



Course Syllabus	
Franklin High School	2019-2020
Course Title: Intro to Industrial Technology	Grade Level(s): 9-12
Prerequisites: None	
Course description: This class teaches basic metal-working skills, basic drafting, CNC programming, print reading, and other material while introducing students to careers in manufacturing.	
Standards: Course is aligned with Portland Community College’s Machining, Welding and fabrication curriculums.	
<p>Schedule of topics/units covered:</p> <ul style="list-style-type: none"> ● <u>Hand and Power Tool identification, use, care and safety.</u> ● <u>Metal Properties.</u> Students will learn about identification and properties of various metal types. ● <u>Basic Metal Working Skills.</u> Students will learn to utilize hand and power tools in order to produce simple woodworking projects. ● <u>Manufacturing Careers.</u> Students will learn about High Skill/High Wage careers in the Manufacturing Industry as well as becoming self sufficient at home. ● <u>CNC Router, Mill, Lathe and Plasma programming and operation.</u> Students will utilize Industry Standard Software to program their projects of their own creation. <p>PROJECTS AND ACTIVITIES</p> <ul style="list-style-type: none"> ● Sheet Metal Dust Pan This is the first project and will introduce the following skills: Layout, Measuring, Cutting, Bending, Drilling, Riveting and Welding. ● Screw Driver. A basic introduction to turning aluminum on the engine lathe, forging the blade and tapping a set screw. ● CNC Plasma Name Tag. Students will program the Plasma Cutter to create their name cut from steel. ● Arc Welding Students will fuse steel using various welding techniques ● Lord of The Ring Students who successfully complete the screw driver may make the one ring to rule them all. 	
<p>Differentiation/accessibility strategies and supports (TAG, ELL, SpEd, other):</p> <p>Differentiation and accommodation are handled on a student by student basis. Examples include alternate projects, supplemental training material such as step by step worksheets, physical models, Project Videos, individual instruction during tutorial times and breaking down of projects into small steps.</p>	

Final proficiencies:

Students will demonstrate proficiency in:

- Safety. Demonstrated by safe conduct, behavior and passage of written safety test.
- Professionalism. Student will act in a manner conducive to a professional environment.
- Working with material to create a final, usable product.
- Utilizing industry standard technology.

Assessment (pre/post)/evaluation/grading policy:

Students will be graded on the following:

- 20% written tests and quizzes maintaining instructional binder.
- 40% Performance on projects.
- 10% Professionalism. *What is "professionalism"?* Attendance, showing up on time, participating in class discussions, working on projects as you would be expected to do on the job.
- 20% Cleaning of daily projects and activities
- 10% service projects.

Behavioral expectations: All students will be required to read and sign the following document:

Part 1 Behavior Expectations:

1. NO CELL PHONE OR OTHER PERSONAL ELECTRONICS MAY BE USED **AT ANY TIME** IN ROOM S-140 WITHOUT INSTRUCTOR PERMISSION. **This includes passing time. THIS IS YOUR WARNING!** Devices will be confiscated and sent to the office.
2. Any student suspected of being under the influence of drugs or alcohol will be referred to school security.
3. Students will do their own work or their team's work only. Working on another student's project is the same as doing their work for other classes.
4. Students must ask permission to use the restroom. The restroom in S-140 is staff only. Only one student at a time may leave to use the restroom.

5. Students will work on APPROVED projects only.
6. Projects and/or other materials may be removed from the shop WITH INSTRUCTOR'S PERMISSION ONLY.
7. No running or horseplay is allowed in the shop.
8. Stealing or damaging school property or other students' property will not be tolerated.
9. Use machines, tools and other equipment only for the purpose which it was intended.

Part 2 General Safety Regulations. Safety rules must be followed at all times!

1. Stay one arm's length from people working on projects. This includes at the bench and/or at a machine.
2. Do not throw or toss Anything.
3. Students must prepare for work each day by assuring the following: Closed Toed Shoes worn, long hair tied back, loose clothing and jewelry secured, safety glasses on.
4. All students must be checked off on any machine before using it. This includes passing the machine-specific safety test for each machine.

Consequences for breaking shop policies:

1st offense: Warning.

2nd offense: Conference with student.

3rd offense: Parent phone call.

4th offense: Office referral and final chance. ***NOTE: serious offenses such as theft, vandalism or cheating will automatically fall into this category regardless of previous record.***

5th offense: Student will be permanently removed from the class-it is assumed that any student who reaches this point poses a serious safety or security threat to themselves, other students or the facility.

Date

Description

1st Offense _____

2nd Offense _____

3rd Offense _____

4th Offense _____

STUDENT PLEDGE. I understand the behavior expectations, the general safety rules and the consequences for breaking shop policies.

I also understand that using power tools is a privilege and that power tool privileges may be temporarily or permanently suspended by the teacher if safety and behavior expectations in class are not met.

I will follow these rules and policies for my safety, the safety of others and out of respect for the school and teacher.

Safety issues and requirements:

All students must conduct themselves in a safe, professional manner as outlined in the behavior expectations.