



## *Grandview High School – Course Syllabus*

### **Course Name: Computer Integrated Manufacturing**

Teacher Name: Mr. Urquhart  
E-mail: burquhart@gsd200.org  
Phone: 509-882-8780  
2 trimester course, 2021-22

### **Course Description**

Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing. At the same time, it teaches students about manufacturing processes, product design, robotics, and automation. Students can earn a virtual manufacturing badge recognized by the National Manufacturing Badge system.

### **Course Goals**

1. To allow students the opportunity to be creative in design and also to encourage the perseverance that it takes to complete a design as a team.
2. To create, design, invent and innovate ways that manufacturing laws can be transitioned into real world situations.
3. To create and design using CAD and CAM software and turning those ideas into reality.
4. To reflect on each design and show multiple designs that lead to the chosen one.
5. To be able to work in a team and perform tasks that represent the team role acquired, and to make a meaningful contribution to a team trying to meet deadlines for design

### **Text and Reading Materials**

1. All materials will be provided by the instructor

**State Standards:** This course is designed to meet the national and state standards for Science, Technology, Engineering and Math. It will also align with the ELA common core state standards.

### **Required Supplies**

- Engineering notebook (Composition notebook with graph paper acceptable)
- Metal Ruler for sketching
- Colored pencils
- Pens and regular pencils

### **Course Outline**

- Students will learn the laws and physics to create models
- Use previous and learned knowledge to extend learning and demonstrate meeting standards
- Follow the design process to make modifications that will increase the efficiency of your model and provide evidence of learning.
- Identify the standards of each unit and show evidence of meeting those standards

### **Course Schedule**

This is a STEM course and will follow certain engineering requirements. Students will be assessed on design and proficiency of their buildings efficiency and will also be required to meet deadlines and produce an engineering notebook that supports their team goals.



### Major Assignments

This is a project based course that will contain many small projects that will tie directly into some major projects. All projects will be assessed using a design process rubric. Students will be required to perform tasks such as presentations and demonstrations.

### Assessment Format

Assessment will be both formative and summative and based on quizzes, tests, presentations, and assignments amongst other methods.

### Classroom Expectations

- Students will be expected to adhere to all policies, procedures, and rules as outlined in their Grandview High School student handbook.
- Students will also be expected to follow the following classroom rules and regulations:
  1. Be on time and in your seat when the bell rings ready to learn.
  2. Be prepared—bring proper materials, and study for tests, quizzes, etc.
  3. Students are encouraged to ask questions, but be courteous to others around you. Raise your hand to ask and answer questions, and be ready to be called upon.
  4. If you are absent it is up to you to find out what you missed. This includes all homework assignments and lecture notes.
  5. Cheating, plagiarism, and other types of academic dishonesty will not be tolerated and will be dealt with as outlined in the student handbook.
  6. Treat all staff, students, guest speakers, etc. with a great deal of respect. These individuals are vital to your success and are here to see all of you succeed.

### Absence and Tardy Policy

Attendance is mandatory. **If you are not in your seat when the bell rings you are considered tardy.**

### Grading Scale

Point Value	Letter Grade	High Percentage	Low Percentage
4.00	A	100.00	93.00
3.70	A-	92.99	90.00
3.30	B+	89.99	87.00
3.00	B	86.99	83.00
2.70	B-	82.99	80.00
2.30	C+	79.99	77.00
2.00	C	76.99	73.00
1.70	C-	72.99	70.00
1.30	D+	69.99	67.00
1.00	D	66.99	60.00
0.70	F	59.99	57.00
0.30	F	56.99	53.00
0.00	F	52.99	

### Grading Policy

- Student attendance, effort, attitude and other behaviors will be reported separately from achievement.
- Late work will not be marked down.
- Students will have a minimum of five (5) school days beyond the assignment or assessments posted due date or the date it was returned, to complete it, unless there are extenuating circumstances. A zero will be placed in the grade book until the work is complete or until the end of the five days. When the work



is complete the grade will be changed to the earned grade permitting it is within the timeframe specified above.

- In the case of academic dishonesty students will be referred to the office to receive their consequence. Students will also be given the opportunity to take the test over or receive a zero.
- Students have a right to make up work missed due to absences.
- Grades will be based on the achievement toward district course/grade level standards. Therefore, the grades will be organized and recorded by unit of study.
- Students will be able to track their progress through Skyward.

### **Caveat**

This is a general syllabus and cannot possibly detail the entire scope of the curriculum. Due to the changeable nature of daily school activities and the dynamics of specific classes, the order and scope of the class may vary.

### **Affidavit**

Our signatures below indicate that we have read and understand this CEA syllabus. By signing, the student agrees to put forth the effort and commitment necessary to be successful in this class. Please return **this page only** to Mr. Urquhart with signatures and date.

\_\_\_\_\_  
Parent Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Student Name Printed