



## Career Pathways Resource



### Pennsylvania Consortium of Community Colleges TAACCCT 1

This work is licensed under a [Creative Commons Attribution 3.0 Unported License](https://creativecommons.org/licenses/by/3.0/).



This workforce solution was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The solution was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites, and including, but not limited to accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability or ownership.

# Introduction

Pennsylvania's 14 community colleges are part of the TAACCCT (Trade Adjustment Assistance Community College and Career Training) federal grant program to give Americans the training they need to get back to work. Fast.

The grant is an historic collaboration of the Commonwealth's 14 Community Colleges, administered by Community College of Philadelphia and coordinated through the Pennsylvania Commission of Community Colleges in Harrisburg.

JobTrakPA is Pennsylvania's TAACCCT project to retrain unemployed and underemployed Pennsylvanians and give them the training they need to find a job in a growing industry. Community Colleges are focusing on training students for high-demand jobs in industries that are looking to hire career-specific, skilled employees.

JobTrakPA courses are tailored to the career-specific skills employers are demanding; the skills that help you perform well on the job. Most courses allow you to earn a credential or certificate. At some colleges, coursework can be "stacked" to build a series of credentials that will increase your job options and earning power. In other cases, colleges may offer an Associate's Degree in a field of study that gives you a competitive advantage in the job market.

Course offerings vary by college within three high-growth industries: Advanced Manufacturing, Energy Distribution, Production and Conservation and Health Information Technology. This guide has been developed to provide individuals with a broad overview of the career pathway for each industry.

The JobTrakPA program ends on September 30, 2015 but each of the state's 14 community colleges will continue to provide education and training in the three industry areas.

**Advanced Manufacturing** is the integration of technology based systems and processes in the production of products (fit, form, and function) to the highest level of quality and in compliance with industry specific certification standards.

Products and processes are often innovative, made from advanced materials and components, and produced on technology driven equipment and processes. Some positions may require a workforce equipped to design, integrate, or improve manufacturing systems or related processes to refine product designs to increase production and decrease costs.



Occupations in this industry can require competencies in planning, managing and performing the processing of materials into intermediate or final products. These positions may also include providing related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering. Some key occupations are listed in the chart below.

Education/Training/Credential	Sample Position Titles	Wages*
Bachelor's degree and/or experience	Facility Engineer, Manufacturing Director, Manufacturing Engineer, Manufacturing Engineering Manager, Plant Engineer, Process Engineer	US Median wages (2014) \$45.31 hourly, \$94, 240  PA Salary Range: \$51,400 - \$135,900
Associates degree, technical certificate and/or experience	Welders, Chemical Techs, Mechanical Drafters, Commercial and Industrial/Electrical Equipment Repairers/Technicians	US Median Wages (2014) \$25.10 hourly, \$52,200 annual  PA Salary Range: \$32,900 - \$76,500
HS Diploma/GED On the job Training Specialized Training, Certification, and/or experience.	Lubricator, Machine Repairer, Maintainer, Maintenance Electrician, Maintenance Man, Maintenance Mechanic, Maintenance Technician, Maintenance Worker, Oiler, Overhauler	US Median wages (2014) - \$17.39 hourly \$36,170 annual  PA Salary Range: \$22,000 - \$58,000
High school Diploma GED On the Job Training	Assembler, Material Handler, Machine Operator, Production Technician Assistant Operator, Helper, Laborer, Machine Operator, Material Handler, Press Helper, Production Worker, Service Person, Support Team Member, Utility Worker	US Median wages (2014) \$11.35 hourly, \$23, 610  PA Salary Range \$18,500 - \$38, 500

\*Source: O'Net Online – Career Stops – PA. Yearly wage data applies only to workers with full-time, year-round schedules. For salary information for part-time or part-year workers, use hourly wage data.

The **Energy** Industry is the totality of all of the industries involved in the production and sale of energy, including fuel extraction, manufacturing, refining and distribution. Modern society consumes large amounts of fuel, and the energy industry is a crucial part of the infrastructure and maintenance of society in the United States of America.

