Apprenticeship in Indiana and Ivy Tech Community College
Executive Summary
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In Indiana, apprenticeship is a workforce development strategy that works. The state has the second highest number of apprentices in the nation. Ivy Tech Community College, the largest single-accredited statewide community college system in the country, provides apprenticeship training to over 100 Hoosier companies. As the preferred training provider in Indiana, Ivy Tech is a leader in apprenticeship training and provides training to more than half of the apprenticeship programs in the state. Across the various economic sectors, the college has over 6,000 apprentices and is working with companies like FCA-Fiat Chrysler to develop youth apprenticeship programs with local high schools ensuring a pipeline of highly skilled workers.

Ivy Tech’s award winning programs serve globally recognized partners including Cummins, Eli Lilly, Honda, and Allison Transmission. An example is the Advanced Automation and Robotics Technology (AART) pathway. This work and learn strategy offers hands-on learning with modern equipment in classes taught by faculty who have spent their careers working in manufacturing. The AART program is designed to prepare students for the modern manufacturing environment, with a focus on a systems based approach. Student competencies include troubleshooting automated manufacturing equipment including PLCs, robotics, pneumatics, hydraulics, and motors and controls. For even more real-world experience, the AART program offers the opportunity for a paid internship at local companies.

Ivy Tech works with all sector employers across Indiana to design and deliver customized training with national certifications embedded in stackable degree programs. The College, through its workforce alignment division is customer-centric offering innovative and creative training solutions applied to real world scenarios.

Apprenticeship, an example of one training solution, has proven itself to be the most effective model for enhancing companies’ performance and competitiveness. Apprenticeship is an “earn and learn” model that is a flexible training strategy that can be customized to meet the needs of every business. It combines work-based learning with related classroom instruction using the highest industry standards. It is a proven solution for recruiting, training, and retaining world-class talent.

The benefits of apprenticeships are significant and measurable:

- Reduced turnover
- Pipeline for new skilled workers
- Increased competitive edge in global community
- Skilled workers trained to industry/employer specifications to produce quality results

Indiana’s economy is critically linked to manufacturing. As a solution to address industry demand, Ivy Tech offers relevant, nationally recognized apprentice programs of study that promote higher education/industry/community partnerships in order to provide critical manufacturing career pathways. Utilizing the statewide community college system – whose mission is to provide education and training that prepares Indiana residents to learn, live, and work in a diverse and globally competitive environment by delivering professional, technical, transfer and lifelong education – Indiana and Ivy Tech strengthen industry and the economy by closing the skills gap in the Manufacturing industry.
Solutions for Industry
Companies in all sectors of the American economy are facing complex workforce challenges in increasingly competitive domestic and global markets. Registered Apprenticeship is your proven solution for recruiting, training, and retaining world-class talent.

**America’s Growing Talent Gap**

American industry is the foundation of our country’s economic competitiveness and prosperity. The challenge? Significant talent shortages and skill gaps are slowing companies’ efforts to expand, innovate, and thrive. Among these challenges:

- An aging workforce of highly-skilled and experienced workers
- Attracting new and more diverse talent pools
- Closing gaps in workers’ skills and credentials
- Investing in talent that can keep pace with the latest industry advances
- Implementing workforce training models that effectively develop and “up-skill” talent

These workforce challenges undermine your productivity and profitability. The good news? There is a proven solution to meet your talent challenges: Registered Apprenticeship. It can be integrated into your organization’s current training and human resource development strategy. **Invest today!**
Registered Apprenticeship: Your Talent Development Solution

Hundreds of thousands of employers across the U.S. and among our global competitors use the Registered Apprenticeship training model to recruit, train, and retain workers with the right skills. Registered Apprenticeship has proven itself to be the most effective training model for enhancing companies’ performance and competitiveness.

As our apprenticeship program nears the 75-year anniversary milestone, it remains a critical part of our U.S. workforce development efforts, our operational requirements, and our training strategy for meeting future business needs.

— Steve Majer
Human Resources Manager
Ford Motor Company

What is Registered Apprenticeship?

