





Blog

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Community Spotlight:



Spring 2022 Faculty Mentoring Networks

For this month's Community Spotlight, we introduced our Spring 2022 Faculty Mentoring Networks (FMNs). These communities, which meet every other week over the course of a semester, support each other in all endeavors related to STEM education reform-and facilitate the development implementation, revision, and publishing of new open educational teaching resources.

Almost all of our FMNs remain open for applications. Check out our spring offerings todate and apply now!

Subscribe to the Community Spotlight to receive the full text each month! For the next few months, we'll start each newsletter with a message from BioQUEST staff and volunteers--a way for the QUBES community to get to know us, if you don't already! If you're coming across this newsletter on the QUBES website, you can subscribe here to keep in touch!

Hello, everyone!

This is <u>Drew LaMar</u>, your friendly neighborhood BioQUEST / QUBES Director of Cyberinfrastructure. For those teaching, I hope you are finishing up your fall semester on a high note. I wanted to take this



opportunity to let you know an important driving force for QUBES platform development: social-infrastructure, i.e. community and cultural dynamics, drives the development of our cyber-infrastructure. For example, we are constantly thinking about questions like: What does your community need to be successful? What do you need to feel more involved and included in your community of interest?

This last summer and fall, we onboarded <u>CourseSource</u> to the QUBES platform. An online journal that houses "evidence-based teaching resources for undergraduate biology and physics," *CourseSource* has allowed us to improve and develop functionalities that make their resources easier for the community to use and navigate. *CourseSource* resources have additional metadata for aligning them to <u>multiple learning frameworks</u>. We also implemented a more powerful <u>search-and-browse</u> for their resources, which we are working to implement for <u>QUBES</u>' and partner resources.

We are constantly thinking of ways for faculty to create, use, and share open educational resources in their classroom. An exciting next step for us is to explore ways to reduce the difficulties in using computational tools with OER. Do you have any ideas for new functionality that could support your teaching or project? Are you experiencing issues with the QUBES platform? Please <u>send us a message</u> through our support ticket system! I hope everyone has a wonderful holiday season!

Drew LaMar, PhD

Director of Cyberinfrastructure, BioQUEST Associate Professor of Biology, William & Mary

In this newsletter:

BioQUEST News

- Help us plan BIOME 2022!
- BioQUEST Webinar: How BioQUEST and QUBES
 Can Support Your Project, Dec. 16
- Share Your BioQUEST Story: 35th Anniversary Celebrations
- QB@CC and BioQUEST Faculty Mentoring Networks and Incubator Extend Deadlines!
- BioQUEST Spring Semester Office Hours
- NSF Solicits Feedback from BioQUEST Community
- Featured Publications

Partner News and Opportunities

- ESA to Host Spring Faculty Mentoring Network
- The RIOS Institute Calls for Working Group Proposals
- BCEENET Sends Winter and Spring 2022 Implementation Survey
- Save-the-Date for iEMBER's June 2022 Conference
- SIMIODE EXPO February 2022, Invitation and Call for Engagements
- Registration Opens for COMAP's Mathematical and Interdisciplinary Modeling Contests
- Biotechnology Teaching Program at NC State Seeks Postdoc, Postbacc
- Apply to the 2022 HITS Case Fellows Program

Other Opportunities

- USE Cit Sci Network Seeks Participants for Working Groups
- UN-L Seeks Participants for Study on Quantitative Biology Instruction

QUBES Corner

- QUBES platform tips! Did you know? You can comment on resources!
 - We have recently updated the commenting system within the QUBES Educational Resources Library, and it is ready to go. We encourage authors to add an initial comment to their publications if they are interested in hearing from users with questions, comments, or suggestions. Authors and other commenters will receive an email when someone adds a comment.

Do you use a module you found on QUBES? Reach out to the author with information about how you are using it or questions about updates. Authors and commenters will be notified by email when a comment is posted. Learn more about commenting.

 16 open educational resources were published to the QUBES Library in November! <u>Browse the new</u> resources here.

Featured Resources

A 360° View of COVID-19 (from CourseSource)

The authors offer a series of curriculum modules that can be used either collectively or in parts to provide students with a multidisciplinary look at COVID-19 and to answer their own curiosity about the disease that will define their generation.

