



CATALYST CONNECTION®
POWERING POTENTIAL

INDUSTRIAL MANUFACTURING TECHNICIAN

APPRENTICESHIP PROGRAM

Catalyst Connection's IMT Apprenticeship Program



Catalyst Connection’s Industrial Manufacturing Technician (IMT) Apprenticeship Program helps to address a leading concern of many manufacturing companies – a shortage of skilled workers.

The Industrial Manufacturing Technician Apprenticeship helps entry-level workers in manufacturing quickly enhance their skills and advance with their current employ-er. Due to changing manufacturing technologies, entry-level workers require higher skills than before and employers are struggling to recruit and retain these type of workers The IMT program is a state registered apprenticeship to help meet these employer needs.

NUMBERS AND STATISTICS

Apprenticeships offer a great opportunity for individuals to earn a wage while mastering skills and for employers to fill skills gaps. Manufacturers are facing the need to fill the gap as workers age out and fewer skilled workers can replace them. Apprenticeship Programs have positive impacts on the individual, workforce, and employers. Did you know...



3-5 MILLION

SHORTFALL

3-5 million worker shortfall in manufacturing that apprenticeship programs help address.



\$37,172

STUDENT LOAN DEBT

College isn't for everyone. Students are graduating with an average of \$37,172 in student loan debt with no clear career path.



\$300,000+

APPRENTICESHIPS

Workers who complete apprenticeship programs earn approximately \$300,000 more during their career than their peers who do not.



\$1.47 BACK

PRODUCTIVITY

\$1 spent on apprenticeship =
\$1.47 back in productivity

APPRENTICES BENEFITS INCLUDE:

- Improved skills and competencies that meet the specific needs of the employer
- Incremental wage increases as their skills improve
- On-the-job training and occupation focused education
- Career advancement
- Industry issued, nationally recognized credentials
- Articulation agreements between certain apprenticeship training programs and 2- and 4-year colleges that create opportunities for college credit and future degrees

EMPLOYERS BENEFITS INCLUDE:

- Customized training that results in highly skilled employees trained to industry/employer specifications
- Increased productivity and knowledge transfer due to on-the-job learning from an assigned mentor combined with related technical instruction
- Enhanced retention 87 percent of program completers in 2011 were still employed nine months after completing their apprenticeship
- Emphasis on safety training that may reduce workers' compensation costs
- A stable and predictable pipeline for the development of qualified workers
- Recognition of the training program
- A systematic approach to training that ensures that employees are trained and certified to produce at the highest skill levels required for that occupation
- The ability to conduct a ready assessment of where the employer and employee are in terms of the continuous improvement process
- A proven training model that allows employers to set the benchmark and the structure that can determine the Return on Investment in training dollars
- Versatile and multifunctional human capital investment in order to respond quickly to market conditions
- Create a culture of continuous learning and improvement to meet the needs of the next generation of industrial workers

KEY FEATURES OF THE IMT APPRENTICESHIP PROGRAM:

- Stackable apprenticeship that is a foundation for multiple career pathways
- Easily adapted for different manufacturing contexts, different sized companies and different types of manufacturing schedules
- Leads to industry-recognized credentials as well as college academic credits
- Employers pay wages for the duration of training and workers receive wage increases upon completion of the apprenticeship
- Apprentices are regular, full-time employees and earn regular wages while they complete training



WHAT IS IMT?

This registered apprenticeship program is a hybrid approach providing production workers with the knowledge and competencies needed in the advanced manufacturing environment. A hybrid approach integrates time-based learning combined with competency-based training.

Registered apprenticeships utilize an “Earn and Learn” approach to building worker skills. The IMT program provides 3,000 hours of structured technical instruction. This instruction is comprised of 2,736 hours of on-the-job training (OJT) from experienced mentors assigned by the employer and 264 hours of related technical instruction. All IMT apprentices are employees of a specific company, earning wages, benefits, and seniority while they learn new skills.

