



AMERICAN SOCIETY OF CIVIL ENGINEERS® CONSTRUCTION INSTITUTE STUDENT SYMPOSIUM COMPETITION

RULES AND REGULATIONS



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Section 1: Welcome Statement

The American Society of Civil Engineers (ASCE) and the Construction Institute (CI) support and encourage a fully inclusive culture that celebrates individual uniqueness, engenders a sense of belonging, and promotes equitable opportunity for all people to participate in the ASCE CI Student Symposium Competition. (See ASCE Policy statement 417 - Justice, equity, diversity, and inclusion.) Participation should be inclusive, open, and fair to all interested and eligible students. Welcome!

1.1 Ethics and Required Conduct

This competition is to be conducted with the highest regard for ethical responsibility per <u>ASCE's Code of Ethics</u>. All members of ASCE, regardless of their membership grade or job description, commit to all of the ethical responsibilities in this Code. All ASCE members should make themselves familiar with ASCE's Code of Ethics.

All participants shall act professionally and respectfully at all times. Failure to act appropriately may result in sanctions, disqualifications, and loss of invitations to future symposia competitions or Society-wide competition finals. The inappropriate use of language, alcohol, or materials, uncooperativeness, and general unprofessional or unethical behavior will not be tolerated.

1.2 Safety

Safety is the highest priority and risk of personal injury will not be tolerated. Judges and student symposium hosts, including Safety Officers, are empowered to stop or prohibit an activity which is deemed to be hazardous, or to postpone an activity until the hazard is rectified. All participants are responsible for complying with all campus/venue protocols and procedures, including those deemed necessary for public health purposes.

Given continually changing environments, virtual competition provisions may be provided and may be activated in coordination with ASCE.

If there is a thunderstorm, all outdoor activities shall cease and may not resume until at least 30 minutes have passed since the last observed occurrence of thunder or lightning.

Section 2: Competition Overview

CI is one of nine institutes that represent ASCE in providing professionals, students, and organizations the resources to enhance skills, grow their network, and shape the future of the civil engineering industry. The vision of the Construction Institute is to be a leader in promoting quality in construction.

CI has plans to be a leader in institute participation among ASCE student conferences, and with help from the institute's Young Professionals Council (YPC) and CI's devoted network across the country, a competition was developed to provide a construction focused experience for engineering students. This is the fifth year offering this competition and it is being held as a pilot at select student symposia. CI's mission for this competition is to bridge the gap between student chapters and ASCE's institutes to show engineering students what ASCE has to offer while students are still in school as well as what can lie ahead after graduation.

CI hosts an additional student competition annually to provide an opportunity for students to be fully immersed in the construction industry before graduation. This program is called Student Days, and it is held each summer over a 5-day weekend. Each year upwards of 150 students nationwide apply to attend Student Days while only 40-50 are selected to attend. The event is designed to be fun and engaging, while challenging and educational, and contains several networking and social events with engineering and construction companies, a project competition requiring various deliverable submissions, and jobsite tours as well. Student Days is the inspiration for CI's symposia competition, yet this challenge is scaled down to fit into a few hours session. The project will give students a taste of what Student Days is like, and it will be a fun and educational challenge that will have participating teams dive into all aspects of civil and construction engineering. This year, one individual at each student symposium will be invited to bypass the application process to attend CI's flagship event in August 2025, Student Days in Chicago, Illinois.

Section 3: Participation and Eligibility

3.1 Team Member Requirements

Team members must be undergraduate students, enrolled during all or part of the current competition academic year, members of an ASCE Student Chapter in good standing, registered participants of the student symposium, and Society Student Members of ASCE. (Society student membership is free; be sure to join.)

3.2 Team Requirements

It is an expectation that teams will reflect diversity, foster an inclusive culture, and treat everyone with dignity and respect.

Only one team per ASCE Student Chapter may compete in the competition. A team may consist of up to four (4) students. A student chapter may compete in only one ASCE Student Symposium per year. Each team must designate one team captain. Conference assignments and student symposium hosts are listed here.

