

LEBANON COUNTY CAREER AND TECHNOLOGY CENTER

PRECISION MACHINING

INSTRUCTOR: Eric Tanger

Welcome to the Precision Machining Program for the 2025-2026 school year. I, Eric Tanger am going to be your instructor.

Quick Program Overview

The Precision Machining Program is designed to prepare **YOU** the student for a successful career in the Manufacturing Field, specifically Precision Metalworking, ie. Machining. A Machinist is someone who takes material and turns it into usable objects for EVERY industry. Our field literally touches and affects everything we use and interact with daily.

To fulfill this mission, students are expected to treat their classroom experience as they would if it was a job. Showing up on time, properly dressed, using their time wisely, cleaning up after themselves, etc. Students will be shown how to operate industry level machines, they will be shown how to care for them, and students will be molded into what local shops are looking for in their future employees.

The program is structured so that students are exposed to many aspects of the manufacturing world, but an expert in NONE.

Year 1

Students are given the foundations to be safe and successful as a basic machinist. They will understand how to read blueprints, measure parts, use hand tools, operate both manual and CNC machines safety. Students will also learn how to use many computer applications. Year 1 is all about getting basic understandings so that you are SAFE, and able to continue your growth both over the summer and the following school year.

Year 2

Students will dig deeper into their understanding in Precision Machining. Some students might choose to go to work in a local shop thru a Co-Op experience, while others might choose to pick key areas of focus in the classroom to explore. No matter what choice is made, students will be expected to complete projects and make parts to print, since this is what is expected by local employers.

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Communication

A goal every year is for good communication between myself, student, and parent. To help me accomplish this I use email as a primary method of communication. The students will be provided with a school appointed email address which we will setup in the first few days of school, but it would be hugely helpful if I have an email address on file, that is regularly monitored for both student and parent so that if the needed it can be used. Feel free to send me an email etanger@lcctc.edu between now and the start of school, August 25, 2025, stating your name and your student's name and I will add you to my email contact list. Please note, that I try to handle everything between student-teacher interactions first. I believe the students who are entering my classroom are doing so because they wish to work in this field, I treat them as an employee. Employers don't call home to parents to resolve issues. A phone call, or email home is my last resort to handle issues.

Occupational Advisory Committee

An opportunity for you and your child to help make a lasting impression on the program is to participate in our Occupational Advisory Committee (OAC) Meetings. These OAC Meetings happen twice a year, normally once in October and once in March, these meetings are currently scheduled for October 22, 2025 and May 17, 2026, time will be forthcoming, but they are generally around the 5:00/5:30 time frame to allow members to attend after work hours. At these meetings, local industry owners, post-secondary school educators, school directors, superintendents, parents, students and myself meet to discuss current needs, trends and direction of the program and curriculum. I always welcome any parent willing to attend to sign up and join us. You will get to hear firsthand what the students are to be learning, how the students are to be learning, as well as share from your perspective what students need to be successful. Please contact me via email, etanger@lcctc.edu and let me know that you are interested in participating in the OAC meetings. This will get you added to my mailing list and invited to all events the OAC participate in.

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Learning Management System (LMS)

Schoology is our lesson delivery platform at the LCCTC. Many of you should already be familiar with this platform. This platform allows easy access to all necessary material and has some great communication tools as well. Students will be provided with a NEW Schoology account that is unique to the LCCTC. If you as a parent wish to have access, please let me know so I can obtain a Parent Code for you. This will take place within the first few weeks of school.

Parents, if you did not already sign up for a Parent account with Schoology, I encourage you to do so. You can do this by:

1. Going to www.Schoology.com
2. Click Sign Up at the top of the page and choose Parent.
3. Enter your Parent Access Code, this is a 12-digit code in xxxx-xxxx-xxxx format that you will receive from the LCCTC if you so choose.
4. Fill out the form with your information.
5. Click Register to complete.

Notes:

- When you use a Parent Access Code to create an account, you are automatically associated to your child. You can add additional children to your account using the ADD CHILD button.
- Parent Access Codes are unique to each child and can be used to make multiple Parent Accounts.
- As a Parent with a Schoology account, you will be able to see announcements going out to students, when items are due or late, what is coming up, and you can also view what has been submitted. It is a great tool to easily see how your student is doing in class.

Students will also be given access to digital textbooks, digital curriculum, and computer applications, all these accounts will be setup within the first few weeks of school. It's important to understand how to access all the available resources.

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Non-Negotiables

The following are **non-negotiable** requirements of the program. If for some reason you feel you will not be able to meet these requirements, please reach out to me so we can figure out how to eliminate the obstacles.

Dress Code (Uniforms)

At the LCCTC every shop has a shop uniform which must be worn while at the LCCTC. The expectation is that you arrive in uniform, and you leave in uniform. This allows for easy identification in the hallways. Our shop uniform is as follows: a work shirt, work pants, and boots. My suggestion is to wear your shirt and pants to school in the morning, keep your boots in your locker at the LCCTC change shoes when arriving at the school. This is part of your daily work ethic grade and is **non-negotiable**. If you are not in uniform, you cannot work in the shop.

