

2024

PRODUCTION & MANUFACTURING INSTITUTE



Advancing the Future of Advanced Manufacturing & Trades

Business Partnership Prospectus



www.manufacturinginstitute.net



WELCOME TO THE INSTITUTE

A Summer Intensive Program to EXPERIENCE a Career in Manufacturing & the Trades

WE TAKE A DIFFERENT APPROACH

Creating Opportunity

Students look for opportunities to explore careers. Unfortunately, they don't have the same opportunities many of us had to take shop class, use tools, work on cars, or do other activities that might lead them to their "calling." We know that giving kids the right opportunity is all it takes to help them succeed.

It's NOT a Camp

It's An Experience

The Manufacturing Institute is a 3-week intensive program for high school juniors and seniors to simulate the world of production. They work in teams to design, build, and manufacture products to sell to real customers. Along the way, they visit manufacturers, work with professionals, explore CNC and welding, learn about career tracks, and much more. They develop basic skills using hand tools, power tools, plans, and soft skills gained as they work as a team. It's a lot to pack into 3-weeks!



How It's Different

We Reward Them

Graduates who successfully complete the program not only gain experience, but also access valuable rewards. As participants engage, they earn points as individuals, teams, and as a company. Points translate to credits they can use to "purchase" valuable incentives including tools, supplies, apparel, equipment, and other career or personal products.

They Earn High School Credit (CTE)

Students earn CTE credit by completing the program. (We are working on plans for college dual credit.) Students learn principles of operations, design, manufacturing, teamwork, sales, quality, and other competencies employers need. Then we implement their learning to make and sell those products for real customers. We ask a lot, so we give a lot.

Why We Need Your Support

The program runs on donations. Costs include rewards, materials, and overhead. School districts cover the instructors, and other help is provided by volunteers. Almost all costs are associated with direct program related expenses. Your donation goes directly to supporting students in the program. We work through the Spokane Workforce Council as our 501(c)(3) partner to maintain a non-profit status for your donation.

WE DEVELOP FUTURE TALENT

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"Despite a record level of new hires, job openings in the industry are still hovering near all-time highs." (Deloitte)

The talent shortage in manufacturing will be permanent.

THE INSTITUTE DOES SOMETHING ABOUT IT



Career Explore

The Institute is a great way for students to gain hands-on exposure to the industry and learn what it's about. We explore several careers, companies, and roles within manufacturing.

Career Prep

For students who know they want to go into manufacturing, the Institute helps define a career path. As they gain team and technical skills, participants prepare for the next steps in production and manufacturing.

Participants learn about jobs and functions in Manufacturing & Trades

Engineering – Machining – Welding – Design – Research – Construction
Maintenance Mechanic – Millwright – Aerospace Technician – Assembly
Operations – Business – Product Management – Quality Management

...and many more!



AT THE INSTITUTE



Real Experience

Learning happens best when it is experienced. Students design, plan, produce, market, and sell what they make. From start to finish, students are exposed to all aspects of business and what it's like to be a part of a team, business operations, quality, management, and production.

Real Production

We simulate manufacturing, engineering, and construction experience over 3 weeks. Participants operate in teams as a product line as they make products that meet customer needs.

Along the way, participants learn how to use tools, work in a production environment, meet quality standards, and achieve goals. Most importantly, they gain workplace skills that help them succeed no matter their career pathway.

Real Exposure

Here's what we don't do... Participants won't come out as skilled technicians. They gain several new skills, but the bigger benefit is providing "The Big Picture" of how business works from beginning to end.

We cover customer service, quality, community, and operations. We also teach soft skills of communication, job readiness, interpersonal skills, and professionalism. Along the way, we also create field trips that expose attendees to how manufacturing in multiple settings.

Real Advantage

By the end, our graduates are better prepared to face what lies ahead for their future - no matter the career. While we hope this program encourages a future in Manufacturing, we know the Institute will prepare all participants for any profession they choose.

OUR STORY

In 2018, the idea emerged to offer students an opportunity to EXPERIENCE the trades. Recognizing the need was greater than one company could tackle, Dr. Wade reached out to manufacturers for support and the program has grown ever since. Today it includes several employers working together to develop tomorrow's workforce.



Vision

Our goal is to create a scalable and replicable model. As we run each year's program, we seek opportunities to enable the program in any location and industry.

