



ASABE G.B. Gunlogson Environmental Open Format Competition Rules

2024 Rules
FINAL – 08/29/2021

I. Competition Rules

- A. The purpose of the Open Gunlogson Student Environmental Design Competition is to encourage undergraduate students to participate in the design of a relevant engineering project and to provide an arena of professional competition for environmentally and biologically related design projects. This competition is complementary to the AGCO National Design Competition, which focuses on agricultural and food-related projects, while Gunlogson focuses on environmentally and biologically related projects.
- B. The competition consists of two parts: A Written Competition and an Oral Competition. Authors of the top three written papers are invited to attend the ASABE Annual Meeting to participate in the oral competition.
- C. Unless the conference is hybrid or offline for any reason (e.g., the COVID-19 outbreak in 2019), all the invited teams to an Oral Competition must be present in person at AIM. Failing to comply (to be present in person), the team will not be considered for the competition. **The selected teams must reply to the invitation within 7 days of receipt of the invitation email.**
- D. The P-121 Committee is responsible for this competition and the scoring of entries. Decisions made by the committee shall be final.
- E. Content Requirements
 1. Paper content must involve the application of engineering design for an environmental or biological application. It is expected that designs will reflect a broad spectrum of approaches ranging from management practice development to equipment design to the bioreactor or ecological system design. Regardless of the specific approach, engineering design is the process of devising a machine, component, system, or process to meet the desired need. It involves analysis, synthesis, and decision-making processes (often iterative). The basic sciences, mathematics, engineering sciences, and technology are applied to convert resources optimally to meet a stated objective. Sociological, economical, safety, aesthetic, legal, ethical, etc. considerations can - and often must - be included as part of the design process. Papers can result from academic design projects performed by the student.
 2. The presentation shall be an oral summary of the written paper entered. However, the degree of emphasis given segments of the general subject need not be the same in the oral presentation as in the written report.
- F. Written Report Entry Format Requirements
 1. PDF file format with file naming convention of "DDMMYYYY_University Abbreviation_Short Subject Name." where DDMMYYYY is the day/month/year while submitting an entry. It is the entrant's responsibility to verify that the converted file appears as intended.
 2. A single PDF file shall be no more than 10 megabytes.
 3. The organization and formatting of a paper should follow a logical pattern and conform to good professional paper or technical writing standards, as stated in the "Submission of Manuscript to ASABE Technical Journals" published by ASABE. Specific requirements include:

- a) Must be an original, unpublished work (entries will be checked for plagiarism).
 - b) Must not exceed 15 pages, excluding appendices. Appendices are limited to an additional 5 pages.
 - c) Must be a minimum of 1.5 spaced, using Arial or Times New Roman, regular 11-point font, with pages numbered. Figure and caption text must not be less than 10-point font.
 - d) The cover page includes: Title of the paper, contestant name, ASABE membership number, e-mail address & telephone number, name/location of the institution in which you are enrolled, date or anticipated date of a first professional degree, and name of the advisor for the paper. Also, at the bottom, a signature block containing the signature of the contestant, student-branch faculty advisor or department head, and the date of signing.
 - e) The second page comprises of: Abstract of the project report and acknowledgments. Acknowledgments must include specific contributions of all other individuals, organizations, and/or companies that have made any supportive contributions to the project, such as drafting, typing, prototype construction, photo or artwork, financial support, etc.
 - f) The cover page and the second page are required for the report but not count towards 15 pages of the body of the report.
 - g) The table of contents is recommended and should be page three in the report, which again won't count toward the body of the report. The table of contents on Page 3 and all the references at the end of the document are limited to 5 other pages only, beyond 15 pages of the body of the paper.
 - h) An undertaking from a student-branch faculty advisor or department head confirms the submitted project, and its report is not a part of any other ASABE Student Design Competitions. This page must be put after references; however, it will not count towards 15 pages of the body of the report.
 - i) Each report should be organized under appropriate headings. The presentation should follow a logical pattern and conform to good technical writing standards. Strive for brevity and clarity.
4. Oral Presentation Requirements
- a) The time for the presentation shall not exceed fifteen (15) minutes, and the question period following each presentation will be restricted to not more than five (5) minutes.
 - b) The use of slides, charts, graphs, and similar illustrative materials is encouraged
 - c) The presentation should follow a logical pattern and conform to good technical presentation standards. Strive for brevity and clarity.