It’s a national system of industry-driven on-the-job training delivered through partnerships with companies like yours. With a network of over 150,000 employers in more than 1,000 occupations, Registered Apprenticeship has trained millions of apprentices for over 75 years. Registered Apprenticeship is an “earn and learn” training model that combines work-based learning with related classroom instruction using the highest industry standards. When you establish a Registered Apprenticeship program, you develop a world-class workforce and enhance your company’s bottom line.

How Can Registered Apprenticeship Help Your Company?

Companies realize a number of benefits from implementing Registered Apprenticeship programs. Through Registered Apprenticeship, you will:

- Recruit and develop a highly-skilled workforce
- Diversify your workforce
- Improve productivity, profitability, and your bottom line
- Create flexible, customized training options
- Standardize training so all workers receive the same national, industry-endorsed training at all facilities
- Reduce turnover and liability costs
- Receive tax credits and employee tuition benefits in participating states

Partner with Registered Apprenticeship and access a nationwide network of expertise, customer service, and support. Our Registered Apprenticeship team creates business solutions and helps you achieve workforce results quickly.

HAVE QUESTIONS?

For more information on Registered Apprenticeship and how it can benefit your company, please visit www.doleta.gov/oa or call (202) 693-2796.
# Registered Apprenticeship: A Solution to the Skills Shortage

## What is Registered Apprenticeship?
Registered Apprenticeship is a training system that produces highly skilled workers to meet the demands of employers competing in a global economy. A proven strategy, Registered Apprenticeship ensures quality training by combining on-the-job training with theoretical and practical classroom instruction to prepare exceptional workers for American industry. The process of apprenticeship program registration with Federal and State government agencies is standards-based. It is a process designed to ensure that working apprentices, program sponsors, and the general public can gain a clear understanding of the training content and the measures that are in place to ensure ongoing quality.

## Who Does Registered Apprenticeship Serve?
In the U.S. today, some 37,000 program sponsors, representing over a quarter million employers, industries and companies, offer registered apprenticeship training to approximately 440,000 apprentices. These training programs serve a diverse population which includes minorities, women, youth, and dislocated workers.

## What Industries Currently Participate in Registered Apprenticeship?
- Construction
- Manufacturing
- Telecommunications
- Information technology/networking
- Service and Retail Industries
- Health care
- The military
- Public utilities
- Public sector

## What Are the Benefits of Registered Apprenticeship Programs?
For employers, benefits include:
- Skilled workers trained to industry/employer specifications to produce quality results
- Reduced turnover
- Pipeline for new skilled workers
- Reduced worker compensation costs due to an emphasis on safety training.

For apprentices and journeymen, benefits include:
- Jobs that usually pay higher wages
- Higher quality of life and skills versatility
- Portable credentials recognized nationally and often globally
- Opportunity for college credit and future degrees.

For the nation, benefits include:
- Highly skilled workforce
- Increased competitive edge in global economy
- System to contribute to and sustain economic growth
- Lessened need to import skilled workers
Registered Apprenticeship programs are operated by both the private and public sectors. Sponsors include employers, employer associations and joint labor-management organizations. Program sponsors pay most of the training costs while simultaneously increasing the wages of the apprentices as their skill levels increase. Registered Apprenticeship training can be competency based or time based with training generally ranging from one to six years depending on the needs of the program sponsor. For the apprentice, this translates into an educational benefit worth $40,000 to $150,000. Because the training content is driven by industry needs, the end result of apprenticeship programs is extremely well trained workers whose skills are in high demand.

The National Apprenticeship Act authorizes the Federal government, in cooperation with the States, to oversee the nation's apprenticeship system. The U.S. Department of Labor's Office of Apprenticeship Training, Employer and Labor Services/Bureau of Apprenticeship and Training and individual State Apprenticeship Agencies are responsible for:

- Registering apprenticeship programs that meet Federal and State standards
- Protecting the safety and welfare of apprentices
- Issuing nationally recognized and portable Certificates of Completion to apprentices
- Promoting the development of new programs through marketing and technical assistance
- Assuring that all programs provide high quality training
- Assuring that all programs produce skilled competent workers.

