

# **Career Sessions 1 & 2 --- 9:30-10:05AM & 10:15-10:50AM**

## **A. Financing Higher Education (Adults-1 Hr.)**

A financial aid counselor from ISU will discuss the various components that make up a financial aid package, the processes involved in applying for aid (merit- and need-based), and some things you can do to help your students through the process.

## **B. Engineering Challenge: Earthquake City**

Current engineering students will conduct a fun activity while telling you about their experiences and what it's like to be an engineer.

## **C. Agriculture and the Natural Environment**

Not available at this time

## **D. Scientific Sleuthing**

The field of solving crimes through science is alive and expanding into new areas every day, limited only by the imagination of the scientist and the needs to solve the case. This session will give examples of analyses done in several laboratory sections and show how this work can be used to solve crimes.

## **E. Chiropractic/Natural Health Career**

This hands-on interactive workshop covers an explanation of chiropractic care, necessary high school/college preparation, as well as the exploding demand for chiropractic doctors in the U.S. and globally.

## **F. Expanding Human Potential: Improving People's Lives**

Description Currently Not Available

## **G. Women in Medicine**

A quick review of the history of women in medicine is provided. Opportunities available in the field are identified.

## **H. How Sweet it is - Food Science and Human Nutrition**

Description currently unavailable.

## **I. How Do Animals Live in a Changing Environment without Going Extinct?**

A presentation about my own experience in discovering that I wanted to study the natural world. This is a journey from chipmunks and voles to lizards and turtles! How can animals (and other organisms) survive when things are always changing??

## **J. Lean Manufacturing: Molding Today's Society**

Explore careers in Manufacturing & Industrial Engineering. Learn the process of manufacturing even simple products. Students will be involved with a hands-on manufacturing activity.

**K. Feedback: Teachers, Parents, & Students on STEM**

Researchers will share with parents and educators the information that was collected during the year long PWSE Outreach Needs Assessment. Find out what we now know about girls and STEM. (ADULT 1 HR SESSION)

**L. Morning Adult Lounge**

Space for teachers/adults who are not attending sessions.

**Career Sessions 3 & 4 --11:00-11:35AM & 11:45-12:20AM****A. Choosing Pharmacy as a Career**

Career options as a pharmacist, what classes to help prepare, what to expect in pharmacy school and upon graduation.

**B. Design and Build a Bridge (1 Hr.- Van Transport)**

If you want to experience real life designing or building, attend this hands-on session and design your own bridge and test it just like in the real world!  
SPECIAL ONE-HOUR SESSION

**C. A Sense of Adventure and Curiosity about Nature**

Do you like to explore the unknown or wonder what the name of that "weed" really is? Do you like to try new things and use your creativity? Come to this session and discover an environmental career choice.

**D. Food "Sense"-ation!**

During this session, students will have the opportunity to become food scientists for a day and use their senses to evaluate food products! Students will then learn how to pursue sensational careers as food scientists, nutritionists, or dieticians!

**E. What Does a Conservation Officer Do?**

If you are self-motivated, like the outdoors, and enjoy working with people and natural resources a career in conservation may be for you --- Or, maybe not? Come and get some ideas and information.

**F. Engineering Tomorrow's Ag Products**

A presentation about Mechanical Engineering including a video showing some of the activities of engineers at the John Deere Product Engineering Center in Waterloo, Iowa. The presenter will also talk about how she decided to go into engineering, about her education and what she does as an engine design analysts.

**G. Civil, Construction, and Environmental Engineering**

Explanation of the different areas in which a Civil or Construction Engineer might work and how dynamic these careers can be.

**H. What in the World Can a Biologist Do?**

Biology is a broad field with many diverse careers and career settings. We will explore and discuss the many different areas of biology and the career options available.

### **I. Women in Product Design**

Find out what Product Design Engineers do. Learn about the processes they use and how they take ideas and turn them into reality.

### **J. Female Students in STEM - Panel Discussion**

Undergraduate female students will discuss their pursuits, interests, and experiences in science, technology, engineering, and math degree programs.