ASCE Student Chapters hosting symposia may invite Official Guest teams, which are teams from Region 10 that have an official ASCE Student Chapter not yet assigned to any Student Conference. Official Guest teams may compete in only one student symposium per year and are eligible to place and receive awards at the student symposium competition (if they meet the other requirements, including eligibility requirements). ASCE Student Programs shall be notified by the ASCE Student Symposium host school of an Official Guest team prior to the start of the student symposium via e-mail to student@asce.org.

An ASCE Student Chapter team wanting to enter a competition that is NOT being hosted at their assigned student symposium may request to compete at another ASCE Student Symposium as a guest team. If the student symposium host grants permission, the guest team may compete. The guest team will be scored but shall not win awards at the student symposium competition.

3.3 Student Chapter Eligibility and Competitions Forms

Eligibility criteria for the Student Symposia Competitions are shown in Appendix B.

Teams must submit **online Intent and Eligibility Acknowledgement Forms**, no later than **5:00 p.m. Eastern Time (ET) on November 1, 2024**.

By completing this form, a student chapter states:

- Their intent to have a team participate in the competition at their assigned student symposium; and
- Their acknowledgement of the eligibility requirements for student symposium competition participation (Appendix B).

The form must be completed and separately submitted by the:

- 1) Team Captain;
- 2) ASCE Student Chapter Faculty Advisor; and
- 3) Competition Team Faculty Advisor.

All three parties will use the same form to submit. If the ASCE Student Chapter Faculty Advisor and the Competition Team Faculty Advisor are the same person, the form has a field to indicate as such and only one faculty advisor submission is required.

Teams can verify that all three parties have submitted an Intent and Eligibility

Acknowledgement Form by checking the <u>Intent Form Status Report</u> in Cerberus.

ASCE will send student chapters an online CI competition team member form to complete by February 3, 2025. The following information will need to be provided on the team member form:

- Each team member's first and last name (one designated as captain)
- Each team member's ASCE ID number

Section 4: Challenge Overview

Participating students will receive a focused scope of work for a real-world engineering problem and will be tasked to design a solution to this problem. Project documents outlining the scope of work—i.e. the Request for Proposal (RFP)—will be handed out (digitally) during the scheduled time slot at the student symposium. No work or information will be given out to registered teams prior to the competition weekend, so the whole competition will take place at

the symposium. The competition's duration will consist of a 2.5-hour working period for teams to submit all deliverables, followed by a presentation from each team.

The Construction Institute Student Symposium Competition tasks participating students with a real-world construction engineering challenge to which teams will be asked to devise a solution and communicate it via presentation to a panel of judges. Performing calculations, writing short answer responses, gathering other forms of documentation, or creating visual representations may be required for each challenge. The deliverable requirements as given in the RFP may ask for students to describe their solution in conceptual, visual, quantitative, or numerical ways.

Sample projects may relate to any sector of civil engineering, while different parts of the problem statement may compel students to consider different parts of the project delivery process, such as: Site Logistics, QA/QC, Safety, Public Outreach, the Environment, Risk Management, and other project management and engineering considerations. Each student team shall act as a construction engineering firm, and these responses shall be directed and delivered professionally, similarly to how a real company would address an owner requesting additional technical information from a firm during the pre-construction or construction phase of a job.

For example, student teams may be given a plan sheet that illustrates the construction of a new roadway. A few tasks could be: 1) Estimate the quantity of asphalt pavement needed and provide a total price for the construction (*numerical response*); 2) Illustrate a proposed traffic control plan to have traffic switch lanes when the southbound lane is closed (*diagrammatic response*); 3) Describe a proposed public outreach plan to gain insight on public concern regarding the project and its demands (*short response*). All challenges where calculations are required shall contain the work to support the answer in the response. If the written work for a calculation is not provided, the answer will not be scored.

The CI YPC reserves the right to add to, clarify, or modify the project documents and requirements as seen fit (e.g. issue addenda). If changes are made during the competition, addenda will be posted on ASCE's Cerberus ftp server (a secure link will be distributed prior to the symposium).

4.1 Presentations

General requirements

- Viewership: Each team's presentation can be viewed by all who wish to watch, including participants on teams who have not yet presented or already presented during the competition. Judges will ensure all teams are informed of when they will be presenting, and the student symposium host will provide appropriate workspaces for teams to practice their presentations.
- Deliverables: Each team's primary deliverable is a Presentation Slide Deck, to be submitted by the end of the 2.5-hour working period. Supplemental documents may be submitted or requested, depending on the nature of the problem statement.
- Allotted Time: Presentations should be no more than 10 minutes but no less than 8 minutes. Presentations will be followed by a period of Q&A from the judges.
- Speaker requirements: Each team member is required to speak for 1-minute minimum.
- Note cards and resources used: Students may use note cards or other tools to help deliver information in a non-distracting way.

