 8 - 12**

**OLDER, AGES 13 - 16**
Take Our Daughters & Sons to Work 2016
Thursday, April 28, 2016
Evanston Campus

All in a Day's Worm
Sue Fox
Learn hands-on just what it is scientists do all day. Take a tour of a laboratory and see how scientists do experiments. Get a chance to use real scientific equipment to see worms that glow under the microscope!

Animated Tales: Creating Digital Stories
Kelly Roark
After a very brief tutorial, you and your team will create your own digital stories on a web-based tool. Share your work with the whole group and see what others have made.

Be a Radio Star with WNUR
Maddie Higgins & Vilmos Zsolnay
Come see how a radio station works! Learn how to speak on-air, work the Wheatstone board, operate the transmitters, look for music in our collection, and get an introduction to the basics of operating turntables and other station equipment.

Because Racecar
Sarah Gorlick
NU has three vehicle teams, all with very specific, unique design goals. You'll be able to walk through the Ford Autobay and look closely at these vehicles, learning how the different cars and the aspects of the designs make each specialized for the design challenge they work toward. Get an up close look at the real mechanical engineering happening on this campus!

Become the Next Steven Spielberg
Heather Haseley & Jonathan Diehl
Try your hand at writing, directing, shooting, or performing in your own short film using stop-motion animation. Take this opportunity to storyboard, film, and add voice over to your ideas using free smartphone and tablet apps provided.

Bonjour! Hola! Jambo! Learn About Different Cultures
Sara McGuinn
Visit Asia, Europe, or Africa...all from the Study Abroad Office! Explore the languages and cultures of different countries, hear stories from Northwestern students who have studied abroad, and get an idea of what it's like to receive an international education!

Can You Hear Me Now?
Diane Novak, Tracy Hagan, Cindy Erdos, Jennifer Phelan, & Nathan Waller
Experience your own senses in a whole new way. Hear what it's like to listen to hearing aids. See your own ear drum and ear canal. Enter a one of a kind room with 37 speakers and 16 microphones used to replicate a myriad of listening environments. Watch a larynx (voice box) as the vocal cords move!

Cool Metals & Magnets
Dr. Matthew Grayson & Wang Zhou
How much do you know about Conductivity? Different materials respond differently to temperature changes, but, in all cases, magnetic fields can be used to probe how well a material conducts electricity. Experience for yourself simple hands-on demonstrations with magnets, superconductors, and liquid nitrogen!

Designer Slime: how do engineers make new stuff?
Ashley Walter
Go beyond the known! In the Designer Slime Challenge, you will explore different material properties of slime and alter the normal recipe in order to make a new and marketable product. Experience how the modern workplace requires a wide array of collaborative, problem solving skills in order to bring new products to market.

Electrocute a Pickle: Visualizing Molecules!
Andrew Ott
Watch light diffracting off of slides, an example of trace metals analysis, and a mass spectrometer identifying an unknown compound. Manipulate molecules on a computer. Electrocute a pickle and have a little fun with liquid nitrogen!
**Engineering Bouncy Balls**  
Megana Audipudy  
Make bouncy balls from common household materials, and, in the process, learn a little about chemical engineering!

**Field Hockey Basics**  
Will Byrne & Lisa McCarthy  
Learn the Basics of Field Hockey from Northwestern’s Women’s Field Hockey Assistant Coach. Practice various skills – including dribbling, passing, and shooting!

**Fight Back: Physical Self-Defense and Empowerment**  
Lieutenant Ken Jones  
Start with a rousing discussion of how "you can be crime-prevention savvy," as well as rape prevention and awareness. Watch Lt. Jones demonstrate self-defense moves before he brings out the pads and gives you the opportunity to practice those moves on him!

**Flubber: Fun with Slimy Polymers**  
Shelby Hatch  
Tour a real laboratory and examine the fascinating role chemical polymers play in your daily life. You’ll begin by making a sample of polymer and comparing the physical properties of yours with the different types of polymers made by your classmates. Take home your very own sample of "slime" polymer!

**The Good Citizen Journey**  
Charles Andrean  
Using the sorority and fraternity experience, you will explore what it means to belong to a community. Be motivated to think beyond being just a member of a community to being an involved, contributing citizen. Let the sorority and fraternity pillars of friendship, service, leadership, and learning, serve as your guide throughout this journey.

**Homemade Slime that Moves!**  
Emma Vander Ende  
Come learn about polymer chemistry and magnetism through hands-on experiments. First, you will transform algae powder into gels of different shapes and consistencies. Second, you will explore making colorful slime from everyday items that you can continue to play with at home, and also see magnetic slime "come alive" as it is drawn towards a magnet!

**Let’s Get Rollin’**  
Arthur Schmidt  
Do you love a good race? You’ll be able to experiment racing hoops, disks, and balls down simple inclines, gliders down lab grade air track inclines, and balls down precise shapes on a one a kind set up. Now find out how to use your new knowledge in real-life such as winning the Cub Scout Pine Wood Derby!

**Lost and Found Objects in Art**  
Debra Ann Blade, Nancy Cambron Perez, & Joy Kim  
Express yourself! Use inspiration from anything – the current Dittmar Gallery Exhibit “Wizard Can” the art of Victoria Martinez, your life, or the found objects available – to create an expressive art collages of print images and found objects. We’ll provide the materials. You provide the creativity!

