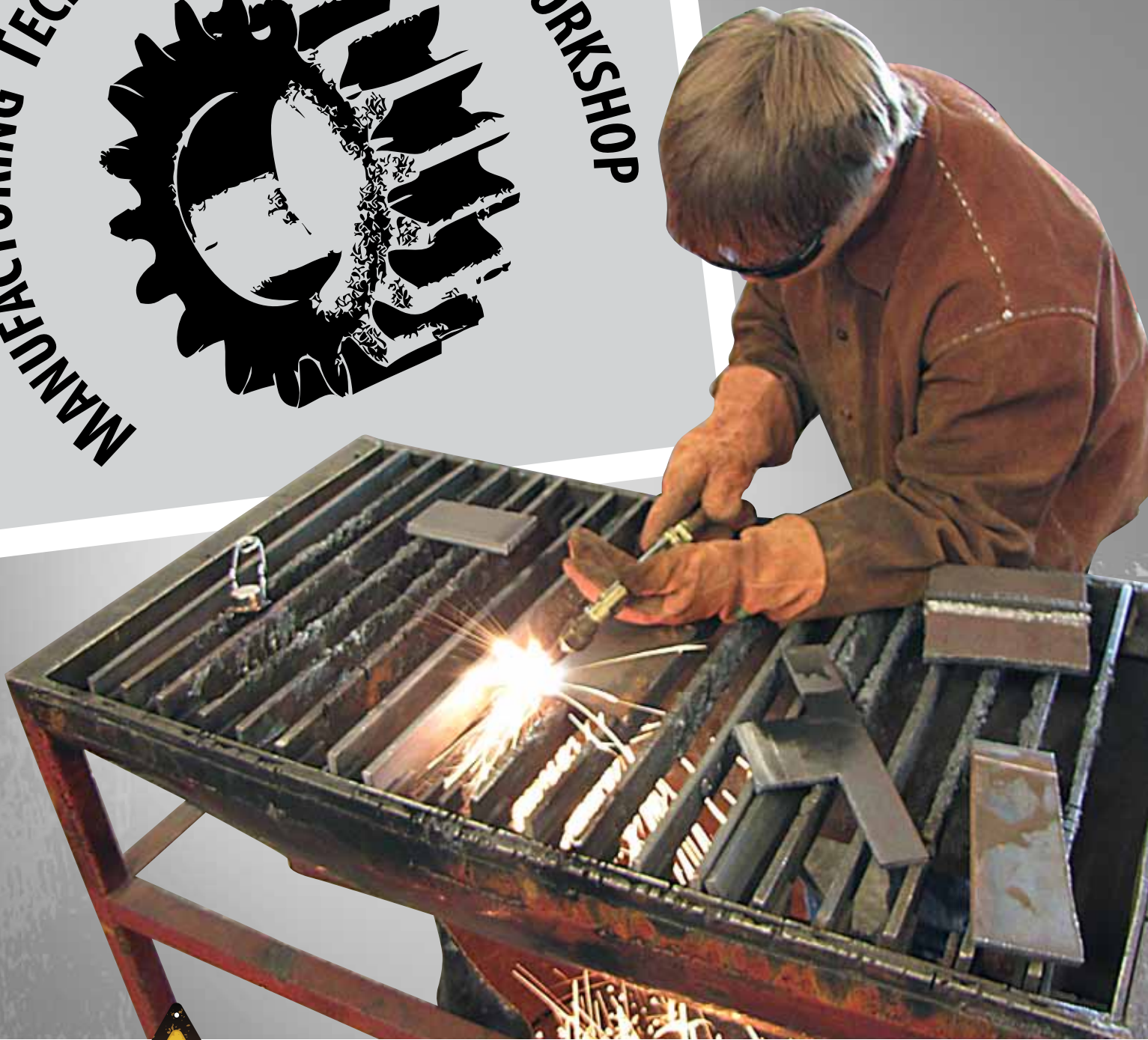


MANUFACTURING TECHNOLOGY HANDS-ON WORKSHOP



EVENT PLANNING TOOLKIT

Overview and Guidelines for a
Safe and Successful Event.



