

Tri-County ROP Advanced Manufacturing

Program Objectives

Advanced Manufacturing Technology is designed to prepare students for employment in the manufacturing industry. Students will engage in interdisciplinary learning of Science, Technology, Engineering, Art and Math (STEAM) through hands-on Project Based Approach. Students will receive advanced level exploratory instruction and guidance on topics including proper use of machinery tools, foundation in applied physics, basic concepts behind drive train systems, pneumatics, and actuators, designing and creating models using CNC machines, analyzing design tools and simulations on created Computer Aided Design (CAD), basic introduction to robotic programmable welding applications, implementation of Introduction and Advanced STEAM concepts through real world applications of classroom concepts. Depth of knowledge will be demonstrated through a series of projects starting with research and initial design and culminating with the completion of a build project that is geared toward solving real-world problems. Activities in this course include work-based learning that connects students to industry and the local community. Learn more on our website at:

<https://www.tricountyrop-cte.com/>



Schedule

Class is a combination of lecture, laboratory and community experiences both online and in person

Locations

AeroSTEM Academy
CORE Academy
Live Oak High School
Feather River Academy
Sutter Union High School

Enrollment

If you are a regularly enrolled high school student, contact your high school counselor or the career center at your school. Or contact:

Tri-County ROP
cecilias@sutter.k12.ca.us

Academy Fundamentals:

- Blue Print Reading
- GD&T (Geometric Dimensioning & Tolerancing)
- Designing with Advanced 3D CAD Software
- Programming with Advanced 3D CAM Software
- Full Setup & Operation of a CNC Machine
- Knowledge of fundamental tooling needed in CNC Machining

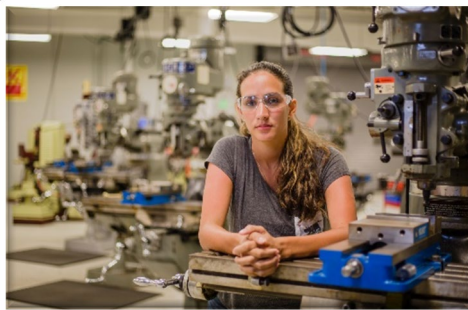
Future Career Opportunities:

- Machinists and Tool and Die maker
- Metal and Plastic Machine Workers
- Primary Metal, Fabricated Metal, and Machinery
- CNC and CAD Operator
- Manufacturing Manager, Supervisor and Owner



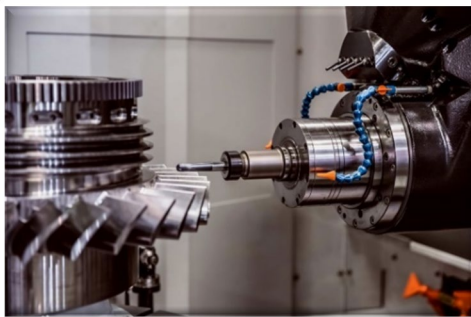
What is ROP?

The Tri-County Regional Occupational Program (ROP) offers career technical training courses to high school students and adults in Colusa, Sutter, and Yuba Counties. These courses provide training in many different occupations and are geared to entry-level employment, preparation for advanced training, or retraining. Additional information about ROP courses is available at career centers and counseling offices in participating districts.



Why Take an ROP Course?

Whether you plan to work full-time after graduation or work part-time and continue in school, an ROP course will teach you skills to get and keep a worthwhile job. It will also give you high school credit while you are learning. When you complete a course, you will receive a certificate of proficiency that lists the skills that you have gained. This certificate is widely recognized by the business community and is a valuable job-seeking tool.



Who is Eligible?

If you are in 11th or 12th grade and live in a school district that participates in ROP, you are eligible whether you are a regularly enrolled student or not. This includes adults, private school students, charter school students, students on independent study, and students with disabilities. Email the ROP office at cecilias@sutter.k12.ca.us or see your school office for assistance.



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