

## [bio\_div] ASEE BED Announcements: 12/1/23

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via asee.org

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To:bio\_div@asee.org <bio\_div@asee.org>

Dear BED Members:

December is here, and so is the light at the end of the tunnel as many of us have semesters/quarters that wind down in the coming weeks. Hang in there!

Sarah I. Rooney, ASEE BED Division Chair

University of Delaware

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### ASEE BED Announcements for 12/1/23

Red = last time announcement is included in newsletter

#### *Congratulations Corner*

1. Submit Your Accomplishments

#### *Announcements*

1. ASEE BED Newsletter Tidbits

#### *Participate*

1. **NSF Funded Teaching Development Opportunity for Engineering Faculty**
2. BEEC 2024 Annual Meeting
3. **IEEE EMBC 2024 BME Education Speakers**

#### *Learn*

1. **Tidbit: Generative AI Bloom's Taxonomy**
2. Biomedical Engineering Education Community (BEEC) Resources
3. ASEE Commission on Diversity, Equity, and Inclusion (CDEI)- Virtual Workshop Recordings

#### *Open Positions*

1. **UNC/NC State: Teaching Assistant Professor of Biomedical Engineering**
2. **University of Tennessee, Knoxville: Biomedical Engineering Lecturer**
3. **Stevenson University: Full-time faculty, Biomedical Engineering (open rank)**
4. **University of Washington: Tenure-eligible Bioengineering professor (open-rank), focus on bioengineering education research**

#### *Call for Newsletter Content*

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#### *Congratulations Corner*

##### **1. Submit Your Accomplishments**

We're trying something new! Submit [this short form](#) to be featured in an upcoming ASEE Biomedical Engineering Division newsletter to highlight member accomplishments (self-submit or submit on behalf of someone you know). We will highlight accomplishments that

are related to BME education and induction of ASEE BED members as fellows of related professional organizations (e.g., BMES, AIMBE). Seeing the teaching and career-related accomplishments of colleagues in education-focused roles has served as important inspiration for me over the years, and I hope it will do the same for you!

## **General Announcements**

### **1. ASEE BED Newsletter Tidbits**

I hope to incorporate a Tidbit in each newsletter. This is just a small tip that you think others might benefit from. It does not necessarily need to be BME education-focused (but can be!), but should at least be something that might help productivity, facilitate professional development, or be of general interest to BED members. Tidbits will be listed in the "Learn" section and attributed to the submitter. To submit a Tidbit, use the process described in the Call for Newsletter Content at the bottom of this newsletter. My goal is that these Tidbits will share useful/practical knowledge and help us get to know more BED members! Please do submit (otherwise, you'll be hearing a lot from me...)!

## **Participate**

### **1. NSF Funded Teaching Development Opportunity for Engineering Faculty**

We are seeking current engineering faculty who teach Electrical Circuits or Mechanics of Materials to participate in this program. Participants will receive \$1,000 in compensation and personalized 1-on-1 support from experienced mentors via zoom to develop and implement active learning in your classroom. If you are interested in participating or would like to find out more information about this study, please contact the primary investigator, Dr. Shane Brown, by email at [shane.brown@oregonstate.edu](mailto:shane.brown@oregonstate.edu)

Project Title: Contextualized Scaffolding for Engineering Faculty to Facilitate the Adoption of EBIPs. This project is funded by the National Science Foundation, grant number 2111087.

### **2. BEEC 2024 Annual Meeting**

Our annual BEEC meeting will take place on February 15th, 2024 from 12:00 pm to 4:00 pm EST. Join us as we share evidence-based practices, talk to experts in the field of engineering education and present new ideas for education! You can register by following the link below. We will be announcing the Keynote soon. We are accepting abstracts for the annual meeting, too. Any small or big ideas are welcome!

