

2020 G.B. Gunlogson Environmental Open Format Competition Rules

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. The P-121 Committee has full responsibility for this competition and scoring of entries. Decisions made by the committee shall be final.
- D. 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 wide spectrum of approaches ranging from management practice development to equipment design to 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 a desired need. It involves analysis, synthesis and decision-making processes (often iterative), in which the basic sciences, mathematics and engineering sciences, and technology are applied to convert resources optimally to meet a stated objective. Sociological, economic, 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. The degree of emphasis given segments of the general subject, however, need not be the same in the oral presentation as in the written paper.
- E. Written Report Entry Format Requirements
 1. PDF file format with file naming convention of "University Abbreviation_Short Subject Name". It is the entrant's responsibility to verify that the converted file appears as intended.
 2. Single PDF file shall be no more than 10 megabytes in size
 3. Organization and formatting of 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 minimum 1.5 spaced, using Arial or Times New Roman, regular 11-point font, with pages numbered.
- d) On the cover page only, include: Title of the paper, contestant name, ASABE membership number, email address & telephone number, name/location of the institution in which you are enrolled, date or anticipated date of 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 shall be abstract of the project report, and acknowledgements, which 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 art work, financial support, etc.
- f) Cover page and the second page are required for the report but not count towards 15 pages of the body of report.
- g) Table of contents is recommended and should be page three in the report which again won't count toward body of the report which should be maximum of 15 pages. References are included in 15 pages.
- h) 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 are allowed from each department. 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 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. Papers submitted to other ASABE Student Design Competitions are not eligible for the G.B. Gunlogson Environmental Open Format Award Competition
- H. The committee reserves the right to not invite low quality papers to participate in the oral portion of the competition. The committee reserve the right to not 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 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 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 winners after the meeting.

V. Selection of Winners

- A. Selection of winners will be completed in two phases.
 - 1. Phase I: Each written submission will be judged by at least three judges in accordance with the score sheet defined in Article VI.
 - 2. Phase II: The top three contestants will be invited to attend the ASABE International Meeting to participate in the oral presentation portion of the competition. Should any of the top three be unable to participate, the next ranking entries shall be invited. 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. 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 weighting 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	4
2. Approach and Originality	7
3. Definition of Design objectives and Criteria	4
4. Extent of Analysis and Synthesis of Alternatives	9
5. Evidence of Sound Evaluation and Adherence to Good Engineering Design, and Safety Consideration.	9
6. Adequacy of Drawings and Specifications	4
7. Appropriateness of Tests and or Performance Data	4
8. Achievement of Objectives	9
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	70

- 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	4
2. Approach and Originality	7
3. Definition of Design objectives and Criteria	4
4. Extent of Analysis and Synthesis of Alternatives	9
5. Evidence of Sound Evaluation and Adherence to Good Engineering Design, and Safety Consideration.	9
6. Adequacy of Drawings and Specifications	4
7. Appropriateness of Tests and or Performance Data	4
8. Achievement of Objectives	9
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	15
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, as well as entrant names, cities and states of residence, and university affiliations without compensation, notification, or permission, for the purpose of 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.