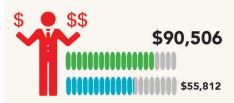




If You Think Manufacturing Is A Dead End, THINK AGAIN!



"In **2019**, the average Illinois manufacturing worker earned **\$90,506** annually, including pay and benefits. The average worker in all non-farm industries earned **\$55,812** annually."

"Illinois is one of the nation's manufacturing leaders, boasting annual value added productivity by manufacturing over



"Fewer than 40% of manufacturing employees are directly involved with making things...some 31% of all manufacturing workers now occupy management and professional jobs."



94%

of employers said that internal employee training and development programs are used to overcome existing skill gaps.



"Currently **12.85 million** workers are employed in the manufacturing sector." With an average annual compensation of \$92,832.

There are **150** manufacturing establishments in LaSalle County, **37** in Bureau County, and **10** in Putnam County.



With an estimated 4M manufacturing jobs to fill from 2020–2030, the skills gap may leave an estimated **2.1 million** positions unfilled between 2020 and 2030.



2.1M (53 out of 100) open positions lie vacant due to a skills shortage in the US manufacturing industry

SOURCES:

"Creating Pathways for Tomorrow's Workforce Today," Deloitte Insights, May 2021

"Facts about Manufacturing," as reported by the Manufacturing Institute – 2022

"National Association of Manufacturers," State Manufacturing Data, updated March, 2022

United States Bureau of Labor Statistics NAICS 31-33, Q1, 2022

WELCOME TO THE 8TH ANNUAL



WELCOME TO A NEW VIEW OF MANUFACTURING!

Today's manufacturing industry holds opportunities that satisfy a wide range of interests – from science, engineering, and mechanics, to areas like finance, sales, and communications. So does manufacturing hold opportunities for you?

Our goal is to help you begin to explore the endless possibilities in our industry, introduce you to individuals within your community who can help you determine whether manufacturing is a good fit for you, and help you plan your path forward.

You might be surprised by what you discover!

North Central Regional Betterment Coalition (NCRBC), Illinois Valley Community College (IVCC), cational & Tachnical Education (SPAVTE), and our

Starved Rock Associates Vocational & Technical Education (SRAVTE), and our Sponsors and Supporters have come together in cooperation to provide you with this day-long field trip experience.

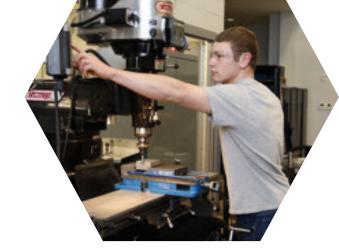
We are here to help you with your education and career goals, so please ask questions and share your feedback and ideas.

Jennifer Scheri Steve Seaborn

North Central Illinois Discover Manufacturing Career Expo Committee Co-Chairs







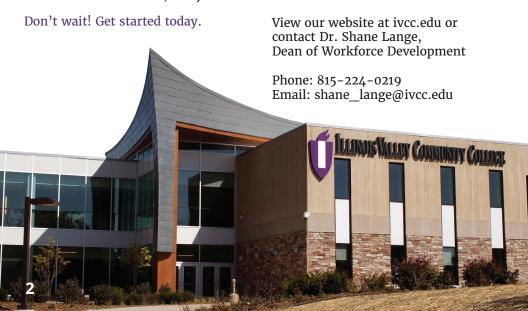
Hello Students!

Did you know IVCC has over 65 career and technical degrees and certificates? Did you know that IVCC has many different degrees that will transfer to universities all across Illinois?

At IVCC, you can advance your education through many different career paths. Highly flexible scheduling makes taking courses convenient for all students, with evening, online, and weekend courses available in many departments. IVCC also has early college opportunities while you are in high school with discounted tuition.

Are you looking to start a career immediately? Are you looking to transfer courses to a university?

IVCC's counselors can help. They can guide you as they have all of the resources necessary to help you choose a career pathway that fits your needs. IVCC's Career Services Department offers free career workshops, assessments, resume and interview seminars, and job search assistance for all students.