We launched the program with a single cohort of 20 participants. Last year, we grew to 4 locations, and this year, we will be offering the Institute in several other locations.

The Institute partners with youth, parents, educators, and employers to develop and prepare a qualified workforce in the trades.

Origins

The Institute incorporates principles that were inspired from several sources:

SHOP CLASS

Larson's high school shop teacher, Mr. Bridgeman (Elgin, OR), included a student run business. It exposed students to several areas of industrial arts while teaching life skills along the way.

YOUTH PROGRAMS

The Institute focuses heavily on learning by doing. We explain and demonstrate key principles, and then get out of the way. Students are given guidance, and success comes by helping participants through self-discovery. As we evaluate ways to improve, learning happens.

BUSINESS COMPETITION

We also built in principles incorporated by other programs that include competition with learning. Through teams, students learn to work together to achieve goals.



THE INSTITUTE TIMELINE

YEAR 1

2019
FIRST COHORT
20 Students



PANDEMIC

2020
Academy Aborted
150+ Applicants

YEAR 2

2021
18 Students

Thanks to our sponsors, education partners, attendees, and community, the Institute is now entering its 5th year of operations. Its success has created an unprecedented demand to expand attendance, locations, and industries.

Our goals are to:

- Prepare tomorrow's advanced manufacturing and aerospace workforce
- Develop essential skills needed to achieve personal and professional success
- Bridge the gap between business and K12 to align and accelerate career preparation

YEAR 3

2022
2 Locations
(Newport Added)
36 Students

YEAR 4

2023
4 Locations
Name Change
65 Students

YEAR 5

2024
Anticipated 8+ Locations
120-180 Students



WHAT WE DO

Here are just a few of the activities and outcomes.

Hands On Manufacturing

Teams are assigned to design, make, manufacture, and sell a specified quota of products. Each team is a product line within the organization. They are provided instruction along the way, but the team figures out together how to successfully manufacture their product. This includes creating and executing the business plan to market and sell all their products along the way.

Exclusive Tours

Participants take part in exclusive tours of local manufacturers. They are given a "behind the scenes" view of how manufacturing takes place within real businesses, what jobs are available, and what it takes to get from where they are to move into those positions. Attendees will meet with company executives and have access to Q&A with industry experts to answer any question related to career pathways to help them get into the career of their choice.

Workplace Skills

Making the products are a small part of the Institute. While we make a lot of products, the real learning comes as we help attendees learn how to be successful in preparing to be effective workers. We give them tools in career preparation, professional development, tips and tricks of job hunting (including resumes and interviews), soft skills training, and many insider-track opportunities that will put them ahead of the competition.

Special Career Pathways Access

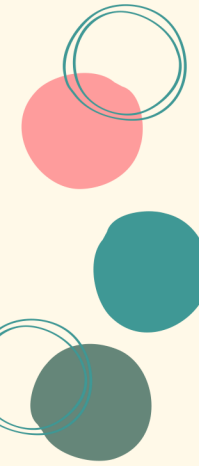
We provide attendees with exclusive access to career pathways assistance for those seeking to continue with Spokane Community College, 4-year university programs, apprenticeship programs such as Machinists Institute and AJAC, or other post-high school programs.

Industry Experts

Institute attendees have access to professionals within their field of choice as we bring in presenters, coaches, and mentors from engineering, welding, machining, design, and other fields. We give participants access to those who want to ask questions on how to get from where they are to where they want to go. We know that mentoring can help accelerate career growth, and this can provide them the access they are looking for.

Access to Employers

Our sponsors represent the best employers. We give participants direct access to the best jobs and employers! Graduating from the Institute is a noteworthy achievement on any resume!



HIGHLIGHTS

Here are just a few of the many experiences offered to participants.



WELDING DAY

Though some projects may include welding for teams, all participants get the opportunity to try out welding. While we don't claim to make participants better welders (or welders at all), it gives them exposure to new careers first-hand.



SCC MACHINING DAY

Students visit Spokane Community College onsite, learning from SCC faculty to use full scale machines such as CNC mills and completing projects. Participants learn how to take the next steps to post-high school training programs.



INDUSTRY TOURS

Participants visit sponsoring manufacturers to learn about their company, what they make, and how they do it. Students learn from the pros about real manufacturing, available careers, and how things operate in different companies.



REAL MANUFACTURING

Students work as production units, designing and building designated products. Participants use tools of the trade, learn how to build in a production setting, and manage quotas, order changes, and shifting priorities just like they would at work.



