

# EXPLORE THE POSSIBILITIES

## ENGINEERING & TRADES TECHNOLOGY



### Engineering, Trades & Technology Showcase

Thursday, November 21, 2019 — 8:30 AM to 1:45 PM

Ogden Weber Technical College  
200 N Washington Blvd  
Ogden, UT 84404

Select five rotation choices then register by  
November 8, 2019 at:

[www.wfnpathways.org](http://www.wfnpathways.org)

### ► AGENDA:

- 8:15 AM – 8:45 AM: Arrival/Bag Distribution
- 8:45 AM – 9:00 AM: Welcome and instructions
- 9:00 AM – 9:45 AM: Rotation 1
- 9:50 AM – 10:35 AM: Rotation 2
- 10:40 AM – 11:25 AM: Rotation 3
- 11:30 AM – 12:15 PM: Rotation 4
- 12:15 PM – 12:45 PM: Lunch
- 12:45 PM – 1:15 PM: Mentors / Door Prizes
- 1:15 PM – 1:30 PM: Load buses

#### ARCHITECTURE, CIVIL & ENGINEERING DESIGN/CAD

How does an idea become reality? For an invention/structure to succeed, the idea has to be modeled and a drawing created so that it can be manufactured. This workshop will introduce you to the manufacturing/architectural world as a CAD designer experiences it. You will also receive knowledge of how to be involved in this exciting career.

#### AUTOMATION & ROBOTICS

Do you like to tinker, take things apart and put them back together just to see if you can? Are you fascinated with how things work? Come and learn about the high tech world of industrial automation, robotics and electronics engineering used in automated manufacturing lines.

#### AUTOMOTIVE TECHNOLOGY

Students will discover the newest trends in automotive safety and convenience systems. Students will learn about the different types of sensing equipment that is necessary for self navigation of a vehicle by interacting with an autonomous RC vehicle.



## Explore Careers in Engineering, Trades and Technology

► **12** Rotation choices taught by industry experts—You choose 5, with the 5<sup>th</sup> choice as an alternate.

### COMPOSITE MATERIALS TECHNOLOGY

Discover basic composites and lay-up techniques in a hands-on workshop. Students will be introduced to an occupation that uses fiberglass, carbon fiber, and aramid (Kevlar) as a basic tool. This workshop provides a hands-on experience creating a bookmark using composite materials.

### CONSTRUCTION MANAGEMENT & APPRENTICESHIPS

From the Eiffel Tower to the Vista Tower in Chicago, all great structures are built by skilled tradespeople. Come explore the numerous career opportunities in the construction industry and compete for a 21oz hammer in a nail driving competition!

### WEB GRAPHIC DESIGN

Explore the world of Digital Media Design; from creating graphics in Adobe Photoshop and Illustrator, coding websites in HTML5, CSS3, and Javascript, editing video in Adobe Premiere and adding special effects in After Effects, to creating complete marketing campaigns for companies of every size.

### INFORMATION TECHNOLOGY

Students will be introduced to computer hardware, software, networking fundamentals, cybersecurity standards and practices, customer service skills, and how to work in a service desk environment. Students leaving this program would be prepared to gain IT employment, help maintain information security, and thrive in the IT industry.

### MACHINING

You've seen it on TV—some guy using a machine to carve out a wicked custom aluminum wheel he designed on the computer. That's machining! Machining is defined as any operation that changes the shape, surface finish, or mechanical properties of a material by the application of special tools and equipment. Machining is almost always a process where a cutting tool removes material to effect the desired change in the workpiece. This workshop will allow you to set a part in a machine and watch it be created just like a machinist.

### METAL FABRICATION

What do art, engineering, sparks and fire have in common? Metal Fabrication! Come see projects go from concept to completion. Learn how fabricators design and layout projects in metal. Form, fit and weld components together. Create complete assemblies using Metal Fabrication.

### NONDESTRUCTIVE INSPECTION (NDI)

Non-destructive testing (NDT) is a wide group of analysis techniques used in science and industry to evaluate the properties of a material, component or system without causing damage. Because NDI does not permanently alter the article being inspected, it is a highly valuable technique that can both increase safety and reliability, save money and time in product research, evaluation, manufacturing, troubleshooting, and maintenance.

### SOFTWARE DEVELOPMENT

Do you have your finger on the pulse of modern technology? Programming is at the very heart of all of our modern technology. Do you have what it takes to shape the future? Come learn programming skills that will help you to actively shape the future and make your dreams a reality.

### WELDING TECHNOLOGY

Do you enjoy playing with fire? Do you enjoy creating things out of metal? Then come and learn how welders fabricate metal objects and structures and join them together with heat and pressure.



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