 Atlas of Black Scholarship for Inclusive and Racially Diverse STEM Curricula – Volume I

The contributions of Black scientists to the advancement of STEM are poorly represented in course materials. Here, the authors provide an Atlas of Black Scholarship to help Life Sciences and Chemistry educators integrate Black scientists' work in their curricula.

Event Round-Up

Link directly to featured events below or <u>browse all</u> events on our calendar.

Dec. 15 - iDigBio Webinar - Orientation Series

Dec. 16 - BioQUEST Webinar - How BioQUEST

Can Support Your Project

Dec. 16 - <u>iEMBER Coffee Hour</u>

Dec. 17, Jan. 7, Jan. 14 - <u>NSF RCN-UBE Office</u> <u>Hours</u>

Dec. 21, Jan. 4, Jan. 11 - NSF IUSE Office Hours

BioQUEST News

Help us plan BIOME 2022!

BioQUEST is a community-driven organization, meaning that your feedback is essential to the improvement of future events. We want to know what you are looking for in the next BIOME!!

Please complete this survey about your ideas for the 2022 BIOME by January 14, 2022.

A note about 2022: We have decided to postpone the 2022 in-person Summer Workshop at the University of Austin, previously scheduled for July 10-15, 2022. This decision is due in part to the continued uncertainty around travel and large gatherings with the COVID-19 pandemic.



Instead, we plan to hold another fully online BIOME Institute. We plan to offer both a fully online BIOME Institute and an in-person Summer Workshop in 2023.

BioQUEST Webinar: How BioQUEST and QUBES Can Support Your Project, Dec. 16

In this webinar, BioQUEST staff will give a brief overview of how BioQUEST and the QUBES platform can help advance your project's goals. This will include an introduction to how the QUBES platform can support shared group spaces, how BioQUEST supports projects, as well as diverse examples of groups that are using the QUBES platform, including Research Coordination Networks, IUSE projects, interest groups, and professional societies. There will be ample time for questions and discussion. Join us!

Register for the webinar here.

<u>Visit our Office Hours and Webinars page for recorded</u> webinars.

This is the third in a series! BioQUEST webinars will be held on the fourth Thursday of the month (the third in November and December), topics TBD.

Jan 27, 2022 4:00 PM - CourseSource Feb 24, 2022 4:00 PM - TBD Mar 24, 2022 4:00 PM - TBD Apr 28, 2022 4:00 PM - TBD

<u>Please take our survey</u> to let us know what future webinar topics would be of interest to you!

Share Your BioQUEST Story: 35th Anniversary Celebrations

As many of you may know, BioQUEST is celebrating its 35th anniversary this year (we'll be 36 in June!). As part of the celebration, we're inviting our community to share BioQUEST stories--we're hoping these stories can express what the organization has meant to you and your career and are a chance to celebrate the amazing colleagues and collaborations that have come out of your work with BQ. These stories will be shared on a 35th Anniversary page on our website, in a forum (where others can comment and connect), and may be used in marketing for our next BIOME (!)

We've created <u>a form for sharing stories here</u>, or feel free to send something to Caitlin directly (caitlin[dot]hayes[at]bioquest[dot]org). You can also share a <u>BQ photo here</u> (captions appreciated) or send photos to Caitlin.

Thank you!

QB@CC and BioQUEST Faculty Mentoring Networks and Incubator Extend Deadlines!

The <u>BioQUEST Faculty Mentoring Network</u> has extended its deadline to December 31.

The QB@CC Faculty Mentoring Network and Incubator have extended their deadlines to January 5.

See all FMNs and apply today!

BioQUEST's Spring Semester Partner Office Hours

Our Partner Office Hours will continue next semester: Wednesdays at 12:00 PM ET and on Thursdays at 2:00 PM ET. Join us!

Have questions about how BioQUEST or the QUBES platform can advance your science education goals? Do you need help or advice about setting up your community on the QUBES platform? You can find the Zoom link here.

NSF Solicits Feedback from BioQUEST Community

The National Science
Foundation has reached
out to us for input on the
value and need for an
interdisciplinary training
program for undergraduate
students at the intersection
of biology, mathematics,
and computer science. You
can read the full Request
for Information here.



