



# DISCOVER

→ THE OPPORTUNITIES

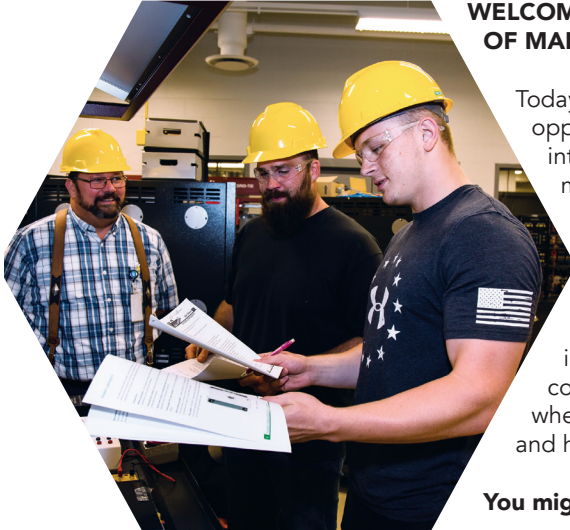


2019

# WELCOME TO THE 7TH 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), 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.

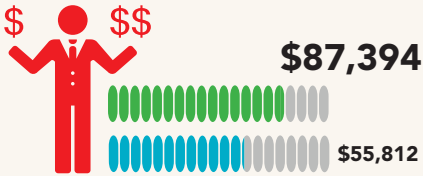
**We are here to help you with your education and career goals, so please ask questions and share your feedback and ideas.**

Jennifer Scheri  
Jen Wier-Buck  
Steve Seaborn

*North Central Illinois  
Discover Manufacturing Career Expo  
Committee Co-Chairs*



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

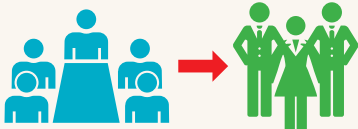


"In **2017**, the average Illinois manufacturing worker earned **\$87,394** annually, including pay and benefits. The average worker in all non-farm industries earned **\$55,812** annually."

"Illinois is one of the nation's manufacturing leaders, boasting annual value added productivity by manufacturing over **\$103 billion.**"



"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.

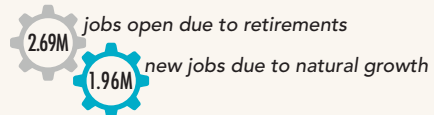


"Currently **12.53 million** workers are employed in the manufacturing sector."

There are **143** manufacturing establishments in LaSalle County, **37** in Bureau County, and **8** in Putnam County.



With an estimated 4.6M manufacturing jobs to fill from 2018–2028, the skills gap may leave an estimated **2.4 million** positions unfilled between 2018 and 2028.



2.4M (53 out of 100) open positions lie vacant due to a skills shortage in the US manufacturing industry

## SOURCES:

"The Skills Gap in U.S. Manufacturing – 2018 and Beyond," as reported by the Manufacturing Institute and Deloitte.

"Facts about Manufacturing," as reported by the Manufacturing Institute – 2014.

"National Association of Manufacturers," State Manufacturing Data, updated March, 2017.

United States Census Bureau  
Manufacturing Statistics, 2018.

United States Bureau of Labor Statistics NAICS 31-33



**ILLINOIS VALLEY  
COMMUNITY COLLEGE**



**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.

**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.

**Don't wait! Get started today.**

View our website at [ivcc.edu](http://ivcc.edu) or contact Shane Lange,  
Dean of Workforce Development  
Phone: 815-224-0219  
Email: [shane\\_lange@ivcc.edu](mailto:shane_lange@ivcc.edu)





## Parents and students are invited to attend the following events:

### Manufacturing Technology Information Session

Wednesday, October 30, 2019  
5:30pm • IVCC Main Campus –  
rooms CTC 124 and CTC 125

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

### Explore IVCC

Wednesday, November 14  
5:30 - 8:00pm • 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.

