PANEL SESSION

Participants' Bios

PICTURE YOURSELF AS A...

COMPUTER SCIENTIST

CRIME SCENE INVESTIGATOR

ENGINEER

GEOLOGIST

MARINE BIOLOGIST

ORTHOTIC & PROSTHETIC TECHNOLOGIST

• • • • • • • • • • •

Want to talk one-on-one with these amazing mentors?
You CAN during your Hands-on Science & Recruitment Fair Session!
They'll each be hosting a booth on the concourse, where they will be available to answer questions one-on-one for conference attendees.

WOMEN IN SCIENCE CONFERENCE MODERATOR

TANYA LOWERY
TITLE IX OFFICER
OKLAHOMA STATE UNIVERSITY

Dr. Tanya Lowery serves as the Title IX Officer for Oklahoma State University. Title IX, a portion of the U.S. Education Amendment of 1972, was established to ensure that no person would be discriminated against because of gender by any education program that receives federal funding. In her role as the OSU Title IX Officer, Dr. Lowery ensures that faculty, staff, and students are aware of their legal rights under Title IX and that the university maintains compliance with legal mandates that govern it.

Dr. Lowery has worked in higher education for 14 years, but also has work experience in the private and non-profit sectors. Most recently, she has served as the Dean of Students at a private university in Texas.

Dr. Lowery obtained her Ph.D. in Higher Education Administration from the University of Texas at Austin. Her research interests include: diversity and inclusiveness, developing human capital, employee motivation, faculty compliance and training, and student retention. She also holds a BA in Politics and an MA in Communication.

In her spare time, she enjoys traveling, cooking, reading, learning about other cultures, and motivational speaking.

WOMEN IN SCIENCE CONFERENCE PANELIST (BOOTH #27)
DANA BRUNSON, PH.D.
HIGH PERFORMANCE COMPUTING CENTER DIRECTOR
ASSISTANT V.P. FOR RESEARCH CYBERINFRASTRUCTURE
OKLAHOMA STATE UNIVERSITY

Native Oklahoman Dana Brunson was raised just outside of Tulsa in the smaller town of Claremore. Growing up, she loved nature, music, and science, and when her father brought home their first IBM personal computer, she discovered she also loved computing. She always knew she was destined to go to college, even though she hadn't quite figured out what area she wanted to pursue. Once she got to Oklahoma State University, she knew college was where she was meant to be, and she still feels this way today.

After earning her bachelor's and master's degrees in Mathematics from OSU, Dana went on to receive her Ph.D. in Mathematics from the University of Texas – Austin. In Austin, she loved teaching math classes and even played fiddle in a local band. Dana and her family returned to Oklahoma in 2003, and in 2007, she became the Director of the OSU High Performance Computing Center, where she was able to expand her knowledge of research, computing, and administration. She never thought she'd end up in high performance computing, but she can't imagine a profession she would enjoy more.

Dana's job involves collaborating with researchers at OSU and other institutions throughout the country to make sure people are receiving the high performance computing resources they need to conduct their research. She also helps lead several high performance computing organizations around the country, including Oklahoma's very own OneOklahoma Cyberinfrastructure Initiative (OneOCII). Dana believes you can never get started too early with computing, and, including teaching an undergraduate high performance computing course at OSU, she has also even visited a local preschool to talk about computing.

In her spare time, Dana, her husband, and two children enjoy hanging out on their micro-farm just outside of Stillwater, where they maintain a large permaculture garden and several hives of honeybees, as well as look after a flock of free-range chickens, a few cats, and three Great Pyrenees dogs. Dana also enjoys learning about wild edible and medicinal plants that grow in the area.

Do you want to be a...
Data Scientist?

CAREER OVERVIEW

Many aspects of peoples' daily lives can be summarized using data, from what is the most popular new video game to where people like to go for a summer vacation. Data scientists (sometimes called data analysts) are experts at organizing and analyzing large sets of data (often called "big data"). By doing this, data scientists make conclusions that help other people or companies. For example, data scientists could help a video game company make a more profitable video game based on players' online behaviors, or help a travel agency figure out what destinations they should make vacation packages for.