They will be accepting comments until December 31, 2021 but hope that BioQUEST/QUBES community members might respond with thoughts sooner than that. The RFI describes NSF's interest in developing a new program and a request for stakeholder input on some specific questions.

Please feel free to reach out to <u>Mary Crowe</u> with questions. You are also invited to share this information with others who might have interest or insights related to undergraduate education at the interface of biological sciences, mathematics, and computer science.

Featured Publications

We are so proud of the amazing scholarly work that is coming out of our community. Congratulations to the authors and thank you for your work.

Frontiers in Education, August 2021

"HITS: Harnessing a Collaborative Training Network to Create Case Studies that Integrate High-Throughput, Complex Datasets into Curricula"

Sabrina D. Robertson, Andrea Bixler, Melissa R. Eslinger, Monica M. Gaudier-Diaz, Adam J. Kleinschmit, Pat Marsteller, Kate K. O'Toole, Usha Sankar, and Carlos C. Goller

Hot off the press, this description of the activities and impacts of an NSF RCN-UBE project at the interface of case-based instruction, computational skills, and high-throughput science is also a great model for disseminating RCN outcomes.

bioRxiv, June 2021

"Building Back More Equitable STEM Education: Teach Science by Engaging Students in Doing Science"

Sarah C. R. Elgin, Shan Hays, Vida Mingo, Christopher D. Shaffer, Jason Williams

This provocative white paper, posted to bioRxiv, makes the case that a "National Center for Science Engagement" could help broaden the use of CURES and address disparities in students' access to research experiences.

If you have published a paper related to your work with BioQUEST and/or the QUBES platform, please let us know (send the link to Caitlin)!

Partner News and Opportunities

ESA to Host Spring Faculty Mentoring Network



The Ecological Society of America is now advertising for their Spring Faculty Mentoring Network:

Life Discovery -

Pushing Past Barriers: Ecological Science for All

The Life Discovery Faculty Mentoring Network is an extension of the rich discussions held at the 7th Life Discovery - Doing Science Biology Education Conference (LDC) -- jointly organized by the Ecological Society of America (ESA), Botanical Society of America (BSA), Society for the Study of Evolution (SSE).

Work with your peers to incorporate one or more of the following LDC themes into teaching modules for undergraduate biology and life science courses:

- Engaging non-science majors
- · Connecting current events to curriculum
- · Integrating inclusive pedagogy

Find out more about this opportunity and apply by 12/23!

The RIOS Institute Calls for Working Groups Proposals

The RIOS Institute invites proposals for Working Groups that will function as innovation sandboxes or think tank incubators.
Accepted proposals will receive a \$2000 budget.
Participants will bring new ideas and address challenges as they develop a tangible product aligned with the RIOS



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mission.

Rolling deadline until Feb 15, 2022; decisions will be made within 2-4 weeks of proposal receipt.

See MORE DETAILS HERE.

For more information, contact Dr. Karen Cangialosi.

Are you thinking about implementing a BCEENET CURE this winter or spring? Or do



you know someone who may be interested? If so, please fill out or share the survey below. This short survey gives the BCEENET team important data to make sure they provide the proper level of support and training for all implementers.

BCEENET Winter and Spring 2022 Implementation Survey!

If you would like to learn more about each CURE, go to the BCEENET website or contact the BCEENET coordination team.

Register for iEMBER's June 2022 Conference



The Inclusive Environments and Metrics in Biology Education and Research (iEMBER.org- National Science Foundation Grant number 2010716) is excited to invite you to join them for the 2022 iEMBER Conference on June 27-29, 2022 in Billings, MT.

The conference theme is Visualizing and Taking Action on Authentic Inclusion. Session discussions include:

- Bringing Your Authentic Self (Values and Biases) to Inclusion Work
- · Expanding Approaches to Inclusion
- Real Talk: an open invitation to share experiences on implementing DEI
- Structural Frameworks

If you are interested in collaborating and investigating authentic inclusion in STEM education, please review the travel award link. iEMBER still has grant funds to support travel for attendance. They welcome all who are interested from biology educators, biology education researchers, social scientists, and policy advocates.

For more information on this conference, please email either of the meeting co-facilitators: <u>Candice Idlebird</u> or <u>Jana Marcette</u>. If you would like more information about the iEMBER NSF-RCN-UBE, <u>visit our website</u>.