### Parent College 101

Tuesday, April 9, 2020  
5:30 - 7:30pm • IVCC Main Campus

Whether your student is a freshman or a senior, gaining skills, certifications and degrees in college is necessary for success in a high paying career. Join us at Parent College 101 to learn what they need to do to prepare for any college.

### Student Shadow Program

Shadow a student during a class session

### Campus Visit

Tour campus and learn more about the enrollment process!

For more details and to RSVP, visit [ivcc.edu/events](http://ivcc.edu/events)

Like us on Facebook @AdmissionsIVCC for lots of college and career information

IVCC Admissions Office, 815-224-0437



## IVCC Programs In Manufacturing

### MANUFACTURING DEGREE PROGRAMS

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

### MANUFACTURING CERTIFICATE PROGRAMS

- Certified Production Technician
- Computer-Aided Drafting
- Computer Numerical Control Operators
- Heating, Ventilation, and Air Conditioning
- Industrial Electricians
- Industrial Maintenance
- Machinist and Tool and Die Making
- Truck Driver Training
- Welding - Basic and Advanced Construction
- Welding - GMAW, GTAW, and OAW
- Welding - Production
- Wind Energy Technician



# LOCAL PATHWAYS TO GET STARTED

## ENGINEERING

### 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.

### Chemical

- Conceive and design processes to produce, transform, and transport materials – beginning with experimentation in the laboratory and followed by implementation of technologies in full-scale production.

**Industrial Chemists** work to develop and manufacture products and processes that will increase their company's sales and profits.

**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

## COMPUTER-AIDED DRAFTING

### 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.

**IVCC Related Programs:** AA/AS transfer degree or Applied Science degree/certificate in Computer-Aided Engineering and Design



## MANUFACTURING MANAGEMENT

### 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.

### IVCC Related Programs:

AA/AS transfer degree or Applied Science degree/certificate in Business Administration and Manufacturing Technology

## EQUIPMENT MAINTENANCE

### Electrical & Mechanical Maintenance

- Repair and maintain the manufacturing equipment and facilities, which many 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

“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.”



## WELDING

### 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

## PRODUCTION MANUFACTURING

### Certified Production Technician (CPT)

- Hands-on building of the components and finished products.

### Parts Assembly & CNC/Machine Operation

- This may include many technical skills like machining, wiring, parts assembly, and equipment operation.

### Quality Control

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

### Assembler (Component)

- Assemble metal products, partially or completely, working at bench on the shop floor.

### Assembler (Heavy Equipment)

- Assemble heavy or capital equipment and sub-assemblies

### IVCC Related Programs:

AA/AS transfer degree or Applied Science degree/certificate in Manufacturing Technology, CNC, Machinist and Tool and Die, and Certified Production Technician





# SUPPLY CHAIN MANAGEMENT

## 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 and Truck Driver Training

# INFORMATION TECHNOLOGY

## 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 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

### **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.

**IVCC Related Programs:**  
AA/AS transfer degree or Applied Science degree/certificate in Business Administration, Accounting, and Marketing

## OPERATIONS SPECIALIST

### **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.

### **Environmental, Health, and Safety**

- Monitor and administer worker safety and health programs.

### **IVCC Related Programs:**

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



**Want to know more...**

**Visit the following websites:**

[ivcc.edu/catalog](http://ivcc.edu/catalog)  
[careercruising.com](http://careercruising.com)

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# LASALLE- PERU AREA CAREER CENTER

PROVIDING CAREER EDUCATION  
TO THE ILLINOIS VALLEY

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## Offering Programs In:

AUTOMOTIVE	COMPUTER REPAIR AND PROGRAMMING
AVIATION	COSMETOLOGY
BUILDING TRADES	CULINARY ARTS
CAD DRAFTING	FIRE SCIENCE/EMS
CERTIFIED NURSING ASSISTANT (CNA)	MACHINE TECHNOLOGY
CERTIFIED PRODUCTION TECHNICIAN	RESIDENTIAL WIRING
CHILD CARE	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.





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.



