



Precision Machining Technology at Calhoun County Career Academy

Instructor: Jon Williams 256-741-4620

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Google Classroom Code: **42yfx3x**

- Introduction to Precision Machining
- Introduction to Milling, Drill Press, and Surface Grinder
- Intermediate Lathe and Bench Work
- Intermediate Computer Numerical Control
- Introduction to Lathe
- Introduction to Computer Numerical Control (CNC)

Instructor's Philosophy

This program is a challenging, demanding, but rewarding program. Students are expected to complete their work in a timely manner, behave like young adults, and try. *A student who has tried has never failed, but a student who has not tried has failed more than a class.*

Students who complete the program, as well as receive a letter of recommendation, have a host of employers wanting to hire them and help them begin their career.

Precision Machining is a comprehensive program providing students appropriate class/shop instruction, supervised experiences, and personal/professional development. Students will gain knowledge and skills to assist them in entering the workforce, entering post-secondary education, and becoming a professional in their chosen career path.

The Precision Machining program at CCCA prepares students for entry level employment in the machining field, as well as preparing them for post-secondary education in Machine Tool Technology. The program provides training in safety, shop/technical related math, precision measurement, blueprint reading, and basic operations of mills, lathes, surface grinders, pedestal grinders, drill presses, CAD/CAM, CNC milling and CNC turning. The Precision Machining Program operates a Simulated Workplace environment, to ensure students receive the best training and are most prepared to enter the workforce.

Fees

Precision Machining Technology fee is **\$40**.

\$15 of this covers registration into Skills USA, while the remaining \$25 covers cutting tools, materials. All students are required to participate in their respective clubs, Precision Machining's being Skills USA.

Students will not be allowed to enter the shop area and will be restricted to bookwork until fee is paid.

Students will need the following items to participate in Precision Machining

- Dial Calipers, .001" graduation, metal, not plastic (Amazon.com)
- Safety shoes (safety toe and slip resistant)
- Blue coveralls, short sleeve (Amazon.com)
- 3 ring binder
- Paper
- Pens/pencils
- Scientific calculator
- Padlock for locker (combination preferred)

For any reason a student is unable to provide any of the above items, or their shop fee, please see the instructor.

Students must keep all items in their respective locker, and must have a lock prior to being issued a locker. Students unable to complete work due to items left at home will result in a zero for the day's work.

Students will have access to computers, printers, Wi-Fi, and cell phone charging station when it is appropriate during their time at the Career Academy. The above items may only be used in a professional manner. Abuse of this privilege will result in loss of computers, charging station, Wi-Fi turned off, and cell phones to be held in a lock box during class time.

Clock in/out procedures

Students must clock in/out using provided time clock. Students must clock in and out at the appropriate times to receive a grade for the day. Clock in time will be when the student is dressed in work attire and is beginning work. Clock out time will be when student is finished work, their machine and work area is swept clean, and before they change back to their school clothes.

Every other week, students will take their printed time from the two week work period, calculate their "earnings", and calculate their taxes, insurance, and other deductions.

At the end of the school year, students will add up all of their work time, and fill out a blank W-2 form with their earnings from the year.

Student leave policy

Students will have 5 “vacation” days from Precision Machining per semester. Students may use these days to attend pep rallies, ball games, or any other reason they may miss the Career Academy.

Students must fill out a leave request form one week prior to the day taking off.

If something arises that does not allow time for the student to fill out a leave request form, the student may call in within two hours of the beginning of their shift, request leave, and fill out a leave request form upon their return to the Career Academy.

By using a “vacation” day, the student will not have a grade entered for that day, but it will not count against their grade.

Unexcused absences and not calling in/filling out a leave form, will result in a zero for the day, and it will count against the student’s grade.

Students will be given my phone number and email at the beginning of the school year, and is posted on my board in classroom throughout the school year.

Student Management

Students may apply for positions of student’s management. Students wishing to apply for this position must see the instructor, see what positions are available, and fill out the appropriate application and be interviewed to be considered for the management position.

Student management helps run the shop during time at the Career Academy, and adds to their educational experience. They will receive additional duties/projects throughout the school year and are held to a higher standard. These students represent the best of our program.

Skills USA

Students of the Precision Machining Program are required to participate in Skills USA, which is a national organization for career/technical programs to further introduce students to professionalism, teach them to become leaders, and push them to become the best in their program area.

In the spring semester, students will have the opportunity to compete in District, State level contests, and if medaled a Skills USA Alabama State Champion, the opportunity to represent Alabama and compete at Skills USA National Leaderships and Skills Conference.

We have competed at each level, and have brought home countless district medals, six state medals, and had students place 5th and 9th place at the Skills USA NLSC.

Dual Enrollment - GSCC

Students in the 11th and 12th grade will have the opportunity to attend our program while enrolled in a machining course at Gadsden State Community College, earning college credit. More information on this course will be made available to those eligible.

Grades

Grades in Precision Machining are project based, each project being worth 100 points. Points are also awarded for employee/professional skills.

A zero will be given for two safety violations in one class period.

A zero will be given for not clocking in/out.

A zero will be given for unexcused absences.

Bonus points are available at the instructor’s discretion.

PLEASE RETURN THIS SHEET

I have completely read and fully understand this syllabus for Precision Machining Technology, including the required materials and the required fee.

Students are expected to complete their work in a timely manner, behave like young adults, and try. *A student who has tried has never failed, but a student who has not tried has failed more than a class.*

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Bonus points are available at the instructor's discretion.

Students will need the following items to participate in Precision Machining

- \$40 shop fee. Checks to be made payable to Calhoun County Career Academy, and please write your phone number and driver's license number on the check.
- Dial Calipers, .001" graduation, metal not plastic (Amazon.com)
- Safety shoes (**safety toe** and slip resistant)
- Blue **SHORT SLEEVE** coveralls (Amazon.com) (Sleeves may not be ripped off to be sleeveless)
- 3 ring binder & paper
- Pens/pencils
- Scientific calculator
- Padlock for locker (combination preferred)

Parent: _____ Date: _____

Phone Number: _____ Email: _____

Parent: _____ Date: _____

Phone Number: _____ Email: _____

Student: _____ Date: _____