(Shirts)

Uniform shirts **MUST** be purchased thru Major League. To purchase these, go to the following: www.lcctc.edu and click on “uniforms” in the upper right-hand corner, then click on the program of choice (ie: Precision Machining) and order shirts. This year there are 3 offerings for uniform tops, a T Shirt, a Crew neck Sweatshirt, and a Hoodie. Please take note that if you wear a hoodie into the shop, the strings will need tucked in. I normally cut mine off, so I never need to worry about them.

(Pants)

You will see an option to purchase pants through Major League, this isn't required. However, Work Pants must be worn. Work pants are either blue jeans or work pants, ie: Dickies or Redkap.

Sweatpants/Joggers/Long shorts/Capris/Leggings/etc. **ARE NOT** acceptable!

(Boots)

Any leather hard sole shoe will work, I suggest purchasing steel toe or composite toe right away as this is a requirement in most machine shops. I have personally had very good success with Timberland PRO and Wolverine, both of which are cheaper options and are available locally.

Any item ordered from Major League will be delivered to the school and handed out on the first day or as soon as I receive them. **EVERYONE** is expected to be in full uniform by October 1st, this allows for the add/drop period that takes place at the start of school. My recommendation is do not wait until the last minute, order early.

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Shop Equipment

The CTC will provide most of the items you will need to learn the machining trade. The equipment you learn on is the same as what you will find in a local shop. This equipment is expensive and dangerous, any horseplay behavior will be handled on a case-by-case bases but understand that we can do almost everything in the classroom, without the “hands on portion.” Using the equipment is a **PRIVILEGE**.

Required Supplies

I ask everyone to have and bring the following items each day: Pen (Blue/Black Ink ONLY), Pencils, a Calculator (TI30XI2 or better), 2” 3 Ring Binder, USB Flash Drive, Two pairs of ANSI Z87.1+ approved Safety Glasses, 6” Caliper, 0-1 Micrometer, and a 6” steel rule. These items are again non-negotiable. If you are having issues obtaining anything, please let me know so we can help.

The Calculator must be able to perform Trigonometry functions. I suggest purchasing a TI-30XIIS as its one of the simplest to use. You can purchase this calculator almost anywhere. For reference, if you log onto the Staple website and search for item# 382647 you will see the calculator I am referencing. If you choose to use another calculator that is fine, but you must understand how to use it. Please be aware that a Cell Phone is **NOT** an acceptable calculator as these aren’t allowed in the shop.

The 3 ring binder is yours to help manage any handouts, packets, or certificates that you earn during your time in the program. This can easily be stored in the locker that is provided to you while attending the LCCTC.

The USB Memory Stick must be 16gig or larger. These will be used exclusive for yourself to transport files and programs from one device to another. You will use these as backups in case files are lost or corrupted.

The safety glasses, these must be ANSI Z87.1+ approved which you can obtain at almost any hardware store. The shop will provide you with **1 pair**, if you lose them, break them, leave them at home for the day, etc. it is your responsibility to replace. My recommendation would be to purchase 1-2 extra pairs thru MSC @ www.mscdirect.com, the item number is 76652007 and keep the spares in your locker. Current price is \$2.71. **You are unable to work in the shop without safety glasses.**

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The 6” caliper, 0-1 micrometer, and 6” steel rule is at the core of any machinist toolbox and needs to be of a quality build. This year the Precision Machining Program is fortunate enough to get a grant from the Gene Haas Foundation that will provide these items to each student at **no cost**. The first few days of school, students will receive their tools as well as a form accepting responsibility for these items. These items are a gift to each, and every student provided they successfully complete the Precision Machining Program. More details will follow during the first week of school.

Below is a checklist just to help make things easier on you.

| ✓ | Qty | Item | Recommended Source |
|---|-----|--|---------------------------|
| | 5 | Uniform Shirt | Major League Printing |
| | 3 | Charcoal Work Pants | Major League Printing |
| | 1 | Steel Toe Leather Work Boots | Local Shoe Store |
| | 1 | 2” 3 Ring Binder | Walmart/Target |
| | 12 | Pencils/Pens | Walmart/Target |
| | 1 | TI30XII2 Calculator | Walmart/Target |
| | 2 | USB Memory Stick 16gig or larger | Walmart/Target |
| | 2 | ANSI Z87.1+ Safety Glasses | MSC - 76652007 |
| ✓ | 1- | Caliper, Micrometer, Steel Rule Set | MSC — 82924994 |

Please make sure to have all items purchased and/or secured by the first day of school. If you have any questions, please contact me. I am looking forward to another great year in the exciting world of manufacturing.

New Student Celebration

New this year is our New Student Celebration event happening May 29th from 6:00-8:00pm. During this time, we encourage you to come and visit the LCCTC and the program area. We hope to have local industry members setup and discussing many career opportunities, we will have the lab space open for tours and questions, we will have Major League on site to take uniform orders, and we will have a presentation from our counselor and administration. More information will be forthcoming, so be on the lookout.

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If you have any questions, please do not hesitate to contact me. The easiest method is by email @ etanger@lcctc.edu. During the school year you can contact me during the day at the school @ 717-273-8551 ext. 2141, or after hours using my google voice number @ 717-685-5252. This Google number can accept both calls and texts, which ever you prefer.

Have a great rest of the school year, I look forward to seeing everyone May 29th, and I look forward to another amazing Precision Machining class kicking off August 25th.

Mr. Tanger