COURSE DESCRIPTION (OVERVIEW)

Students will develop a fundamental understanding of Engineering Design through the application of Computer Aided Drafting/Design (CADD) and Robotics Technology. Included is a practical study of the cultural, social, economic, environmental and political effects of technology; the role of society in the development and use of technology; and the influence of technology on history. Students will engineer, design and strengthen their ability to troubleshoot systems, research and develop, invent and be innovative, and experiment using models to problem solve while learning to use and maintain technological system. Students will also be taught the importance of safety in the lab as well as safe usage of the finish product.

Units of Study

- Drafting and Design Basics
- Robotics Engineering
- Basic Electronics (Police Alarm)
- Urban Planning/Development
- Transporations (Maglev Train)
- Testing and Analysis

Students’ grades will be based on mastery of specific course standards. Students will be assessed through the use of a variety of assignments and projects. Work not attempted will be recorded as a Z and calculated as zero.

GRADING POLICY

Grades will be determined on academic achievement on individual performance based on MCPS standards. The grade will be determined by quizzes, drawings, reports and projects based on the rubric and weight of the assignment. Work not attempted will be recorded as a Z and calculated as zero.

Overall Grading Rubric

A—Student demonstrates a full and complete understanding of the indicators
B—Student demonstrates a good understanding of the indicators.
C—Student demonstrates a basic understanding of the indicators
D—Student demonstrates some understanding of the indicators
E—Student demonstrates little or no understanding of the indicators.

Learning Skills: Non-academic indicators that influence student achievement are reported as C (consistently), O (often), S (sometimes), R (rarely), NI (not enough information).

- Participation: asking questions, giving ideas, using feedback, engaging in learning
- Task completion: completing homework and class work.

Grade Breakdown by Category w/ Percentage:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage of Total Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework for Practice &amp; Preparation*</td>
<td>10%</td>
</tr>
<tr>
<td>Formative Assessments</td>
<td>60%</td>
</tr>
<tr>
<td>Summative Assessments</td>
<td>30%</td>
</tr>
</tbody>
</table>

*MVMS uses the “raw score conversion to percentage” method to calculate grades. Therefore, the # of points a particular assignment is worth does not impact its weight within a category (18/20 carries the same weight as 36/40). However, assignments may be still be weighted within categories by assigning assignment weights.

There is typically no homework assigned in this class. This category will be used for short or quick assignments such as exit cards that typically check for student understanding.

Grade Updates

Assignments turned in on time will be graded in a timely manner (usually a couple of days) and entered into my electronic gradebook immediately. Grades are automatically uploaded to Edline on a nightly basis. Both students and parents should log into Edline regularly to check grades and missing assignments. Students are expected to know their grades, and what, if any, work is missing at all times. There should be no surprises in this class to students or parents. Edline Activation codes for parents new to MVMS will be mailed during the first week of school. Others needing activation should contact Parfait Awono at parfait_awono@mcpsmd.org.
LATE WORK AND MISSING WORK
- Each assignment will have a due date. This is the date by which you are expected to submit the assignment. Your grade may drop one letter grade if it is not turned in by the due date.
- The deadline is the last day an assignment will be accepted for a grade. I am typically very lenient regarding deadlines as long as the student is attempting to complete the assignment.

RETEACH and REASSESS
- Re-teaching occurs when teachers or students determine that students are not meeting learning goals.
  - Assessed tasks may be revised to receive a higher grade until the end of a lesson sequence.
  - The original student work, along with the teacher comments and/or rubric, must accompany the revised work in order to be re-graded.
  - Alternative forms of assessment may be used for reassessment.
  - Quizzes may be taken a second time, with the second score will taking precedence over the first.
  - In accordance with MCPS policy, summative assessments cannot be reassessed.

HOMEWORK
There will be little to no assigned homework in this class. However, students will be required to complete work by given due dates. Students who cannot meet these deadlines in class, or who are absent, must complete their work outside of class. I am available during lunch and after school most days, and the media center is open after school for computer use. Students may also email work home, or copy it to flash drives, to complete at home if they have the necessary software.

MAKE UP POLICY (A Student’s Guide to rights and responsibilities in MCPS)—
“you are responsible for making up any work you miss during absence, regardless of the reason for the absence. If the absence is unexcused, your teacher does not have to help you make up the work you missed, give you a retest, or give you an extension on work that was due.” You are required to make up work in this class and it is your responsibility to check with the teacher about missed work. Work should be made up in a timely manner.

HALL PASSES
In order to successfully complete this course and meet timelines, you will need to be in class. Therefore, hall passes will be issued for emergencies only. Please make every effort to go to the bathroom and get a drink during the break between classes. This is school policy and it will be enforced in this classroom.

INTERNET USE
Students are allowed to use the Internet for school purposes. Students taking advantage of this policy will be warned. Repeated offenses will result in revocation of Internet privileges. Loss of Internet or computer privileges in a computer class makes it very difficult to successfully complete the class. Students who lose privileges will still be responsible for completing work, but will be required to complete it outside of class.

Students may temporarily lose access during 1 or more class periods if they are missing assignments or are caught abusing their privileges. If this becomes a problem the parents will be notified.

LAB RULES
Complete lab rules were distributed separately and need to be reviewed, but the following needs special attention:
- Food and drink: We are asking you to respect the equipment provided by MVMS by not eating or drinking anything in the lab. Food, drinks and candy should be kept in your locker. Any drink, food or candy seen elsewhere in the lab will be confiscated. Repeat offenses will result in consequences. All computer labs are NO GUM ZONES.
- Computers: All students will be assigned to a computer. That computer is your responsibility and therefore is the ONLY computer you should be using or touching.

WORK FOR OTHER CLASSES IN COMPUTER CLASS
Students are expected to spend 100% of each class period working on their class work. Working on other class work will not be allowed, unless you have my permission prior to doing the work. Not following this procedure constitutes a lack of participation and could result in further consequences, as assigned by the teacher.

~A very important concept in working with computer technology is the importance of saving and backing up work at regular intervals. You will develop these fundamental skills while working in class. If you neglect to save and we have a power surge, it will be your responsibility to make up the work if the procedures were not followed. ~

Teacher: Shana Gustafson

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Content Specialist    Content Administrator   Principal