

# PLTW Engineering Course Syllabus

VERSION 2.0

The focus of the PLTW (Project Lead the Way) curriculum is to expose students to the various disciplines of engineering. The PLTW courses give students the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based learning. I expect **all students** to complete the assignments both thoroughly and on time, and to put forth their best effort in completing the challenges. Students who do not meet these expectations will NOT pass this course.

## Course Framework

1. **Deliverables** – Assignments will range from doing calculations, sketches, previewing and taking notes on the PowerPoint presentations, programming, and completing various project challenges. Students will be responsible for completing these assignments in a timely manner and with maximum effort.
2. **Discussion** - Every student will be given an equal opportunity to succeed in our class discussions and a student's success in them is a matter of how well one prepares for them e.g. careful reading, taking notes in detail, practicing problems, whether they are actively involved in the discussion. The class discussion is worth 10% of a student's total grade and one's grade is based on how many points he or she accumulates during the entire semester. Students are expected to maintain at least 70% of the highest person's discussion score to receive full credit. A student with a percentage under 70% will receive that percentage as their discussion grade e.g. 50% = 5% as their discussion grade; 32% = 3.2% as their discussion grade; 87% = full 10% as their discussion grade. Discussion point totals are updated on a weekly basis and weekly totals can be found on the class website. Students are to date and tally up their daily points on the assignment that we are discussing that day. We will collect points at the end of each class period.
3. **Participation** – My biggest pet peeve is when students do not utilize their time in class wisely; especially when an assignment has been given or when the assignment can only be completed in class. Students will be given a set number of points per week. If a student is not using their time in class for whatever reason they will lose their points for the week. Any further time that is wasted will result in points being deducted from previous weeks. A student's participation grade will be calculated as a percentage of the maximum number points possible. Participation point totals are updated on a weekly basis and weekly totals can be found on the class website. Points can be deducted without notification of the classroom rule offence so make sure you are always following all rules.
4. **Digital Notebook** – One discipline of a successful engineer is the ability to organize and document one's findings and ideas. Students will make sure that they insert all their work, whether computer screenshots, videos, photos, or scanned images, into a digital notebook. Students are expected to keep a table of contents, every page in the digital notebook numbered and ordered chronologically, clean and professional formatting, and with headers and captions for all entries. If you have more questions regarding these items, please refer the notebook template.
5. **Online Resources** – Utilize the class website at [www.mrhwang.com](http://www.mrhwang.com) to access the class calendar, links to the online textbook, download assignments, determine your total discussion and participation points, and find tutorials or other supplemental learning materials. Access the

locked areas using the class login: *guest* and the password: *sweet*.

6. **Tests** - There will be periodic tests to monitor and evaluate knowledge of specific concepts or ideas introduced in class, the use of the CAD software, mathematical operations, building techniques etc. etc.

## Grading

1. **You grade will be determined by the standard district mandated scale of:**

90 - 100% of the total points will be an A  
80 - 89.99% of the total points will be an B  
70 - 79.99% of the total points will be an C  
60 - 69.99% of the total points will be an D  
0 - 59.99% of the total points will be an F

