

## TCN 105 Laser and Lab Safety

1.0 Credit

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There are NO prerequisites, but this course is a pre- or co-requisite for other courses.

Check your plan of study!

What this course is about...

This online course is about SAFETY - how to use potentially dangerous equipment and not get hurt. It is a required course for ALL students who will be taking MFG\* K102/103 Manufacturing Processes.

The course is divided into two parts: Several modules specific to general lab safety modules for all students. These are followed by modules covering the machine shop. A midterm and final project are required. These projects will help you use your new safety knowledge by applying it to specific situations.

We begin with a one-hour orientation to help you find your way around the course and answer all your questions. Be sure to bring your Banner ID to orientation.

How this online course works....

**TIME MANAGEMENT:** You may work on this course when it is convenient for you as long as you keep up with the course schedule. The best way to manage your time is to set aside the same time each week to work on the course. There ARE due dates, so you need to pay attention and make sure you don't get behind. Remember, technology problems can arise and if you wait until the last minute, you might not get the work done in time. Print out the course schedule and use it as a checklist to help you plan your time.

**THE CONTENT MODULES:** Each module in the course consists of a video, text reading or web sites (or some combination of these) and a knowledge assessment quiz.

**THE QUIZZES:** Quizzes consist of true/false, multiple choice, short answer and paragraph questions. The quizzes will be available on the course web site. All modules in a group are available for the whole duration the module is up. This is approximately 6 weeks. If you haven't completed the quiz at that time, you will receive a zero.

You may take each quiz up to two times (with a one hour delay between attempts to go back and check your work.) Your grade will be the average of your two attempts. Some questions may have to be manually graded by the instructor so you may not see your final quiz grade right away- another reason not to wait until the last minute.

**THE MINI-PROJECT:** After you work through the first set of modules, you will have the opportunity to use the safety knowledge you've learned in a "real life" situation by completing a short project. Then at the end of the semester you will do a final project. The midterm counts as 2 quiz grades, the final project 5. You cannot pass the course without doing the projects.

**HOW TO SUCCEED...**

Read the study questions prior to viewing the video or reading the text questions. These are found in the Learning Objectives or "Start here" file in each module's folder. Think about the questions as you do the assignment (video, reading) Take the knowledge assessment quiz.

Retake the quiz if necessary, after looking up the questions you got wrong.

**IF YOU HAVE QUESTIONS:** email [Professor](mailto:mgentry@trcc.commnet.edu) Gentry

Learning Objectives

This course is taken by students in several engineering technology programs, and objectives vary somewhat depending on whether you are in shop safety or laser safety. Specific learning goals are found in each of the online weekly module folders. Everyone will:

- ☐ ☐ explain the basic concepts and vocabulary of shop safety (and laser safety) such as maximum permissible exposure, personal protective equipment and material safety data sheets
- ☐ ☐ be able to locate information in print and on the web pertaining to safety in their own technology area
- ☐ ☐ be able to survey a workplace and cite unsafe practices
- ☐ ☐ specify administrative and engineering safety controls for various laboratory and/or shop situations.

Students with Disabilities

If you have a question regarding a disability that may affect your progress in this course, please contact one of the college's Disability Service Providers as soon as possible. Chris Scarborough (892-5751) generally works with students who have learning disabilities or attention deficit disorder. Kathleen Gray (885-2328) generally works with students who have physical, visual, hearing, medical, mobility, and psychiatric disabilities. Matt Liscum (860/383-5240) also works with students who have disabilities.

If you will need accommodations for this class, you must contact the Disabilities Counseling Services. To avoid any delay in the receipt of accommodations, you should contact the counselor as soon as possible. The instructor cannot provide accommodations until an accommodation letter from the Disabilities Counselor is received.

		<b>Laser Lab Safety</b>		
	<b>TCN 105</b>			<b>Fall 2019</b>
Topic	Unit Number	Assignment	Due Date	Comment
Learning Assessment	General		Oct 1	
General Shop Safety	General	Watch Videos Read shop rules Take Quiz	Oct 15	
Electrical Safety	General	Watch Videos Read transcript Take Quiz	Oct 15	
Chemical Hazards	General	Watch Videos Read transcript Take Quiz	Oct 15	
Safety Data Sheets	General	Watch Videos Read transcript Take Quiz	Oct 15	
Fire Protection	General	Watch Video Read document Take Quiz	Oct 15	
Welding	General	Watch Videos Read transcript Take Quiz	Oct 15	
PPE	General	Watch Videos Read transcript Take Quiz	Oct 15	
Project 1	JSA	Review OSHA JSA document develop JSA	Oct 22	
Drills	Machine Shop	Watch Videos Read transcript Take Quiz	Dec 12	
Mills	Machine Shop	Watch Videos Read transcript Take Quiz	Dec 12	
Lathes	Machine Shop	Watch Videos Read transcript Take Quiz	Dec 12	
Hand tools and Power Tools	Machine Shop	Watch Video Read document Take Quiz	Dec 12	
Project 2		See handout for projects	Dec 12	