PERSONALITY TRAITS OF SOMEONE WHO IS SUCCESSFUL IN THE FIELD

A data scientist needs to think logically, pay close attention to detail, be a problem-solver, and enjoy working with numbers and data. They must have patience, persistence, and the ability to perform exacting analytical work. At the same time, a data scientist must be able to see the "bigger picture" and draw large-scale conclusions from looking at lots of small pieces of data. Because they often must show their data-based results to other people in a company or to clients, data scientists must be able to communicate well (both verbally and in writing) with non-technical personnel. Business skills are also important, especially for those wishing to be involved on the commerce side of operations.

SUBJECTS TO STUDY IN HIGH SCHOOL

Biology, physics, geometry, algebra II, pre-calculus, calculus, English; if available: computer science, statistics.

HIGHER EDUCATION

Data scientists must have at least a bachelor's degree with a major that is typically in one of the following areas or a related area: computer science, mathematics (e.g., applied math, data analytics, or statistics), physics, or biology (e.g., genetics). Some data scientists major in economics or behavioral sciences (e.g., psychology or sociology) instead, depending on the type of data they deal with.

PROJECTED INCOME

Minimum Wage Worker (without a degree): $15,080/yr.
U.S. Mean Annual Wage: $49,630/yr.
Data Scientist: $111,840/yr.

PROJECTED JOB GROWTH (2014-2024)

Average (7% to 13%)

Source & credit: Sciencebuddies.org

WOMEN IN SCIENCE CONFERENCE PANELIST (BOOTH #90)
STACEY EVANS
RESEARCH GEOLOGIST
OKLAHOMA GEOLOGICAL SURVEY

Stacey Evans grew up in a small town in western Oklahoma. She started playing the flute in the fifth grade and continued to participate in concert and marching band throughout high school. She was also active in the science and foreign language clubs, student council, and ran cross country. Stacey always enjoyed being outside and would often collect rocks and hunt for arrowheads while visiting family in Colorado and Wyoming.

After high school, Stacey moved to southwestern Wyoming for a couple years. She took her first geology course while attending college there and loved it! She then returned to Oklahoma, where she earned her B. S. and M. S. in Geology from the University of Oklahoma. While completing her degrees, she traveled to many great locations, including Colorado, Nevada, New Mexico, Scotland, and Brazil, and saw a lot of great rocks.

Stacey worked in the petroleum industry for several years before joining the Oklahoma Geological Survey (OGS) as a Research Geologist. She has been at the OGS for just over three years and has had the opportunity to work on many different topics and areas of geology including petroleum geology, surface mapping, and mineral analysis using the scanning electron microscope. Stacey is currently involved in Oklahoma seismicity research through a project examining how fluids in the past moved through rocks, when those fluids moved, and what that can tell us about how fluids such as injected wastewater from oil and gas operations are moving through the rocks now. She is also collaborating with fellow scientists at the OGS on a complete database of all of the faults and recorded earthquakes in Oklahoma.

In her free time, Stacey loves traveling to new places and eating all the exciting foods she finds there! Her recent trips include a bicycling trip throughout southern Portugal and a road trip down the California coast. She enjoys all different sorts of crafts and hanging out with her cats, Baxter and Apple. Stacey just bought a house in Norman and is looking forward to raising chickens, gardening, and making friends with all the squirrels in her backyard.

Do you want to be a...

Geoscientist?

CAREER OVERVIEW

Geoscientists study the composition, structure, and other physical aspects of Earth. They study Earth's geologic past and present by using sophisticated instruments to analyze the composition of earth, rock, and water. Many geoscientists help to search for natural resources, such as groundwater, metals, and petroleum. Others work closely with environmental and other scientists to preserve and clean up the environment. Seismologists interpret data from seismographs and other geophysical instruments to detect earthquakes and locate earthquake-related faults.

