**Applied Engineering State 2023**

We want to extend our congratulations to each of your teams who will be advancing to the state contest for Applied Engineering.  By now you have been contacted by Ms. Baxmann letting you know we will be taking the top three teams to state.  That means we will have 18 teams (72 students) competing in Applied Engineering in Corpus in a few weeks.  With that said, there is some general information that I want to share with you regarding the upcoming contest.  Please be sure to read the following information carefully and share it with your teams.  There are some changes from previous years that will be important for successfully getting through the orientation meeting and contest once we are all in Corpus together.  I know this email will seem rather long, but please read everything completely and carefully.

1. **Orientation Meeting**.  We are scheduled to have an orientation meeting on Friday, March 31 at 4:00 PM.  The location should be posted on the state contest schedule once it is finalized.  All teams must be present for the orientation and should bring their tool kit and supplies, as indicated below, for verification.  We generally have two hours for this orientation.  We do not plan on using the full two hours but do plan on at least using one hour or more for this meeting.  The more organized the teams are, the quicker the orientation will go.
2. **Resumes**.  Students **do not** need to have a resume for the contest; I have eliminated this requirement as it is not meaningful to the students’ performance and participation in the contest.
3. **Written Test**.  There **will not** be a written test covering such topics as robotics, Ohm’s Laws, terminology, etc.  Since I do not have visibility on what you specifically are teaching your students in the engineering realm, it is difficult for me to give a test that is fair and equal for everyone.  However, you will still take the SkillsUSA PD test that is required by Skills and those scores do figure into the standings for our contest.  In lieu of the written test, however, we will have an activity we will do during our orientation time on the afternoon of Friday, March 31 in Corpus.  All teams should plan to participate in the activity, as everyone will receive points for participating.
4. **Team Toolkit**.  I am providing you with an updated list of what items should be in each Team Toolbox.  Please make sure that each team’s toolbox is updated accordingly and contains the proper equipment.  We will check toolkits during our orientation meeting.  The items are listed below:
   * 4 pair Safety glasses (one pair per student)
   * 25-foot tape measure
   * 1 standard ruler
   * X-acto knife (or x-acto knife set)
   * Scissors
   * Colored Pencils
   * Permanent Marker(s)
   * Pencils (mechanical or standard; if standard, also include a pencil sharpener)
   * Sharpie(s)
   * 2 pair work gloves
   * Protractor and compass
   * 8 ½ x 11” graphing paper
   * 1-hole punch
5. In the past all supplies have typically been provided for each competing team.  However, this year we will be requiring teams to purchase some of the needed supplies prior to the orientation meeting.  We will then check the supplies to ensure each team has everything.  Teams will be given a budget for obtaining supplies, and receipts will need to be provided by each team at the orientation to show they have stayed within the budget.  I will ask that if you have multiple teams, please have them purchase their supplies separately.  Do not make one large purchase of the supply items and divide them up.  Part of this experience is having the students learn to find the best prices for their materials and to purchase those materials from suppliers while staying within their allotted budget.  Each item will indicate a quantity needed by the team.  Some items are exact quantities, others will be a range.  It will be up to the team to decide what they can afford to purchase within their budget, so encourage the teams to shop for their best prices.
6. **The budget.**  Teams are asked to purchase their contest supplies while staying within the budget.  This year’s budget is as follows: **$9.99**.  Teams will need to provide original receipts to the judges at orientation when supplies are verified.  Judges will ensure students have not exceeded the required budget.  If a team has exceeded their budget, the team will need to choose an item(s) to be forfeited to bring them back within budget.  Items will not be prorated for this purpose; if a team must forfeit an item, it will be an entire item for the total cost of that item (this will be covered in greater detail at the orientation meeting to ensure students understand the methodology).  **We have checked thoroughly, and it is possible to get all the supplies listed within the allotted budget.**
7. **Supplies.**  The list of supplies each team will need to purchase and bring with them to orientation is listed below.  Remember, each team has a budget of $9.99 to purchase these supplies.  All supplies must be purchased by the team.  No items can be “donated” by anyone, not even the advisor.  We want the students to locate the best price for items, do their research, and purchase their supplies.  Teams must keep their receipts and will need to provide them to the judges at the orientation meeting so we can verify they have stayed within budget.  Please do not make one mass purchase of items to divide between the teams; each team should have their own unique set of receipts for the purchases they have made.  The advisor buying the supplies for the team is considered the same as you designing and building the project for the team.  The needed supplies are listed below:
   * 50-100 Popsicle sticks (students may choose the package size and stick size depending on what their budget will allow)
   * 2 rolls of clear tape
   * 2 standard size glue sticks
   * 1 bag or 1 box of paper clips (students may choose the package size and clip size depending on what their budget will allow)
   * 16 (16 ounce) plastic cups
   * 6 pencils (standard pencils, no mechanical)
   * 1 (2 ounces) bag rubber bands (sizes in the bag may vary, but the bag should not be larger than a 2-ounce bag)
8. Additional supplies may be provided by the judges for team use.  These items **will not** count against the team’s budget.
9. **Uniforms**.  The standard SkillsUSA uniform should be worn for the contest (either work khakis or black pants with a white SkillsUSA shirt); however, because of the nature of this year’s contest, we ask that every team member wear tennis shoes.  Work boots are not needed for the contest.  Please do not allow any young ladies to wear heels or dress flats for the contest.  Every team member should be wearing tennis shoes.  Point deductions will be assessed for those not meeting this requirement.
10. **OSHA Certification**.  Please remember, at least one team member should have completed their OSHA certification.  Proof will need to be shown at the orientation.  This can be in the form of an OSHA card or a certification of completion.  We will not keep this documentation but do need to verify it and physically see it during the orientation meeting.
11. **Design Drawings**.  Teams will still be required to complete drawings of the device the design and obtain approval from the judges before they will be allowed to build and test.  The full team should present the design to the judges for approval.  It is a team effort.
12. **Safety Plan**.  Each team will be required to put together a safety plan.  Please have your teams take time to research what project safety plans look like and what they entail.  We will be looking for something more robust than just a sentence or two.

 This completes the information I wanted to get out to everyone prior to the contest.  We are looking forward to seeing all the students at the contest and to having a great time filled with fun and good competition.  If there are any questions about the above items, please email them to me and I will send out a response for everyone so we all stay on the same page and have the same information as we approach the contest date.

 Thank you, and again, please share this information with your teams.

 Respectfully,

Dr. Tasillo

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