Topic Requirements

- Company Qualifications: Teams shall create qualifications and positions/responsibilities
 for themselves, outlining qualifications and past project history.
- Management Practices: Elaboration on the management practices including but not limited to: QA/QC, Health, Safety, and the Environment, Risk Management,
 Subcontractor Selection, Public Relations/Communication, etc.
- Technical Approach: Describe the process or flow of construction for how the assigned project would be constructed as it relates to the RFP given in the written portion of the competition.
- Teams should emphasize in their presentations how their team stands out. Why should their proposal be chosen? What innovations/processes are being practiced to keep up with rapid changes in technology?

4.2 Team Resources

Considering the format and objective of the competition, students shall come prepared with any materials they deem necessary to be successful. Consider the competition as "open book"; where anything goes in the creation of the deliverables. The only limitation is the competition may only be participated in by the team members as defined by Section 3. Other students and advisors are not permitted to help the competing teams. All participating students should come prepared with a laptop. Laptops or computers will not be provided at the competition. One per team is sufficient, but it is recommended that each participating student brings a laptop.

Section 5: Submission Details

Project deliverables will be turned in digitally during the competition at the end of the 2.5-hour working period. The deliverables and responses shall be gathered in one PDF package and uploaded to a secure submission link for ASCE's Cerberus ftp server before the competition time is over. (See Appendix C for Cerberus Upload Guidance.) ASCE will provide each team captain and faculty advisor a secure submission link the week of the competition. If the time stamp on the sent PDF containing the responses is over the competition end time mark, the team's submission will not be graded. This deduction is to emphasize the real-world challenges that firms must abide by when turning in information to an owner. The Head Judge has final say over deductions. The Head Judge may consult with the CI Representative and/or Rules Committee regarding deductions, but the CI Representative and/or Rules Committee will not overturn the Head Judge's decision.

This document, also available on the <u>ASCE Student Conferences</u>, <u>Symposia</u>, <u>& Competitions page of the ASCE Website</u>, defines the 2025 ASCE Construction Institute Student Symposium Competition Rules. There will be no Requests for Information (RFI), as the entirety of the competition will take place during the symposia. Any additional information or clarifications needed about this document shall be emailed to <u>student@asce.org</u> (subject line: CI Student Symposium Competition Question). Major clarifications and changes to the rules will be publicly published on the ASCE website as a revision to the Rules document.

Section 6: Student Symposium Scoring and Recognition

Teams will be scored based upon the judge's discretion, using the rubric in Appendix A, on the quality of their presentation, both in content and delivery, along with any supplemental deliverables submitted. The CI YPC reserves the right to make adjustments to Appendix A if needed to maintain fair judging of the competition.

The first, second, and third place teams and their members will receive recognition awards. In addition, the top scoring teams will receive points that may be applied to symposium overall student chapter scoring if the student symposium has an overall student symposium winner (to be determined by the symposium host chapter). The breakdown of this competition's "worth" or the amount of points going to the student chapters' overall symposium score is to be determined by the student symposium host planning committee.

The judges will also recognize the top three overall speakers, regardless of which team they represent or how that team placed in the team competition. These top three speakers shall be referred to as the "Best Speaker", "Outstanding Speaker", and "Honorable Mention". The top overall speaker, "Best Speaker", will be invited to attend the 2025 ASCE CI Student Days Competition, contingent that they satisfy all eligibility requirements for participants as described by the CI YPC. In the event that the "Best Speaker" declines their invitation or is deemed by the CI YPC to not meet the eligibility requirements, the "Outstanding Speaker" will be the first alternate to receive the automatic invitation, and the "Honorable Mention" will be the second alternate. If all three top speakers decline their invitations or are deemed ineligible, then no participant from the competition will receive an automatic invitation to Student Days. All students who meet the eligibility requirements who do not receive an automatic invitation to Student Days are still encouraged to apply.

