

Cocke County High School

*Principles of Manufacturing Syllabus

Part 1: Course Information

Instructor Information

Instructor: Billy Holt/Lucas Valentine

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Principles of Manufacturing is designed to provide students with exposure to various occupations and pathways in the Advanced Manufacturing career cluster, such as Machining Technology, Electromechanical Technology, Mechatronics, and Welding. In order to gain a holistic view of the advanced manufacturing industry, students will complete all core standards, as well as standards in two focus areas. Throughout the course, they will develop an understanding of the general steps involved in the manufacturing process and master the essential skills to be an effective team member in a manufacturing production setting. Course content covers basic quality principles and processes, blueprints and schematics, and systems.

Prerequisite

- None

General Education/High School Pathway Area

Upon completion of this course, proficient students will advance from this course with a nuanced understanding of how manufacturing combines design and engineering, materials science, process technology, and quality. Upon completion of the Principles of Manufacturing course, students will be prepared to make an informed decision regarding which Advanced Manufacturing program of study to pursue.

Textbook & Course Materials**Required Text**

- Welding Technology and Fundamentals. By William Bowditch. ISBN# 1-59070-405-3

Course Requirements

- Internet connection (DSL, LAN, or cable connection desirable)
- Access to /Web site/Other
- Pencil, Paper, Notebook
- Long Pants, Leather Boots

Course Structure

The class will be delivered by lecture, discussion, activity, lab-based, test, groups, homework, and classwork.

Part 2: Student Learning Outcomes

*Expected student learning outcome for this course. The student learning outcomes for each course can be found in the Tennessee State Standards, course pacing guide, and other resources pertaining to your course. These can be found on TN. Gov under Academic Standards.

A bulleted list is a good way to display these objectives as shown below:

- Safety
- Be able to measure
- Learn basics of machining, welding, and electrical technologies

You will meet the objectives listed above through a combination of the following activities in this course:

*Most objectives will be met through 1) Classwork, 2) Homework, 3) Test,) 4 Groups. Students will be provided dates to complete assignments. If a student is absent and it is excused the student will be allowed 3 days to make up any missed work.

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Part 3: Principles of Manufacturing/Topics Covered

Semester 1

Week	Topic	Readings/ Resources	Activities	Due Date
1	Safety/Test	PowerPoint	Test	
2	Safety	Lecture	Notes	
3	Overview	Lecture	Notes	
4	Careers	Lecture	Notes	
5	Measurement	Lecture	Notes	
6	Tape Rule	Lecture	Notes	
7	Bench Rule	Lecture	Notes	
8	Caliper	Lecture	Notes	
9	Blue Print	Lecture	Notes	
10	Assembly	Lecture	Notes	
11	Detail	Lecture	Notes	
12	Sequencing	Lecture	Notes	
13	Quality	Lecture	Notes	
14	Con. Improvement	Lecture	Notes	
15	Machine Tech.	Lecture	Notes	
16	Mechatronics	Lecture	Notes	
17	Electrom.	Lecture	Notes	
18	Sem. Exam	Lecture	Notes/Test	

Semester 2

Week	Topic	Readings/ Resources	Activities	Due Date
1	Safety/Test	PowerPoint	Test	
2	Safety	Lecture	Notes	
3	Overview	Lecture	Notes	
4	Careers	Lecture	Notes	
5	Measurement	Lecture	Notes	
6	Tape Rule	Lecture	Notes	

Week	Topic	Readings/ Resources	Activities	Due Date
7	Bench Rule	Lecture	Notes	
8	Caliper	Lecture	Notes	
9	Blue Print	Lecture	Notes	
10	Assembly	Lecture	Notes	
11	Detail	Lecture	Notes	
12	Sequencing	Lecture	Notes	
13	Quality	Lecture	Notes	
14	Con. Improvement	Lecture	Notes	
15	Machine Tech.	Lecture	Notes	
16	Mechatronics	Lecture	Notes	
17	Electrom.	Lecture	Notes	
18	Sem. Exam	Lecture	Notes	

***Calendar/Schedule: The class schedule maybe subject to change if school is cancelled due to snow or any unforeseen circumstances such as school scheduling which may arise during the school year. If you have any questions pertaining to the schedule you may reach the instructor with the above email for further questions.**

This class has a semester exam.

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Part 4: Grading Policy

Graded Course Activities

Assignments for details about each assignment listed below.

