

**ENGINEERING DESIGN & DEVELOPMENT (PLTW):
COURSE OVERVIEW**

TITLE OF COURSE	<u>Engineering Design & Development</u>
TEACHER'S NAME	<i>Mr. Demick</i>
Course Information	Grades: 11-12 Room: 538 Duration: All year, one credit
Teacher Information	Phone No.: (810) 591-5461 E-mail Address: gdemick@carmanainsworth.org
Course Description and Overview of Content	This upper-level class develops problem-solving skills for success in any post-secondary engineering, technical, or manufacturing program (see www.pltw.org).
Course Goal/ Intended Outcomes	This course covers the following components: <ul style="list-style-type: none"> ▪ Component 0: Project Management ▪ Component 1: Researching a Problem ▪ Component 2: Designing a Solution ▪ Component 3: Creating a Prototype and Testing Plan Component 4: Evaluation and Reflection on the Design Process ▪ Component 5: Presentation of the Design Process
Texts and Materials	Text: <i>Engineering Notebook; LMS PLTW Access</i> Materials needed: Engineering notebook and three-ring binder. You will be charged for each piece of equipment that has been damaged (as determined by the instructor) or lost. You must treat the equipment with care. Students will need the following apps: <i>Canvas</i> (by Instructure) and <i>Genius Scan</i> in order to submit assignments. You may also want to get a good unit converter app.
Format and Activities	Teacher will: Lecture, lead whole class discussions, facilitate small and large group activities, assign drawings, provide one-on-one assistance on class-work, administer appropriate assessments, and assign grades. Students will: Take thorough notes in the engineering notebook, work independently and collaboratively to complete projects on time, and ask questions to clarify understanding of material. Most student grades will be submitted through the Canvas system.

<p>Grade Calculation</p>	<p>Semester Grade: Semester grades will be calculated using the following weights:</p> <p style="padding-left: 40px;"> <u>80%</u> <u>Assignments and Assessments</u> <u>20%</u> <u>Attitude and Participation</u> </p> <p>Quarter grades are a reflection of the student's semester grade to date.</p> <p>Grading Scale: The grading scale for will be as follows:</p> <table style="margin-left: 40px; border: none;"> <tr> <td>A</td><td>100-93%</td><td>C</td><td>76-73</td></tr> <tr> <td>A-</td><td>92-90</td><td>C-</td><td>72-70</td></tr> <tr> <td>B+</td><td>89-87</td><td>D+</td><td>69-67</td></tr> <tr> <td>B</td><td>86-83</td><td>D</td><td>66-63</td></tr> <tr> <td>B-</td><td>82-80</td><td>D-</td><td>62-60</td></tr> <tr> <td>C+</td><td>79-77</td><td>E</td><td>Below 60</td></tr> </table> <p>Final Project Grading: Students who fail to complete their final projects by May of second semester will not earn higher than a grade of C.</p>	A	100-93%	C	76-73	A-	92-90	C-	72-70	B+	89-87	D+	69-67	B	86-83	D	66-63	B-	82-80	D-	62-60	C+	79-77	E	Below 60
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<p>Attendance/ Tardiness</p>	<p>Regular class attendance and participation is the key to learning and being successful in this class, as there is a lot of cooperative-learning assignments.</p> <p>ABSENCES: ALL absences must be <u>excused</u> by the parent via <u>note or phone call to my voice mail no later than the day following the absence</u>. Please give a daytime phone number in case the note requires verification. If a note or phone call is not received, the absence will be considered <u>unexcused</u> and the student will not be allowed to complete missing work, quizzes, or tests for credit. The absence policy indicates that students who have 12 absences will be placed on pass/fail (See the Student Handbook for details.)</p> <p>TARDIES: Students are allowed <u>three tardies</u> to class <u>per semester</u>, with only a possible call home. However, all unexcused tardies will result in a loss of participation points. The following measures will be taken for subsequent tardies: Four Tardies: Referral to the office for ISS. Eight Tardies: Referral to the office for all-day ISS. Other Tardy Policies: See the Student Handbook.</p>																								
<p>Classroom Rules and Procedures</p>	<ul style="list-style-type: none"> • <u>All school rules from the student handbook apply in this classroom.</u> • Be responsible. (Bring your materials, do your work, study!) • Be polite, respectful, and tolerant of others <i>and</i> the equipment. • <u>No food or drinks are allowed</u>, they are to be consumed in the cafeteria or commons only. 																								

	<ul style="list-style-type: none"> • Get enough sleep at home, so that you are well rested and can stay awake in class. • Stay in your seat until the bell rings. Lining up at the door is not permitted. • Students are responsible for collecting makeup work from the teacher when absent. In the event that quizzes or tests are missed, <u>they MUST be made up before/after school within two days (only if absence is excused)</u>. • When entering the classroom, immediately and quietly get your equipment and begin working on the current project. • Students who have missed class are to check the LMS system. • Behave like mature students, respecting everyone and all equipment. Immature, improper, and disrespectful behavior will result in a phone call home, or referral to the office. • Other procedures—such as asking for help, turning in homework, leaving one’s seat, seating arrangements, group work, etc.—will be discussed in class and are expected to be followed.
<p>Academic Integrity</p>	<p>Although students are strongly encouraged to help each other with projects, all students must ultimately do their own work. Cheating or copying another student's work will not be tolerated. Any deviation from this will result in loss of credit for the particular work for both parties involved and a referral to the office for disciplinary action.</p>
<p>Other Comments</p>	<p><u>AFTER SCHOOL HELP:</u></p> <p>I will assist students who need additional help on homework <i>only</i> if they are using their in-class time appropriately. I am available for after-school help in room 538 as needed. Make an appointment with me during class.</p> <p><u>COMMUNICATION:</u></p> <p>Parents and students are able and expected to monitor progress via StudentVUE and ParentVUE (visit the main office for details).</p> <p>Please keep in mind that it is the <u>students’ responsibility</u> to make the most of their education. Students, parents, and teachers must work together to make this the best experience possible.</p>