CUSTOMER ENGAGEMENT

The best manufacturers understand the connection to customers. The Institute engages students in marketing and selling to see the end result of their efforts. Designing and building products with the customer in mind helps students understand quality, value, and pride in their work.

COMPETENCIES

WHAT WE TEACH

The Institute experience is different for everyone. We cover a broad range of skills and knowledge common to advanced manufacturing and aerospace. Typical competencies include:

TECHNICAL SKILLS

- Intro to design & drafting
- Measurements
- Materials
- Small hand tools
- Shop equipment (saws, drill press, etc.)
- Production planning
- Intro to welding
- Intro to machining
- Intro to product assembly
- Intro to product finishing
- Intro to quality management
- Intro to print reading
- Intro to production planning

BUSINESS SKILLS

- Intro to business plans
- Intro to market research
- Intro to product design
- Intro to competitive analysis
- Intro to customer analysis
- Intro to marketing
- Business analysis
- Product sales and promotion
- Customer service
- Product pricing
- Supply and demand
- Organizational communications
- Inter-departmental collaboration
- Intro to operations management

SOFT SKILLS

- Interpersonal communications
- Teamwork
- Planning
- Goal setting
- Leadership
- Time management
- Problem-solving
- Creative-thinking
- Crisis management solutions
- Group-based learning
- Interpersonal collaboration
- Team-based work dynamics
- Solution-oriented approach
- Respect-driven work environment
- Professional growth
- Personal development

CAREER READINESS

- Preparing for a job
- Arriving to work on time
- Building a strong work ethic
- Pride in quality work
- How to find a career path
- Career interest search
- Post high-school preparations
- Preparing for a job or career
- Post-high school training or education
- Resume writing & cover letters
- Interviewing skills
- LinkedIn and other social media skills
- Exclusive connections with Spokane Community College & apprenticeships
- Career path readiness exercises

Our goal is to EMPOWER each Institute graduate to be successful in their careers as they gain the knowledge, skills, and abilities to achieve their personal and professional goals.

VALUE PROPOSITION

WHAT WE GET

In Manufacturing, our output depends on the quality of process, materials, equipment, expertise, and attention to detail. In other words, you get what you put into it. We have put a lot into making this program the best, and thanks to your support, we can continue to deliver our promise. Here's what we've seen so far.



INSPIRED PROFESSIONALS

Many participants never had exposure to advanced manufacturing, aerospace, production, or even the shop prior to this program. In many cases, students have pursued machining, welding, engineering, and other professions as a result.

WOMEN IN MANUFACTURING

Our program has always focused on attracting female participants. We know we have struggled as an industry to attract and retain women in manufacturing and aerospace. In most years, we have consistently been near 50% female enrollment.

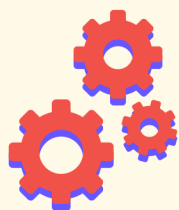


LEADERSHIP

Participants trade off as team leaders to have the opportunity to give guidance, run team meetings, coordinate work orders, and serve in the capacity as Team Leader. In many cases, this is the first opportunity to lead a group. We provide hands-on exposure to serve in a production lead capacity to each person.

HARD WORK

Manufacturing and aerospace is about "GSD" - Getting Stuff Done! We instill this principle in participants with heavy (but achievable) quotas, rewards, and pride in a job well done. Many do not have the opportunity to engage in hard work they can feel good about and see the fruits of their labors. We do.



ACCOUNTABILITY

We hold our participants accountable. They are expected to meet the terms they agree to as a part of the Institute. Just like work, if they don't live up to it, they are coached, guided, and mentored if they are willing to improve - but ultimately no one gets a free ride. Our graduates have proven themselves (or they don't graduate).

RELIABLE WORKFORCE

Institute Graduates have proven themselves to be consistently reliable and successful in demonstrating the skill sets employers want and need. They stand out as fast learners, high performers, and competent workers who are the future of Advanced Manufacturing and Aerospace.



CAREER PATHWAYS

PROMOTING MULTIPLE CAREER PATHS

The Institute introduces students to multiple pathways to pursue careers in manufacturing. We recognize that people learn differently and require different paths. As manufacturers, we know competencies (knowledge, skills, abilities) can be gained different ways. The Institute introduces multiple paths.