Registration Open for COMAP's Mathematical and Interdisciplinary Modeling Contests

February 17-21, 2022

Mathematical Contest in Modeling (MCM), an international contest for high school students and college undergraduates. It challenges teams of students to clarify, analyze, and propose solutions to open-ended problems. The contest attracts diverse students and faculty advisors from over 900 institutions around the world.

The Interdisciplinary Contest in Modeling (ICM), is an extension of the Mathematical Contest in Modeling (MCM). It is designed to develop and advance interdisciplinary problem-solving skills as well as competence in written communication.

Learn more and register by February 17, 2022.

SIMIODE EXPO 2022, Invitation and Call for Engagements



SIMIODE – Systemic Initiative for Modeling investigations and Opportunities with Differential Equations is hosting an international, virtual, conference

SIMIODE EXPO 2022, February 10-13, 2022. <u>Visit our</u> event page for complete description and registration, as well as videos from SIMIODE EXPO 2021.

SIMIODE's Community of Practice and EXPO 2022 are focused on helping teachers and students in teaching and learning differential equations through modeling.

This year's conference has expanded from two to four days and will include rich immediate conversation and gathering mode for one-to-one conversations and small group interactions or meetings, all due to the exceptional MathDept.org platform on which the conference is offered. Think hallway conversations and small group, focused engagements.

While SIMIODE is about teaching differential equations in context with modeling, the EXPO 2022 conference will offer a wider set of gatherings in support of broader mathematical studies and experiences for high schoolers through retired colleagues.

SIMIODE is now accepting full registrations and submissions for your contributors. Send your inquiries and details to Director [at] simiode [dot] org and include full name, institution name, location, title, abstract, intended audience, and session to which you are submitting.

Biotechnology Teaching Program at NC State Seeks Postdoc, Postbacc

The Biotechnology Teaching Program (BIT) at NC State is hiring for two positions, a postdoctoral teaching scholar and a postbaccalaureate research assistant.

Postdoctoral Teaching Scholar
Postbaccalaureate Research Assistant

Apply for the 2022 HITS Case Fellows Program



Become a HITS Case Fellow! Faculty and postdoctoral fellows devoted to the use of case studies and problem-based learning pedagogies can apply to become HITS Case Fellows.

The HITS network has the goal of training researchers and educators in data analysis and current trends in high-throughput (HT) experimentation and support the design and implementation of inquiry-based case studies using authentic HT data. The HITS network will train Case Fellows in the use of case studies based on HT data by using a yearly workshop.

Fellows receive:

- Support to attend summer HITS workshops
- Stipend
- Exposure to different high-throughput (HT) approaches and graduate students, faculty, and postdoctoral fellows from different fields.
- Opportunity to design novel case studies using authentic datasets that can be implemented in a variety of courses.

Case Fellows are expected to attend two summer workshops and participate in monthly virtual check-ins to continue making progress on their cases.

Find more information and the application here.

Other opportunities

USE Cit Sci Network Seeks Participants for Working Groups

The <u>USE Cit Sci Network</u> is looking for interested persons to participate in two small working groups during the upcoming year. One working group will focus on the use of citizen science in online environments and the other will focus on the role of citizen science in social justice.

Each subgroup will focus on higher education (post-secondary) settings and will develop and share resources related to their focal topic, create one blog for the Network website, and host one informational webinar. The chair of each group will receive a stipend of \$1000 and active members will get stipends of \$500 each for the year. Each group will be kept small so that it is easier to coordinate meetings and accomplish goals.

If you are interested, please complete <u>this interest form</u> by Dec 15. Contact <u>Heather Vance-Chalcraft</u> with questions.

UN-L Seeks Participants for Study on Quantitative Biology Instruction

Do you integrate quantitative skills into your biology course?

Researchers at the University of Nebraska-Lincoln are looking for instructors who take different approaches to integrating quantitative skills with biology concepts in their courses to participate in an NSF-funded research project. Examples include working with graphs/formulas, developing quantitative models, or reflecting on the purpose of mathematical models.

Participating instructors will be engaged intermittently over the course of three years and will be compensated \$500.

For more details about expectations, <u>please visit our blog</u> <u>announcement</u>, or <u>sign up to participate in the study here</u>. <u>Questions can be directed to Joe Dauer</u>.