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Washington State Department of
Labor & Industries

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An Overview

The Manufacturing Technology Hands-on Workshop (MTHW) provides high school students with a tremendous opportunity to visit with college-level instructors and manufacturing professionals to learn valuable, high-wage skills used in the construction industry. MTHW is meant to encourage students to take interest in the community's manufacturing industry employment and apprenticeship opportunities.

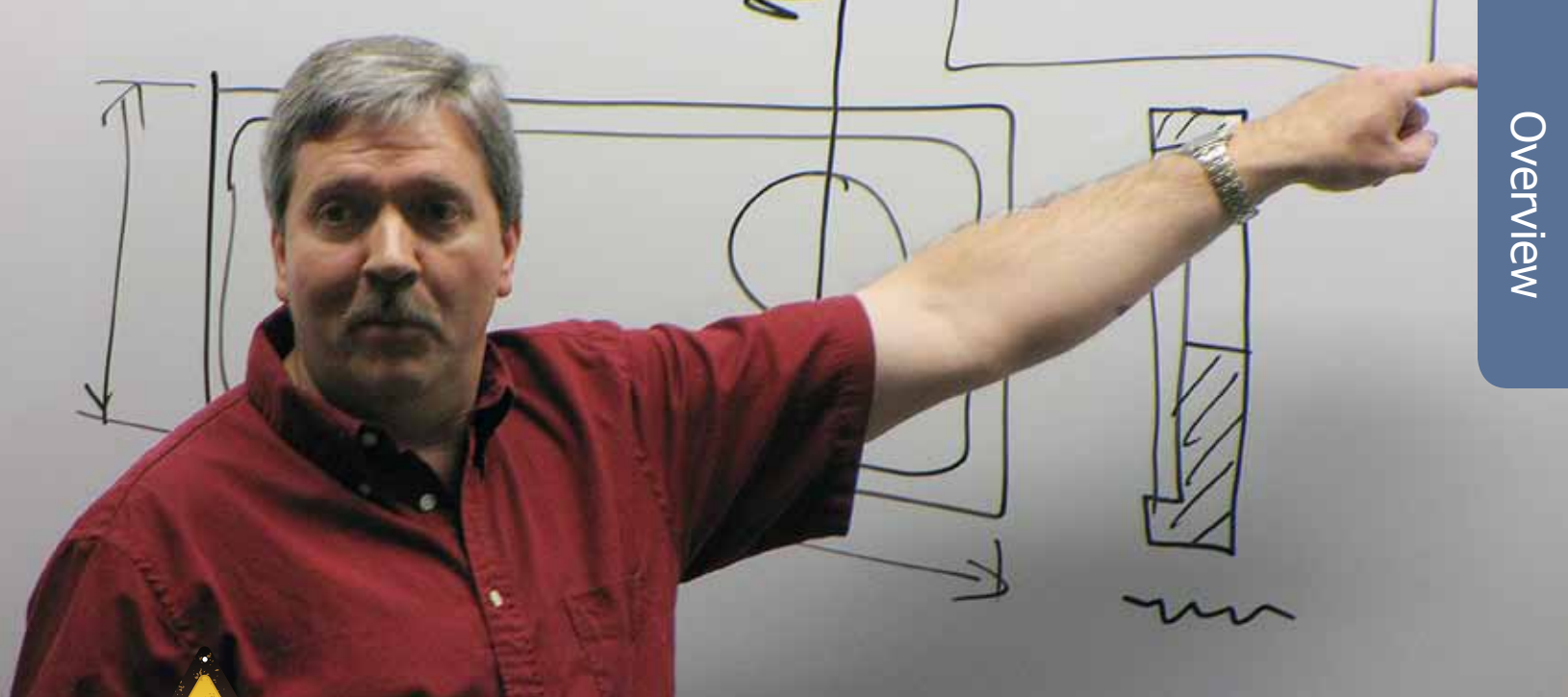
As one of the largest industries, the manufacturing/engineering industry is facing a severe shortage of skilled young talent. In an attempt to fill open positions and careers, MTHW is exposing students to this industry. Students from all over the region are invited to participate in a three-week workshop on the Spokane Community College campus.



