

Be Something...

Manufacturing

What preparation will this program give me?

The Machine Technology program prepares students to design and manufacture precision parts, from simple pieces such as nuts and bolts, to complex high-tech components. Designed for both the entry-level student and experienced craftspeople wanting to upgrade their skills, the curriculum provides the experience necessary for employment and advancement in the field.

The Welding Technology program offers an opportunity to learn cognitive and manipulative welding skills which prepare the student for employment in occupations that use welding applications.

The Wood Technology curriculum offers instruction in woodworking for both career and avocational students. Classes are also offered for students needing vocational language and math skills as well as technical education. Classes emphasize safe and efficient use of machine tools and the skills required for a wide range of woodworking. The program prepares students for employment as cabinet and furniture-makers, finish carpenters, CAD/CAM technicians, and project managers.



What kind of job will I be qualified for when I finish?

Jobs using Machine Technology skills range from operating, maintaining, repairing or inspecting machines, to programming computer-numerical control machines. Jobs also include tool and die work, maintenance machining, and research and prototyping. Highly skilled machinists are currently in great demand.

Welding is used in shipbuilding, automobile manufacturing and repair, aerospace applications and thousands of other manufacturing activities. Skilled welders generally work from drawings or specifications and use their knowledge of welding processes to determine how to join the parts. They then select and set up the welding equipment and execute and examine the welds. New or less experienced welders perform routine jobs that have been planned for them. With increased experience and skills, welders can become welding technicians, supervisors, inspectors or instructors. They may open repair shops or become welding engineers. Median earnings of welders, cutters, solderers, and brazers were \$15.10 an hour in 2006.

Woodworkers create finished products from lumber. Jobs range from sawing machine operators, who operate wood-sawing machines, to cabinet makers who often make one-of-a-kind items. Experienced woodworkers can become inspectors of supervisors responsible for the work of a group of woodworkers. Journeyman cabinetmakers currently earn between \$20 and \$25 per hour.

What classes will I take?

Required Courses:

Machine Technology		Units
MACH 75	Geometric Dimensioning and Tolerancing	2
MACH 210	Machine Technology I	5
MATH 220A	Technical Mathematics with Algebra Part 1	0.5
MATH 220B	Technical Mathematics with Algebra Part 2	0.5
MATH 220C	Technical Mathematics with Algebra Part 3	0.5
MATH 220D	Technical Mathematics with Algebra Part 4	0.5
MATH 220E	Technical Mathematics with Geometry Part 1	0.5
MATH 220F	Technical Mathematics with Geometry Part 2	0.5
MACH 220	Machine Technology II	5
MATH 220G	Technical Mathematics with Trigonometry	1
MACH 20	CAD Solid Modeling with SolidWorks	4
WELD 201	Welding for Other Majors	1
MACH 230	Machine Technology III	5
MACH 30	Introduction to CNC, and CAD/CAM	4
MACH 31	Advanced CNC and CAD/CAM	4
Total Required Units		34

(see next page)



What classes will I take? (cont.)

Required Courses

Welding

	Units
WELD 211AB Arc Welding I & II	3/3
WELD 212 Welding Layout and Blueprint Reading	3
WELD 221A Acetylene Welding I & II	3
WELD 204AB Wire Feed Welding	3/3
WELD 203AB Gas Tungsten Arc Welding (T.I.G.)	3/3

Total Required Units 24

Wood Technology

	Units
WDTEC 10 Wood Technology I	3
WDTEC 10L Wood Technology Laboratory I	4
WDTEC 11 Furniture Cabinet Layout I	2
WDTEC 20 Wood Technology II	3
WDTEC 20L Wood Technology Laboratory II	4
WDTEC 21 Furniture and Cabinet Layout II	2

Total Required Units 18

What degree will I receive and how many course credits will I need?

Students can obtain either a Certificate of Completion or an Associate Degree. A Certificate of Completion is given after satisfactory completion of the required coursework. An Associate of Science Degree in machine technology, welding or wood technology is given after satisfactory completion of the above-listed required coursework plus additional general education and elective course units.

Where do I get more information?

Contact Laney College:

- Machine Technology Department at (510) 834-5740
- Welding Technology Department at (510) 464-3433
- Wood Technology Department at (510) 464-3446 x2