1st 9 Weeks	
Points	Description
* # 100%	*Homework, Classwork, Test, Groups, Absenteeism, Projects will determine students grade.
2nd 9 Weeks	
Points	Description
* # 100%	*Homework, Classwork, Test, Groups, Absenteeism, Projects will determine students grade.
3rd 9 Weeks	
Points	Description
*100%	*Homework, Classwork, Test, Groups, Absenteeism, Projects will determine students grade.
4th 9 Weeks	
Points	Description
*100%	*Homework, Classwork, Test, Groups, Absenteeism, Projects will determine students grade.

Late Work Policy

* Be sure to pay close attention to deadlines—there will be no makeup assignments or test, or late work accepted without a serious and compelling reason and instructor approval.

Viewing Grades in ASPEN (optional)

Points you receive for graded activities will be posted to the ASPEN Grade Book. Click on the My Grades link on the left navigation to view your points.

* Your instructor will update the online grades each time a grading session has been complete—typically 2 days following the completion of an activity. You will see a visual indication of new grades posted on your ASPEN home page under the link to this course.

Letter Grade Assignment

* Final grades assigned for this course will be based on the percentage of total points earned and are assigned as follows:

100% of Participation

Grading Scale:

A = 90 -100

B = 80 - 89

C = 70 – 79

D = 60 – 69

F = 0 – 59

I = Incomplete

X = No Credit

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Part 5: Course Policies

Attend Class

Students are expected to attend all class sessions as listed on the course calendar.

- If a student has chronic absenteeism it may affect their grades. If a student has an excused absence, he/she will be allowed to make up their work.

Participate

- Students score for participation will be monitored by the work they turn in; grades will be posted to the ASPEN account for all assignments graded.

Build Rapport

If you find that you have any trouble keeping up with assignments or other aspects of the course, make sure you let your instructor know as early as possible. As you will find, building rapport and effective relationships are key to becoming an effective professional. Make sure that you are proactive in informing your instructor when difficulties arise during the semester so that they can help you find a solution.

Complete Assignments

Assignments must be submitted by the given deadline or special permission must be requested from instructor *before the due date*. Extensions will not be given beyond the next assignment except under extreme circumstances. Late or missing discussion assignments will affect the student's grade.

Incomplete Policy

Under emergency/special circumstances, students may petition for an incomplete grade. An incomplete will only be assigned upon approval by the principal and timeframe will be determined.

Academic Dishonesty Policy

1. Academic dishonesty includes such things as cheating, inventing false information or citations, plagiarism and helping someone else commit an act of academic dishonesty.
2. Course instructors have the initial responsibility for detecting and dealing with academic dishonesty. Instructors who believe that an act of academic dishonesty has occurred are obligated to discuss the matter with the student(s) involved. Instructors should possess reasonable evidence of academic dishonesty. However, if circumstances prevent consultation with student(s), instructors may take whatever action (subject to student appeal) they deem appropriate.
3. If an instructor finds the student to be guilty of academic dishonesty the student will be given a 0-F for the grade of the assignment.

Student Testing Code of Ethics and Security

It is important for you as a student to know that the following guidelines are to be strictly followed. This year the TN Ready EOC test will count at least 15% of your final semester grade. Your work on this test is very important and it deserves your best effort.

I understand that during testing on the days of the assessment, I am responsible for:

- Not having any electronic devices on me or in my purse/backpack/pockets
 - Including but not limited to cell phones, smart phones, smart watches, etc. **during testing or during breaks.**
 - Best practice is for students to leave devices at home or in their lockers on the day of testing.
 - If I am caught with a device during testing or during breaks, my test may be nullified, resulting in a zero as at least 15% of my semester grade, and any school level disciplinary action as deemed appropriate by the administration.
- Trying my best on the test
 - If I do not attempt to test (I give **no answers or randomly answer** questions) my test score may be nullified, resulting in a zero as at least 15% of my semester grade, and any school level disciplinary action as deemed appropriate by the administration.
 - The testing administrators and proctors in the testing environment will determine if no answers or random answering is taking place.
 - I will focus and put forth effort on the test.
- Being honest and not cheating
 - If I am caught cheating (taking pictures of the test, writing down and passing answers, talking to other students, looking on other computers, using software outside the testing platform), my test may be nullified, resulting in a zero as at least 15% of my semester grade, and any school level disciplinary action as deemed appropriate by the administration.