**Materials Magic! Playing with Strange Matter**  
Aleta Hagman & Hadallia Bergeron  
Materials Science and Engineering involves the study of the relationship between the structure of a material and its properties. Begin with a brief introduction to materials science and engineering followed by a series of demonstrations involving liquid nitrogen, fire, ferrofluids, and non-Newtonian fluids. Don’t worry, we’ll provide explanations of the science behind the phenomena. Finally, you’ll get to investigate some properties of materials with hands-on demos!

**NU Power: The Central Utility Plant**  
Jim McKinney and Engineers at CUP  
Get a guided tour through the plant that makes steam and central a/c for the entire Evanston Campus. Look at a functioning boiler. Learn how to read the gauges and test water for ph level. Find out how temperatures are calculated.

**NUANCE Center, where Nanoscience Happens!**  
Raymond Bailey, Dr. Jinsong Wu, Karl Hagglund, & Eric Miller  
Learn about Nanoscience from the best! Visit EPIC – our Electron Microscope Facility – to see many different demonstrations set up on microscopes. There’s even one where you’ll be able to see atoms!!
NUPD: Protect & Serve  
Daniel McAleer, Police Officers and Supervisors
Learn about the Northwestern University Police Department and what they do to ensure safety on our campus!

Over Land, Air, and Sea  
Rachel Cole, Joe Ellison, & Roberto Sarmiento
Find out what the Transportation Library (TRAN) is all about and see a short “show and tell” of some of our unique items. Replicate history or put your own colorful spin on historical road, rail, and maritime images with crayons of your favorite hues. Compete in a paper airplane throwing contest for the furthest flight. At the end of the day, take home a “vintage” Transportation Library catalog card to share with your family.

Ready, Aim, Hired!  
Michael Meyer & the HR Team
Thinking about joining the work force? Come meet NU’s Talent Acquisition Team to learn the basics of exploring the job market. Find out how to research prospective companies, dress the part for your interview, and practice cultural sensitivity in all parts of life. You can really hone your skills with an interactive mock interview with NU’s finest. Before you know it, you’ll be landing that first job!

Ripples in Spacetime  
Michael Zevin
See how much can be learned about our universe using light, even light invisible to humans! We will bring space into the classroom by experimenting with a vacuum chamber, using these experiments to understand how light differs from other waves such as sound waves. We will explore how light can tell us what galaxies billions of lightyears away are made out of and delve into ripples in the fabric of spacetime known as “gravitational waves.”

Rocking the Rosetta Stone  
Rifka Cook & Tasha Seago-Ramaly
Rock out as you find out how much Spanish and Portuguese you already know…and how much more you can learn in just an hour! Sing along with a top hit as we record you so that parents can see what you can do. Crafts, cultural information, souvenirs, and plenty of hilarity will ensue! Join us! Bienvenidos!

Soccer 101  
Tim Lenahan
Get interactive on field training with Northwestern’s Men’s Soccer Head Coach!

Spectacular Chemical Reactions -- "Nano"?  
Eberhard Zwergel
Find out if you have chemistry with chemistry! Experience the joy of chemical reactions. Learn the concepts and get a better understanding of chemistry.

Sports Medicine  
Sports Medicine Group
Learn how Northwestern Student Health Services help our student athletes on – and off – the field. From taking blood pressure to putting on a cast, you’ll get to see how real doctors help your favorite athletes! You might even get to see some interesting x-rays.

Touch & Movement: It’s Electric  
Nick Bush, Pravin Kumararappan, Sagar Patwardhan, & Yan Yu, Matt Graff
Your nervous system communicates with electrical signals. See how electrical stimulation relates to your sense of touch and your ability to move about. From sensing technologies to prosthetics to music, you might be surprised how it all connects.

Waffles Aren’t Just for Breakfast Anymore  
Chris Studtmann
Experience demonstrations & hands-on creating of waffle iron recipe hacks with sweet desserts, breakfast items, sandwiches, and fun snacks. We will learn together, create together, cook together, and eat together.

Water on Land, Water below Our Feet  
Angang Li
Can rivers move? How does water interact with land? What are the human impacts on rivers and groundwater? These are key questions that can help you understand the role of environmental scientists and engineers in society. In this lab, you will work together to create a simple experimental river network and compare what you observe to what you see in nature.
What Shapes Can a Ninja Cut Out?  
Diana Davis
The great magician Harry Houdini did a magic trick where he folded up a piece of paper, made a straight cut with scissors, and out fell a perfect five-pointed star! How did he do it? With math! You will learn to perform this trick yourself. Which other shapes can you cut out, ninja-like with a single straight cut? Can you make a square? A snowflake? It turns out that you can make ANY shape you like, as long as you are willing to make lots of careful folds. Get ready to challenge yourself to figure out how to fold so you can cut out shapes with a straight cut.

Why Buy?  
Candy Lee
Why do companies advertise? Why do you buy certain products? Think about the last item you purchased. Why did you decide to buy that product? Did you influence someone else to buy a product for you? Get a hands-on learning experience about marketing and advertising and create an advertisement.

Wildcat Connection  
NU Student Organizations & Activities
Learn what it’s like to get involved on Northwestern University’s campus as a student. Immerse yourself in a student hot spot and use the interactive resources in the SOURCE (i.e. -monodopad, dry-erase board, etc.) to learn about student organizations. Get to know some current student organizations and participate in activities put on by the SOA Team.

Women in Leadership  
Katherine Knight
Get involved with learning about the many different faces of women in leadership. Know their achievements and why they are great examples of leaders.

ZUMBA for KIDS  
Joanna Jennens
ZUMBA – A fusion of Latin and international music-dance themed, with movement intervals and easy-to-follow dance steps, to produce a dynamic, fun, and effective exercise class. No prior experience necessary. Come join in the fun!