Parents and students are invited to attend the following events:

Come explore all that manufacturing in the Illinois Valley has to offer. Careers in manufacturing have exciting new opportunities for high-paying, indemand professions using the latest technology and cutting-edge equipment.

Explore IVCC

Wednesday, November 9
5:30 - 7:30pm · IVCC Main Campus
It's never too early to start investigating
career options. Our Explore IVCC
program provides you and your family
the chance to experience everything
IVCC has to offer: tour of labs and
classrooms, meet with faculty and
students, and learn about our student
support resources.

College and Career Start IVCC's Early College Opportunities November 15

6:00 - 7:00pm · IVCC Main Campus
Discover the opportunities and discounts
available to high school students who
wish to take college courses before
graduating from high school. IVCC
transfer and career courses are available
at high schools, career centers, and
through IVCC's fall, spring and summer
semesters delivered on-campus or
virtually. Learn how you can take
advantage now!

College 101 April 2023

5:30 - 7:00pm • IVCC Main Campus Join us at College 101 to learn whether your student is a freshman or a senior, gaining skills, certifications and degrees in college is necessary for sucess in a high paying career. Join us at College 101 to learn what they need to do to prepare for any college.

Campus Visit

Tour campus and learn more about the enrollment process!

For more details and to RSVP, visit ivcc.edu/events

IVCC Admissions Office 815-224-0439

IVCC Programs In Manufacturing

MANUFACTURING DEGREE PROGRAMS

- Computer-Aided Engineering and Design
- Computer Network Administration
- Cybersecurity
- Electronics and Electricians
- Engineering Technology
- Manufacturing Technology
- Welding Construction
- Welding- Production

MANUFACTURING CERTIFICATE PROGRAMS

- Computer-Aided Drafting
- Computer Networking
- Computer Numerical Control Operators
- Cybersecurity
- Heating, Ventilation, and Air Conditioning
- Industrial Flectricians
- Industrial Maintenance
- Machinist and Tool and Die Making
- Renewable Energy Technician
- Truck Driver Training
- Welding GMAW, SMAW, and OAW
- @ivcceagles

 f IVCC Admissions
 @ivcceagles
- @ivcceagles
- IVCC EAGLES

LOCAL PATHWAYS TO GET STARTED

Computer-Aided Drafting / Engineering

CNC Programmer

Operate CAD/CAM computer software to generate numerical control (NC) programs used to control NC machine tools that drill, mill, turn, or torch.

Product Design

Design new products and modify existing products, including 3-D printing. Prepare engineering drawings and product mock-ups.

Process Controls/Automation
Design and modify manufacturing processes.

Mechanical and Electrical
This may include engineering
calculations, robotics, cost analysis,
and adherence to regulations
and codes.

IVCC Related Programs:

AA/AS/AES transfer degree or Applied Science degree/certificate in Electronics and Electricians, Engineering Technology, and Computer-Aided Engineering and Design

Information Technology / Cybersecurity

PC Repair/Infrastructure
Install and maintain computers,
servers, and other associated
hardware.

Network Administration Administer and manage software programs and applications.

Computer Networking and Programming Develop applications as tools for the rest of the company, so that

Develop applications as tools for the rest of the company, so that they may perform their work more efficiently.

Cybersecurity

Search for on-line threats and create protective barriers to resist cyber-attacks.

IVCC Related Programs:

AA/AS transfer degree or Applied Science degree/certificate in Computer Network Administration and Cybersecurity



Business Administration

First-Line Supervisor
Supervise and manage the workers on the production line.

Manager

Train new and existing workers to do their manufacturing job(s). This also includes managing the workers in all of the other departments.

Sales/Marketing Finance/Accounting

Develop strategies to identify and meet the customer's needs with your product(s). This includes research to identify what the customer wants and to develop advertising to explain why they should buy your product. This also includes modifying the product design and pricing based on customer feedback to maximize sales.

