2024 ASEE Biomedical Engineering Division – Call for Papers

The Biomedical Engineering Division (BED) of the American Society for Engineering Education (ASEE) invites papers for the **2024 Annual Conference and Exposition in Portland, Oregon June 23 – 26, 2024**. Note the following submission schedule:

- Abstract Submissions Open Sunday, October 1st, 2023
- Abstract Submissions Due Wednesday, November 1st, 2023
- Draft Paper (for abstracts that are accepted) Due Thursday, February 1st, 2024
- Revised Paper (for draft papers that are accepted) Due Friday, March 8th, 2024
- Finalized, Unblinded Paper Upload Due Wednesday, May 1st, 2024

New this year: ASEE says they will NOT be extending deadlines this year, so do not rely on an *extension*.

This schedule is subject to change. Please refer to ASEE's "<u>Important Dates and Deadlines</u>" 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, evidencebased practice papers, research papers.
- **New this year**: a statement on human subjects / ethics approval / internal review board (IRB) is required for all papers at the draft stage and onwards.
- To access NEMO to submit a paper go to: nemo.asee.org



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

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 and data that support conclusions.

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 submissions should have a defined 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 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 <u>2019 ASEE Conference Playbook</u>. (e.g.: Engineering Shark Tank, Question the Method, etc.). At this time, this division does not accept reviews, editorials, or perspectives papers, unless they are grounded in theory and data. BED does not accept design project papers, it must be education-relevant.

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 or appendices). 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 an open session format. Presentations in this format will be judged for the "Best Work in Progress Award".

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.*

The submission portal system will ask you to check a box if you would like your work to be presented as a poster. For the Biomedical Engineering Division, this checkbox does not apply to our review or decision process.

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 fulfil 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 (excluding references and appendices); they are usually 8 pages or longer for full papers (there is no limit 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. **New this year:** A statement regarding human subjects is required for all papers in the BED. See below for examples.
- 5. Reviewers will evaluate your paper based on the <u>best paper rubric</u> (summarized criteria listed below).
- 6. Authors should submit a 1-page summary of changes in response to reviewer feedback as well as a track-changed document for revised papers.
- 7. 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.

Humans Subjects & Ethics Approval Statement

An explicit statement regarding ethics is required for all papers whether or not the study involved human participants in the research. If a statement is not included, the paper will be rejected. Some sample language may be used within the text of your paper:

- This is an observational study. The [Institution] IRB has determined that this study is exempt from review.
- This work does not use data from humans and therefore does not meet the definition of human subjects research; IRB review is not required.
- This work was determined to be exempt from further review by the [INSTITUTION] IRB.
- This work was approved by [INSTITUTION] IRB under protocol # XXX.
- The questionnaire and methodology of this study was approved by the IRB at [Institution] (approval number:...)

If you are unsure of which statement applies to you, you should reach out to your Institutional Review Board or Ethics committee for clarification.

Reviewers will evaluate your submission based on the following criteria

- Originality does this describe an innovative treatment or perspective?
- 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 Monolith (NEMO) paper submission system. 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, <u>For Authors</u>.

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

- BED Program Chair, Dr. Rachel Childers, The Ohio State University, childers.73@osu.edu
- BED Program Chair-Elect, Dr. Alexis Ortiz-Rosario, The Ohio State University, <u>ortiz-</u> rosario.1@osu.edu

Come to Portland, Oregon in June 2024 to see and present cutting-edge work in Biomedical Engineering education! We hope to see you there.