Getting There

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Junior College & Community College Programs	Aims $Communo$:	Arapahoe Com	Colorado Mon	Colorado Northwestee	Community College	Community College of	Front Range Communi	College Tary Lamar Commun.:	Morgan Commun.	Northeastern L	Otero Junior C.,,	Pikes Peak Community	Pueblo Comm.	Red Rocks Communica	Trinidad State 1	Jamor College
Business Administration		A, C	A	A	A	A	A, C	A, C	A	A	A	A, C		A, C	A	
Computer Science					С	A	A	С		A		A		A		
Construction Trades								A, C								
Electronics Technology												A				
Engineering			A			A				A	A			A	A	
Engineering/Applied Technologies		A, C			A		A, C						A, C	A	A, C	
Heavy Equipment															A, C	
Industrial Electronics Technology													A, C			
Industrial Engineering													A			
Industrial Maintenance Technology														A, C		
Machine Technologies						A, C							A, C			
Management	A, C			A	A, C	A	A, C	A, C	A, C	A, C	С	A, C	A, C		A, C	
Manufacturing Technology															A, C	
Occupational Safety & Health															A, C	
Office Support						A, C			С		A,C	A, C	A, C	A, C	A, C	
Physics			A		A	A	A			A	A	A		A		
Precision Machining														A, C		
Process Technology														A, C		
Welding	A, C		A			A	A, C		С			A, C	A, C	A, C	A, C	

C = Certificate, A = Associate's Degree

Public University Programs	Adams State C	Colorado Scho.	State	Colorado State University	Port Lewis Con	Mesa State College	Metropolitan State C	University of Colorad.	University of Colorad.	University of Colorad	University of North	Vestern State Con	oslino.
Business Administration	A, B, G		B, G, C	G	В	A, B, G, C	C	G	B, G, C	B, G	B	В	
Computer Science	В	B, G	B, G		В	В, А	В	B, G	B, G	B, G		В	
Engineering			B, G		В					B, G			
Engineering Physics		В						В					
Industrial Engineering				B, G									
Management			B, G, C	B, G	В		В	В	B, C	B, G			
Mechanical Engineering		B, G	B, G			В	В	B, G	B, G	B, G			3 17
Metallurgical & Materials Engineering		B, G											- 1/
Physics	В	B, G	B, G	В	В	В	В	B, G	B, G	В	В		
Welding						A, C							THE

C = Certificate, A = Associate's Degree, B = Bachelor's Degree, G = Graduate Degree



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Manufacturing includes many different areas of hands-on work. Jobs in the manufacturing industry give workers the opportunity to work as part of a team building a product or developing new technology. Manufacturing occupations encourage innovation and can provide variety in a day's work. If you want a job inside that does not confine you to a desk, then manufacturing could be the right career for you!

Start Exploring Manufacturing Careers

Step 1: Identify your interests

Compare your interests, skills and work values with manufacturing occupations using Labor Market Information's Career Explorer:

Visit <u>www.coworkforce.com/lmigateway</u>

- Click on "Services for Individuals"
- Choose "Career Services"

This will take you to "Career Explorer" where you can match your skills to occupations.

Step 2: Explore the manufacturing industry & careers

Learn about high-growth, in-demand careers and what they pay on the LMI Gateway website: www.coworkforce.com/lmigateway For more information on a career in manufacturing, check out http://www.camt.com/

Step 3: Find education, training & financial aid options

Discover the best education or training institutions for your career goals and how to get money for school at http://www.collegeincolorado.org

Step 4: Find available job openings

www.connectingcolorado.com

A Day In the Life o

Curt Castellanet

Manufacturing Engineer Synthes, USA Monument, CO

Curt performs a variety of daily duties both at this desk and on the production floor as a manufacturing engineer for Synthes, a leading global medical device company. He uses his computer to design tools and procedures and to review and create engineering drawings. His hands-on work on the production floor includes gathering data from production processes, helping to solve production problems, and troubleshooting and repairing machines.

Curt loves the diversity of his work as well as the challenge of being part of a team that solves difficult problems. "I like getting to talk with really smart people who have the same goals as I do for the projects we work on together," says Curt. "I enjoy making products that help people to heal from injuries."

Curt has a Bachelor of Science degree in Mechanical Engineering as well as a Master of Business Administration in Operations Management. He attributes the foundations of his career to the science, geometry, trigonometry, and statistics classes he took in high school. He credits English, business, foreign language, and arts education as supplementary to his career path. Curt's knowledge of the German language in particular aids him in his daily communication with German customers and suppliers of Synthes. "My advice for high school students is to take all of your coursework seriously and really dive deep into what you find interesting."

A Day in the Life of...