Human Resources Manage and administer employee

hiring, benefits, and union contracts.

Administrative Assistant

Provide a wide range of office services by implementing administrative systems, procedures and policies, and monitoring administrative projects.

IVCC Related Programs:

AA/AS transfer degree or Applied Science degree/certificate in Business Administration, Accounting, Marketing, and Office Professional

Quality Improvement / Environmental Health & Safety

Environmental, Health, and Safety Monitor and administer worker safety and health programs.

Quality Control

Test and evaluate manufactured products to maintain quality. Ensure raw materials meet required quality specifications and document compliance.

IVCC Related Programs:

AA/AS transfer degree or Applied Science degree/certificate in Business Administration, Nursing and EMS



Welding / Fabrication

Welder (Fabricator)
Weld, fabricate and assemble
metal products.

Welder (Repair)

Weld components being brought in from customers for repair services and must be able to meet certification standards by layout, welding diagram, or work order, and performing repairs to cast metal.

IVCC Related Programs:

AA/AS transfer degree or Applied Science degree/certificate in Welding Construction and Welding Production



Manufacturing

Parts Assembly & CNC/Machine Operation
This may include many technical skills like machining, wiring, parts assembly, and equipment operation.

Purchasing

Ensure that all the raw materials are available at the best price and at the correct time so that the products are manufactured efficiently. This also includes properly storing incoming raw material and shipping finished, outgoing products to customers.

Shipping & Receiving

Learn and assist in the preparation, packaging, management, and storage of valuable products and assets, in addition to loading and unloading materials in the daily shipment and warehousing of goods.

Truck Driver

Operate and maintain on-sight trucks safely and efficiently.

IVCC Related Programs:

AA/AS transfer degree or Applied Science degree/certificate in Manufacturing Technology, CNC, Machinist and Tool and Die, and Truck Driver Training

"Guess what I just found out? If America's manufacturing industry was a country, it would have the 8th biggest economy in the world!"

"I told you manufacturing rocks in the USA! The pay is great, too."

Electrical / Electronics

Residential Wiring

Design, install, maintain and repair electrical systems and products used in residential homes.

Commercial/Industrial Electrician
Work in both indoor and outdoor
environments to ensure power,
lighting, industrial equipment
and appliances operate safely and
reliably.

Electronics Technician

Install, maintain and repair electronic systems and products used in residential homes, businesses and factories to maintain security, control processes, and facilitate communications.

Electrician

Design, install, maintain and repair electrical systems and products used in residential homes, businesses and factories. Ensure power, lighting, industrial equipment and appliances operate safely and reliably.

IVCC Related Programs:

AA/AS transfer degree or Applied Science degree/certificate in Electronics & Electricians and Industrial Electricians

Equipment Maintenance

Electrical & Mechanical Maintenance Repair and maintain the manufacturing equipment and facilities, which may include welding repair, electrical and electronics repair, and hydraulic and air system repair.

IVCC Related Programs:

AA/AS transfer degree or Applied Science degree/certificate in Manufacturing Technology, Industrial Maintenance, HVAC, and Industrial Electricians



Want to know more...

Visit the following websites:

ivcc.edu/catalog careercruising.com

ARE YOU READY TO GET SERIOUS?

After attending the Discover Manufacturing Expo, remember to talk to your parents and high school counselor to help determine if manufacturing might be the path for you. Try doing all the following in the next several months:



LOOK IT UP

Want to learn more about manufacturing career pathways?

ivcc.edu/workforce careercruising.com mynextmove.org knowhow2go.org illinoisworknet.com nam.org womeninmanufacturing.org

LOOKING FOR FUN STUFF RELATED TO MANUFACTURING?

howstuffworks.com



FINANCING YOUR EDUCATION

Look into scholarships and watch for application deadlines – it's never too early.

DISCOVER MANUFACTURING EXPO SCHOLARSHIP

Scholarship available to IVCC for students pursuing a career in manufacturing! If you come to the EXPO, you are eligible to apply.