PERSONALITY TRAITS OF SOMEONE WHO IS SUCCESSFUL IN THE FIELD

A Geoscientist must have curiosity, a love for strenuous outdoor work, an ability to visualize things in three dimensions, solve puzzles from just a few clues, and have good interpersonal skills.

SUBJECTS TO STUDY IN HIGH SCHOOL

Chemistry, physics, biology, computer science, algebra, geometry, calculus; if available Earth science, statistics.

HIGHER EDUCATION

A bachelor's degree is adequate for a few entry-level positions, but most geoscientists need a master's degree in geology or earth science. A master's degree is the preferred educational requirement for most entry-level research positions in private industry, federal agencies, and state geological surveys. A Ph.D. is necessary for most high-level research and college teaching positions. Computer skills are essential for prospective geoscientists; students who have experience with computer modeling, data analysis and integration, digital mapping, remote sensing, and Geographic Information Systems (GIS) will be the most prepared entering the job market. Knowledge of the Global Positioning System (GPS)—a locator system that uses satellites—has also become essential. Some employers seek applicants with field experience, so a summer internship is often helpful.

PROJECTED INCOME

Minimum Wage Worker (without a degree): $15,080/yr.
U.S. Mean Annual Wage: $49,630/yr.
Geoscientist: $89,780/yr.

PROJECTED JOB GROWTH (2014-2024)

Average (7% to 13%)

Source & credit: Sciencebuddies.org

WOMEN IN SCIENCE CONFERENCE PANELIST (BOOTH #16)

LYNN LEFFEW
ORTHOTIC & PROSTHETIC TECHNOLOGIST
OKLAHOMA STATE UNIVERSITY INSTITUTE OF TECHNOLOGY (OSUIT), ORTHOTIC & PROSTHETIC TECHNOLOGIES

Lynn Leffew grew up in Copemish, Michigan. As a young girl, Lynn worked on cars, snowmobiles, and other machines with her dad and brother. She knew early on that she enjoyed working with her hands and building things that were useful. When her brother experienced a snowmobile accident that crushed his ankle, the doctors suggested the injury might result in amputation. This event made a powerful impact on Lynn, and she decided to become an orthotic and prosthetic (O&P) technician.

As an orthotic and prosthetic technician, Lynn designs and fabricates prosthetic limbs and orthopedic braces. She works in the lab using plaster, laminates, drill presses, saws, and other equipment to build the orthotic and prosthetic devices. Being an orthotic and prosthetic technician is a hands-on health care profession, where she can be creative and compassionate, and change the lives of others every day. Being an orthotic and prosthetic technician offers everything that she wants in a career: working with her hands, building things, and helping people. Lynn has worked in industry in the past, but is now an Assistant Lab Instructor at the Oklahoma State University Institute of Technology (OSUIT) Orthotic and Prosthetic Technologies program in Okmulgee, Oklahoma, where she works to train future O&P technicians. She is responsible for supervising program interns, assisting students with fabricating the prosthetic and orthotic projects for their courses, and maintaining the lab equipment and facilities. Lynn is a 2014 graduate of the O&P program herself, and she has an Associate in Science in Secondary Pre-Education and an Associate in Applied Science in Orthotic and Prosthetic Technologies.

In her personal life, Lynn enjoys spending time with her children, granddaughter, and animals, including a rabbit, dog, cat, and lizards. She hopes to one day add a sloth to that list of animals. She makes jewelry and works in her green house in her free time. One of her favorite pastimes is walking through the woods around her house looking for berries…that is, as long as she isn't chased up a tree by any wildlife.

Lynn encourages young women to go for what they want in life and to not be afraid to get their hands dirty along the way!

Do you want to be a...
Orthotic & Prosthetic Technologist?

CAREER OVERVIEW

The field of orthotics and prosthetics involves designing and fitting artificial limbs or braces. It is a component of the health care field, and individuals working as either an orthotist or prosthetist usually must be certified and licensed. Although related, the work of an orthotist and prosthetist is not the same. A prosthetist designs, creates, and fits artificial limbs on patients who are missing a part or all of a limb. An orthotist, on the other hand, fits braces and other devices to enhance the movement and function of a patient's limbs or spine. An orthotist/prosthetist can make and fit both prosthetics and orthotics. The American Academy of Orthotists and Prosthetists states that, regardless of whether they work only in one area of the field, most practitioners are referred to as 'O&P Practitioners.'

