

PARTICIPANTS' BIOS

#WOMENINSCIENCE

PICTURE YOURSELF AS A...

CRIME SCENE INVESTIGATOR COMPUTER PROGRAMMER GIS DATABASE ANALYST ECONOMIST MECHANICAL ENGINEER & PROJECT DEVELOPMENT MANAGER MARINE BIOLOGIST MEDICAL PRACTITIONER: PHYSICIAN ASSOCIATE METEOROLOGIST



Look for our panelists 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 Panelist (Booth #89) TRACY BOYER, Ph.D. ASSOCIATE PROFESSOR OF AGRICULTURAL ECONOMICS OKLAHOMA STATE UNIVERSITY

Tracy Boyer grew up in Cincinnati, Ohio. In elementary school and high school she played basketball and went on backpacking, canoeing and caving trips. During her junior year of high school she was an exchange student in Ayvalik, Turkey through the American Field Service. These experiences sparked an interest in environmental issues at home and abroad.

Tracy earned an undergraduate degree in International Relations at Stanford University in California studying the environment and international development, a Master's Degree in Public Policy in Public Affairs at the University of Minnesota, and a Ph.D. in Applied Economics at the University of Minnesota.

Tracy has been a professor of environmental economics in the Agricultural Economics Department at Oklahoma State University for the past twelve years. Her job includes teaching undergraduates and graduate students about environmental and natural resource economics and performing research. Her research involves valuing recreational uses of water in Oklahoma and how individuals and households can be persuaded to conserve and preserve Oklahoma's water and natural resources. She is currently a member of an Oklahoma EPSCoR climate variability research team that is funded by the National Science Foundation. Other projects have examined how protection of endangered species such as prairie chickens involves tradeoffs with wind power production. What she enjoys most about her career is that she is making a real difference in environmental public policy in Oklahoma.

Tracy spends a lot time at home cooking funky ethnic food with her husband and daughter, Claire, and dog, Phoebe, a Bullmastiff. She enjoys kayaking in local Lake McMurtry and the Illinois River.



Do you want to be an... Economist?

#ILOOKLIKEANECONOMIST

CAREER OVERVIEW

Every country has resources—people, land, raw materials, capital, and machinery—and economists study how those resources are distributed to create the goods that people buy, and the services people need or want. In their studies, economists monitor economic trends and collect data on things like energy costs, inflation, interest rates, exchange rates, business cycles, taxes, and employment levels. Based on their analysis of this data, they develop forecasts of economic activity so that businesses and governments can better plan for the future.

PERSONALITY TRAITS OF SOMEONE WHO IS SUCCESSFUL IN THE FIELD

Those considering a career as an economist should be able to pay attention to details because much time is spent on precise data analysis. They should have strong computer and quantitative skills, patience, and persistence. Good communication skills also are useful, as economists must be able to present their findings, both orally and in writing, in a clear, concise manner.

SUBJECTS TO STUDY IN HIGH SCHOOL

Geometry, algebra II, pre-calculus, calculus, English; if available, computer science, statistics, environmental science, business

HIGHER EDUCATION

Some entry-level positions for economists are available to those with a bachelor's degree, but higher degrees are required for many positions. Whether working in government, industry, research organizations, or consulting firms, economists with a bachelor's degree usually qualify for entry-level positions as a research assistant, for administrative or management trainee positions, or for various sales jobs. A master's degree usually is required to qualify for more responsible research and administrative positions. A Ph.D. is necessary for top economist positions in many organizations.

PROJECTED INCOME

Minimum Wage Worker (without a degree): \$15,080/yr. U.S. Mean Annual Wage: \$45,230/yr. Economist: \$90,550/yr.

PROJECTED JOB GROWTH (2010-2020)

Growth expected (3% to 6%)



Women in Science Conference Panelist (Booth *87) AMIE GIBSON GIS DATABASE ANALYST/COMPUTER PROGRAMMER

MUSCOGEE (CREEK) NATION

Amie Gibson grew up in rural Liberty Mounds, Oklahoma. On summer vacations she and her family would go on float trips down the Illinois River in Tahlequah, and after finding many arrowheads it was there that she became interested in geology. Geology with the mix of the 'new' wonderful world of computers shaped her mind and passion for the sciences.

