2022 ASEE Biomedical Engineering Division – Call for Papers

The Biomedical Engineering Division (BED) of the American Society for Engineering Education (ASEE) invites papers for the 2022 Annual Conference and Exposition in Minneapolis, Minnesota, June 26-29, 2022. Note the following submission schedule:

- Abstract Submissions Open – Monday, October 11, 2021
- Abstract Submissions Due – Monday, November 8, 2021
- Draft Paper (for abstracts that are accepted) Due – Monday, February 7, 2022
- Revised Paper (for draft papers that are accepted) Due – Monday, March 28, 2022
- Finalized, Unblinded Paper Upload Due – Monday, May 16, 2022

This schedule is subject to change. Please refer to ASEE’s “Important Deadlines” webpage for the most current information.

Summary Points for this Call for Papers

- The Biomedical Engineering Division encourages submissions related to biomedical engineering education and research.
- We accept three types of papers: work in progress (WIP) papers, evidence-based practice papers, research papers.

Please consider submitting papers on topics relevant to biomedical engineering (BME) education and joining us at this exceptional conference. Authors are encouraged to submit papers on any relevant topic in BME education. Sessions in typical years have included papers on:

- BME design, entrepreneurship, and commercialization
- BME courses & curriculum, laboratories & modules, teaching interventions & pedagogy, and assessment
- Professional development, and industry and clinical engagement
- BME education research
- Diversity, equity, and inclusion

Paper Submissions

Submissions can be targeted at one of two tracks: 1) full paper or 2) work in progress. All papers should include a brief review of the current state of the education literature with regards to the submitted work.

1. Full paper track: There are two types of full paper submissions: educational research and evidence-based practice. When submitting either type of paper, you should be confident that you meet the following:

   a) Educational research topics: these types of submissions should have a clear research question and results that address the question. The quality of the research data should support a clear conclusion and outline the connection to theory, either in the framing or interpretation of the study.

   b) Evidence-based practice topics: these types of submissions should have a clearly stated intervention and related assessment data that evaluates the impact of the intervention. The quality of the assessment data should support a clear conclusion regarding the impact of the intervention.

Full papers may present either a platform presentation, or, depending on the themes that emerge from accepted papers, may be invited to one of the innovative panel session styles outlined in the 2019 ASEE Conference Playbook. (e.g.: Engineering Shark Tank, Question the...
Method, etc.). Alternatively, authors are encouraged to take initiative in recruiting a total of four to six colleagues who each are willing to write a full paper around a common panel topic theme of the group’s choosing. In this instance, the panel title must be identified in the first sentence of each participating abstract. Authors are encouraged to provide a common panel summary paragraph in the introduction of their draft papers to help readers and reviewers contextualize the papers as part of a panel session. (Note: a minimum of four of the panel papers must be accepted for publication to proceed in this format, otherwise, papers will be incorporated into other sessions).

2. Work in Progress (WIP) track: WIP submissions describe an ongoing effort in educational research or evidence-based practice specific to BME education. A submission falls into this category because ideas have yet to be put into practice, or because assessment data is still in the process of being collected and analyzed for impact. Works in Progress have a strict 3-page limit (not including references). At the conference, WIP submissions are presented in either a poster or postcard session.

a) Poster Session – These submissions will be presented during the division’s poster session in the convention hall. The poster session format provides authors with a venue to present research and course innovations in a public setting. Authors are expected to stand near their poster for the entire session to engage with poster session attendees.

b) Postcard Session – This is a novel session type in which authors pitch their work in only two slides, and within five minutes or less. After the pitch is made, attendees will have the opportunity to engage with and provide feedback to the authors in a poster session format.

Accepted WIP submissions will be designated as postcard or poster session by the Program Chair-Elect based on reviewers’ evaluations of novelty, technical merit, outcomes, and relevance to biomedical engineering education. In either format, the WIP track gives authors an opportunity to receive feedback from the BME education community on ongoing efforts. If you go on to collect additional data and draw a clear conclusion, you are strongly encouraged to resubmit the same topic as a full paper in a future conference year. When submitting a paper to this track, you must start your title with “Work in Progress:” and select the “Work in Progress” checkbox in the online submission system.

Review to Publish

ASEE BED has implemented a “review to present” requirement. It is expected that the submitting (primary) author will support the division by reviewing both abstracts and papers for the division. If the submitting author is a student, they should designate a co-author to fulfill their review requirement. Note that primary authors submitting more than one abstract will not receive an increased review load. Those who are unable to fulfill this commitment by the timelines required may have their own papers rejected by the session chair, regardless of paper quality.

Abstract submission

1. For both tracks, you must submit an abstract by the posted ASEE deadline. Abstracts typically consist of up to 1 full page of text (750 words maximum).
2. Abstracts should follow the guidelines specified in the ASEE author’s kit (see link below).
3. Because ASEE uses a double-blind review process, be sure to omit any information in your abstract or references that identifies you or your institution.
4. If the program chair determines that your full paper submission does not meet the criteria for that track, your submission may be reclassified into the WIP track.
5. Reviewers will evaluate your abstract based on the criteria listed below.
Draft and revised paper submission

1. If your abstract is accepted, please note the reviewer comments as you draft your paper ahead of the posted ASEE draft paper deadline. Also, note that acceptance of your abstract does not guarantee that your paper will be accepted.

2. Draft papers must not exceed 3 pages for WIP submissions; they are usually 8 pages or longer for full papers.

3. Because ASEE uses a double-blind review process, authors’ names or institutional names should not be included in the abstract, references, filename, or document properties.

4. Reviewers will evaluate your paper based on the criteria listed below.

5. If the program chair determines that your full paper submission does not meet the criteria for that track, your submission may be reclassified into the WIP track.

Reviewers will evaluate your submission based on the following criteria

- Originality – does this describe an innovative approach?
- Scholarship – does this review and build on appropriate prior work?
- Goals – are the goals strongly developed and explicitly stated?
- Research approach – is the approach novel, sophisticated, and/or appropriate?
- Results – are data collection and assessment results clear and logical?
- Conclusions – are the conclusions well formulated? If this is a full paper submission, are there sufficient results to strongly support the conclusions?
- Relevance – does this paper make a significant contribution to the field of engineering education?
- Order – are the ideas presented in a clear and logical manner?
- Style – is the writing clear, concise, consistent, and easy to read?
- Writing mechanics – is the writing free of grammatical, spelling, and proofreading errors?

All abstracts and papers must be submitted electronically via ASEE’s new paper submission system (TBA). Authors are expected to consult the Author’s Kit at the link below before submitting. You will be able to find submission deadlines, required formats, and other information via the ASEE website under Paper Management, For Authors.

If you have questions regarding the abstract and paper submission, please contact:

- BED Program Chair, Dr. Tanya Nocera, The Ohio State University, nocera.15@osu.edu
- BED Program Chair-Elect, Dr. Sarah I. Rooney, University of Delaware, sirooney@udel.edu

Come to Minneapolis in June 2022 to see and present cutting-edge work in Biomedical Engineering education! We hope to see you there.