2. **The total amount of points breakdown to approximately:**

Deliverables: 50%

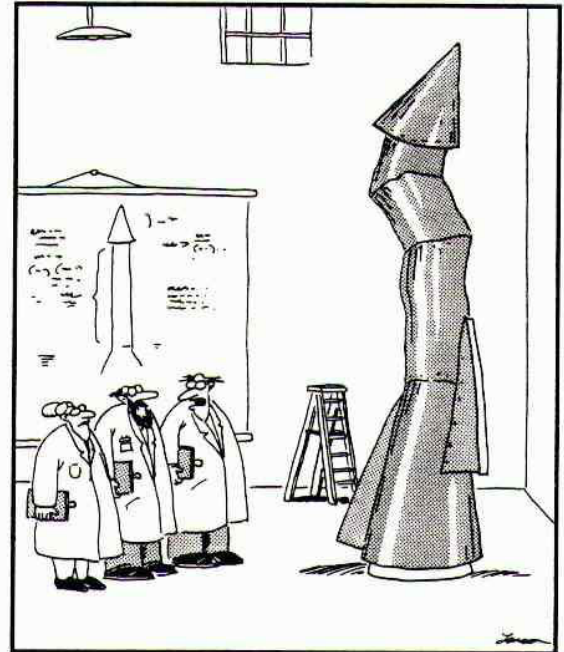
Tests: 30%

Discussion and Participation: 20%

3. **All students will receive a 1% bonus to their grade at the end of the semester. However, it will be forfeited if any of the following occurs:**

- you receive a disciplinary referral anytime during the semester including for tardiness
- cheating on ANY challenge, quiz, or deliverable (which includes plagiarizing)
- ditching or cutting class
- the teacher is forced to call home or contact your parent due to disciplinary reasons
- any letters, report cards, or grade printouts that are sent home and not received by the parent.

4. **Otherwise, there will be NO curving or rounding up of grades.**



"It's time we face reality, my friends. ...  
We're not exactly rocket scientists."

## Daily Procedures

*Please observe the following procedures so that we can ensure that each class runs smoothly and that we can use our class time effectively.*

1. Enter the classroom and quietly prepare for the start of class. This can mean taking out your homework, engineering journal, and/or other materials that will be used in the class that day. For other classes, this could mean that you go get your laptop and immediately login. Do not ask me anything during the beginning of class as I am often busy taking roll or setting up an activity. Save your questions for later in the period unless it is an emergency. There is usually music playing during the passing period. Once that music is muted, that is your signal that I need your complete attention. I will then ask for you to line up so that your homework can be evaluated and stamped.
2. At the end of class, once materials are put away, students need to remain seated until excused. This is to ensure that all things are put away, that homework can be assigned or clarified, and/or tomorrow's agenda can be quickly discussed. Push in your chair as you leave.

# Classroom Rules

1. **Be respectful.** When I or someone else is speaking, there should not be any other talking or noise. The speaker's words should not be distracted by someone else's comments. So, listen for and carefully follow my directions.

2. **Be disciplined.** I expect everyone to come into class and get ready for the class without any



prompting. If we are in the middle of a project, I expect to get started on it once you enter the classroom. Since you will not be able to work with our equipment at home, our time in class is precious. Do not waste your time by giving less than your full effort. You will not waste time socializing. You will not work on anything else except on our curriculum while in class. When you are done with one activity or assignment on the calendar, move onto the next one or spend some time making sure it is done well. There is always something that you can do during our class time together.

3. **Be responsible.** The equipment that we are using is quite expensive and can be delicate as well. So, all effort must be taken to prevent any damage or loss to them for future classes. Students who are grossly negligent will receive a referral and may be asked to pay for any damage that they may incur. And just to see if you're reading this, email me at [jhwang@wvusd.org](mailto:jhwang@wvusd.org) with the class mantra in the subject line and your name and period and you'll get some extra credit.

4. **Be prepared.** Bring everything you need for class, every day. Make sure you take care of your biological needs (restroom, water) before class and/or during break.

5. **Be honest.** Do not cheat or copy someone else's work. You will not only receive a zero on the entire homework packet, but you will also receive a referral. Remember, plagiarizing is cheating as well. If you copy someone else's drawing, program, or file and turn it in as your own, you will receive a zero and a disciplinary referral. When utilizing somebody else's information or program that is found online, you need to give credit to that person and to indicate that on in your deliverables and in your program. If you claim that information as being your own, it is considered cheating. On a test, don't let your eyes roam and keep your tests covered. Any attempt to cheat on your discussion points will result in your point total being reduced to zero at the time of your offense. If you get caught for any of the offenses above, you will call your parent or guardian in front of the class, and then explain to them what you did to receive the zero.