After an in-depth safety orientation, students are placed into three areas of focus in technology application, manufacturing facility tour and an industry career day. Students acquire three weeks of learning the industry technologies such as, Computer Aided Design (CAD)/industrial drafting, Computer Numerical Controlled (CNC) machining and welding. Students tour a local manufacturing facility to learn how transferable the skills are from the classroom to the workplace. At the workshop's conclusion, multiple manufacturers host a Career Day where students are able to ask questions regarding employment, internship and apprenticeship opportunities. MTHW successfully exposes and engages students to the manufacturing industry, providing options for a seamless transition upon high school graduation.

Instructors from major manufacturing firms teach CAD to MTHW participants.





The Big Five

Listed below are the key components for your Manufacturing Technology Hands-on Workshop event.

Safety

The safety, health and welfare of participants, guests and organizers must always be the first and foremost consideration in the planning, managing and administration of any event. With the cooperation of the Department of Labor and Industries (L&I), a thorough safety orientation is provided, regarding Personal Protective Equipment (PPE) and the skills to be introduced over the course of the workshop. Students gain knowledge of the proper use of PPE while learning how to correctly identify potential safety hazards.

Hands-On Applications

Please remember this cannot be possible without the help of L&I and the emphasis of safety. Hands-on activities provide students with the opportunity to perform job-related skills and functions in a controlled environment. Technology includes Computer Aided Design (CAD), Computer Numerical Control (CNC) machining and welding.

Facility Tour

Students tour a manufacturing facility allowing them to connect skills learned in the classroom and apply them to career skills used in the construction industry. This tour is designed to clarify the relevance of classroom skills to the application in the work force.

Industry Career Day

Hosted by multiple manufacturers in the industry, career day provides students with an opportunity to join an apprenticeship or internship to apply the skills learned in the classroom to career options of their interest.

Promotional Take-Aways

Backpacks, industry information, water bottles, T-shirts as well as manufacturing-related giveaways are some of the varying gifts for the students.