Judges will not receive a numerical rubric to determine the top three speakers but shall use the following descriptive standard.

1. Content

• Relevance and Organization: Is the presentation clear and well-organized? Are the main points relevant and well-developed? Do they seem like they know the topic and can articulate their answers well?

2. Delivery

- **Voice and Clarity:** Is the speaker's voice clear and easy to understand? Do they use appropriate volume and pace?
- Body Language: Does the speaker use effective gestures and maintain good eye contact?

3. Language and Style

 Use of Language: Is the language appropriate and engaging? Are the vocabulary and expressions effective?

4. Audience Engagement

Connection with Audience: Does the speaker interact well with the audience?
 Are they able to maintain audience interest?

5. Overall Impact

 Persuasiveness and Effectiveness: Does the speaker make a strong impact or leave a lasting impression?

Section 7: Competition Schedule

- Release of CI Student Symposium Competition Rules and Regulations 9/3/2024
- Intent and Eligibility Acknowledgement Form due by 11/1/2024 at 5:00 p.m. Eastern
- CI Competition Team Member form due by 2/3/2025 at 11:59 p.m. Eastern
- Symposium dates vary early March through end of April 2025

The ASCE Construction Institute Student Symposium Competition should take no more than four hours of students' time during the symposium weekend. Host schools should provide adequate information on the room assignments to give teams plenty of notice so they can arrive on-time. The first 30 minutes will be used for announcements and set-up. The project materials will be passed out (digitally) after all teams have taken their seats and

announcements have been made. The competition will be held in a single classroom or event hall determined by the host school. A room with small tables to accommodate teams of four would be ideal. Deliverables will be turned in electronically prior to the end of the 2.5-hour working period.

A sample timetable could be as follows:

Student Symposium

CI Student Symposia Competition - Saturday (10:00 AM - 2:00 PM EST)

10:00 AM – Teams arrive at XYZ Hall 321

10:15 AM – Announcements

10:30 AM – Link to Project Documents and Challenges Accessible on Cerberus

1:00 PM - All responses must be turned in using the team's individual Cerberus link

1:05 PM – Judges select presentation order, announcements

1:15 PM – First team begins presentation

Section 8: Judging

The CI YPC will assist the host planning committee in finding a minimum of three (3) judges for reviewing project deliverables. The panel will be composed of industry professionals and/or those with involvement in CI. Judges will have the authority to score teams based on their individual interpretation of the rules and rubric criteria with the guidance of the CI representative on campus or virtually. The CI representative will be responsible for ensuring the judges are competent in understanding the scope of work in regards to the construction projects.

Scoring data shall be recorded for each team that competes. Official judging forms shall be used and will be provided to the judges by the CI representative. The information from the judges' data sheets is entered into an official scoring spreadsheet which tabulates the official results of the competition. A summary report will be provided to each symposium host for their records and distribution to the individual competing student chapters if they wish to do so. At the end of the student symposium competition, the Head Judge shall promptly upload the completed official scoring spreadsheet for the student symposium competition to ASCE's

Cerberus ftp server. (See Appendix C for Cerberus Upload Guidance.) ASCE will provide the Head Judge a secure submission link for ASCE's Cerberus ftp server in February 2025.

Scoring Rubric for Judges	Overall Scor	re
Team (Company) Name: Student Chapter:	Challenge Make-up Breakdown	
Numerical Responses and Calculations		
Challenges that require a numerical calculation or answer will be		
scored:		
1 pt. for a good faith effort in the response	20%	
2 pts. for an answer within 25% +or- of the correct answer		
3 pts. For an answer within 10% +or- of the correct answer Short Response		
Challenges that require a descriptive response under 500 words:		
1 pt. for a good faith effort in the response	20%	
3 pts. for a reasonable and logical engineering solution		
Diagrammatic or Pictorial Response		
Challenges that require a diagrammatic response in one page:		
1 pt. for a good faith effort in the response	20%	
3 pts. for a reasonable and logical engineering solution		
Presentation Delivery		
Volume and articulation, eye contact, enthusiasm		
1 pt. for a good faith effort in presentation delivery	20%	
2 pts for good articulation and transition from speaker to speaker		
3 pts. for good enthusiasm, articulation, and professionalism		
Presentation Content		
Understanding of project and engineering approach to each problem		
1 pt. for basic walkthrough of each problem		
2 pts for understanding of problem cause and effect	20%	
3 pts. for thorough description of problems, understanding of		
solutions, and detailed response to construction engineering purpose		
behind the technical approach and project management plan for each		
problem.		
Deductions (Late submission)	Submission Forfeited	

