

## TCN 105 Laser and Lab Safety

1.0 Credits

Location: Online

Mechanical/Manufacturing: Professor Knowles, C-160

pknowles@trcc.commnet.edu

Laser Technology: Professor Donnelly C-272

jdonnelly@lasertechonline.org

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 in Laser and Fiber Optic Technology (A.S. degree and Certificate programs) and ALL students who will be taking MFG\* K102/103 Manufacturing Processes.

The course is divided into two parts: Five modules specific to your plan of study (college major) are followed by four general lab safety modules for all students. A short final project specific to your major will help you use your new safety knowledge by applying it to a specific situation.

We'll 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. There are nine modules. The first five are major-specific. That is, Laser Technology students do one set and Manufacturing/Mechanical Technology students do the other. The last four modules are the same for all students and cover general lab and shop safety. If you are in General Engineering Technology, Manufacturing Engineering Technology/Laser Manufacturing Option or some other

major please contact the instructors to find out which modules you should be doing.

**THE QUIZZES:** Quizzes consist of true/false, multiple choice, short answer and paragraph questions. The quizzes will be available on the course web site up to one week after the module is presented, then it will be taken down. **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 nine modules, you will have the opportunity to use the safety knowledge you've learned in a "real life" situation by completing a short project. The projects are different for Laser and Mechanical/Manufacturing technology students.

### 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

For Laser Safety content email [Professor Donnelly](#)

For Machine Shop Safety content email [Professor Knowles](#)

For Shop Safety (last four modules) contact either of us.

Live help (when available): Click on "who's online" to see if an instructor is available to help you.

### FOR COMPUTER/BROWSER RELATED QUESTIONS CONTACT

[Blackboard Online Technical Support \(24/7\)](#)

<http://d2.parature.com/ics/support/default.asp?deptID=8134>

### **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, for LFOT students) 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.