



**Austin Area  
Urban League**

*Empowering Communities.  
Changing Lives.*

## **Production Technician Certificate Training Program (CPT)**

### **Course Description**

In the high tech world we live in, quality in advanced manufacturing production is one of the core competencies required for building the next generation of consumer and business technologies. The Certified Production Technician Certification is an industry recognized credential that certifies the competency of those who play significant roles in advanced manufacturing, production automation, safety, quality control and product distribution. The four core production areas each have their own key competencies where students can either specialize in specific skillsets or can create a foundation for multiple skillsets across Industry 4.0 Technologies. The students will be introduced to Advanced Manufacturing and to both Industry 4.0 and IIoT principles. After completing this program, the student will have a working knowledge and foundational skills to maintain, monitor, repair, troubleshoot and participate in all four areas of advanced manufacturing: Safety, Quality Practices and Measurement, Manufacturing Processes and Production and Maintenance Awareness. The students will build skills to effectively work with others, identify and solve problems and the ability to acquire more skillsets necessary for successful careers. The students will be prepared to take the following certifications:

- Production Core Module Exam: Safety
- Production Core Module Exam: Quality Practices & Measurement
- Production Core Module Exam: Manufacturing Processes & Production
- Production Core Module Exam: Maintenance Awareness

The students will receive certification for each successfully completed production core module exam. Upon achieving certification for all four production core modules, the student will achieve the full Certified Production Technician certification.

### **Career Opportunities:**

Certified Production Technicians are in demand globally by multi-billion-dollar corporations and smaller organizations to install, use, and maintain manufacturing equipment and manage manufacturing flow controls from product production to packaging and distribution which are vital for the operation of that business. Certified Production Technicians are employed in core areas of manufacturing production such as: Advanced Manufacturing, Materials Handling, Safety, Robot Safety, Quality Control, Tolerancing, Automation, Industry 4.0 Technologies Management and Total Productive Maintenance (TPM).

Class Session Day: 9:00am – 3:00pm M – Th, 11:30am – 12:30pm Lunch  
10min breaks 10:10 am and 1:40 pm

Course Length: 160 hours: 8 Weeks

Normal Class Size: Up to 20 students

### **Admissions Requirements:**

Individuals applying for this course are required to

- interview with an Academic Advisor;
- present proof of education (high school diploma or GED certificate or in pursuit there of)



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Course Outline:		Clock Hours			
Sub#	Subject Title	Lec	Lab	Ext	Total
INTRO01	Introduction to Computers	04	06	00	10
INTRO02	Customer Service for Technicians and Professionals	06	04	00	10
CPTP01	MSSC Overview and Techniques, Working in Manufacturing, Impact of Manufacturing and Customer Expectations & Needs	04	06	00	10
CPTP02	Best Practices, Communication, Production Group Communication and Communication Strategies	06	04	00	10
CPTP03	Production Teams, Training & Leadership, Safety Organization and Personal Protective Equipment (PPE), Fire & Electrical Safety	04	06	00	10
CPTP04	Work Area Safety, Hazardous Material Safety, Tool & Machine Safety and Material Handling Safety	04	06	00	10
CPTP05	Blueprint Reading Levels 1, 2 & 3, Basic Measurement and Precision Measurement Tools	04	06	00	10
CPTP06	Dimensional Gauging, Quality Systems, Quality Improvement and Introduction to SPC	04	06	00	10
CPTP07	Control Charts, Continuous Improvement 1, Continuous Improvement 2	04	06	00	10
CPTP08	Inspections, Audits, Prevention & Correction and Documentation	04	06	00	10
CPTP09	Contacting the Customer, Designing Products, Types of Production & Manufacturing Introduction	04	06	00	10
CPTP10	Mechanical Principles, Mechanical Linkages, Materials, Material Testing, Selection & Development	04	06	00	10
CPTP11	Production Processes, Machining Processes, Machine Tooling and Machine Operations, Tools Usage	04	06	00	10
CPTP12	Equipment Procedures, Production Planning & Workflow, Components and Production Control	04	06	00	10
CPTP13	Process Documentation, Packaging and Distribution	04	06	00	10
CPTP14	Maintenance Awareness Introduction & Welding, Basic Electrical Circuits, Electrical Measurement and Electrical Power	04	06	00	10
CPTP15	Pneumatic Power Systems, Hydraulic Power Systems, Lubrication Concepts, Bearings & Couplings, Belt Drives and Chain Drives	04	04	00	08
CPTP16	Machine Control Concepts, Machine Automation, High Vacuum Systems and Laser Systems	04	04	00	08
CPTP17	Final Review and Graduation	04	00	00	04
<b>Totals</b>		<b>68</b>	<b>92</b>	<b>00</b>	<b>160</b>