PROGRAM LOCATION
LCC West Campus

SESSION OFFERED
AM

AVERAGE LECTURE DAYS/WEEK
0-1 days

AVERAGE LAB DAYS/WEEK
4-5 days

HOMEWORK
Occasionally

REQUIRED READING
College level textbooks
Less than 25 pages/week
The manufacturing industry has a high demand for skilled professionals with the foundation skills in design and tooling operations. Our program provides students with hands on laboratory projects, career based education, and industrial skill sets needed.

**EXPECTED STUDENT OUTCOMES**

- Use software to convert the designs into technical drawings
- Introduction of manual drafting skills (triangles, scales, compass, etc.)
- Identify type of measuring units (Metric, English)
- Identify and demonstrate Orthographic views, Section, and Auxiliary views
- Identify and demonstrate Assembly Drawings
- Development of working drawings which will prepare the student for machine shop practices
- Introduction to CAD software (Solid Edge)
- Describe appropriate safety procedures
- OSHA regulations, MIOSHA regulations
- MSDS requirements
- Accident investigation
- Identify the types and purposes of drilling machines, lathes, grinders
- Identify and operate milling machines and surface grinders

**CAREERS**

- Drafter
- CNC Programmer
- CNC Operator
- Machinist
- Tool and Die Maker

**MEDIAN WAGE**

- Drafter: $25.71 hourly
- CNC Programmer: $18.21 hourly
- CNC Operator: $24.32 hourly
- Machinist: $20.05 hourly
- Tool and Die Maker: $24.55 hourly

**EMPLOYMENT OUTLOOK**

- Faster than average, 10-14%

**CERTIFICATIONS**

- CPR/AED
- First Aid
- OSHA 10 Certification

**SUCCESS INDICATORS**

- Creative, detail oriented, organized, a strong problem solver, interested in computers, and have strong math skills. Realistic occupations frequently involve work activities that include practical, hands-on problems and solutions.

**STUDENT LEADERSHIP**

- Students have the opportunity for leadership, competition, and community service through membership in SkillsUSA and MITES.

**13 COLLEGE CREDITS**

- METS 102 - Industrial Safety
- METD 100 - Basic Mechanical Drafting
- METD 110 - Mechanical CAD Drafting I
- METM 108 - Machine Tool Operations

**ACADEMIC RIGOR**

- 4

**CAPITAL REGION TECHNICAL EARLY COLLEGE**

- Students enrolled in this program may choose to participate in the Capital Region Technical Early College (CRTEC). Capital Region Technical Early College is a high school-to-college program where students start in grade 11 and leave in grade 13 with a college degree or certification. The program gives students relevant career-related experience.