PERSONALITY TRAITS OF SOMEONE WHO IS SUCCESSFUL IN THE FIELD

A person entering the field of orthotic and prosthetic technology must be interested in helping other people.

HIGHER EDUCATION

To work as an orthotist or prosthetist, an individual must graduate from an accredited O&P program and complete a one-year residency, after which the individual may sit for the American Board for Certification in Orthotics, Prosthetics, and Pedorthics exam. Board certification is available in either or both fields and is required in order to practice as an orthotist or prosthetist. Orthotist and prosthetist practitioner degree programs are available at the bachelor's and master's degree levels.

PROJECTED INCOME

Minimum Wage Worker (without a degree): $15,080/yr.
U.S. Mean Annual Wage: $49,630/yr.
Orthotists & Prosthetists: $64,430/yr.

PROJECTED JOB GROWTH (2014-2024)

Faster than Average (23%)

Source & credit: Study.com

WOMEN IN SCIENCE CONFERENCE PANELIST (BOOTH #98)

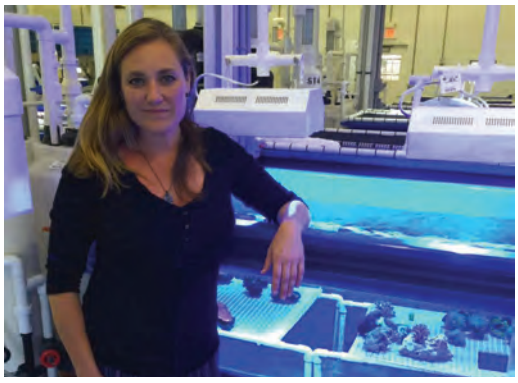
ANN MONEY
MARINE BIOLOGIST
OKLAHOMA AQUARIUM

Marine habitats and issues have been Ann's passion since she was a child growing up on the Chesapeake Bay. She has dedicated her life and career to educating on and researching conservation, first with groundfish operations in Alaska, then sea turtles on the Gulf of Mexico, and now public aquaria and coral reef habitats. As Director of Education Programs and Research for the Oklahoma Aquarium, Ann shares her knowledge with half a million visitors annually!

After a 25-year career in marine biology, Ann learned of the mystery of marine bio-fluorescence, and realized that she needed to learn everything that she could about the phenomena. She believes that the state of our coral reefs is one of the most ecologically important issues of the day. Ann explores not only the functionality of bio-fluorescence, but also how it can be utilized to restore these vitality important failing reefs.

Ann is currently earning a Ph.D. in Integrative Biology from Oklahoma State University, where she is studying bio-fluorescence and coral reefs with funding through a National Science Foundation Fellowship. She conducts her research at the Oklahoma Aquarium and utilizes the opportunity to share relevant coral research in action with thousands of school children annually.

In her spare time, Ann is an avid scuba diver. She loves spending time outdoors with her three children and traveling as much as time allows. At home, she and her children raise chicken and guinea fowl…and eat lots of eggs!



Do you want to be a...

Marine Biologist?

CAREER OVERVIEW

Do you enjoy going to the ocean? Do you like examining all of the marine creatures in tide pools? Do you read up on the different kinds of ocean mammals and fish for fun? If this is the case, then you may be the right fit for a career as a marine biologist. Marine biology is the study of ocean aquatic organisms, their behaviors, and their interactions with the environment. Because this field of study is an intersection of zoology, biology, and technology, marine biologists can apply their knowledge in many different ways.

PERSONALITY TRAITS OF SOMEONE WHO IS SUCCESSFUL IN THE FIELD

A person entering the field of marine biology must have a love of nature and the oceans, creativity, persistence, and curiosity.

