

Student Name: _____ Class Period: _____ Computer #: _____

COURSE DESCRIPTION:

Course Name	Invention and Innovation, Grade 7	Teacher Name	Mrs. Michelle Cottongim
School Name	Cartersville Middle School	Teacher Email	mcottongim@cartersvilleschools.org
School Phone Number	770-382-3666	School Website	https://www.cartersvilleschools.org/CMS

In the Invention and Innovation course, students will work individually, and in groups, to examine and solve societal problems through research, data collection, design, experimentation, and technology selection to produce a functional invention/innovation. Students will study the history of inventions and innovations, their impact on society, and how technologies have changed over time. Using the engineering design process, students will create a solution to a problem while demonstrating proper safety techniques in the lab. Students will also examine the process for patenting and protecting their inventions and innovations. The Invention and Innovation course reinforces the areas of math, science, social studies, and language arts through practical application and/or hands on activities. Exposure to Engineering and Technology related careers, work ethics and leadership skills will be important components in this course.

7th Grade Standards – Invention and Innovation

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/Invention-and-Innovation-Grade-7.pdf>

Instructional Resources:

This course utilizes a variety of web-based applications and software. The two primary resources are:

- ITEEA's Engineering by Design Web based Course: Invention and Innovation
- Technology: Engineering Our World Eighth Edition ITEEA Textbook

Class Goal:

To prepare students to become 21st Century learners while enhancing achievements in STEAM subjects (Science, Technology, Engineering, Arts, and Math) through hands on engineering/technology lab experiences.

Instructional Philosophy:

The class will be taught in an experiential manner where the students are encouraged to actively participate in class discussions, readings, individual, and group projects. It is important for students to take ownership of their learning and be responsible for all assignments.

Class Specifics:

- We will use an online learning environment. Home internet is useful, but not required. Assignments, resources and pertinent information will be posted in the Learning Management System (LMS), Schoology.
- Digital citizenship and appropriate digital use are always expected as most of our work is online.
- Assignments that are not completed in class are due the next day and should be completed for homework.
- Students are required to take and pass a Procedures and Safety test.

Supplies:

1 composition notebook graph ruled, 1 2-pocket folder with prongs, Notebook Paper

Supplies to keep with you in a pencil pouch: wired ear buds, pens & pencils, highlighters, blunt tip scissors, colored pencils, markers, glue sticks, and scotch tape

Attendance:

Attendance is critical to the success of this course. The class attendance policy will follow the same guidelines set forth in the student handbook. Being tardy for the class will result in an infraction.

Safety:

Because of the nature of this course, students will work with and learn to use a variety of tools and equipment. Each student will be orientated and assessed on basic workplace safety procedures. While working in the classroom or in the lab, all safety procedures must be followed. If a student does not follow the correct safety procedures, the student will not be permitted to complete the activity. If a student places himself/herself or others in danger, the student will be removed, and the proper disciplinary actions will follow. No food, drink, candy or gum is allowed in the lab except for a water bottle with water only.

Digital Citizenship:

As this course is primarily online, it is imperative that appropriate online behavior is maintained to ensure a productive and safe learning environment for all. Students may be provided alternative assignments if unable to abide by proper protocol.

Grading:

All assignments are expected on the due date. There will be a 30% penalty for any assignment not turned in on time. Utilize Infinite Campus to view your student's progress. If you need the log-in information, please check with the front office. Grades will be based on a combination of daily work, quizzes, tests, projects, tasks, etc. The grades will be weighted as follows:

- **60%** Summative (Including, but not limited to; tests, projects, Engineering Design Notebooks and exams.)
- **40%** Formative (Including, but not limited to; quizzes, classwork, and Engineering Journal)

Classroom Expectations:

1. Be on time and prepared for class every day.
2. Listen carefully to instructions.
3. Turn in work on time.
4. DO NOT tamper with computer settings.
5. Follow all Student Handbook Rules.
6. Clean computer area and log off prior to leaving class.
7. Clean Engineering Workshop as assigned prior to leaving lab.
8. Follow all safety rules in the lab or classroom.
9. Return tools and supplies to proper storage area.
10. Do not eat food in the classroom and or lab area!
Water bottles must be placed on the floor by chair.

Actions Taken for Problem Behavior or Failure to Follow Procedures

- When a student does not follow procedures or demonstrates problem behavior a discipline infraction will be issued. Consequences for infractions will be as follows:

Infraction 1: Parent Contact

Infraction 2: Silent Lunch/Parent Contact

Infraction 3: In-Team Suspension/Parent Contact

Infraction 4: Office Pre-Referral

Infraction 5: Office Referral

- Additional infractions will result in an office referral.

- Severe behavior problems as outlined in the Cartersville Middle School Student Handbook will be referred directly to the office.

PLEASE SIGN BELOW AND RETURN

I have read the syllabus.

Print Student Name: _____ Grade: _____ Class Period: _____

Student Signature _____

Parent/Guardian Signature _____ Date _____

Additional information to support continued contact:

Information	Parent/Guardian	
Print Parent Name		
Cellular /Home Phone No.		
Email Address		