TRAINS WORKERS TO:

1

Set up, operate, monitor and control production equipment

2

Help improve manufacturing processes and schedules to meet customer requirements

3

Understand manufacturing as a business system that integrates multiple disciplines, processes and stakeholders

4

Efficiently and safely manage raw materials/consumables



IMT ON-THE-JOB COMPETENCIES

- Protect self and other workers from accidents and injuries
- Set-up production equipment
- Operate production equipment
- Produce Quality Products
- Interpret technical information
- Measure and inspect work using mechanical tools and testing equipment
- Demonstrate knowledge of inventory and material processes
- Demonstrate knowledge of trends and the current state of the business
- Demonstrate continuous improvement
- Tailored options

ON-THE-JOB TRAINING

OJT follows a competency based model which utilizes the supervision of a training mentor as IMT apprentices are assigned tasks that build their skills and competencies in the full range of the production work cycle within their company. The OJT is delivered in accordance with a carefully developed training plan. This plan, called the Job Book, spells out detailed competency levels for skills including equipment set up and operations, safety, routine equipment maintenance, use of mechanical tools and testing equipment. The Job Book allows for customization to each company's specific systems.

Each apprentice is assigned an experienced mentor who demonstrates new skills, observes and provides feedback on the apprentice's performance and signs off on the date when the apprentice shows mastery of the demonstrated skills. When the employer determines the apprentice has mastered all of the skills and competencies in the Job Book, it is then reviewed before awarding the completion credential.

RELATED TECHNICAL INSTRUCTION

Apprentices must successfully complete courses in industrial math, industrial communications, manufacturing technology systems and processes, industrial blueprint reading, OSHA 10 and First Aid/CPR to obtain their IMT registered apprenticeship credential.

185 hours of the related instruction will be standard in the program. These 185 hours include four modules of the MSSC Certified Production Technician curriculum. Each of these modules include an exam, which once completed, earns an apprentice a Certified Production Technician certificate, which is nationally recognized.

The instruction also includes courses on interpersonal skills, lean manufacturing and practical problem solving.

The additional 79 hours of related technical instruction can be customized to meet each company's specific technical needs.



COURSES FOR RELATED INSTRUCTION:

4 Manufacturing Standards Skills Council (MSSC) modules:

- Safety
- Quality practice & measurement
- Manufacturing processes & production,
- Maintenance awareness

Industrial Math for the Trades and blueprint reading

Communication for the Trades

First Aid/CPR

OSHA 10

Train the Trainer

Lean Manufacturing 101

Interpersonal Skills

Practical Problem Solving

Additional requirements identified by employers

ADDITIONAL RELATED COURSE EXAMPLES:

Geometric Dimensioning & Tolerance

MSSC module practice exams

5S System for Workplace Organization

Effective Root Cause & Corrective Action

Fundamental Employment Skills

Cellular Flow Manufacturing

CLASSROOM TRAINING & PRICING

Classroom trainings take place over an 18-month period.

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Classroom Training	Hours
Train the Trainer	8
Manufacturing Skills Standards Council (MSSC) Training	90
Communication/Math for the Trades	30
Lean 101	8
Practical Problem Solving	8
Interpersonal Skills	24
OSHA 10	15
Apprenticeship Support	60
Customized Training	79



Catalyst Connection regularly receives state and federal funding to offset costs. Contact us to learn more about our applicable grants and/or cost savings structures.

Contact Mara Peduto at mpeduto@catalystconnection.org for eligibility or more information on applicable grants to offset apprenticeship investments.

 IMT

APPRENTICESHIP PROGRAM



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Catalyst Connection is an economic development organization dedicated to serving small and mid-sized manufacturers. Our business model includes outreach and education to the community, assessment and planning for business growth and continuous improvement initiatives, implementation support, and measurement and evaluation of project and organizational success. Catalyst Connection's success is measured by the success of the clients that we serve based on their sales growth and sales retained, costs savings, investments, and jobs created and retained. Our success is also measured by the number of companies that we serve and the revenues that we earn.

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www.catalystconnection.org

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