SUBJECTS TO STUDY IN HIGH SCHOOL

Biology, chemistry, physics, algebra, geometry, calculus; if available, marine biology, and statistics.

HIGHER EDUCATION

A bachelor's or master's degree in marine biology, biology, or zoology usually is required for most entry-level marine biology research jobs, though a Ph.D. usually is required to carry out independent research in biology and to teach at the university level.

PROJECTED INCOME

Minimum Wage Worker (without a degree): $15,080/yr.
U.S. Mean Annual Wage: $49,630/yr.
Marine Biologist: $71,890/yr.

PROJECTED JOB GROWTH (2014-2024)

More Slowly than Average (3% to 6%)

Source & credit: Sciencebuddies.org

WOMEN IN SCIENCE CONFERENCE PANELIST (BOOTH #2)
CAROL ROLLINS, P.E.
CIVIL ENGINEER
MANAGER, ENGINEERING & PLANNING
MUSKOGEE POWER PLANT, OGE ENERGY CORP.

Carol Rollins, a native of Oklahoma, was raised in Mustang and had an early interest in math and mechanics. Growing up, she enjoyed working on and around heavy equipment with her grandfather. Her other grandfather, who was an engineer, also helped foster her interest in the field.

Carol received her degree in Civil Engineering from the University of Oklahoma. She chose this field after seeing how her work could contribute to the betterment of society.

After graduating from college, Carol went to work for a private company, where she engineered thousands of metal buildings over the next 15 years. She then joined OGE as a structural engineer for the company's power plants. In this role, she repairs and replaces structures for power plant machinery, as well as buildings, and addresses numerous environmental issues including water and soil. She now manages the engineers and planning department at the OGE Muskogee Power Plant.

Carol is married and has a teenage son. She has several passions outside of work, including going to the lake to boat, paddle board, or just watch the sunset. She also enjoys cooking and gardening. One of the most rewarding things Carol does is help rescue dogs: she transports Boxer rescues from shelters to foster homes.

Do you want to be a...

Civil Engineer?

CAREER OVERVIEW

If you turned on a faucet, used a bathroom, or visited a public space (like a road, a building, or a bridge) today, then you've used or visited a project that civil engineers helped to design and build. Civil engineers work to improve travel and commerce, provide people with safe drinking water and sanitation, and protect communities from earthquakes and floods. This important and ancient work is combined with a desire to make structures that are as beautiful and environmentally sound, as they are functional and cost-effective.

PERSONALITY TRAITS OF SOMEONE WHO IS SUCCESSFUL IN THE FIELD

A civil engineer should be creative, inquisitive, analytical, and detail oriented. They should be able to work as part of a team and to communicate well, both orally and in writing. Communication abilities are becoming increasingly important as engineers frequently interact with specialists in a wide range of fields outside engineering.

SUBJECTS TO STUDY IN HIGH SCHOOL

Chemistry, physics, computer science, geometry, algebra II, pre-calculus, calculus, English; if available, statistics, environmental science, and applied technology.

HIGHER EDUCATION

A bachelor's degree in engineering is required for almost all entry-level engineering jobs. College graduates with a degree in a natural science or mathematics occasionally may qualify for some engineering jobs, especially in specialties in high demand. Most engineering degrees are granted in electrical, electronics, mechanical, or civil engineering. However, engineers trained in one branch may work in related branches. For example, many aerospace engineers have training in mechanical engineering. This flexibility allows employers to meet staffing needs in new technologies and specialties in which engineers may be in short supply. It also allows engineers to shift to fields with better employment prospects or to those that more closely match their interests.

PROJECTED INCOME

Minimum Wage Worker (without a degree): $15,080/yr.
U.S. Mean Annual Wage: $49,630/yr.
Mechanical Engineer: $83,540/yr.