APPENDIX B – ELIGIBILITY FOR STUDENT SYMPOSIUM COMPETITION

The purpose for student competitions is to provide student members career-enrichment opportunities to gain hands-on, practical experience and leadership skills. Society Competitions are an important and special opportunity to showcase the engineering and professional skills of student teams. As such, mutual respect is required for all stakeholders, including competitors, judges, hosts, and guests. Participation in the Student Symposia is a privilege, not a right. Failure to act professionally can result in sanctions, disqualifications, and loss of invitations.

Student Chapter Eligibility for Student Symposium Competition

The following qualifications are required of all ASCE Student Chapters to compete at the Student Symposia Competitions:

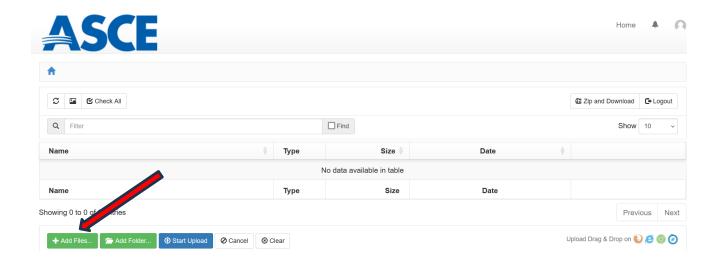
An ASCE Student Chapter must:

- 1. Be in good standing with ASCE:
- a. Have paid their annual dues, as received by ASCE, no later than the start of their Student Symposium.
- **b.** Have submitted their student chapter's full Annual Report or EZ Annual Reporting Form **no later than February 1, 11:59 p.m. EST.**

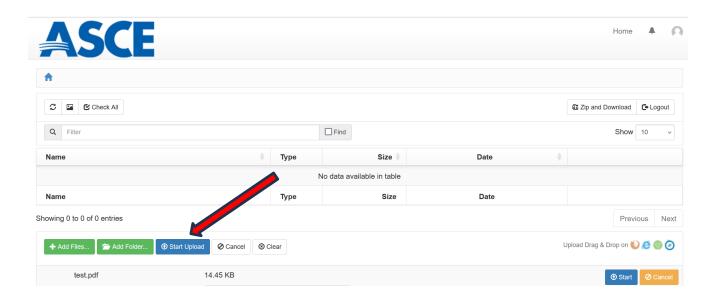
Questions regarding eligibility should be directed to student@asce.org.

APPENDIX C - CERBERUS UPLOAD GUIDANCE

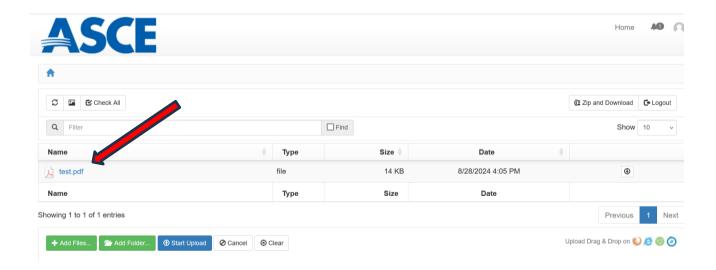
To add files to your Cerberus folder (secure link provided by ASCE), you can either click the **+Add Files** button and then browse to find the files to upload or drag and drop files to the area directly below the **+Add Files** button.



The selected (or dragged and dropped) files will appear in the upload area. To upload the file into the folder, click **Start Upload**. (To delete the uploaded file from the upload area, click **Cancel**.)



When the file has been successfully uploaded, the name of the file will appear under "name".



Need help?

If you uploaded a file to the wrong folder or want to replace an uploaded file with a corrected version, send an email to jupmeyer@asce.org and ask that the incorrect file be deleted. Include both the location (folder path) and the **exact name** of the file you want deleted. (Files cannot be moved – you will have to upload the correct file to the folder after the incorrect version has been deleted).