

Ben L. Smith High School
The Academy of Advanced Manufacturing and Engineering
PLTW - Capstone – 12th Grade Syllabus
~Mrs. Hill ~ Room 503
 (336) 294-7300 / (336) 338-8540 **hillv2@gcsnc.com**

Course Overview:

In Engineering Design and Development, students will work with a team to engineer a problem they identify. While using the design process, students will research and clearly define the problem, then develop and test at least one original solution. Students will work closely with experts and hone their collaboration and communication skills as they work. Finally, students will present and defend their solution to an outside panel.

Course Units:

Component 1: The Capstone Journey

Component 2: Problem Validation

Component 3: Solution Design

Component 4: Prototyping and Testing

Component 5: Project and Process Evaluation

Component 6: Design Presentation

Class Supply List:

- Black or blue ink pens
- Glue Sticks
- Headphones
- Graph Ruled Composition Book
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Technology Components and Additional Resources:

There are various online educational resources utilized in this class. It is strongly recommended that students have technological devices to access these resources.

- Online student portal (www.mypltw.org)
- Canvas (<https://my.ncedcloud.org>)
- Onshape (<https://learn.onshape.com>)

Class Expectations:

Remember to listen when others are speaking.

Everyone has the right to their own opinion.

Strive to form a safe, caring classroom community.

Participate, come to class prepared and have fun.

Encourage one another and be a positive leader.

Challenge yourself and try new things.

Take responsibility for your actions.

Class Consequences:

1st Offense: Warning (Verbal)

2nd Offense: Parent Call/Conference

3rd Offense: Lunch/Afterschool Detention

4th Offense: Administration Referral

*Severe disregard for school or classroom expectations (i.e., fighting), will result in an automatic referral to administration. *

Grading System:

Nine-week grades will be calculated based on the average grade earned in the following categories:

Classwork - 70%

Homework/Engineering Notebook – 30%

Final Project - 20%

Late/Make-up Work Policy:

All work must be completed and submitted on time. I will accept late work; however, points will be deducted. For excused absences, students will be given two days for each day absent to make up work. It is the student's responsibility to get all assignments when he/she is absent.

Academic Honesty:

Any work submitted by the student shall be his/her own. Work taken from others is unacceptable. Any doubts will commence the completion of an alternative assignment or a zero on the submitted work.

Electronic Devices:

Access to all electronics, other than students GCS-issued Chromebooks, is prohibited for the entire class period unless given permission from the teacher. (**BLS Electronic Device Policy**)

Parent-Teacher Communication:

Parent-Teacher communication can significantly impact a student's long-term success and increase parent engagement and involvement in class and school wide events. To stay connected and receive information sign up with **Remind**.

Safety Statement:

In this course students will have the opportunity to use various tools and equipment. Appropriate instruction in the safe operation of these tools and equipment is given and close supervision is always maintained. Although every precaution is taken to prevent accidents, a certain risk is involved due to the nature of the experience, the age of the student, and the learning environment. I am asking for your cooperation in impressing upon your child the importance of being careful. This will back up the instruction that is given in school to **"THINK SAFETY"** at all times.

Let's have a great year!

Sincerely,
Mrs. Hill

The best way to predict the future is to create it!