PROJECTED JOB GROWTH (2014-2024)

Average (7%-13%)

Source & credit: Sciencebuddies.org

WOMEN IN SCIENCE CONFERENCE PANELIST (BOOTH #6)

FRANCIA THOMPSON
SPECIAL AGENT & CRIME SCENE INVESTIGATOR
CRIME SCENE UNIT
OKLAHOMA STATE BUREAU OF INVESTIGATION

Francia Thompson was born in Mexico and came to the United States at the age of eight. She grew up in a small southwest Oklahoma town where she graduated from high school. While in high school she joined the Oklahoma Army National Guard. After graduating from boot camp, Francia began college at the University of Oklahoma, where she was involved in numerous college organizations and held many offices, including president of the Hispanic American Student Association, chairperson of the Miss Hispanic OU Pageant, and others. She graduated with a Bachelors Degree in Sociology and Criminology from the University of Oklahoma.

Francia began her career with the Oklahoma State Bureau of Investigation (OSBI) in 2005; she is currently a Special Agent in the OSBI Crime Scene Unit. During her career, Francia has worked to help solve hundreds of crimes in the state. She has worked with local, state and federal agencies to bring justice to victims and their families. She obtained her Crime Scene Investigator Certification from the International Association of Identification (IAI). She is also certified on the FARO 340 scanner; there are a limited number of these new scanners in the state. Francia assists other law enforcement agencies throughout the state with Spanish interviews and document translations. She has received numerous awards from the OSBI including red feathers, team awards, and in 2010 she was named the Oklahoma State Bureau of Investigation Agent of the Year. She also teaches Crime Scene Investigation Techniques and Beginning Spanish for Law Enforcement courses for law enforcement agencies throughout the state, and enjoys bringing special presentations to students across Oklahoma.

Francia loves spending time with her family, which includes her husband and two daughters. In her spare time, she likes to be with her family, playing games, watching movies, visiting the zoo, and visiting new places. She also likes to bake, eat, and plan events and parties.

Do you want to be a...
Forensic Science Technician?

CAREER OVERVIEW

Guilty or not guilty? The fate of the accused in court lies with the evidence gathered at the crime scene. The job of the forensic science technician is to gather evidence and use scientific principles and techniques to make sense of it. It can be a grueling and graphic job, but very rewarding. If you like the idea of using science to help deliver justice, then you should investigate this career.

PERSONALITY TRAITS OF SOMEONE WHO IS SUCCESSFUL IN THE FIELD

Forensic science technicians should have curiosity, personal integrity, good speaking skills, good reasoning and critical thinking skills, and must enjoy solving puzzles. Communication skills are important because forensic science technicians are often required to report their findings both orally and in writing. In addition, technicians should be able to work well with others. Because computers often are used in research and development laboratories, technicians should also have strong computer skills, especially in computer modeling. Organizational ability, an eye for detail, and skill in interpreting scientific results are important as well, as are a high mechanical aptitude, attention to detail, and analytical thinking.

SUBJECTS TO STUDY IN HIGH SCHOOL

Biology, chemistry, physics, algebra, geometry, algebra II, calculus, English; if available, computer science.

HIGHER EDUCATION

Forensic science positions typically require a bachelor's degree to work in the field. Knowledge and understanding of legal procedures also can be helpful. Degree options: bachelor's degree program in forensic science; bachelor's degree in a natural science with an emphasis on forensic science or criminology; bachelor's degree with an emphasis in a specialty area, such as criminology, pathology, jurisprudence, investigation, odontology, toxicology, or forensic accounting.

PROJECTED INCOME

Minimum Wage Worker (without a degree): $15,080/yr.
U.S. Mean Annual Wage: $49,630/yr.
Forensic Science Technician: $56,750/yr.

PROJECTED JOB GROWTH (2014-2024)

Faster than Average (14% to 20%)

Source & credit: Sciencebuddies.org

“Don’t let anyone rob you
of your imagination,
your creativity, or your curiosity.
It’s your place in the world; it’s your life.
Go on and do all you can with it,
and make it the life you want to live.”

--Mae Jemison
Pioneering Astronaut, Scientist, & Physician

FUNDED BY THE DONALD W. REYNOLDS FOUNDATION

“Thank you!” to our fantastic conference sponsors!