

2019 Career Workshop Sessions

Students: Please indicate your top five choices on your registration form.

#	Workshop Title	Career	Description
OD1	Ag Will Hire You!	Agriculture	Discover a variety of technical agricultural careers! There is a huge need for agronomists, aquaculture specialists, agriculture engineers and environmental managers. This hands on workshop will help students consider possible career paths in agriculture by exploring their own personal goals, interests, and talents. We have the vast challenge of feeding 9 billion people by the year 2050! You can be a part of that!
OD3	Biology of Streams	Naturalist	Learn how to detect the health of a stream near you! Students will hunt for little creatures that live in our creeks and ponds and discover what the living organisms in water can tell us about water quality.
OD4	Bones, Bugs & Splints - Oh My!	Operating Room Nurse/ Registered Nurse	Take a look into a day in the operating room! Experience handwashing with black light, casting and x-rays with broken bones, intubation, and interact with general surgery instrumentation.
OD5	Check the Instructions	Technical Writer/Label Designer	In a complex world, precise written and illustrated instructions save time and make products easier to use at home and in the workplace. Creating instructions takes collaboration from the entire development team. Learn how it's done!
OD6	Coding with the Stars	Software Engineer	Learn about problem solving and programming through one or more of a variety of coding environments! Students will be able to create their own projects and learn how coding relates to any field.
OD7	Crime Scene Investigation	Police Officer/ Crime Scene Investigator	Why aren't there more women in law enforcement and how can you better prepare yourself to compete in this field? Could science and technology hold the key? This class will teach participants how to recover latent fingerprints and describe what a crime scene investigator does.
OD8	Cryptography – Toy Ciphers, Secret Codes & More!	Computer Science/Math	What is Cryptography? And how do we use it every day? Using skills in math and computer science, we will try to understand a secret message!
OD9	Disease Hunters: Public Health & Epidemiology	Biology/Immunology & Epidemiology	Why do people get sick and how do we study diseases in populations? Immunology is the study of the body's immune system and how it responds to pathogens. In this workshop, we'll talk about the various roles of antibodies, a protective protein produced by specific cells of the immune system, and how they can be used to track diseases in populations as well as diagnose infectious diseases during an epidemic.

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OD10	DNA – The Genetic Information of Life	Molecular Geneticist/Scientist	All living organisms have DNA, which is a blueprint for all cellular processes. Learn about the many fascinating things you can extract DNA from, and what scientists have learned from this information. Learn about the different careers that require an understanding of DNA, and extract DNA from fruit!
OD11	Doctor for a Day	Doctor/Medical	Experience what it is like to be a doctor for a day! Learn about human anatomy by viewing and touching real human specimens. Learn and practice basic physical exam procedures and what it takes to be a doctor!
OD12	Engineer Your World: The Civil Way!	Civil Engineer	Do you know what a Civil Engineer does? Do you want to get your hands dirty and find out? This workshop will introduce you to the career of a civil engineer and how they build the world around us!
OD13	Engineering in the Utility Industry	Civil Engineer	Knowledge is power - and so is the utility industry! Learn how high voltage power lines are constructed and how electricity works with electrical circuits.
OD14	Environmental Chemistry	Science/Chemistry	This workshop will explore techniques used by scientists to study the Earth's atmosphere. Participants will conduct hands-on experiments, develop measurement devices, and design experiments that use them.
OD15	Explore Your World with Data Visualization	Information Technology	Have you heard of data analytics? Explore how to better understand real world information using data visualization. Join us for a fun session and learn just how valuable YOU could be to a business as a data analyst!
OD16	Holding it All Together	Mechanical Engineer	Mechanical engineers at Collins Aerospace put all the pieces together to make airplanes smarter and communication with people in outer space possible! Learn more about what engineers do and test your mechanical skills with a hands-on building competition.