OTHER SCHOLARSHIPS AND AID

- Visit IVCC's webpages: ivcc.edu/foundation ivcc.edu/financialaid
- isac.org
- Local high school counselors and websites
- · Individual college websites
- careercruising.com
- NextStudent.com
- · scholarships.com/financial-aid

TALK TO IVCC AND SEE A COUNSELOR

Visit IVCC and find out about classes based on our certificates, two-year degrees, and transfer degrees.

Make an appointment with an IVCC counselor at 815-224-0360 for more information.

CONTACT MANUFACTURERS

Get in touch with a local manufacturer by contacting their Human Resources Department to inquire about internships, co-op programs, and training that might be available.

LaSalle- Peru Area Career Center

PROVIDING CAREER EDUCATION TO THE ILLINOIS VALLEY



Offering Programs In:

AUTOMOTIVE

AVIATION

BUILDING TRADES

CAD DRAFTING

CERTIFIED NURSING ASSISTANT (CNA)

CERTIFIED PRODUCTION TECHNICIAN

CHILD CARE

COMPUTER REPAIR AND PROGRAMMING COSMETOLOGY

CULINARY ARTS

FIRE SCIENCE/EMS

IVEO - ILLINOIS VALLEY ENTREPENEURIAL OPPORTUNITIES

MACHINE TECHNOLOGY

RESIDENTIAL WIRING

WELDING

LASALLE-PERU AREA CAREER CENTER

The LaSalle Peru Area Career Center (LPACC) is one of only 24 career centers that exist in the State of Illinois. Their mission is to deliver career and vocational education courses to high school students who attend their affiliated schools. The Area Career Center is proud to affiliate with 11 different area high schools. These include: DePue, LaMoille, Mendota, LaSalle-Peru, Ottawa, Princeton, Henry-Senachwine, St. Bede, Marquette, Hall, and Putnam County.

The Area Career Center offers two distinct advantages that students are able to use to accelerate their transition to the workplace. The first advantage is the wide variety of certifications that are offered as part of the ACC curricula. Certification provides students with industry-recognized credentials that employers can use to identify workplace skills.

The second advantage of Area Career Center courses is that many are associated with dual credit, which allows you to get a jumpstart on your college education.



"The courses at the Area Career Center are career-oriented, student preparation is focused on career work in business and industry rather than for work in the home."



With dual credit courses, a student taking a course at the ACC gets both high school credit and college credit from IVCC. The credit is free and transferable to IVCC and select state schools in Illinois.

The Area Career Center is proud of its ability to jump start students' careers.





Courses with Dual Credit:

Building Trades, Child Care, CompTIA A+, Computer Aided Design, CNA, Culinary Arts, EMS, Illinois Valley Entrepreneurial Opportunities (IVEO), Machine Technology, Medical Technology, Residential Wiring, and Welding

Courses Offering Certifications:

Automotive, Building Trades, Child Care, Computer Programming, Computer Repair, Cosmetology (Partial Completion of Requirements), CNA, Culinary Arts, Fire Science/EMS, Machine Technology, and Welding



Keynote Speaker

Brian Krzyaniak, IVCC Alum '94 Vice President of Strategic Development Oertel Metal Works, Davenport, IA

Brian Krzyaniak grew up in Peru, IL where he attended LaSalle-Peru Township High School. After graduating from L-P, Brian attended IVCC where he completed the Engineering Design Technology program. After completing his A.A.S. at IVCC, he took

advantage of the two plus two program IVCC had worked out with Bradley University. At Bradley he completed their manufacturing engineering program and graduated in 1996 with a B.S. degree.