6. **Be conscious of the school rules.** Eating, drinking, cell phone, texting, dress code, tardiness, wearing headphones etc. etc. Students will be marked late if they are not in their seats when the bell rings. Participation points can be deducted without notification of the classroom rule offence so make sure you are always following all rules.

## Late Homework Policy

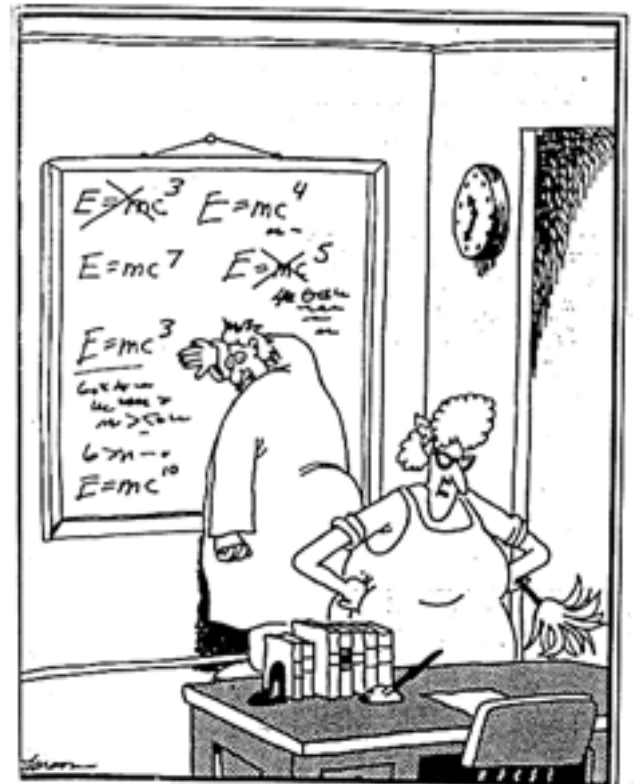
If your homework is going to be late, you should still complete it and insert it into your digital notebook, when I do a late work check. Though you will only receive half credit, it is better than receiving a zero on the assignment and that you will not be at a disadvantage during our classroom discussions or be unprepared when you take the test. On the late work submission day, you will email me a list of the titles of the late assignments that you want me to check.

## Makeup Work

For any homework that is due on the day that you are absent, YOU must have it stamped by me on the day that you return or else it will be counted as late when the digital notebooks are graded. If you are absent, please check the online class calendar first to see what you have missed so that you will not fall behind the other students. Most assignments can be accessed online through the online textbook or downloaded from the class website. If it is not available online, send me an email and I can send you a digital copy of it. If you are absent on a test or quiz day, it is YOUR responsibility to remember and take the test during makeup week. Makeup week is usually the last week of the grading period during lunch. Make sure you do not miss too many tests, because you are often at a disadvantage when you must make up multiple tests over a short period of time and often the content is not as fresh in your mind.

## How to succeed in this class...

- Ask questions, participate in class, don't be shy and stop trying because you've answered a question incorrectly
- Put your full effort into reading the assigned material and taking notes. Don't just copy down random statements from the PowerPoint presentations without understanding them.
- Maximize your class time, even if you are done with one task, there are always other things that you could be doing.
- Don't forget that I can see what you are doing on your classroom computer, what websites you've visited, and what programs you've accessed. So stay on task!
- Set aside time to ONLY do your homework, don't chat, surf, use your phone, or watch TV at the same time.
- Get help during my "office hours"; every day in my room during lunch.
- Use the class calendar to get organized and to prevent procrastination.
- Do not provide me a reason to say "no" when you ask me for a letter of recommendation this year or in the future.
- Live by the class mantra: "Discipline yourself, so no one else has to."



"Now that desk looks better. Everything's squared away, yessir, squaaaaared away."