DEGREE

Degrees such as Engineering require 4-year degree programs. Others may require 2-year degrees such as CNC Machinists, Designers, and Welders.

CERTIFICATE

Paraprofessional and 1-year certificates train individuals in core competencies that get them to work fast. These may benefit careers such as entry-level Welders, CNC Operators, Assemblers, and Maintenance Mechanics.

APPRENTICESHIP

A hands-on learning approach is used through apprenticeships to teach competencies. Careers may include CNC Machinists, Welders, Production Workers, Construction, and other trades.

CREDENTIALS

Industry recognized credentials (IRC) are another way to gain recognized training within careers. For example, Welders may earn AWS certifications and CNC Machinists may earn NIMS certifications. These teach similar bodies of knowledge for careers.

TRAINING

Opportunities exist for those who want to go from high school into work to begin on-the-job training programs, work-based learning, in-house certification programs, and more. Other programs for career prep may include Running Start, Dual Credit, Core Plus, and more.



THE INSTITUTE INVESTMENT

PROGRAM COSTS

Then Institute achieves amazing outcomes and demonstrates a clear return on investors' contributions. Program costs are primarily wrapped into three areas.

REWARDS

The Institute offers rewards to program participants who graduate from the Institute. They are designed to recognize accomplishments and provide a way to attract attendees that is competitive with summer jobs. We rely on sponsor donations to purchase these rewards that go toward tools, materials, equipment, and other career-related or personal incentives.

PROJECTS

The Institute covers the cost of materials for all projects. Actual costs depend on the projects chosen. While the projects are sold through the program, materials must be pre-purchased. Revenues (and any profits) are reinvested into the program.

EXPENSES

There are other overhead expenses to run the program. These include instructional costs, binders, t-shirts, classroom materials, food, admin support, tool replacement, transportation to locations, etc. While nominal, it adds up.



EDUCATION PARTNERS

Institute Education Partners (School Districts) cover significant overhead such as facilities, instructors, busses, and equipment. They also provide CTE credit and operational costs. These investments make the Institute partnership work.

Other hard costs for stipends, projects, and direct expenses rely upon the generous contributions from private employers and donors. We appreciate the combined annual support to make this work!



2024 PROGRAM GROWTH

PROGRAM NEEDS

With program growth comes the need for funding to cover the costs.

EXPANDED PROGRAM

The good news is we have requests to expand the program to additional sites. We expect programs at:

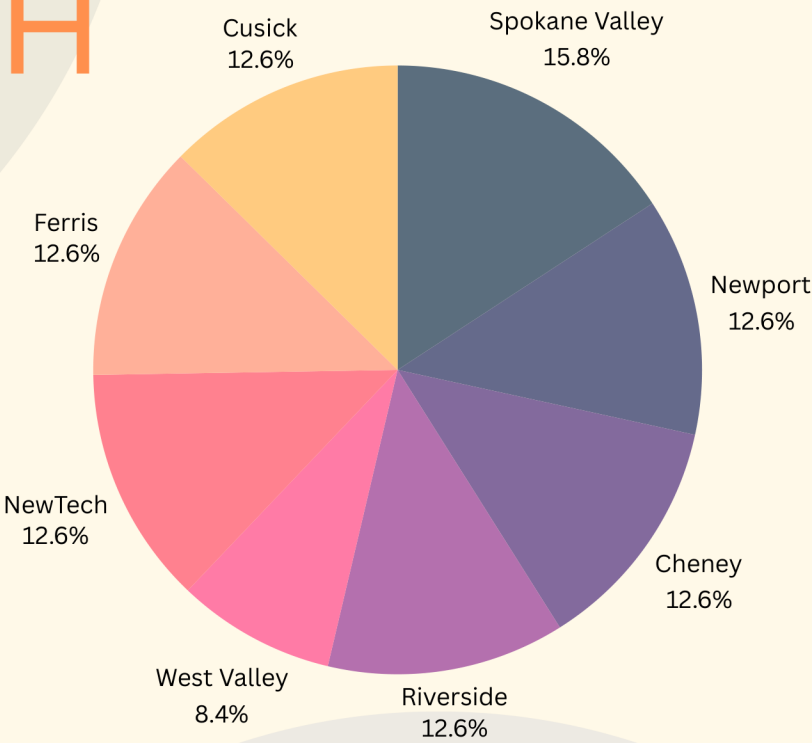
- **East Valley High School**
- **Newport High School**
- **Cheney High School**
- **Riverside High School**
- **Ferris High School** (New)
- **Monroe High School** (New)

Tentative

- **Cusick High School** (New)
- **West Valley High School** (New)

Our estimated 2024 enrollment will take us well over 120 **participants!**

This creates momentum for the trades in these locations.



