PHYS 1220, Engineering Physics
Build & Attack Quizzes Rules
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- This activity counts 5% of total grade, in which 2% allocated to "Build points" and 3% for "Attack points".
- This activity will mainly be in the weekly discussion session. Students in the same discussion section need to form "Build Team". Each team is formed by 3-5 students.
- Build Phase has three weeks, followed by the Attack Phase (one week). There are total three cycles of this activity in the semester. For the detail schedule, please refer to the web syllabus.
- In Build Phase, each team designs one quiz/problem within the range declared by instructor in the first week of the Build Phase. In the discussion section in the last week of the Build Phase, each team needs to submit the following items to TA for approval: (1) the designed quiz/problem; (2) detail solution of the quiz/problem; and (3) the target testing concepts in this quiz/problem. The approval from TA is required for the collection of Build points.
- In the Attack Phase, **each student** needs to solve quizzes/problems designed by other teams in the discussion sections. Also, in the end of solving sheet, each student needs to vote "which one is the most enjoyable quiz/problem?" Note, each student can only vote for one, and he/she cannot vote for the quiz/problem that designed by his/her team. The **top two** most popular quizzes/problems will be awarded Design Award and extra points will be added to Build points.
- The Build point is calculated with the following equation: $P_B = \frac{F}{T} \cdot 100 + 10$.

  Where F is the number of students failed to solve your quiz/problem; while T is the total number of students tried to solve your quiz/problem. For example, if there are 30 students in your discussion section, formed 6 teams (5 students each). There will be 25 students trying to solve your quiz/problem (since students in your team don't need to solve it). If there are 5 students failed solving your quiz/problem. Your build point will be: $P_B = \frac{5}{25} \cdot 100 + 10 = 30 \, points$.

- The Attack point is calculated with the following equation for each quiz/problem you solved: $P_A = \frac{100}{S}$. Where S is the number of students successfully solve this particular quiz/problem. For example, for one particular quiz/problem, if there are 20 students successfully solved it, each student get: $P_A = \frac{100}{20} = 5 \, points$. The total Attack point is to add up points you get from each quiz/problem.

- The Design Award worth 50 points adding to the Build point. Remember, there will be two Design Awards for each cycle.
- To get full 2% of total grade allocated to Build point, you need to get 100 points or above. If you get less than 100 points, the percentage is calculated by linear interpolation. In other words, if you get 80 Build points, you get $\frac{80}{100} \cdot 2 = 1.6$ % of total grade. Hint: to boost your Build point, try to design "interesting, fun, and/or enjoyable" quiz/problem to grab the Design Award.
- To get full 3% of the total grade allocated to Attack point, you need to get 50 points or above. If you get less than 50 points, the percentage is calculated by linear interpolation. In other words, if you get 40 Attack points, you get $\frac{40}{50} \cdot 3 = 2.4$ % of total grade.
- Be aware that you cannot submit a quiz/problem that is not designed by your team. If it is proved that any one of the quizzes/problems designed by your team has plagiarism issue, the whole team will lose all Build point (lose 3% of total grade).
- Have fun!