Amie is a GIS Database Analyst and Computer Programmer with the Muscogee Creek Nation (MCN) at the Tribal Headquarters Interior Affairs Division located in Okmulgee, Oklahoma. She is responsible for Geographic Information System (GIS) database, as well as computer programming for the department.

GIS information is used by the MCN to research, document and provide geographic information to better protect and preserve the historical and current resources of the Muscogee Creek Nation. The Geospatial Department is using GIS technology for community development, cultural preservation, environmental assessments, risk management, and emergency management.

Prior to joining the Muscogee Nation, Amie worked and studied for 17 years at the Oklahoma Geological Survey Observatory, where she located and identified all of the earthquakes occurring in Oklahoma and occasionally neighboring states. Due to budget issues faced by the State of Oklahoma, the Observatory position was eliminated last year.

Amie enjoys spending time with her daughter, Sydney Brooke, and being outside (away from technology) when she is off-duty. Along with fishing, exploring, and camping, she enjoys talking to students about her interests in the Sciences and hopes to see them join a very challenging and rewarding field in a STEM career.

Amie would like to encourage young women to pursue the science of coding, working with programming languages such as Python, and the wonderful field of Geographic Information Systems.



Do you want to be a... Computer Programmer or GIS Technician? #ILOOKLIKEACOMPUTERPROGRAMMER

CAREER OVERVIEW

Computers are essential tools in the modern world, handling everything from traffic control, car welding, movie animation, shipping, aircraft design, and social networking to book publishing, business management, music mixing, health care, agriculture, and online shopping. Computer programmers are the people who write the instructions that tell computers what to do.

Maps are important sources of information, and geographic information systems (GIS) technicians are the professionals who gather data from a variety of sources, store it in databases, and use those databases to make accurate maps. Because maps are used to convey all kinds of information, such as rainfall density or traffic patterns, GIS techs must be knowledgeable in many different areas of science.

PERSONALITY TRAITS OF A COMPUTER PROGRAMMER & GIS TECHNICIAN

Computer programmers should have good analytical, troubleshooting, problem-solving, and logic skills. They should show good attention to detail and have the ability to communicate well with others. GIS technician's should be detail-oriented, have good work habits, good time management skills, analytical and critical thinking skills, interest in maps and geography.

SUBJECTS TO STUDY IN HIGH SCHOOL

Computer Programmer: Physics, computer science, algebra, geometry, calculus GIS Tech: Biology, chemistry, geometry, algebra II, calculus; if available, geography, computer science, environmental science

HIGHER EDUCATION

A bachelor's degree is commonly required for computer programming jobs, although a twoyear degree or a certificate may be adequate for some positions. A bachelor's degree in GIS, geography, cartography or a related field is required for entry-level GIS technician jobs.

PROJECTED INCOME

Minimum Wage Worker (without a degree): \$15,080/yr. U.S. Mean Annual Wage: \$45,230/yr. Computer Programmer: \$72,630/yr.; GIS Technician: \$79,930/yr.

PROJECTED JOB GROWTH (2010-2020)

Average (7% to 13%)



Women in Science Conference Panelist (Booth *62)

PATRICIA IVEN, MHS, PA-C PEDIATRIC PHYSICIAN ASSOCIATE KIDS HEALTHCARE, TULSA

Tricia Iven is a pediatric physician associate (PA) in Tulsa, Oklahoma. As a child, she always wanted to be a doctor. Tricia graduated from Booker T. Washington High School in Tulsa and went to Norman for her undergraduate studies at the University of Oklahoma. There she received her bachelor's degree in Life Sciences and Spanish.