THE CHALLENGE

The primary challenge is funding.

Each Institute requires costs to cover rewards, materials, and some overhead. Educational partners committed other resources - people, facilities, equipment, and dedication. We ask for your sponsorship to help us fund the program.

We appreciate our long-time sponsors who have been with us every step of the way and those who have recently joined the journey. We seek additional partners (especially in new regions) to help us grow.

There are multiple ways to assist - anything can help. This is a long-term development solution to create the talent we need for years to come. You can help.



INVESTMENT LEVELS

Anything is Welcome. The Following are Suggested.

	BRONZE	SILVER	GOLD	DIAMOND
	Up to \$2,500	\$5,000	\$10,000	\$15,000+
Business name listed on the Institute t-shirt as a contributor.*	X	X	X	X
Business contact information provided to Institute attendees.	X	X	X	X
Business receives contact info of all Institute participants.	X	X	X	X
Distribution of company information, branded swag, etc.	X	X	X	X
Access to tour the Institute during production.	X	X	X	X
Business listed on Institute website with link.	X	X	X	X
Company profile on the Institute website.	X	X	X	X
Small logo: t-shirt*, website, & materials.	X			
Medium logo: t-shirt,* website, & materials (premium placement).		X		
Large logo: t-shirt,* website, & materials (premium placement).			X	X
Extended business profile posted on Institute website.		X	X	X
Opportunity to deliver presentation to Institute.		X	X	X
Prominent mention in media, public events, banners, etc.			X	X
Designated location for field trip by one or more Institute group(s).			X	X
Media: (a) Workforce Wednesday session with Fox 28 and (b) Podcast session with Spokane Workforce.				X
Exclusive promoted video on website highlighting company and what it's like to work for it.				X

DONATIONS

We appreciate any help and investment you can provide. Donations are made through the Spokane Workforce Council and maintain non-profit status of your contributions.

*Subject to donation and submissions provided prior to printing deadlines.

HOW TO HELP

SPONSORSHIPS

Your financial support helps the Institute achieve its mission to expose and prepare participants for careers in the trades. Contributions go directly to:

- Student stipends
- Production materials
- Tools and equipment
- Program logistical support

The program relies entirely on sponsor donations. Our partnerships are the key to success. We appreciate your help.



NON-PROFIT DONATION

Your contribution helps prepare qualified workers for the future. Contributions are managed by the Spokane Workforce Council. As an Institute partner, contributions are designated as a non-profit donation.

PARTICIPATE

Several activities require "helping hands." Field trips, welding day, mentoring activities, in-class instruction, and others are best delivered by professionals. We have options for our partners to engage directly with participants to support the outcomes of the program.

ENGAGE

If you are in contact with a location near the Institute and can lend support, we have several opportunities for our sponsors to actively engage with participants, mentor them, and build a lasting relationship for the future.

PROMOTE

We love those who promote the Institute via social media, own websites, word of mouth, or any other method. It advances manufacturing and the trades in our region. As we support the program, we work together to achieve success.

READY? CONTACT US

Ready to help? Give us a call or send us an email to get started.

Email: support@manufacturinginstitute.net Call: **509-219-9997** (Optimal Talent Dynamics)

DIRECT DONATION LINK

If you'd like to donate directly through the Workforce Council website, go to:

<https://spokaneworkforce.org/donate-now>

PRODUCTION & MANUFACTURING INSTITUTE



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CONTACT INFORMATION

📞 509-219-9997 (via Optimal Talent Dynamics)

✉️ support@manufacturinginstitute.net

🌐 www.manufacturinginstitute.net

Direct Donation Link: <https://spokaneworkforce.org/donate-now>

Thank you to our 2023 high school partners!



Thank you to our past sponsors...



ControlFreek, Inc.
Merkle Standard

Altek

Associated Builders & Contractors
James A. Sewell & Associates



Wade Larson

Institute Program Director

DrWade@OptimalTalentDynamics.com

707-290-9121 (Cell)

The Career Connect Washington Program Builder Grant is funded through a USDOL Grant. To learn more about funding, follow this QR code.