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OD17	I Like Math & Science But I Am Not an Engineer	Cost Engineer/ Production Industrialization	<p>Not interested in engineering? Maybe you just haven't found the right <i>kind</i> of engineering! Introducing <i>Cost Engineering!</i> This workshop will explore opportunities in the fields of Product Cost (making sure product cost is what consumers are willing to pay and the company can still make money on the product) and Supply Chain & Logistics (making sure products people want to buy are available when they want to buy them).</p> <p>Have you ever noticed that Halloween costumes and candy start coming out in July or Thanksgiving and Christmas items before Halloween is over? In this workshop we will discuss the planning that goes into have products available months in advance, and the hidden tasks that need to be considered to keep product cost at a minimum, so people will want to buy them.</p> <p>Put your STEM skills to use by creating, designing, building and testing a product.</p>
OD18	I Want to be a Veterinarian	Veterinarian	<p>So you'd like to be a vet? There is more to being a vet than just giving vaccines to cats and dogs. Learn what happens behind the scenes including how illnesses and conditions are diagnosed.</p>
OD19	It's a Material World	Materials Engineer	<p>Learn how materials make or break the world around us from a Collins Aerospace materials engineer! Find out why some things are built from metal and others from plastics. Test your material knowledge with a fun hands-on challenge.</p>
OD20	It's Not a Stretch – You Can Be An Engineer, Too!	Engineer	<p>Learn how engineers design and make plastics that you encounter every day. Create your own stretchy putty to take home with you.</p>
OD21	Physical Therapy	Physical Therapist	<p>Discover how physical therapists use technology and exercise to improve the lives of their patients, whether as result of sports injuries, accidents or medical condition.</p>
OD22	Physical Therapy & Sports	Physical Therapist	<p>Discover how physical therapists use technology and exercise to improve the lives of their patients, and return them to their sport of choice as soon as possible.</p>

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OD23	Project Management: How Does it Impact Our Daily Lives?	Project Management/ Strategic Planning	Have you ever wondered how businesses get things done? Come and learn about the careers of project management and strategic business planning and begin to understand the important role these careers play in our everyday lives.
OD24	Putting the Power into Electronics	Electrical & Systems Engineer	Collins Aerospace produces GPS to guide the military and radios that communicate with the Mars Rover. Learn how electrical and systems engineers power the world and beyond! Test your electrical skills with a hands-on experiment.
OD25	Rapid Prototype: World's Problems	Technology/ Digital Learning Consultant	Solving world problems...how do we begin? In this workshop, you'll be participating in a rapid prototype or a quick make of a solution that you come up to help solve problems from the UN's Sustainable Development Goals.
OD26	Sensing Diabetes with New Technologies	Family Nurse Practitioner	Have you ever considered working with a specific medical population? This workshop will feature technology available for Diabetic care to maintain a healthy and active lifestyle. In this session you will have hands on experience with new technologies including insulin pumps and continuous glucose monitors that are changing the lives of those living with diabetes.
OD27	The Face Behind the Mask	Operating Room Nurse Registered/Nurse	Participate in a mock surgery with suturing or stitching, breathing tube insertion, and electrocautery (clotting or stopping bleeding).
OD28	The Fruit Shapes Adventure	Food Engineer	Participate in the fun processing steps to make fruit shapes. Learn about equipment needed, ingredients used, and how the product looks at various stages—including sensory taste testing of the final product!
OD29	There Is Science In My Make-up	Engineer	Learn the chemistry behind what makes cosmetics look, smell, and feel good. Then make your own lip gloss and bath salts to take home with you!

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OD30	Vision Therapy – Improving Vision with Exercises	Optometrist	Nearly all humans are born with the potential for good eyesight, but vision – the ability to identify, interpret and understand what is seen – is learned and developed, starting at birth. Learn about optometry and how vision therapy trains the entire visual system which includes eyes, brain and body.
OD31	Water Quality Protection	Chemist – Water Quality Environmental Steward - Stormwater	Water quality impacts everybody every single day. Explore the concepts of watersheds, water quality, water quantity, and human impacts. This is a growing field and there is a huge need for educated environmental advocates to continue to protect our water resources.
OD32	We Build This City: Design Like an Architect	Architect & Interior Designer	A brief intro to the practice of Architecture, Interior Design, and Landscape Design. We will discuss our field, what we do day in and day out, and the process of what creating a building looks like. In addition to that, we will get creative and design your own building. Let's build!
OD33	Weather Wise	Broadcast Meteorologist	Cold fronts, warm fronts, hurricanes, tornados, blizzards...weather is constantly impacting our lives. Learn how to forecast and present the weather!
OD34	What Is Artificial Intelligence?	Artificial Intelligence/Machine Learning	Did the movie industry get it right? Are we using Jarvis, BB-8 and WALL-E at work yet? With this activity, learn how businesses use machine learning algorithms for prediction, clustering and optimization. Learn about the emerging field of Data Science where computers learn without being programmed with code.
OD35	You as the Experimenter and the Rat: Experiments in Learning	Psychologist	Learning how to shape and change the behaviors of others is fascinating. In this workshop, you will learn how to change another person's responses via reward or punishment through a series of experiments (some which you conduct, some which you develop). You will also get a chance to have your own behavior shaped by others. This workshop will teach you more about why we show certain behaviors and avoid others.
OD100	Wild Card		Feeling adventurous? Workshop sessions are sometimes added to the conference after registration begins. Possibilities this year include arborist , blood donor specialist , and organ donor specialist . If you like surprises, request this session number on your registration form!