### **K. Where Does a Candy Bar Come From?**

Description unavailable at this time

### **L. Morning Adult Lounge**

Space for teachers/adults who are not attending sessions.

## **Hands-On Activities & Tours (Session 5) ---1:00-2:00PM**

### **A. Glassblowing Demonstration**

Learn about the physical properties of glassblowing through a glassblowing demonstration.

### **B. Toying with Technology**

The principles behind many technological innovations will be seen through hands-on experience based upon simple robotic systems constructed out of Legos and controlled by small microcomputers.

### **C. DNA Smoothie**

Students will do a hands-on activity that demonstrates that DNA is in our food. Participant will extract DNA from a banana using common household ingredients and then sample a strawberry-banana smoothie.

### **D. Hotel Lego**

Learn what skills are needed to make a construction project successful through hands on activities with Legos. In the construction field people skills are just as desired as engineering knowledge. Come discover if you have what it takes.

### **E. Kinesiology Department Tour**

Come learn about some different areas within the Kinesiology Department. You'll do some hands-on activities related to metabolism and exercise physiology.

### **F. Engineering in Everyday Life**

Current engineering students will conduct a fun activity while telling you about their experiences and what it's like to be an engineer.

### **G. What Makes Soil Fertile? How to Keep Soil, Water..**

Learn What Makes Soil Fertile and How to keep Soil, Air, and Water Clean!

### **H. STARS Admission Tour**

Get a close up look at the ISU campus on a tour led by a STARS Admissions guide!

### **I. Residence Hall Life**

Take an informative tour of the residence halls with ISU students and see how college students live.

### **J. There's a Prairie in My Backyard**

Did you know that Iowa used to be covered by 30 million acres of prairie? Did you know that there are nearly 200,000 Bison wandering the Great Plains today? Join us for a fun activity that will help you learn how Iowa women are bringing the tall-grass prairie (and its critters!) back to Iowa. By the end of the hour you will have created a seed mix to donate to local restoration efforts or take home to your own backyard.

### **K. Fun with Biology**

This session will have a variety of life science stations, giving an introduction to many different areas of biology. Stations may include such areas as anatomy & physiology, human health, DNA, bryophytes, and many more!

### **L. Candy Pickup**

Work in teams to build a "CandyPicker-Upper". You will compete against other teams to build the best contraption to get as much candy out of a large ring as you can. You will sell the candy to "customers" and buy additional raw materials from "suppliers" to continue to improve your contraption. The team that builds the best device to be able to sell the most candy wins!

### **M. Textiles and Clothing Tour & Activity**

How science and technology is used in textiles and clothing to develop apparel that moves with the body, resists tearing and abrasion in use, reflects consumer needs and current fashion, and retains bright colors!

### **N. Agronomy P.I.**

As a private investigator, use clues and hints to identify a variety of plants. After working through the four levels of private investigator, you will have the tools necessary to uncover the secret code!

### **O. Supporting Young Women as They Explore STEM**

This research and resource-based session will review what we know about attracting women to engineering (and other math and science field) fields and review some of the expanding inventory of great resources available today. You'd leave with some ideas to help make a difference! (ADULT 1 HR SESSION)

### **P. Student Health Center Pharmacy Tour**

Take a tour behind the scenes at the ISU Health Center and Pharmacy

### **Q. Where am I? Finding your way with GPS**

Learn how to find your way in this world using Global Positioning, GPS, and compasses. GPS units and compasses will be demonstrated and explained with hands-on learning activities. A campus scavenger hunt will be the culminating activity for this session.

### **R. Run Your Own Chocolate Factory**

Be the next Willy Wonka! Imagine being in charge of your own chocolate company. Experience the day-to-day challenges of keeping your customers happy and maintaining a smooth running factory. Watch your profits rise and fall as you make critical decisions that will affect your company's future.

### **S. Afternoon Adult Lounge**

Space for teachers/adults who are not attending sessions.