

# +CONNECT

A MINNESOTA STATE COLLABORATIVE TRAINING PROGRAM

## COURSE DESCRIPTIONS

This list includes current courses available through +Connect. Please note that any trainings can run through the +Connect model, even if they have not run before. Contact your college representative to request a new course.

### **Safety Awareness (CMAE 1514)**

*Introduction of OSHA standards relating to personal protective equipment, HAZMAT, tool safety, confined spaces and others. The course curriculum is based upon federally-endorsed national standards for production workers. The course curriculum is based upon federally-endorsed national standards for production workers. This course is designed to align with the Manufacturing Skill Standards Council's (MSSC) assessment and certification system for Safety.*

### **Quality Practices (CMAE 1522)**

*Introduction to quality, including emphasis on corrective actions, preventative actions, control of documents, control of quality records, internal auditing of processes and control of non-conforming product. This course is designed to align with the Manufacturing Skill Standards Council's (MSSC) assessment and certification system for Quality Practices.*

### **Manufacturing Processes and Production (CMAE 1518)**

*Emphasizes Just-In-Time (JIT) manufacturing principles, basic supply chain management, communication skills, and customer service. This course is designed to align with the Manufacturing Skill Standards Council's (MSSC) assessment and certification system for Manufacturing Processes.*

### **Maintenance Awareness (CMAE 1526)**

*Introduces the concepts of Total Productive Maintenance (TPM) and preventive maintenance. Students are introduced to lubrication, electricity, hydraulics, pneumatics, and power transmission systems. This course is designed to align with the Manufacturing Skill Standards Council's (MSSC) assessment and certification system for Maintenance Awareness.*

### **Technical Math (CMAE 1502)**

*The primary goal of this course is to help individuals acquire a solid foundation in the basic skills of math, shop algebra and geometry. Math instruction to include fundamentals of math, fractions and decimals, units of measure, lines and angles, triangles, shop geometry, circles and polygons, shop algebra and the Pythagorean Theorem. Accuplacer testing is required prior to the course start date for students taking the course for credit.*

### **Introduction to Computers (CMAE 1506)**

*This is an introductory course in Microsoft Office computer applications for technical fields. The primary goal of this course is to help individuals acquire a hands-on working knowledge of current personal computer applications including word-processing, spreadsheets, database, presentation, learning management and internet browser software.*

### **Career Success Skills (CMAE 1528)**

*Students will be introduced to skills that will help them succeed in the workplace, including communication skills, productivity, teamwork, conflict resolution, and critical thinking. Students will be able to identify professional skills, learn how to assess their abilities, and identify ways to improve.*



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## **Print Reading (CMAE 1510)**

*Basic skills and abilities required for understanding prints utilized in a manufacturing environment will be gained. Emphasis will be on interpretation of Geometric Dimensioning and Tolerancing symbols/principles, alphabet of lines, multi-view drawing (including orthographic projection, isometric views and perspective drawing), title blocks, revision systems, identification of general/local notes, dimensions and tolerances, basic principles of math/geometry in relation to mechanical print reading, interpretation of basic weld symbols, techniques of basic shop sketching and interpretation of three-dimensional drawings.*

## **Geometric Dimensioning & Tolerancing (CMAE 1542)**

*Students will engage in learning how to read prints with Geometric Dimensioning and Tolerancing applications. Each of the geometric controls will be examined so the student may determine the allowable variation in form and size between part features.*

## **Interpreting Symbols (CMAE 1560)**

*The welding profession requires a good working knowledge of the fundamental component of welding prints that make up structures in the welding industry. To accurately layout and fabricate parts, the welder will need basic knowledge of print lines, dimensions, notes and welding symbols. Students will breakdown welding prints to develop the skills necessary to fabricate individual component parts that will make-up welded structures.*

## **Fundamentals of Auditing**

*Provides foundational understanding of how to audit a Quality Management System (QMS) based on ISO 9001:2015 guidelines. All companies currently registered to ISO 9001:2008 will have until September 2018 to re-register to the new standard. This course can aid companies in the process.*

## **Basic & Intermediate Microsoft Excel**

*This course is for anyone looking to gain an advantage in the workplace through applicable knowledge of an industry standard software. The first week of the course will introduce participants to the basics of Microsoft Excel, and the second week will move into intermediate training and teach participants how to work with functions, perform intermediate calculations, create charts and graphics, and create and use pivot tables.*

