

Sessions Offered On: 10/15/2009

## **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. Why Chemistry Matters?**

Chemistry can open doors for you to numerous career choices. It can also help you in many other unexpected ways. Instead of trying to avoid it, embrace it and enjoy!

### **C. Hands-on Approach to Physical Therapy**

An overview of a career in physical therapy. The session will end with group participation to demonstrate a physical therapy examination.

### **D. Infectious Disease Outbreak Sleuthing - Veterinary Epidemiology**

Is there more to being a veterinarian than giving "shots" to puppies and kittens? Yes! Veterinarians have played an important role in the investigation of disease outbreaks, from the first cases of West Nile Virus to SARS to monkeypox. Learn about how to track infectious diseases and determine their source, during this presentation by Dr. Christy Petersen.

### **E. Engineering- You Have What It Takes**

If you are interested in math OR science, we need you in engineering! Get the scoop on what engineering is really like from those who know best - current engineering students. They will tell you what college is REALLY like - classes, studying, being away from home, making friends, etc.

### **F. Dietary Supplements: Are They Foods or Drugs?**

Students will learn how advances in our understanding of diet and health and changes in labeling laws have dramatically altered the marketing of food products.

Hear about the strength of evidence behind specific health claims and have an opportunity to ask about health claims on your favorite products.

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

Description not available at this time

### **H. The Brain and Behavior**

The things you do affect your brain, both positively and negatively. Of course you know that drugs and alcohol negatively affect your brain, but your every day activities can have a positive effect. The field of neuroscience and kinesiology (the study of movement) provide opportunities for practice and research. Ann Smiley- Oyens is an assistant professor of Health and Human Performance at ISU.

### **I. 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.

**J. Expanding Human Potential: Improving People's Lives**

Description Currently Not Available

**K. 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??

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

Researchers will share with parents and educators the information that was collected during the 2008-2009 year long PWSE Outreach Needs Assessment. Find out what we now know about girls and STEM.

**M. 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. 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

**B. What Does an Interpretive Naturalist Do?**

If you like being outdoors exploring the world around you, are curious about how the environment works, enjoy using your mind to solve problems and want to do work that is important to society, you should consider becoming a naturalist. Naturalists plan, develop, coordinate and present environmental educational and interpretive programs.

**C. Biotechnology and Beyond: The Intellectually Challenging, Financially Lucrative and Fun Road from Lab Rat to Patent Geek!**

Description Currently Unavailable

**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. Preparing Students for Undergraduate Science Major**

Preparing Students for Undergraduate Science Majors - Meet with two academic advisors to discuss preparing students for their next academic step - ways of encouraging student interests in science, preparing for college through course selection, as well as finding and developing opportunities for students to expand their experiences within the sciences.

### **G. 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.

### **H. 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.

### **I. Women in Medicine**

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

### **J. 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.

### **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. Savvy Evidence**

Experience the thrill of solving a crime scene mystery using the most modern tools available to Crime Scene Investigators (CSI). In the session, you will get to handle the equipment and evaluate the evidence of an actual DNA fingerprint.

### **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. Clinical Laboratory Science**

Participants will learn about career options in Laboratory Science and perform medical diagnostic testing in a hands-on laboratory session.

### **F. 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.

**G. Engineering Tour**

Hear about the experiences of current engineering students as they lead you through engineering buildings and the solar car garage.

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

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

**I. STARS Admission Tour**

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

**J. Residence Hall Life**

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

**K. Making Biofuels Via Fermentation**

Description not available at this time

**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. 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.

**O. 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!

**P. 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!

**Q. 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!

**R. Afternoon Adult Lounge**

Space for teachers/adults who are not attending sessions.