


# Session 5--Presentation Thumbnails

**WISE Pathways**  
Women in Sustainable Employment  
Building awareness of careers in construction, energy, and manufacturing for women.



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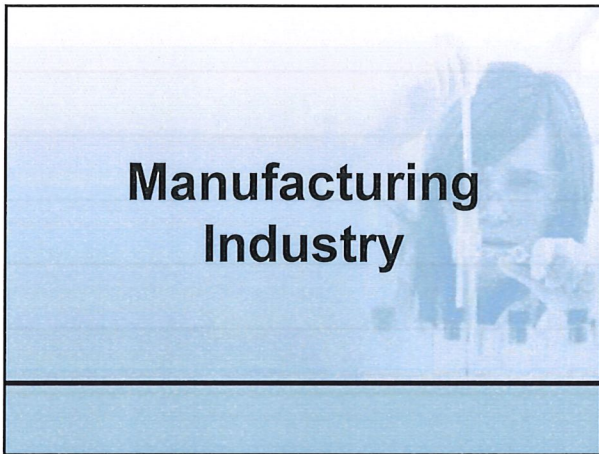
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**Manufacturing Industry**



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**What is Manufacturing?**

- The Manufacturing sector comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products.
- Establishments in the Manufacturing sector are often described as plants, factories, or mills and characteristically use power-driven machines and materials-handling equipment.
- Manufacturers produce products such as food, textiles, paper, plastics and rubber, metals and machinery.

From The Bureau of Labor Statistics.

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**Machinist: What do you do?**

- Calculate dimensions and tolerances using knowledge of mathematics and instruments
- Select the appropriate tools, machines, and materials to be used in preparation of machinery work
- Monitor the feed and speed of machines during the machining process
- Set up, adjust, and operate all of the basic machine tools

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**CNC Machine Operator:  
What do you do?**

- Measure dimensions of finished workpieces to ensure conformance to specifications
- Remove and replace dull cutting tools
- Mount, install, align, and secure tools, attachments, fixtures, and workpieces on machines
- Adjust machine feed and speed, change cutting tools, or adjust machine controls when automatic programming is faulty or if machines malfunction

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**CNC Machine Operator:  
What do you do?**

- Stop machines to remove finished workpieces
- Modify cutting programs to account for problems encountered during operation
- Calculate machine speed and feed ratios and the size and position of cuts

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**Maintenance Worker,**

**Machinery: What do you do?**

- Reassemble machines after the completion of repair or maintenance work
- Start machines and observe mechanical operation to determine efficiency and to detect problems
- Inspect or test damaged machine parts, and mark defective areas
- Install, replace, or change machine parts and attachments

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**Electronics Assembler:**

**What do you do?**

- Read and interpret schematic drawings, diagrams, blueprints, specifications, work orders, or reports
- Position, align, or adjust work pieces or electrical parts to facilitate wiring or assembly
- Pack finished assemblies for shipment and transport them to storage areas
- Explain assembly procedures or techniques to other workers

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**Electronics Assembler:**

**What do you do?**

- Inspect or test wiring installations, assemblies, or circuits
- Assemble electrical or electronic systems or support structures and install components, and other pieces
- Adjust, repair, or replace electrical or electronic component parts to correct defects and to ensure conformance to specifications

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## What is the NCRC?

The ACT WorkKeys National Career Readiness Certificate (ACT WorkKeys NCRC®) is an assessment-based credential issued at four levels; Platinum, Gold, Silver, and Bronze. The NCRC measures and certifies the essential work skills needed for success in jobs across industries and occupations. With an NCRC, you can:

- Build confidence that your skills meet the needs of employers
- Show prospective employers concrete proof of the skills you have
- Apply real-world use to coursework from the classroom
- Determine skill improvement and training needs
- Improve the opportunities for career changes and advancement
- Earn college credit at many institutions and reach academic goals more quickly




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## NCRC: Qualifying for the Credential

- A multi-level credential
- Requires scores of Level 3 or higher on three assessments:

*Applied Math, Workplace Documents, Graphic Literacy*

- Bronze: Level 3 or higher on each assessment
- Silver: Level 4 or higher
- Gold: Level 5 or higher
- Platinum: Level 6 or higher

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## Attribution and Licensing

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