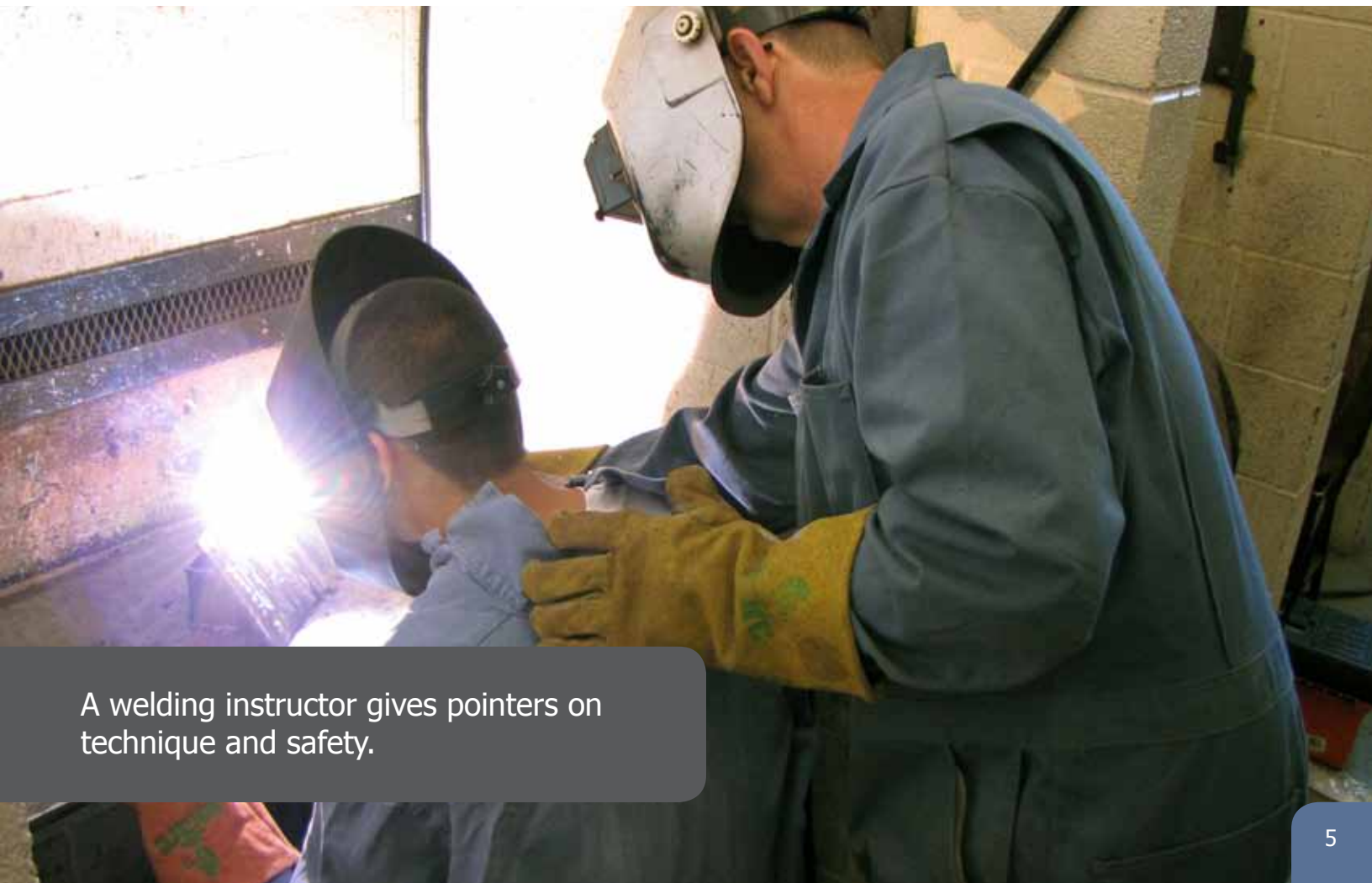


Safety First

The presentation and continuation of the event is secondary to safety as it is an integral part of the event. An accident is not necessary to breach health and safety laws. In planning and managing the event, safety takes precedence over all other aspects and is never an afterthought.

All students operating tools or equipment are required to wear hard hats, safety glasses, earplugs (hearing protection can be optional for some activities), closed toe shoes or boots and full-length pants. This is reinforced by notifying the students, parents, teachers and administrative staff that students or chaperones will not be allowed to participate if they are not in compliance with all rules.

Welding without the proper precautions can be dangerous. However, with the use of new technology and proper protection, risk of injury can be greatly reduced. Welders wear Personal Protective Equipment (PPE) such as heavy gloves, protective long sleeve jackets, goggles, ear plugs and welding hoods with dark face plates. PPE allows welders to safely engage in welding procedures shielding them from open electric arc or flames, burns and UV light and excessive noise involved with welding.



A welding instructor gives pointers on technique and safety.



Participant & Guest Expectations

All participants and guests are instructed before the event to wear proper attire. Students not in compliance cannot participate in activities.

What to wear and bring on welding and machining days.

- Jeans (long pants)
- Closed toed shoes (tennis shoes, boots)
- Layered shirt/jacket (indoor and outdoor events)
- A positive attitude





Timelines & Guidelines

Typically held in June, The Manufacturing Technology and Hands-on Workshop (MTHW) is a three week event taking place at the Community College Campus during summer break. In the first week of the event students undergo technology application and education. Midway through the workshop, students proceed to a local production facility tour. In commencement of the workshop, multiple manufacturers host a Industry Career Day, providing students with the opportunity to explore their interests in these career options.

The coordination of industry professionals, agency representatives and volunteers in order to provide a fun and interesting event for a large amount of students can be overwhelming. Below are tried and tested resources to assist in creating your own MTHW event. The link provided below is a sample timeline, developed after a few years of putting on the event. For a first time event, you may want to start planning a month or two earlier.

Timeline

Click on the icon for a complete timeline on [how to plan this event](#).

Little Black Book

Click on the icon for additional information about [forming a committee](#), [working with volunteers](#), [collaborating with educators](#) and [site selection](#).





Activities & Equipment

Activities and Events provide students with the opportunity to perform job-related skills and functions in a controlled environment.

Technology Application

The participating students acquire three weeks of learning in Computer Numerical Control (CNC) machining, welding, and Computer Aided Design (CAD) drafting. Students learn to use the techniques vital to the industry with provided state-of-the-art technology and equipment. Experienced equipment operators supervise students and explain machine functions. The key to each activity's success is student participation. Instructors and operators must be chosen carefully to ensure an interesting and dynamic delivery that gains and maintains the attention of the students.