## **Microsoft Access**

*This course emphasizes concepts and theories which underlie database management systems. Topics include designing a database structure, data entry, editing, arranging, and retrieval along with report and query creation and generation.*

## **Leadership Skills for New Supervisors**

*This course is built on solid leadership/supervisory best practices. Participants will engage in activities to help transition from co-worker into supervisor. The open discussion format and content-related exercises are an excellent way to understand how to engage in supervisory best practices.*

## **Employee Life Skills for Industry Success**

*Research shows that healthy individuals are better workers because they have more energy, take less sick days, and have a more positive attitude. In addition, they are clear communicators, better managers, and able to solve problems with less conflict. This training includes 8 sessions that focus on the important life skills that every successful employee needs. Emphasizing these skills not only creates a more effective workforce, but also increases retention and contributes to organizational and industry success. Each session will include reflective questions and give individuals time to consider these significant but often forgotten life skills.*

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## **Active Shooter Safety Training**

*Do you know what to do if you hear shots fired in your workplace, store, school or restaurant? Do you know what to do if you come face-to-face with an armed gunman? Have you thought it through, or will you just freeze? The U.S. Department of Homeland Security and FBI developed the Run, Hide, Fight, Prevention methodology; This series covers each of these techniques along with active shooter case studies, tips on prevention for managers, teachers, and students, building security risk assessments, timed employee or student drills, pepper spray, fire extinguisher outdoor practice drills, barricade building and improvised weapons training. All experts agree that preparedness training saves lives! On-site drills, videos, small group discussions and paired preparedness drills can be conducted during the classes. Demonstrations of close contact non-lethal weapons (safety cats, expandable batons, pepper spray, strobe flashlights, electronic stun guns, quick clot, etc.) and resources for further first aid supplies and information will be provided. NOTE: This training does not involve the use of firearms or lethal weapons.*

## **Delivering Your Message through Clearly Constructed Communication**

*After all has been said and done there is usually a lot more said than done! In the communication landscape, there is so much noise that vies for employees' attention. How do you make sure your employees are understanding the critical communication in your organization? This course will get to the point by examining oral and written communication that deliver results. Participants will develop messaging that impacts employees by understanding the audience's needs in crafting the communication.*

## **Developing the Team on which Everyone Wants to Play**

*There is a synergy that successful teams have that make them the envy of others. Is it coincidence, luck, or magic that makes it happen? Of course not; It is design. Developing teams can be complex work and like any great relationship it takes the willingness of the members to make it happen. This course will examine the elements of successful teams and what goes into their design – what leaders need to analyze for the scope of work and the kind of members that the team needs. The course will also examine what responsibilities members must demonstrate to make the team perform to the highest standards.*

## **MSSC-CPT Bootcamp**

*This course is designed to align with the Manufacturing Skill Standards Council's Certified Production Technician (MSSC-CPT) assessment and certification system for Manufacturing Processes & Production, Quality Practices, Safety Awareness, and Maintenance Awareness. The course curriculum is based upon federally-endorsed national standards for production workers. This course emphasizes production processes, manufacturing principles, communication skills, and customer service. Upon successful completion of this course, the student will have a review of the information provided in Manufacturing Processes, Quality, Safety, and Maintenance classes. The review will prepare them to take the MSSC-CPT assessment in each subject.*

## **Basic Electricity/Electronics**

*In this energetic course, participants will learn how to measure voltage, current, resistance, and to calculate power. The class will cover electrical sources, AC/DC voltage, current, resistance, electromagnetism, Ohms Law, solid state devices, control devices, and basic troubleshooting.*

*Who should attend: Managers, Engineers, Operators or others needing to understand Basic Electricity/Electronics.*

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## **Key Lean Manufacturing Principles**

*Attendees of this course will gain insight into why business and industry are utilizing Lean and where it has been used successfully. The course will cover Six Lean Principles (1. Elimination of Waste 2. Continuous Improvement 3. Respect for Humanity 4. Leveled Production 5. Just In Time Production 6. Quality Built In) and Five Lean Manufacturing Tools (1. Kanban 2. 5”S”, 3. Levelized Production 4. Standardized Work 5. Lean Leadership.) Basic Lean vocabulary will be discussed along with the benefits and challenges associated with Lean.*