

TECHNOLOGY AND ENGINEERING

The Fullerton College Technology and Engineering Division provides a variety of vocational programs leading to professional certification, an associate's degree or university transfer credits.

Get the vocational training you need to find the job you want. You can develop skills needed for your first job, keep up-to-date in your current job, or explore a new one.

MAJOR DESCRIPTION | MACHINE TECHNOLOGY

Instructional philosophy: We have chosen to stress the learning of functional tasks rather than to promote an environment where students choose their own projects. All of our laboratory exercises are designed to introduce students to a broad scope of tasks typically performed on conventional or CNC machines. Most of the projects are useful tools or game pieces one can use on the job and admire for years to come. Our vocational advisory group annually reviews our curriculum. They guide our decisions to include new topics, delete out-of-date ones, and to continue those that are still viable.

Our conventional machining program stresses the set up and operation of lathes, vertical mills and surface grinders for a wide variety of processes. The classes provide instruction in blueprint reading, shop math, measurement and inspection, job planning, safety, and general machining theory. Our CNC program also emphasizes the setup, operation and programming of vertical mills and lathes and has now included 5 axis machining/programming. In manual programming courses students learn proper formatting of CNC code, calculations related to determining coordinate data, proper use of programming techniques such as the use of sub programming, and experience cutting parts using their own programs on our CNC machines.

Machine Technology Related Degrees and Certificates Offered at Fullerton College

- Associate in Science Degree: Manufacturing Technology
- Vocational Certificates: Computer Numerical Control (CNC) | Machine Technology – Level I | Machine Technology – Level II | SurfCam | MasterCam | CNC Operator

CAREER AND LIFE PLANNING MODEL

Career and life planning is an exploratory process. It is identifying what you're good at; how your skills, talents, values and interests translate into work and where to find that work. Career planning is life building, motivating people to become healthy, self-reliant citizens able to cope with constant change in rapidly changing labor markets as well as maintain balance between work and life roles.

To better understand the process, we encourage students to utilize the three step model: **Research, Network, and Experience**. It is necessary that you take these steps to assist you with making informed decisions about your major and/or career. It is with these steps that you will gain considerable knowledge about the career path of your choice. It may take several months to a couple of years in order to complete these steps, it is up to you. But in the end, you will know that the decision you make is truly an informed one.

STEP 1 | RESEARCH | MACHINE TECHNOLOGY

The start of this process calls for learning about yourself, and self-assessment (contact the Career and Life Planning for free assessments) is a good way to do this. Identifying your Strengths and Talents are important in exploring pathways related to educational and career options. You identify what you've got, what you need, what works and what doesn't. Once you have identified these areas about yourself, you should begin to explore career/occupational information and educational programs.

Related Career Titles

Machinists | R&D Machinists | Millwrights | Computer Numerical Control Tool Programmers | Patternmakers | Mold-Makers | QA Inspectors | Tool and Die Makers | Maintenance Machinists | Fabrication Technicians | CNC Set-up and Operators | Tool Setter | Tool & Surface Grinders | Toolmakers | Manufacturing Technicians | Engineering Technician | Manufacturing or Process Engineers | Equipment Service Technicians | CAD/CAM Designers | Prototype Technician

Key Skills Needed

Active listening | Repairing | Critical thinking | Troubleshooting | Coordination | Judgment and decision making | Time management | Quality control analysis | Mechanical aptitude

Program and Industry Search Websites

- Division Website | <http://techneng.fullcoll.edu/>
- Bureau of Labor Statistics | www.bls.gov/ooh
- O*net Online | www.onetonline.org

STEP 2 | NETWORKING | ON AND OFF CAMPUS RESOURCES

Networking is a step where you take the time to talk to as many people as you can to learn more about the careers that are of interest to you; it is also a great way to establish connections with people in the industry or field. Some important people with whom to speak with are career professionals.

Performing “informational interviews” can be the start of networking in order to gather information that is more subjective to bring you even closer to your decision. Start by talking to your professors. As a strategy, consider joining several clubs or associations such as Fullerton College’s student clubs and possibly local, state, or national professional associations. Did you know that most professional associations offer student memberships? Getting connected and staying connected is key!

Fullerton College Student Club(s)

- Engineering and Technology Club | Advisor: Ms. Claassen | (714) 992-7389

Professional Associations

- Association for Manufacturing Technology (AMT) | www.amtonline.org
- Society of Manufacturing Engineers (www.sme.org/)

STEP 3 | EXPERIENCE | ON AND OFF CAMPUS RESOURCES

Think about this step as you would if you were buying a car and test driving it. It would be a considerable risk if you purchased a car without experiencing the ride for yourself. Therefore, this step is your opportunity to place yourself in the work environment(s) in order to see, feel, and know if this is a good fit. Consider getting an internship, volunteer or paid position to test this step out for yourself.

Employment, Internship, and/or Volunteer Resources

- Fullerton College Student Employment Database | FCCareerConnect thru mygateway
- Volunteer Match | www.volunteermatch.org
- Look Sharp | www.looksharp.com
- Idealist | www.Idealist.org
- Indeed | www.Indeed.com

****Once you have decided on a program focus, you need to meet with a Fullerton College Academic Counselor to either update or create a Student Education Program Plan to discuss personalized academic planning and transfer options.***