As of 1996 the Federal government invested approximately $16 million for administration of the apprenticeship system, with States contributing roughly another $20 million. Thus, the total public investment amounts to an estimated $36 million - a modest $110 per apprentice.

Because apprentices pay income taxes on their wages, it is estimated that every $1 the Federal government invests yields more than $50 in revenues. If all 440,000 apprentices earn an average annual income of $15,000 (a low average), this generates nearly $1 billion in Federal tax revenues alone, a significant return on Federal and State investments. The government's return on investment in registered apprenticeship clearly outperforms other types of government-sponsored job training programs.

Apprenticeship is a proven training strategy that improves the skills of the American workforce and enhances the efficiency and productivity of American industries. Investment in the U.S. registered apprenticeship system represents a wise use of government dollars, paying for itself many times over. America faces a critical shortage of skilled workers, and expanding apprenticeship opportunities offers an effective approach to meet the needs of the U.S. Industry and citizens in search of high quality and good jobs.

Washington State Apprenticeship and Training Council
Department of Labor and Industries, Apprenticeship Section
For more information please visit: http://Apprenticeship.LNI.wa.gov or call (360) 902-5320.
In Partnership: Registered Apprenticeship and Community Colleges

- Community college collaboration enhances the academic aspect of apprenticeship.
- Community college partnerships offer an exceptional opportunity for high school youth and community college students to move from traditional educational programs that focus on general education to highly specialized, on-the-job-training career options.
- As a business-driven, customizable program, Registered Apprenticeship adapts to community colleges’ needs.
- Partnerships between community colleges and Registered Apprenticeship aid in recruitment, lead to higher retention rates and increased productivity, and provide a strong return on investment for employers.
- Registered Apprenticeship can help form and strengthen relationships with employers, government agencies, local unions, and community- and faith-based organizations.
- Registered Apprenticeship programs can increase student enrollment and balance enrollment cycles by recruiting more students.
- Partnering with Registered Apprenticeship can help community colleges become more eligible for grants and financial support for training and education programs.
- Registered Apprenticeship is a proven talent-development strategy that supports economic development goals and activities.
- Registered Apprenticeship provides economic benefits to the community and supports the workforce needs of a broad range of industries.

For more information on Registered Apprenticeship and how it can benefit your community college system, please visit www.doleta.gov/oa or call (202) 693-2796.

"Registered Apprenticeship has afforded Gloucester County College the chance to develop new programs and degree opportunities."
- Randy Davidson, Gloucester County College Project Director, New Jersey

Career Areas The Registered Apprenticeship program offers access to 1,000 career areas, including the following top occupations: Able seaman • Carpenter • Chef • Child care development specialist • Construction craft laborer • Dental assistant • Electrician • Elevator constructor • Fire medic • Law enforcement agent • Over-the-road truck driver • Pipefitter
Ivy Tech Community College
Apprenticeship Programs
INDUSTRIAL TECHNOLOGY

OVERVIEW
Ivy Tech's Industrial Technology program will provide high-quality training and develop skills in the area of Industrial Technology. From welding classes to learning about fluid power systems, the hands-on instruction in this program will have students qualified to enter the workforce. We use only the current and emerging technologies in the industry while training. Our business and industrial partners have helped us for the curriculum to meet the demands of the ever-changing work environment.

TWO-YEAR PROGRAM OPTIONS
ASSOCIATE OF APPLIED SCIENCE
(60 credit hours = 5 semesters)
Associate of Applied Science (AAS) degree programs are two-year programs that prepare students for careers, career changes, and career advancement. Students who need to take longer to complete the degree because of job or family obligations can take the program over a longer period of time. AAS programs may also prepare students to transfer to four-year institutions. These programs offer education in recognized technical areas and specialties with emphasis on analysis, synthesis, and evaluation. The program content, which is approximately 30% general education and 70% professional/technical, provides depth and breadth in conceptual and professional/technical skills. The general education courses equip students with the problem-solving, communications, scientific and mathematical skills to compete successfully in the job market. Professional/technical courses equip students with the skills to obtain employment and to advance in the workforce.
INDUSTRIAL CERTIFICATIONS
OSHA 10, MSSC Safety, MSSC Quality, MSSC Manufacturing Production, MSSC Maintenance
Welding: American Welding Society Certified in up to seven areas