Chase Nichols

Team Assembler CoorsTek Golden, CO

Chase uses heavy equipment to make parts for protective gear such as transparent bullet resistant windows used by the military on its Humvees. He also makes the bullet-proof inserts that are used for police vests. Chase's favorite part about his job as a team assembler for CoorsTek is learning about the parts he makes and their use.

In high school, Chase most enjoyed his shop classes. After he graduated, he was able to apply what he learned to his job. "In those classes, we worked with a lot of the same tools as I do today," says Chase, "so I had some understanding of how things worked when I came into this job."

Chase begins his workday at five o'clock in the morning to prepare paper work and fire up his machine, a Lomis 120 ton extruder. After surveying the work order for the part, he extrudes, or shapes, the part according to its specifications. When he is finished, he travels the order through the computer system and places the part in the drying room. He continues this process until 2:15 p.m. when his workday ends.



Who do you want to be tomorrow?

Occupation	Average Hourly/Annual Wage	Education/Training	Suggested Programs of Study
Team Assemblers Work as part of a team having responsibility for assembling an entire product or con	\$13.23 / \$27,528 nponent of a product.	Moderate-term on-the-job training	Construction Trades, Manufacturing Technology, Process Technology
First-Line Supervisors of Production & Operating Workers Supervise & coordinate the activities of production & operating workers.	\$26.44 / \$54,991	Work experience in related occupation, Certificate, Associate's Degree	Management, Occupational Safety & Health
Machinists Set up & operate a variety of machine tools to produce precision parts & instrument.	\$19.40 / \$40,343 s.	Long-term on-the-job training, Certificate	Electronics Technology, Engineering/Applied Technologies, Machine Technologies, Precision Machining
General & Operations Managers Direct the operations of companies or public & private sector organizations.	\$51.60 / \$107,328	Associate's Degree, Bachelor's Degree	Business Administration, Management
Packaging & Filling Machine Operators & Tenders Operate or tend machines to prepare industrial or consumer products for storage or s.	\$15.13 / \$31,474 hipment.	Short-term on-the-job training	Engineering/Applied Technologies, Heavy Equipment, Machine Technologies, Process Technology
Electrical & Electronic Equipment Assemblers Assemble or modify electrical or electronic equipment.	\$14.82 / \$30,818	Short-term on-the-job training, Certificate	Electronics Technology, Engineering/Applied Technologies, Industrial Electronics Technology
nspectors, Testers, Sorters, Samplers, & Weighers Inspect, test, sort, sample, or weigh products for defects & deviations from specifications.	\$18.26 / \$37,976 ons.	Moderate-term on-the-job training, Certificate	Construction Trades, Heavy Equipment, Industrial Maintenance Technology, Manufacturing Technology Process Technology
Laborers & Freight, Stock, & Material Movers, Hand Manually move freight, stock, or other materials.	\$12.43 / \$25,860	Short-term on-the-job training	Construction Trades, Heavy Equipment, Manufacturing Technology, Process Technology
Truck Drivers, Heavy & Tractor-Trailer Drive a tractor-trailer or a truck to transport & deliver goods.	\$19.81 / \$41,205	Moderate-term on-the-job training, Certificate	Construction Trades, Heavy Equipment, Manufacturing Technology, Process Technology
Shipping, Receiving, & Traffic Clerks Verify & keep records on incoming and outgoing shipments.	\$15.19 / \$31,586	Short-term on-the-job training	Office Support
HelpersProduction Workers Help production workers perform duties.	\$12.53 / \$26,057	Short-term on-the-job training	Construction Trades, Manufacturing Technology, Process Technology
Computer Software Engineers, Applications Develop & modify computer applications software.	\$44.41 / \$92,369	Bachelor's Degree	Computer Science
Mechanical Engineers Perform engineering duties in planning & designing tools, engines, & machines.	\$45.24 / \$94,101	Bachelor's Degree, Master's Degree	Engineering, Engineering Physics, Mechanical Engineering, Metallurgical & Materials Engineering, Physics
ndustrial Machinery Mechanics Repair, install, & maintain production & processing machinery.	\$22.22 / \$46,221	Long-term on-the-job training, Certificate	Industrial Electronics Technology, Industrial Engineering, Machine Technologies
Welders, Cutters, Solderers, & Brazers Use hand-welding or flame-cutting equipment to weld or join metal components.	\$19.34 / \$40,232	Certificate	Welding



Apprenticeship

Information regarding manufacturing occupations that offer apprenticeships can be found at the following websites:

www.colorado.gov/cdle/apprenticeship

http://www.doleta.gov/oa/apprentices.cfm

Examples of apprenticeships offered on both websites include:

- Electrician
- Construction Craft Laborer
- Truck Driver

Did you know?

Manufacturing is going green! An increasing number of manufacturing jobs are producing environmentally-friendly products. Some examples include wind turbines and power converters that emit clean energy.

Department of Labor & Employment

www.coworkforce.com/lmigateway