Hands-On Activities

Activities provide students with an opportunity to perform job-related skills and functions in a controlled environment. Demonstrators provide all required safety gear as well as instruction on the operation of each tool. These activities are listed below:

Computer Aided Design (CAD)/Drafting: CAD is the use of computer technology for the design of objects in two dimensional and three dimensional compositions. CAD is a vital industrial art used in many applications, including automotive, ship building, aerospace, architectural design, prosthetics, etc.

Welding: Although welding has many applications and is quite complex, for basic purposes welding is the fastening of two pieces of metal together by softening with heat and applying pressure. Metals can include but are not limited to basic steel, aluminum, brass, stainless steel and even varieties of plastic or polymer.

Computer Numerical Control (CNC) Machining: CNC machining utilizes a collection of material-working processes in which power-driven machine tools, such as lathes, milling machines and drill presses are used with a sharp cutting tool to mechanically cut the material to achieve the desired geometry. Machining is a part the manufacture of almost all metal products and is also common for other materials such as wood and plastic. Much of modern day machining is controlled by computers using CNC machining.

Career Day/Graduation

Hosted by the sponsors of the event, students meet with the company representatives and [receive a certificate of completion](#). After three weeks of training in the activities listed above, the final day is dedicated to the explanation of the opportunities available in the field.





Get the Word Out

Newsworthy press release leads to great publicity that can be used in community relations efforts. Positive media coverage is a direct result of press releases sent to local media outlets. Unique in origin, Manufacturing Technology and Hands-on Workshop can peak the interest of local media and solidify coverage of the event. A simple narrative with digital hi-resolution (300 dpi) photos covering the event's background and purpose should be presented in person or sent directly to editors of local newspapers, magazines, TV, and radio stations. Attempt to schedule reporters and news organizations for the event. Oftentimes, the appearance of political figures and other significant persons in the community can create incentive for coverage. Publicity of smaller local media such as school papers and community cable channels should not be overlooked. It is best to send press releases and other information to a specific someone rather than the general front desk.

Below are two forms (permission slip and media consent form) required by Washington state for an event such as Manufacturing Technology Hands-On Workshop (MTHW). Both forms must be signed and returned to workshop organizers. Each state may have additional requirements for this event. Also provided below is a helpful link to a sample promotional poster.

Permission Slip

Click on the icon for an example permission slip.

Media Consent Form

Click on the icon for an example media consent form.

**MANUFACTURING TECHNOLOGY
HANDS-ON WORKSHOP**

Join Altek Inc., Mackay Manufacturing, Wagstaff and Wheeler Industries, Inc. (ASC, Buck Knives, Ground Force Manufacturing, Haskin Steel, Honeywell, L&M Precision Fabrication, Lloyd Pans, Pearson Packaging, Proto Technologies, Reliance Trailer, Triumph Group, Tate Technology TBA) at Spokane Community College for the **Manufacturing Technology Hands-on Workshop**.

The above companies are offering **\$200 scholarships** for all participants make the event free-of-charge and address three focus areas:

- 1) CAD/drafting
- 2) Machining/CNC
- 3) Welding

Subjects will be taught interactively with area professionals. Job, networking and career opportunities will be presented. Interested students and instructors can **RSVP** by E-mail at: wgriffin@scc.spokane.edu or call (509) 533-8194.

Space is limited. The **DCED deadline is May 20, 2008**

ALTEK **MACKAY** **WAGSTAFF** **WHEELER INDUSTRIES, INC.**

9 A.M. – NOON (LUNCH) 1 P.M. – 4 P.M.
MONDAY - FRIDAY • JUNE 16 – 20, 2008
SPOKANE COMMUNITY COLLEGE • 1810 N. GREENE ST. • SPOKANE, WA 99217

Community College of Spokane does not discriminate on the basis of race, color, national origin, sex, disability, sexual orientation or age in its programs, activities or employment.

Promotional Poster

This link provides a successful Manufacturing Technology Hands-On Workshop poster of a previous event. Ensure these are readily available. Posters advertise the event to students and are also useful in solidifying prospective sponsorship.

Sample Poster

Click on the icon for a sample Promotional Poster.

Special Thanks to:



CCS TECH PREP



Production Team: Brynn Knudsen, Kodi Meador, Paul Warner

For more information on Manufacturing Technology Hands-On Workshop please contact: Lisa White at lisawh@spokaneschools.org



Funding and support for this project has been provided by the State of Washington, Department of Labor & Industries, Safety & Health Investment Project.