While at OU, Tricia discovered the career of a physician associate and changed her path from pre-med to pre-PA. This career offered everything she wanted: practicing medicine, taking care of patients and families, and having a job that was challenging and allowed for problem-solving. Tricia graduated from the OU-Health Science Center PA program in Oklahoma City in 2011 and received her master's in health sciences degree. She now works as a pediatric PA, taking care of children from birth to college-age.

In her personal life, Tricia is married to her husband, Andrew, whom she met while at OU. They have a miniature schnauzer named Ella and are expecting their first child in March. Tricia loves to bake and make baby quilts. She also loves to dance and go to Zumba classes. Tricia likes to volunteer when she can; she spent several days volunteering in Moore with tornado relief. She has also served on a team that developed online childhood development quizzes for which she wrote the content.





Do you want to be a... Physician Associate?

#ILOOKLIKEAPHSICIANASSOCIATE

CAREER OVERVIEW

Would you like to sew up a bad cut after a fall? Order and interpret X-rays? Help with surgery? Conduct physicals? Prescribe medications? Physician associates have many of the same duties as physicians, only they practice medicine under the supervision of a physician or a surgeon. In rural or inner-city areas, physician associates might have considerable independence, since they might be the only healthcare provider available to these communities. Physician associates (sometimes called physician assistants) can choose to study specialties, too, just like physicians, and work in surgery, pediatrics, emergency medicine, orthopedics, or other health specialties.

PERSONALITY TRAITS OF SOMEONE WHO IS SUCCESSFUL IN THE FIELD

Physician associates should be caring, observant, outgoing, patient, and calm in an emergency. They must be emotionally and physically strong, self-motivated, have outstanding communication skills, as well as a strong desire to serve patients. PAs also must have a good bedside manner, emotional stability, and the ability to make decisions in emergencies. They should have an enthusiasm for lifelong learning, because their eligibility to practice depends on continuing education.

SUBJECTS TO STUDY IN HIGH SCHOOL

Biology, chemistry, physics, geometry, algebra II, pre-calculus; if available, physiology, biomedical science

HIGHER EDUCATION

A master's degree is usually required. All states require physician associates to complete an accredited, formal education program and pass a national exam to obtain a license.

PROJECTED INCOME

Minimum Wage Worker (without a degree): \$15,080/yr. U.S. Mean Annual Wage: \$45,230/yr. Physician Associate: \$88,660/yr.

PROJECTED JOB GROWTH (2010-2020)

Much Faster than Average (21% or more)



Women in Science Conference Panelist (Booth #23) ASHLEY MCLAUGHLIN MARINE BIOLOGIST OKLAHOMA AQUARIUM

Ashley was born in lowa and moved to Texas during her high school years. The chance to visit places like the Moody Gardens Aquarium in Galveston, and of course the Oklahoma Aquarium, piqued her interest in the wonderful world of marine conservation. It was during one of those trips to SeaWorld with her parents that Ashley decided she would become a Marine Biologist.

Ashley earned her bachelor's degree in Marine Biology from Texas A&M and now works as a Marine Biologist at the Oklahoma Aquarium. During her eighteen months at Oklahoma's largest marine wildlife exposition, Ashley has played with sharks, iguanas, eels, giant sea turtles, sting rays and nearly every other sea creature you can think of. As a certified scuba diver, she gets to see many of them up close and personal!

As an aquarist charged with watching over the invertebrate exhibits, Ashley recently played an instrumental role in raising four Caribbean reef octopuses from hatchlings to adulthood. It is believed that this accomplishment had never before been achieved in a captive setting. She tracked their habits and progress, and is currently writing a scientific paper based on her work, with the hope that other marine biologists can further her effort in rescuing these amazing sea creatures.

The opportunity to take part in pioneering achievements, and to spend her days with the most amazing animals on earth, are just two of the many reasons Ashley has been drawn to the field of marine biology since she was a young girl. Since she received her degree in 2012, every day has been an adventure beyond her wildest dreams.

Ashley spends her personal time hanging out with family and friends, creating interesting artwork and crafts, jogging and working out, and reading, including anything and everything about marine life.