*“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.”*



**Courses with Dual Credit:**

- Building Trades, Certified Production Technician, Child Care, CNA, Culinary Arts, Drafting, EMS, Machine Technology, Medical Technology, PC Troubleshooting and Repair, Residential Wiring, and Welding

**Courses Offering Certifications:**

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

# ARE YOU READY TO GET SERIOUS?

When you finish today's activities, 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?

- [catalog.ivcc.edu/guidesheet](http://catalog.ivcc.edu/guidesheet)
- [careercruising.com](http://careercruising.com)
- [mynextmove.org](http://mynextmove.org)
- [ncrbc.net/expo-resources](http://ncrbc.net/expo-resources)
- [knowhow2go.org](http://knowhow2go.org)
- [illinoisworknet.com](http://illinoisworknet.com)
- [nam.org](http://nam.org)
- [womeninmanufacturing.org](http://womeninmanufacturing.org)

## LOOKING FOR FUN STUFF RELATED TO MANUFACTURING?

- [howstuffworks.com](http://howstuffworks.com)
- [web.mit.edu/invent/www/ima/games.html](http://web.mit.edu/invent/www/ima/games.html)

"Guess what I just found out? Starting this year, the EXPO is providing scholarships to IVCC for manufacturing careers!"

"WHAT?! How can I get one of those scholarships?"

## FINANCING YOUR EDUCATION

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

- **NEW THIS YEAR:**  
The Discover Manufacturing EXPO is providing scholarships to IVCC for students pursuing a career in manufacturing! If you come to the EXPO, you are eligible!
- [NextStudent.com](http://NextStudent.com)
- [scholarships.com/financial-aid](http://scholarships.com/financial-aid)
- Local high school counselors and websites
- Individual college websites
- [careercruising.com](http://careercruising.com)
- Visit IVCC's Financial Aid webpage at [ivcc.edu/financialaid](http://ivcc.edu/financialaid).

## 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 through Career Cruising or by contacting their Human Resources Department to inquire about internships, co-op programs, and training that might be available.



# SPECIAL THANKS TO OUR SPONSORS AND SUPPORTERS



Imagine U Studio  
230 E Cleveland Street  
Spring Valley, IL 61362  
815-664-4060



Carus Corporation  
315 Fifth Street  
Peru, Illinois 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, Illinois 61354  
815-223-8811



Flint Hills  
501 Brunner Street  
Peru, IL 61354  
815-224-1525



LCN Closers,  
An Allegion Brand  
121 Railroad Avenue  
Princeton, Illinois 61356  
815-875-3311



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



Unytite  
1 Unytite Drive  
Peru, IL 61354  
815-224-2221



Vector  
Manufacturing, Inc.  
1621 South Illinois Street  
Streator, Illinois 61364  
815-672-3180



MCS Advertising  
4110 Progress Boulevard  
Suite 2A  
Peru, Illinois 61354  
815-224-3011



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



# SPECIAL THANKS TO OUR 2019 CONTRIBUTORS TO THE NORTH CENTRAL ILLINOIS DISCOVER MANUFACTURING CAREER EXPO

## Participating Manufacturers

Allegion, Black Bros. Co., Carus Corporation, Eakas Corporation,  
Flint Hills Resources, HCC, Inc., Machinery Maintenance,  
SABIC Innovative Plastics, Starved Rock Wood Products,  
Vactor Manufacturing, and Unytite

## Project Support

Illinois Valley Contractors Association, IVCC Admissions Staff,  
LP Area Career Center, BEST, Inc.

## Emcee

J. Burt

## Keynote Speaker

Mark Lamboley  
Vice President, HCC, Inc.

## Lunch Partner

DeMilio

## Graphic Design & Printing Partners

MCS Advertising

## Facilities Partner

IVCC's Peter Miller Community Technology Center

## Video Partners

Imagine U Studio

## Grant Providers

SRAVTE

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Jen Wier  
Steve Wrobleski

[ncrbc.net](http://ncrbc.net)