II. Contestant Eligibility

- A. Contestants shall be student members of the ASABE (membership in a local student branch will not substitute for student membership in ASABE) and undergraduates at the time of the studies that resulted in the preparation of the paper.
- B. Entries shall be received at ASABE headquarters no later than six months after the students' receipt of the first professional degree.

- C. Contestants can make only one entry per year.
- D. Contestants must have paid their dues to ASABE by the submission date, or the entry will be disqualified.
- E. Projects may be conceived and executed by multiple contestants. All members of the design groups must be eligible as outlined above.
- F. A maximum of 3 teams from each department is allowed. If more than three entries are submitted from any department, design course advisors and/or department chairs will be consulted to select the accepted entries. If the input is not received from advisors or department chairs by 3 days after the submittal deadline, the first three entries received will be accepted.
- G. The committee reserves the right not to invite low-quality papers to participate in the oral portion of the competition. The committee reserves the right not to declare a winner in the event the submissions are not of high enough quality.

III. Entry Deadlines

- A. Entries must be submitted electronically to the attention of the ASABE Awards Administrator, awards@asabe.org, no later than May 15 at midnight ET. An e-mail documenting receipt of the entry will be returned within a week of submission. If you do not receive a receipt, contact the ASABE Awards Administrator.

IV. Awards

- A. The top three submissions (ranking based on writing reports alone) are invited to the ASABE Annual International Meeting to compete in the oral portion, with their registration fee waived.
- B. The top three submissions will be awarded a certificate of recognition and cash prizes:
 - 1. First Place = \$1,250
 - 2. Second Place = \$1,000
 - 3. Third Place = \$750
- C. The engineering department developing the first-place winner will also receive a commemorative certificate.
- D. The final placing will be announced at the ASABE Annual International Meeting Student Awards program.
- E. Award materials will be sent to the winners after the meeting.

V. Selection of Winners

- A. The selection of winners will be completed in two phases.
 - 1. Phase I: At least three judges will judge each written submission per the score sheet defined in Article VI.
 - 2. Phase II: The top three contestants (ranking based on writing reports alone) will be invited to attend the ASABE Annual International Meeting to participate in the oral presentation portion of the competition. The next ranking entries shall be invited if any of the top three cannot participate. Judges will evaluate the oral presentations of participants and the overall impressions and quality of the project, as presented per the scoresheet defined in Article VI.

B. The decision of the judges is final.

VI. Scoring Rubric

A. **The overall placing shall be determined by combining the written and oral grades with a 50/50 respective weighting.** This weighing is done to reinforce the importance of developing technical writing skills.

B. **The written papers** shall be scored according to the following schedule of points and rubric on the following pages:

Project:		
1. Need and Benefit to the Environment and/or Society		10
2. Approach and Originality		10
3. Definition of Design Objectives and Criteria		10
4. Extent of Analysis and Synthesis of Alternatives		10
5. Evidence of Sound Evaluation and Adherence to Good Engineering Design, and Safety Considerations.		10
6. Adequacy of Drawings and Specifications		10
7. Appropriateness of Tests and or Performance Data		10
8. Achievement of Objectives		10
Written Report:		
9. Organization, Clarity, and Ease of Reading		10
10. Effective Use of Graphics, Illustrations, etc.		5
11. Neatness, Accuracy, and Style		5
TOTAL		100

C. **The oral presentation** shall be scored according to the following schedule of points and rubric on the following pages:

Project:		
1. Need and Benefit to the Environment and/or Society		5
2. Approach and Originality		10
3. Definition of Design Objectives and Criteria		5
4. Extent of Analysis and Synthesis of Alternatives		5
5. Evidence of Sound Evaluation and Adherence to Good Engineering Design, and Safety Considerations.		10
6. Adequacy of Drawings and Specifications		5
7. Appropriateness of Tests and or Performance Data		5
8. Achievement of Objectives		10
Oral Presentation:		
9. General Effectiveness and Audience Appeal		10
10. Organization and Information Flow		10
11. Quality and Adequacy of Visuals		10
12. Compliance with 15 Minute Limit		5
13. Impression of Overall Quality of the Project		10
TOTAL		100

VII. Disposition of Entries

- A. ASABE reserves the right to publish entries in whole or in part in Society publications and online. ASABE also reserves the right to use photographs and videos and entrant names, cities and states of residence, and university affiliations without compensation, notification, or permission, for advertising and promoting the competition. Further, ASABE expressly disclaims any responsibility, and entrants agree to release, indemnify, and hold ASABE harmless for liability, damages, or claims for injury or loss to any person or property (including death) relating to participation in this competition.