Energy jobs offer promising opportunities, for the experienced worker or those just starting a career. These positions are active, hands-on, rewarding, and available in the state of Pennsylvania. With *many of the nation's energy workforce either retiring or otherwise departing their jobs during the next five years*, the energy industry is working now to develop programs to attract and train new workers for energy-related generation, transmission, and distribution careers.



Educational pathways for individuals interested in a career in Energy can be pursued through on-the-job training, vocational training, apprenticeships, post-secondary education and college,

As new power plants and energy technologies are developed, This industry will require occupations of skilled pipefitters/pipe layers, HVAC professionals, install and maintain these technologies to help generate and transmit tomorrow's power supply. Due to its efficiency, cleanliness and reliability, natural gas is growing increasingly popular. These positions may also include providing related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering. Some key occupations are listed in the chart below.

Education/Training/Credential	Sample Position Titles	Wages*
Bachelor's degree and/or experience	Supervisor, Specialist Supervisor, Construction Tech, Generation Supervisor, Electrical Engineers	US Median wages (2014) \$45.31 hourly, \$94, 240  PA Salary Range: \$51,400 - \$135,900
Associates degree, technical certificate and/or experience	Line worker, Senior level Crew Leaders, Crew Mechanic Leader, Pipefitters, Service Mechanic, Electrical Repairers, Substation and Relay Workers	US Median Wages (2014) \$24.36 hourly, \$50,660 annual  PA Salary Range: \$32,000 - \$87,700
HS Diploma/GED On the job Training Specialized Training, Certification, and/or experience.	A/C Tech (Air Conditioning Technician); HVAC Installer (Heating, Ventilation, Air Conditioning Installer); HVAC Mechanic Technician; Crew Assistant, Service Assistant, Gas Plant Operators, Refinery Operators	US Median Wages(2014) \$21.46 hourly, \$44,630.00  PA Salary Range: \$30,200 - \$63,00
High school Diploma GED On the Job Training	Line Worker, Helper Mechanic, Floor Hand, Galley Hand, Oil Field Roustabout, Production Roustabout, Rig Hand, Roustabout, Roustabout Crew Leader, Roustabout Crew Pusher, Roustabout Hand, Roustabout Pusher Worker	US Median wages (2014) \$17.20 hourly, \$35,780  PA Salary Range \$25,300 - \$61,500

\*Source: O'Net Online – Career Stops – PA. Yearly wage data applies only to workers with full-time, year-round schedules. For salary information for part-time or part-year workers, use hourly wage data.

**Health Information Technology** (Health IT) involves the exchange of health information in an electronic environment. Widespread use of health IT within the health care industry improves the quality of health care, prevent medical errors, reduce health care costs, increase administrative efficiencies, decrease paperwork, and expand access to affordable health care. With a national push to save healthcare costs by digitizing health care records, demand for computer-based skills in medical settings is at an all-time high. Projections indicate that career opportunities in health information technology are tremendous.



The U.S. Bureau of Labor Statistics (BLS) predicts that job opportunities for health IT professionals will be highly favorable in the coming years. This field is projected to grow much faster than average. Medical records and health information technicians organize and manage health information data by ensuring its quality, accuracy, accessibility, and security in both paper and electronic systems. They use various classification systems to code and categorize patient information for reimbursement purposes, for databases and registries, and to maintain patients' medical and treatment histories. Health information technicians will find employment in nursing centers, outpatient care facilities, other home medical services, and physicians' offices