[Abstracts](#)

[Registration](#)

### **3. IEEE EMBC 2024 BME Education Speakers**

We are preparing for the [IEEE EMBC 2024](#) conference in the sunshine state (Orlando, FL)! This time we aim to increase Biomedical Engineering Educator presence and would like to invite you to participate in the Biomedical Engineering Education and Society theme (theme #11). EMBC may not be the typical space for BME educators as it is geared more toward BME research, applications, clinical settings ...etc, which is reflected in the usually sparse participation in theme #11. However, this is precisely where the disconnect lies and why the increased presence of BME educators at EMBC is crucial. A significant mutual benefit would arise if BME educators and research professionals were to meet at the same conference. We are organizing a mini-symposium with the goal of fostering a meaningful discussion on how educators and researchers can join forces to enhance the development of Biomedical Engineers, exploring how educators can actively contribute to workforce development and how professionals in the workforce can, in turn, support and enrich the educational landscape - a direly needed discussion. The mini-symposium is titled *Harmonizing BME: Integrating Discipline-based Biomedical Engineering Research and Biomedical Engineering Education*. We are looking for speakers who can present about one or more of the following topics:

1. The Pros and Cons of Translating Biomedical Engineering Research into the Classroom.
2. The Role of Research-Focused Capstone Projects, Internships, and Co-op Programs in Preparing Students for the Practical Applications in Biomedical Engineering.
3. Best Practices to Synergize the BME Research and Teaching Spheres.
4. Developing Biomedical Engineers who are Lifelong Learners.

If you are interested in presenting one or more topics please fill out a [participation form](#) by **December 1<sup>st</sup>, 2023**. More details will follow, but as of now, the talks will likely be ~20 minutes long. Please feel free to reach out to (May Mansy) [mmansy@bme.ufl.edu](mailto:mmansy@bme.ufl.edu) if you have any questions.

## Learn

### 1. Tidbit: Generative AI Bloom's Taxonomy

I thought this was a handy way to reflect on how generative AI may impact our learning goals and activities. PDF available at: <https://ecampus.oregonstate.edu/faculty/artificial-intelligence-tools/blooms-taxonomy-revisited.pdf>



## Bloom's Taxonomy Revisited

Use this table as a reference for evaluating and making changes to aligned course activities and assessments (or, where possible, learning outcomes) that account for generative Artificial Intelligence (AI) tool capabilities and distinctive human skills.

All course activities and assessments will benefit from **review** given the capabilities of AI tools; those at the **Remember** and **Analyze** levels may be more likely to need **amendment**.



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	RECOMMENDATION	AI CAPABILITIES	DISTINCTIVE HUMAN SKILLS
CREATE	Review	Suggest a range of alternatives, enumerate potential drawbacks and advantages, describe successful real-world cases	Formulate original solutions incorporating human judgement, collaborate spontaneously
EVALUATE	Review	Identify pros and cons of various courses of action, develop rubrics	Engage in metacognitive reflection, holistically appraise ethical consequences of alternative courses of action
ANALYZE	Amend	Compare and contrast data, infer trends and themes, compute, predict	Critically think and reason within the cognitive and affective domains, interpret and relate to authentic problems, decisions, & choices
APPLY	Review	Make use of a process, model, or method to illustrate how to solve a quantitative inquiry	Operate, implement, conduct, execute, experiment, and test in the real world; apply creativity and imagination to idea & solution development
UNDERSTAND	Review	Describe a concept in different words, recognize a related example, translate	Contextualize answers within emotional, moral, or ethical considerations
REMEMBER	Amend	Recall factual information, list possible answers, define a term, construct a basic chronology	Recall information in situations where technology is not readily accessible

### 2. Biomedical Engineering Education Community (BEEC) Resources

BEEC's website contains recordings, slides, and resources for the biomedical engineering education community. Need ideas for what textbook to use in your BME course? Alternative grading techniques? Funding opportunities in engineering education? Learning more about educational research? Find this and much, much more!

### 3. ASEE Commission on Diversity, Equity, and Inclusion (CDEI)- Virtual Workshop Recordings

Check out Virtual Workshop Recordings on CDEI's [YouTube Playlist](#)  
Check out CDEI:

- LinkedIn: [https://www.linkedin.com/company/asee\\_cdei/](https://www.linkedin.com/company/asee_cdei/)
- Twitter: @ASEEDiversity

- Blog: <https://diversity.asee.org/deicommitee/blog/>

## ***Position Announcements***

Note: We advertise positions that have a BME education focus to ensure relevance to our BED members. Advertisements may include the following: teaching-focused faculty (TT or NTT) or staff positions, TT positions at PUI or R2+ institutions that have a larger workload and emphasis on teaching, and TT positions that allow for educational scholarship instead of traditional engineering research. If submitting a job posting, please ensure it meets these criteria.

