

PRINCIPLES OF INDUSTRIAL MANUFACTURING SKILL AWARD

Principles of Industrial Manufacturing provides students with foundational skills for today's advanced manufacturing environments through a blend of theory and hands-on learning. Students gain experience in core areas of industrial production, including workplace safety, materials and processes, blueprint reading, precision measurement, quality practices, equipment operation, and effective communication and teamwork. This program aligns with the Nebraska Manufacturing Alliance Bronze Credential, ensuring graduates demonstrate essential competencies recognized by employers statewide. Upon completion, students are prepared for roles such as Production Technician, Machine Operator, Quality Technician, Material Handler, and other industrial manufacturing positions in Nebraska's growing workforce.

Required Program of Study for Skill Award (14 weeks)

FALL SEMESTER	
Course	Credits
INDT 1150 Machining Fundamentals	2
INDT 1065 Manufacturing Technologies and Measurement	2
INDT 1055 Print Reading for the Industrial Trades	2
INDT 1170 Introduction Total Quality Management	2
Total Credit Hours	8

SACA INDUSTRY 4.0 FOUNDATIONS SKILL AWARD

SACA Industry 4.0 Foundations introduces students to the core principles, technologies, and skills used in today's smart manufacturing environments. This course blends theory with hands-on lab experience to build foundational competencies in automated machine operation, safety, blueprint and schematic reading, precision measurement, basic electrical and pneumatic systems, sensors, and introductory robotics. Students also learn how modern production systems are monitored through HMIs, networked devices, and digital communication tools. The course aligns with the Smart Automation Certification Alliance (SACA) C-101 Certified Industry 4.0 Associate I – Basic Operations credential, preparing learners for entry-level roles in advanced manufacturing and supporting upskilling for individuals who are seeking career advancement.

Required Program of Study for Skill Award (14 weeks)

Course	Credits
ELMC 1080 SACA Industry 4.0 Foundations	8
Total Credit Hours	8