ONE-YEAR OR LESS PROGRAM OPTIONS
CERTIFICATES OFFERED
Industrial Electrical (21 credit hours = 2 semesters)
Industrial Mechanical (21 credit hours = 2 semesters)
Welding Technology (21 credit hours = 2 semesters)
TECHNICAL CERTIFICATES OFFERED
Industrial Electrical (34 credit hours = 2-3 semesters)
Industrial Mechanical (34 credit hours = 2-3 semesters)
Welding Technology (34 credit hours = 2-3 semesters)

FEATURED CAREER OPTION
MACHINERY MAINTENANCE WORKER

$20.67 /hour median salary in Indiana*

*Data is specific to Indiana and taken from EMSI February 2016

EARN MORE AND IMPROVE YOUR SKILLS
If you want a good-paying job, you need to invest in your education. With an associate degree from Ivy Tech Community College, you'll earn an average $8,000 more each year than you would with just a high school diploma. Over the course of your career, this has a tremendous impact on your earning power—a difference of up to $400,000. As a result, you'll have the chance to explore opportunities that are well worth the time you'll spend in class. Get started today. Call 888-IVY-LINE (888-489-5463) or visit IvyTech.edu/new-students.

IF YOU'VE GOT QUESTIONS. WE'VE GOT ANSWERS.
Call our Answer Center at 888-IVY-LINE (888-489-5463) or get in touch with us at IvyTech.edu/chat. We're ready to help you seven days a week, from 7 a.m. to 11 p.m. EST.

Certificate programs in this program are considered by the U.S. Department of Education to be “Gainful Employment” programs. Information about program length, cost, loan debt, graduates, and related occupations can be found at www.ivytech.edu/academics/gainful-employment.html.
ADVANCED AUTOMATION & ROBOTICS (AART)

IvyTech.edu/aart

OVERVIEW
The Advanced Automation and Robotics (AART) program at Ivy Tech offers hands-on learning with modern equipment in classes taught by faculty who have spent their careers working in manufacturing. Students will be able to troubleshoot automated manufacturing equipment like PLCs, robotics, pneumatics, hydraulics, and motors and controls.

For even more real-world experience, this degree offers the opportunity for a paid internship at local companies where students will work two days per week and attend class three days per week. A few of the companies we partner with include Eli Lilly, Ingersoll Rand, Qorvo, Alcoa, Amatrol, Dupont and Allison Transmission.

TWO-YEAR PROGRAM OPTIONS
ASSOCIATE OF APPLIED SCIENCE
(75 credit hours = 6 semesters)
The Associate of Applied Science (AAS) degree in Advanced Automation and Robotics will give you the knowledge and skills for career entry or advancement in a current job.

Associate of Applied Science degree programs are two-year programs that prepare students for careers, career changes and career advancement. Students who need to take longer to complete the degree because of job or family obligations can take the program over a longer period of time. AAS programs may also prepare students for transfer to four-year institutions. These programs offer education in recognized technical areas and specialties with emphasis on analysis, synthesis and evaluation. The program content, which is approximately 30% general education and 70% professional/technical, provides depth and breadth in conceptual and professional/technical skills. The general education courses equip students with the problem solving, communications, scientific and mathematical skills to compete successfully in the job market. Professional/technical courses equip students with the skills to obtain employment and to advance in the workforce.

INDUSTRIAL CERTIFICATIONS
OSHA 10, MSSC Safety, MSSC Manufacturing Production, MSSC Quality, MSSC Maintenance, and Siemens Level One

ONE-YEAR OR LESS PROGRAM OPTIONS
CERTIFICATES OFFERED
Mechatronics Level 1 (27 credit hours = 2 semesters)
TECHNICAL CERTIFICATES OFFERED
Automation and Robotics Technology
(34 credit hours = 3 semesters)

FEATURED CAREER OPTION
AUTOMATION AND ROBOTICS TECHNOLOGY

631 annual job openings*
$23.11/hour median salary in Indiana*

*Data is specific to Indiana and taken from EMSI February 2016

EARN MORE AND IMPROVE YOUR SKILLS
If you want a good-paying job, you need to invest in your education. With an associate degree from Ivy Tech Community College, you'll earn an average $8,000 more each year than you would with just a high school diploma. Over the course of your career, this has a tremendous impact on your earning power—a difference of up to $400,000. As a result, you'll have the chance to explore opportunities that are well worth the time you'll spend in class. Get started today. Call 888-IVY-LINE (888-499-5463) or visit IvyTech.edu/new-students.