### **1. UNC/NC State: Teaching Assistant Professor of Biomedical Engineering**

UNC/NC State Joint Department of Biomedical Engineering is seeking applicants for a Teaching Assistant Professor in any of the five areas of department specialization, Pharmacoengineering, Regenerative Medicine, Rehabilitation Engineering, Biosignals and Imaging or Medical Microdevices with preference given to Pharmacoengineering, Regenerative Medicine and Rehabilitation Engineering. This is a professional track faculty position with a focus on teaching and education. The individual must work productively and in a collaborative manner across all constituent BME entities, i.e. University of North Carolina College of Arts and Sciences, University of North Carolina School of Medicine and the NC State University College of Engineering.

More information can be found here: <https://unc.peopleadmin.com/postings/266265>

### **2. University of Tennessee, Knoxville: Biomedical Engineering Lecturer**

The Biomedical Engineering (BME) Program at the University of Tennessee, Knoxville (UTK), is seeking exceptionally qualified candidates for a full-time, non-tenure-track, lecturer position in biomedical engineering. The successful candidate will teach undergraduate and graduate courses in biomedical engineering and perform service duties as needed. The successful candidate is expected to build an exceptional record of accomplishment in teaching and student engagement, leading to promotions to senior lecturer and distinguished lecturer. Salary and benefits are nationally competitive and commensurate with experience and qualifications. Questions about the position should be directed to Dr. Sara Hanrahan, [shanraha@utk.edu](mailto:shanraha@utk.edu).

More information on the position can be found on Interfolio:

<https://apply.interfolio.com/135971>

### **3. Stevenson University: Full-time faculty, Biomedical Engineering (open rank)**

This is a 9-month, full-time, campus-based, open rank faculty position in the Biomedical Engineering (BME) program with responsibilities for teaching, course development, student advising and mentoring, service to the school, department, and university, and continued scholarship in the field. Teaching responsibilities include 24-30 contact hours per academic year, commensurate with rank.

We are looking for someone with demonstrated knowledge and teaching ability in multiple areas of Biomedical Engineering, including design, clinical immersion, thermal/fluids, and systems physiology. The preferred candidate will be familiar with design and analysis software and scientific programming (Python). Stevenson values the ability to create inclusive learning experiences that will help students develop professionally, intellectually, and socially.

Apply here: <https://stevenson.peopleadmin.com/postings/8761>

### **4. University of Washington: Tenure-eligible Bioengineering professor (open-rank), focus on bioengineering education research**

The Department of Bioengineering at the University of Washington invites applications for a full time, tenure-eligible Assistant, Associate, or Full Professors with an anticipated start date of September 16, 2024. The annual service period is nine months.

The base salary range for this position will be \$11,800 to \$21,000 per month, commensurate with experience and qualifications, or as mandated by a U.S. Department of Labor prevailing wage determination. Other compensation associated with this position may include a moving allowance, a relocation incentive, and/or limited commitment of summer salary in the first year.

This position will engage in bioengineering education research informed by Critical Race Theory, Critical Race Science and Technology Studies, intersectionality, social justice, diversity, equity, and inclusion, and/or educational disparities that can be applied to biomedical education and curricula. The successful candidate will demonstrate an ability to develop an inclusive, federally funded research program of national repute, provide inclusive and innovative approach to their undergraduate and graduate instruction, promote the success of students from underrepresented racial and ethnic groups in academia and contribute to the goals and missions of the department, college, and university. They will be expected to follow UW's strong tradition of collaboration and translation across disciplinary boundaries.

The link to the posted ad is: [https://ap.washington.edu/ahr/position-details/?job\\_id=128159](https://ap.washington.edu/ahr/position-details/?job_id=128159).

The application site is: <https://apply.interfolio.com/136370>

### ***Call for Newsletter Content***

The ASEE BED bi-monthly newsletter is a place to share general announcements, open positions, BME education resources, Tidbits, etc. To send an announcement via the BED newsletter, please prepare a 2-3 paragraph description including any relevant URLs and contact info as well as a subject line. ***Do not include any attachments.*** Be sure that the announcement includes the person to contact with questions. Email all of this information to Sarah Rooney at [srooney@udel.edu](mailto:srooney@udel.edu) with **[BED Announcement]** in the subject line to facilitate email sorting. Announcements will be sent out approximately on the 1st and 15th of each month. ***Each set of announcements will be included in the newsletter twice.*** Announcements will also be recorded on the BED website (<https://sites.asee.org/bed/>) and HUB (<https://aseehub.asee.org/groups/home/34#active-group-members>). To submit a Tidbit, use the same process described above AND label it as a Tidbit and include your name and title/affiliation.

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Advising sign-up [link](#)