Do you want to be a... Marine Biologist? #ILOOKLIKEAMARINEBIOLOGIST

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. Marine biology is one of the broadest fields of study in oceanography. Because marine biology is so broad, most marine biologists usually specialize in one area. A marine biologist could study a specific species, behavior, or the ecosystem that marine organisms live in.

PERSONALITY TRAITS OF SOMEONE WHO IS SUCCESSFUL IN THE FIELD

Marine biologists should 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, 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: \$45,230/yr. Marine Biologist: \$59,330/yr.

PROJECTED JOB GROWTH (2010-2020)

Average (14%-20%)



Women in Science Conference Panelist (Booth *64)

STACIA KNIGHT WEEKEND MORNING METEOROLOGIST KOTV-NEWS ON 6

Growing up next door to Green Country in southeast Kansas, Stacia Knight quickly became familiar with the always-changing Oklahoma weather. She would run back and forth between the TV and the front porch when storms would roll into her hometown of Independence, Kansas. She'd check the radar, watch the sky, and update her family until it was time to go to bed. Along with

fascination, came respect for the strength of Mother Nature and she knew at a young age the importance of being prepared when severe weather happens. Before having to seek shelter from the storms, she would occasionally put her favorite toys which included the family dog once, in their shelter area as storms neared. The younger Stacia was already trying to stay ahead of the storms and keep her family safe. She would have put her parents and younger brother in there as well, but they insisted on waiting for instruction from the local meteorologist before taking shelter. When the time came to think about a career, she decided to study what she had first fallen in love with 10 years earlier, the weather.

After graduating from the University of Kansas with a Bachelor of Science Degree in Atmospheric Science and a minor in Mathematics, Stacia headed to Tulsa to continue learning from Oklahoma's Own Weather Experts. She first joined the News On 6 Warn Team as an intern in August of 2012, before becoming a weather producer in November of that same year. Now she is an on-air meteorologist for Six in the Morning Weekends on Saturday and Sundays.

Stacia is excited to call herself an Okie, and to help keep you safe and ahead of the good, the bad and the ugly weather. Outside of weather, she likes to play tennis, explore Green Country and take care of her rescue dog, Max.



Do you want to be a... Meteorologist? #ILOOKLIKEAMETEOROLOGIST

CAREER OVERVIEW

The atmosphere is a blanket of gases, surrounding Earth, that creates our weather. Meteorologists study the measurements and motion of the atmosphere, and changing events within it, so that they can predict the weather. This weather forecasting helps the general public and people who work in industries such as shipping, air transportation, agriculture, fishing, forestry, and water and power better plan for the weather, and reduce human and economic losses.

PERSONALITY TRAITS OF SOMEONE WHO IS SUCCESSFUL IN THE FIELD

Meteorologists should have a fascination with weather-related events, analytical skills, an ability to piece together the big picture from many small measurements, and the ability to communicate scientific results in plain language.

SUBJECTS TO STUDY IN HIGH SCHOOL

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

HIGHER EDUCATION

The most direct path to a career in meteorology is an undergraduate program that leads to a bachelor's degree in meteorology or atmospheric science. Students should also take courses in subjects that are most relevant to their desired area of specialization. For example, those who wish to become broadcast meteorologists for radio or television stations should develop excellent communication skills through courses in speech, journalism, and related fields. Students interested in air quality work should take courses in chemistry and supplement their technical training with coursework in policy or government affairs. Prospective meteorologists seeking opportunities at weather consulting firms should possess knowledge of business, statistics, and economics, as an increasing emphasis is being placed on long-range seasonal forecasting to assist businesses.

PROJECTED INCOME

Minimum Wage Worker (without a degree): \$15,080/yr. U.S. Mean Annual Wage: \$45,230/yr. Meteorologist: \$89,790/yr.

