



## Guidance for Regional Hosts for the UESI Regional Surveying Competition

Thank you for your consideration in hosting a surveying competition in your region. As you may be aware, each region has the ability to select which competitions they would like to include in their schedule with the exception of the technical paper and a business meeting. Each region must include these two events in order for teams to advance to any of the final championship competitions (previously labelled as national competitions).

Each year, some regions included a surveying competition while others did not. In 2018, a set of recommended rules were made available to regional hosts which may or may not have been adopted in your region to encourage the inclusion of this competition. In preparation of the first final championship student surveying competition, a recommended set of rules for the 2020 regional competitions has been released and posted on ASCE's website ([https://www.asce.org/student\\_conferences/](https://www.asce.org/student_conferences/)). The rules of competition for the regional competitions will be the same as the final championship rules. It is the site that will be different for each region and for the final championship competition.

To help in planning, information is provided below that may be useful in determining how a surveying competition could fit into your region's competition weekend.

### Final Championship Competition Scope

The UESI Surveying and Geomatics Division is pleased to announce that the **1<sup>st</sup> Annual ASCE Surveying Student Competition** will be held on Saturday, May 30, 2020, in Lawrenceburg, Indiana, just 20 minutes outside of Cincinnati, Ohio. The Competition provides students the opportunity to display their surveying skills to practitioners in the field. Each first place team that meets eligibility requirements will be invited to the final championship competition.





### Eligibility for National Competition

The following qualifications are required of all ASCE Student Chapters in order to participate in an ASCE-sponsored National Competition:

#### An ASCE Student Organization must:

1. Be in good standing with ASCE;
2. Have paid their annual dues, as received by ASCE, prior to the start of the Student Conference;
3. Have submitted their student chapter full Annual Report in time to be graded (reports submitted on or before February 1 meet this qualification), and have received a minimum score of 40 points out of a possible 100. **Student Chapters that submit an EZ annual reporting form do not qualify;**
4. Act appropriately. As representatives of ASCE and the civil engineering profession, all competition and conference participants are expected to and must act professionally and courteously. The use of alcohol, marijuana, or other controlled substance is strictly prohibited;
5. *Note: Invitations to Conference and National Competitions are a privilege, not a right. Failure to act appropriately can result in letters of reprimand, mandatory behavior management plans, and loss of invitations to further competition for individual institutions and/or entire conferences;*
6. Attend and participate in their assigned Student Conference as shown through their schools;
7. Good faith participation in the Student Conference Business Meeting (at least one (1) student representative present at the **start** of the Business Meeting);
8. Good faith participation in the Student Conference Paper Competition, including submission and presentation by at least one (1) member of the ASCE Student Chapter, not necessarily a member of the concrete canoe team; Note that the concrete canoe design paper/oral presentation does not count as an entry into the Student Conference Paper Competition;
9. Meeting any additional requirements of Student Conference participation set by the Student Conference at the previous year's business meeting or in their written and approved by-laws, standing rules, or constitution.





### **Recommended Surveying Competition Schedule**

The schedule will vary based on the number of teams that you have competing. A sample schedule for a conference with 20 competition teams is shown below. Chances are that there will be fewer than this competing in your region.

#### **Day before Surveying Competition**

1:00 PM – Set Up for Surveying Competition, including signage using Judges and Volunteers. This should only take about 4 hours.

6:30 PM – Judges meeting to go over the courses and rules. All judges should be required to attend this meeting to cut down on conflicting answers on competition day.

#### **Day of Surveying Competition**

7:00 AM – Team Captain Meeting – Students, Judges, and Volunteers

7:30 AM – Competition Starts – team members will have time to attend other competitions during this event if competitions are overlapping.

11:00 AM – 1:00 PM – Lunch on site, teams will have lunch during their break between portions of the event.

	Pacing (30 min)	Level Loop (45 min)	Stakeout (45 min)	Profile Elevs (30 min)
7:30	1,2,3	4,5,6	7,8,9	10,11,12
9:00	4,5,6	13,14,15	10,11,12	1,2,3
10:30	7,8,9	10,11,12	1,2,3	19,20
12:00	13,14,15	16,17,18	19,20	7,8,9
1:30	10,11,12	1,2,3	4,5,6	16,17,18
3:00	16,17,18	19,20	13,14,15	4,5,6
4:30	19,20	7,8,9	16,17,18	13,14,15
6:00	Clean up			

Set up for the competition includes setting course markings for each part of the competition. For the pacing portion, set 3 routes using triangles of up to 100' on each side to accommodate 3 teams competing at one time. The building layout portion of the





competition will require setting 2 points for each of the 3 layouts and allowing enough space for each team to lay out their building footprint. A building footprint of 30' x 50' will be good. The lines and station lathe will need to be set for the sanitary sewer layout. Using a line of 300' to 600' and marking every 50' station for elevation calculations will be good. You will need 3 routes. The level loop will require setting a starting benchmark and ending benchmark for each route. You could require each team to use the same starting and ending benchmark.

The competition judges should be used for setting each course and the points. The locations should be clearly marked and signage to get to the competition will need to be placed. You may want to include a table, chairs, and a tent for the judges. You may also want to include a space for teams to do calculations. Clipboards and a loud speaker may be useful for the judges during this competition.

### **Judges**

You will need 4 head judges, one for each portion of the competition and you will need additional judges on site for each portion of the competition. The number needed will depend on your site setup and visibility between courses. If you need help finding judges, it is recommended that you contact your local chapter of UESI or state surveying society. There may also be local surveyors who would be interested in helping.

### **Equipment**

If your school does not have surveying equipment, you should ask your judges to bring equipment to set the courses and to measure results on the day of competition. Each school competing in the competition should be responsible for bringing their own equipment. In the event that a school would like to compete and does not have surveying equipment at their school, they should contact their local chapter of UESI or state surveying society to find mentors to help them with the competition and with equipment. There may also be local surveyors who would be interested in helping. These volunteers should not be the judges for the competition.

Teams competing in the surveying competition should be limited to using NCEES approved calculators only during the competition. Teams should also be advised as to limitations on equipment, such as no robotic total stations or GPS. Other limitations can





be added as you see fit. Proper safety equipment (hard hats, safety vests, steel toe shoes, safety glasses) should be supplied by each team for their team members.

### **Mentors**

Faculty members should be able to help students with the surveying competition. In the event that no surveying faculty are at a given school, they should contact their local chapter of UESI or state surveying society to get help. There may also be local surveyors who would be interested in helping. As these are common engineering surveying problems, there are many textbooks available to help teams learn the proper techniques and calculation methods.

### **Awards**

UESI will provide a 1<sup>st</sup> place plaque for each regional host to award to the top placing team. The top 3 teams will be recognized at the championship finals competition.

### **Support for Hosts**

Regional conference host support will be provided through the UESI Student Surveying Competition Committee. Questions regarding hosting this particular event should be directed to Omar E. Mora or Christopher Chiu.

For questions about the student competition contact: [Omar E. Mora](#), Ph.D., Assistant Professor of Geospatial Engineering, *Cal Poly Pomona* or [Christopher Chiu](#), S. M. ASCE Graduate Student of Civil Engineering, *Kansas State University*