Upon graduating from Bradley, he had several offers to consider, and he chose to follow his dream and work for Caterpillar, Inc (CAT). He joined their Large Mining Products Group located in Joliet, IL. In this position he was the manufacturing engineer for the assembly process of the large mining shovels. He later took on a manufacturing engineer position within CAT's Fuel Systems R&D Division. This experience enabled him to take on many different roles within the engines and fuel systems division. Some of these positions were, team lead of manufacturing engineering, 6 Sigma Black Belt, CPI Black Belt and Technical Support Manager serving the company in various facilities within Illinois and Georgia.

In 2007, Brian moved back to the Midwest and into the machine portion of CAT as he joined the Aurora, IL team. While in Aurora, he held multiple roles some of them being, Technical Services manager responsible for facility engineering, maintenance, capital acquisitions and advance manufacturing engineering for the campus. He also had his first experience leading a facility while he was Powertrain Facility Manager responsible for the Building B operations and manufacturing engineering. He led a team through the Medium Wheel Loader line consolidation for K Series launch. They combined three assembly lines down to one line while launching a new product line. Brian's largest accomplishment in Aurora was the fabrications transformation when he led a team to completely renovate a building of over one million square feet while meeting record production numbers. He and his team worked an extensive project plan to remove and replace the machine tools, weld stations and weld robots while running production and meeting aggressive timeline and budget targets. His last role with Caterpillar was the facility manager for the operator station assembly facility in Joliet, IL. His team was responsible for providing world-class quality cabs at the most efficient cost while using the safest processes possible. These cabs supported nine different customers, two of which were external CAT customers.

In 2016, Brian and his wife, Alecia, decided to move their family to Bettendorf, IA where he would take on the next chapter in his career with KONE as the Unit Director for North American escalators. In this role, he has responsibility for design, scheduling, procurement, manufacturing, shipping, and managing the P&L for the Heavy Duty and Modernization Escalators to support the North American customers. By improving the KPI's of the business, he and the team enabled the company to double in sales along with significant increase in customer base of the heavy–duty escalator business in North America.

Brian recently took on a new role with Oertel Metal Work, a division of McCarty-Bush Company, as the Vice President of Strategic Development. In this role he will focus on the current companies and assets to maximize the efficiency to drive organic growth. Also, identify other gaps in their manufacturing capability or capacity to grow the overall business and better serve the current and future customer base.

Brian has served on the advisory board at NIU College of Engineering and Illinois Valley Community College to help provide guidance to both engineering programs to ensure the future engineers are prepared for the needs we have in the industry.

SPECIAL THANKS TO OUR SPONSORS AND SUPPORTERS







Carus Corporation 315 Fifth Street Peru, IL 61354 815-223-1500



SABIC 2148 N. 2753rd Road Ottawa, IL 61350 815-434-7001



HCC, Inc. 1501 1st Avenue Mendota, IL 61342 815-539-9371



Machinery Maintenance, Inc. 321 Raccuglia Drive Lasalle, IL 61301 815-223-4058



Eakas Corp 6251 State Route 251 Peru, IL 61354 815-223-8811



Epsilyte 501 Brunner Street Peru, IL 61354 815-224-1525







Vactor Manufacturing, Inc. 1621 S. Illinois Street Streator, IL 61364 815-672-3180



Black Bros 501 9th Avenue Mendota, IL 61342 815-539-7451



Starved Rock Wood Products 1609 Division Street Mendota, IL 61342 815-538-7797







MCS Advertising 4110 Progress Blvd. Suite 2A Peru, IL 61354 815-224-3011







TO THE NORTH CENTRAL ILLINOIS DISCOVER MANUFACTURING CARFER EXPO

Participating Manufacturers

Black Bros. Co., Canam Steel, Carus Corporation, Eakas Corporation, Epsilyte, HCC, Inc., Machinery Maintenance, SABIC Innovative Plastics, and Vactor Manufacturing

Project Support

Illinois Valley Contractors Association, IVCC Workforce Development, LP Area Career Center, Starved Rock Wood Products, and BEST, Inc.

Emcee

Jay Burt, President NCRBC

Keynote Speaker

Brian Krzyaniak Vice President of Strategic Development Oertel Metal Works

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