IF YOU'VE GOT QUESTIONS, WE'VE GOT ANSWERS
Call our Answer Center at 888-IVY-LINE (888-499-5463), or get ahold of us at IvyTech.edu/qa. We're ready to help you seven days a week, from 7 a.m. to 1 a.m. EST.

Certificate programs in this program are considered by the U.S. Department of Education to be "Gainful Employment" programs. Information about program length, cost, loan debt, graduates, and related occupations can be found at www.IvyTech.edu/academics/gainful-employment.html
THE ADVANCED AUTOMATION AND ROBOTICS TECHNOLOGY PROGRAM
A COLLABORATION WITH INDUSTRY-LEADING EMPLOYERS

The Ivy Tech Community College Advanced Automation and Robotics Technology (AART) degree was developed in collaboration with the Indiana Automotive Council, a group of world class employers including Cummins, Subaru, Chrysler, General Motors, Aisin USA, and Honda. This gives students in the program a clear advantage: the education you will receive is career-relevant and aligned with employers' current needs.

Each week, as an AART student, and future technician, you'll spend three days in the classroom and two days working a paid internship in a high-demand field. The program uses a cohort model, meaning you'll work with the same group of students throughout your time at Ivy Tech.

After completing your AART degree you'll be well positioned to continue on as a full-time employee at your internship site or at another world-class employer. If you're looking to begin your career or change careers, this is an excellent opportunity to get in on the ground floor of a profession that provides ample opportunities for qualified workers.
PROGRAM highlights

- Companies provide paid internships, with compensation ranging from $12-17/hour.
- Each week, you’ll work two days and attend classes three days.
- Cohort program—progress through the program with the same group of students.
- Gain experience at world-class companies and prepare yourself to begin a lucrative career upon completion.
- Earn a degree in one of the most high-demand occupations in the nation.
- Upon completion, you’ll have the chance to work full-time at your internship site or another employer in the field.
- Upon completion, annual entry-level salaries range from $30,000 - $50,000 per year.
- Graduates may elect to pursue higher-level degrees in technical fields including industrial technology, mechanical engineering, electrical engineering, business, and more.

GET STARTED today

The program is available at 18 Ivy Tech advanced manufacturing centers of excellence across the state, with participating companies nearby each location.

To get started, visit IvyTech.edu/ApplyNow or call 888-IVY-LINE (888-489-5463). You’ll be on your way to a great career—and the future you deserve.
Ivy Tech Community College
Apprenticeship Programs

What are Apprenticeships?

Apprenticeships are a proven training model for growing and retaining a skilled workforce in today’s competitive business environment. This “earn while you learn” approach combines on the job training and related academic instruction to benefit both the company and the employee.

How Ivy Tech Community College Can Assist?

The Ivy Tech Apprenticeship Department assists Indiana employers in growing their workforce by developing apprenticeship programs and connecting companies with aspiring apprentices who are seeking rewarding careers.

Ivy Tech has a long term relationship with the Office of Apprenticeship and can help facilitate the registration process to develop tailored apprenticeship programs that result in your desired workforce outcome. At no cost to the employer, the Apprenticeship staff is available to guide companies through the registered apprenticeship development process from initial concept to the U.S. Department of Labor approval.

Ivy Tech Apprenticeship staff can help create a program that results in your desired workforce outcome by:

- sharing best practices and recent innovations
- facilitating connections with other regional employers and apprenticeship subject matter experts
- identifying available funding incentives
- assisting in the development of an apprenticeship related instruction curriculum.

For more information on how to get started, please contact:
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Executive Director of Apprenticeship Studies
50 West Fall Creek Parkway North Drive
Indianapolis, IN 46208
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