PROJECTED JOB GROWTH (2010-2020) Average (7%-13%)



Women in Science Conference Panelist (Booth #51) AMY SHANK, MECHANICAL ENGINEER MANAGER OF PROJECT DEVELOPMENT WILLIAMS, NGL & PETCHEM SERVICES

Amy Shank graduated from the University of Oklahoma with a bachelor's degree in mechanical engineering in 1988. She began her career with Mobil Oil as a field engineer in south central Oklahoma doing process and project engineering in a natural gas plant. She joined MAPCO as a project manager in 1994 and then moved into the commercial side of the business

as a senior business development representative in 1995 after completing her Master of Business Administration (MBA) at Oklahoma City University. She continued in that capacity at Williams after MAPCO and Williams merged in 1998. In 1999, the opportunity arose to move back to the technical side as a leader in Engineering & Construction; she has held various technical leadership positions since. Amy has just over 27 years of experience in technical, commercial and leadership roles for natural gas, natural gas liquids and olefins businesses spanning pipelines, plants and underground storage. She is currently a manager in Williams Engineering & Construction Group, where she is responsible for the development of major NGL & petrochemical projects.

For the past ten years, Amy has been the single mother of two boys (Turner, 19 and Paxton, 16), but she recently remarried and now has an 11-year-old stepdaughter named Mia. In her time away from work, she is a running coach, marathon runner, long distance cyclist and is currently training for her first Ironman Triathlon which will be held in New Orleans next April.



Do you want to be a... Mechanical Engineer? #ILOOKLIKEANENGINEER

CAREER OVERVIEW

Mechanical engineers are part of your everyday life, designing the spoon you used to eat your breakfast, your breakfast's packaging, the flip-top cap on your toothpaste tube, the zipper on your jacket, the car, bike, or bus you took to school, the chair you sat in, the door handle you grasped and the hinges it opened on, and the ballpoint pen you used to take your test. Virtually every object that you see around you has passed through the hands of a mechanical engineer. Consequently, their skills are in demand to design millions of different products in almost every type of industry.

PERSONALITY TRAITS OF SOMEONE WHO IS SUCCESSFUL IN THE FIELD

Engineers should be creative, inquisitive, analytical, mathematical, and detail oriented, with a hands-on understanding of the world. 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

Biology, chemistry, physics, computer science, geometry, algebra II, pre-calculus, calculus; if available, statistics, applied technology

HIGHER EDUCATION

You generally need at least a bachelor's degree in mechanical engineering to enter this field. It takes four or five years to earn a bachelor's degree in engineering. Some programs include periods of work experience along with formal classes. Many engineers go on to obtain advanced degrees in a specialized field of engineering or business administration.

PROJECTED INCOME

Minimum Wage Worker (without a degree): \$15,080/yr. U.S. Mean Annual Wage: \$45,230/yr. Mechanical Engineer: \$79,230/yr.

PROJECTED JOB GROWTH (2010-2020)

Average (7%-13%)



Women in Science Conference Panelist (Booth #49)

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

Francia Thompson was born in Mexico and came to the United States at the age of 8. 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. Francia was involved in numerous

college organizations, where she held many offices, including president of the Hispanic American Student Association, chairperson of the Miss Hispanic OU Pageant, and was a founder of the Xi Beta Chapter of Sigma Lambda Gamma National Sorority, Inc. Francia graduated with a bachelors degree in sociology and criminology from the University of Oklahoma.

She began her career with the Oklahoma State Bureau of Investigation (OSBI) in 2005; she is currently a Special Agent working in the OSBI Crime Scene Unit. Francia also assists other law enforcement agencies throughout the state with Spanish interviews and document translations. 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 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. Francia also teaches Crime Scene Investigation Techniques and Beginning Spanish for Law Enforcement courses for law enforcement agencies throughout the state. She also does presentations for 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?

#ILOOKLIKEAFORENSICSCIENCETECHNICIAN

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: \$45,230/yr. Forensic Science Technician: \$52,180/yr.

PROJECTED JOB GROWTH (2010-2020)

Faster than Average (14% to 20%)