Education/Training/Credential	Sample Position Titles	Wages*
Bachelor's degree and/or experience	Clinical Informatics; Clinical Applications Specialist; Clinical Informatics Director; Clinical Informatics Specialist; Clinical Information Systems Director; Director Clinical Information Services	US Median wages (2014) \$39.76 hourly, \$82,710  PA Salary Range: \$50,200 - \$128,800
Associates degree, technical certificate and/or experience	Clinical Medical Transcriptionist, Documentation Specialist, Medical Language Specialist, Medical Secretary, Medical Transcriber, Medical Transcription, Medical Transcriptionist, Radiology Transcriptionist, Transcriptionist	US Median Wages (2014) \$24.36 hourly, \$50,660 annual  PA Salary Range: \$32,000 - \$87,700
HS Diploma/GED On the job Training Specialized Training, Certification, and/or experience.	Coder, Health Information Clerk, Health Information Tech, Medical Records Analyst, Medical Records Clerk, Medical Records Technician (Medical Records Tech), Registered Health Information Technician (RHIT)	US Median wages (2014) \$17.26 hourly, \$35,900  PA Salary Range \$25,100 - \$51,700
High school Diploma GED On the Job Training	Unit Clerk, File Clerks, Clerk Specialist, Front Desk Receptionist, Greeter, Member Service Representative, Office Assistant, Receptionist, Scheduler, Unit Assistant	US Median wages (2014) \$13.78 hourly, \$28,670  PA Salary Range \$18,200 - \$47,800

\*Source: O'Net Online – Career Stops – PA. Yearly wage data applies only to workers with full-time, year-round schedules. For salary information for part-time or part-year workers, use hourly wage data.

## Career Pathway Resources

<b>Advanced Manufacturing</b>	Center for <i>Advanced Manufacturing Excellence</i>	<a href="http://www.mafcenter.org">www.mafcenter.org</a>
	The National Council for <i>Advanced Manufacturing</i>	<a href="http://www.nacfam.org">www.nacfam.org</a>
<b>Energy</b>	Center for Energy Workforce Development (CEWD)	<a href="http://www.cewd.org">www.cewd.org</a>
	Get Into Energy	<a href="http://getintoenergy.com/">http://getintoenergy.com/</a>
	Pennsylvania Independent Oil and Gas Association	<a href="http://www.pioga.org">www.pioga.org</a>
<b>Health Information Technology</b>	American Health Information Management Association	<a href="http://www.ahima.org/">http://www.ahima.org/</a>
	American Hospital Association	<a href="http://www.aha.org/HIT">www.aha.org/HIT</a>
<b>Career Resources</b>	Bureau of Labor Statistics	<a href="http://www.bls.gov">www.bls.gov</a>
	O'Net – American Job Center	<a href="http://www.onetonline.com">www.onetonline.com</a>
	PA Department of Labor and Industry	<a href="http://www.dli.state.pa.us">www.dli.state.pa.us</a>
	Careers	<a href="http://www.careers.org">www.careers.org</a>
	PA Career Link	<a href="http://www.cwds.state.pa.us">www.cwds.state.pa.us</a>
<b>JobTrakPA Partners</b>		
	Community College of Allegheny County	<a href="http://www.ccac.edu">www.ccac.edu</a>
	Community College of Beaver County	<a href="http://www.ccbc.edu">www.ccbc.edu</a>
	Community College of Philadelphia	<a href="http://www.ccp.edu">www.ccp.edu</a>
	Bucks County Community College	<a href="http://www.bucks.edu">www.bucks.edu</a>
	Butler County Community College	<a href="http://www.bc3.edu">www.bc3.edu</a>
	Delaware County Community College	<a href="http://www.dccc.edu">www.dccc.edu</a>
	Harrisburg Area Community College	<a href="http://www.hacc.edu">www.hacc.edu</a>
	Lehigh Carbon Community College	<a href="http://www.lccc.edu">www.lccc.edu</a>
	Luzerne County Community College	<a href="http://www.luzerne.edu">www.luzerne.edu</a>
	Montgomery County Community College	<a href="http://www.mc3.edu">www.mc3.edu</a>
	Northampton Community College	<a href="http://www.northampton.edu">www.northampton.edu</a>
	Pennsylvania Highlands Community College	<a href="http://www.pennhighlands.edu">www.pennhighlands.edu</a>
	Reading Area Community College	<a href="http://www.racc.edu">www.racc.edu</a>
Westmorland County Community College	<a href="http://www.wccc.edu">www.wccc.edu</a>	

This resource was created by the TAACCCT 1 Grant Administration Office at Community College of Philadelphia.

Community College of Philadelphia  
1700 Spring Garden Street  
Philadelphia, PA 19130  
[www.ccp.edu](http://www.ccp.edu)

2015