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Fall Greetings BioQUESTer's,

# Community Spotlight:



Blueprint for Accelerating Change in Social Justice. Equity.
Diversity and Inclusion in STEM Curricula

As a collaboration among the Accelerating Systemic Change (ASCN) Working Group on Social Justice, Equity, Diversity and Inclusion, the BioQUEST Curriculum Consortium and SENCER we are developing an open education book and resources. Our plan is first to publish outlines for papers on the BioQUEST/QUBES site to solicit feedback and additions. We invite all interested people to submit a brief outline of a chapter or a resource that should be part of this effort by August 15, 2023. Please visit our site for more details.

We hope that your semester is kicking off smoothly! As another academic year gets underway, we wanted to take a moment to remind you about our weekly office hours. Maybe you want to learn about how to get more involved in BioQUEST, have inquiries about Faculty Mentoring Networks, or want some tips on using QUBESHub. We are here to help! Office Hours are hosted on Zoom on Wednesdays at Noon ET and Thursdays at 2 pm ET, weekly. Visit here to find the Zoom link.

P.S. If you're coming across this newsletter on the QUBES website or on social media, you can <u>subscribe here</u> to keep in touch!

In this newsletter:

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# Partner Corner: News & Opportunities

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- The Inclusive Ecology Spotlight Webinar Series
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- Teaching Modules from QB@CC: Tools to Improve Biology Student's Quantitative Skills Webinar
- COMAP: 10 Interesting Math Modeling Modules to Try Today
- Ask Bio Network Workshops
- Inclusive Teaching Course from HHMI
- CBE -- LSE Special Issue Equity, Inclusion, Access, and Justice in Biology Education

## **Upcoming Events**

September 20 <u>Teaching Modules from QB@CC:</u>
<u>Tools to Improve Biology Student's Quantitative</u>
<u>Skills Webinar</u> (Webinar)

September 20 ASK-BIO Level One Workshop

September 25 The Inclusive Ecology Spotlight
Webinar Series With The BioGraphl Faculty
Mentoring Network

September 28 October 4 ASK-BIO Level Two Workshop

October 12, 18 ASK-BIO Level Three Workshop

October 20-22 SABER Midwest Conference

November 2-5 <u>NABT</u> (BioQUEST staff will be there, so come say hi!)

If you would like to share an event with us, reach out to  $\underline{\text{Molly Phillips}}$ 

## **BioQUEST News**

#### **QUBES Corner**

**26 open educational resources** were published to the QUBES Library in August with **2,806** resources in total. Browse the new resources here.

#### Featured Resources

 Helping Students to Metacognitively Read Scientific Literature With Talking to the Text (CourseSource)

In this lesson, students are taught the Talking to the Text method to metacognitively read scientific texts. The Talking to the Text method, which is part of the Reading Apprenticeship approach, enables students to have a metacognitive conversation with a scientific text, annotating it with their own questions, connections to previous knowledge, predictions, and drawings.

 The Flight Physics Concept Inventory: Reliably Evaluating Aerodynamic Lift, Drag and Associated (Naïve) Concepts of Flight in Class and In-Game (CourseSource)

We describe a gamified lesson (like an ILD— Interactive Lecture Demonstration) addressing flight physics and fluid dynamics naïve concepts collaboratively with the help of our newly developed assessment instrument. We share flight physics and fluid dynamics resources including the FliP-Coln instrument, supporting materials, a lesson plan, lesson resources, videos, and three Particify™ quizzes.

### **New QUBES OER Sitewide Search & Browse**

We've updated our <u>OER search & browse</u> interface to make finding QUBES and partner resources easy! You can find resources via general text search, which will search the resource title, abstract, description, authors, and keywords. The default is for results to be sorted by relevance (based on your text search terms), but you can change this to sort by most recently published, most views, and most downloads. You can also use the faceted QUBES taxonomy to filter your results, with categories like Resource Type, Activity Length, the newly added Software Used, and Inclusive Pedagogy for Life Science Education, to name just a few.



#### **New Group OER Search & Browse**

All groups now have an optional Resources page that will show a search & browse similar to the QUBES sitewide search & browse, but prefiltered to show only those resources that are published by your group. By default, this page is active and available to anyone on the internet. You can find this page from within your group by selecting "Resources" from the left-side menu.



Group managers can change the settings for this page from within your group's settings area to the following viewing permissions: Any HUB Visitor, Registered HUB Users, Group Member Only, and Disabled/Off. It is set to "Any HUB Visitor" by default.

Finally, users are able to submit a resource from the resources page within a group. Any resource submitted from a group's resources page will automatically be associated with the group and will show up in its search & browse.

Find this information in the Knowledge Base.

## **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.

CBE -- Life Sciences Education, June 2023

"Biology Instructors See Value in Discussing Controversial Topics but Fear Personal and Professional Consequences"

Abby E. Beatty, Emily P. Driessen, Amanda D. Clark, Robin A. Costello, Sharday Ewell, Sheritta Fagbodun, Randy L. Klabacka, Todd Lamb, Kimberly Mulligan, Jeremiah A. Henning, and Cissy J. Ballen

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 Molly)!

# **Partner News and Opportunities**

### Nanopore DNA Sequencing CUREs

The Nanopore DNA
Sequencing CUREs FMN
meets semimonthly on
Mondays to discuss faculty
ideas and challenges to
implementing Oxford

Nanopore DNA



sequencing in undergraduate biology education and making potential course-based research experiences inclusive. We invite undergraduate educators to join the group for announcements and to participate in the Fall mentoring network. See the <a href="QUBES page">QUBES page</a> for exact dates and other opportunities. The Nanopore CURES FMN will run in Fall 2023 and again in Spring 2024. To join, request group membership, and someone from the team will follow up with you. The Nanopore team hopes people will sign up by the end of September but will allow newcomers to join as they find the group!

# QB@CC FMN: Math and Biology - A Correlation Made in Heaven Deadline Extended!

Are you interested in adopting modules that cover linear regression using a topic in biology?

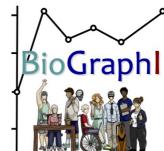
Apply now to join us for the Fall 2023 QB@CC Faculty Mentoring Network (FMN).

Participants in this FMN will focus on how to use datadriven modules to teach linear regression in undergraduate mathematics and life science courses. Accepted applicants will customize and implement newly designed biology educational modules. While doing this, they will participate in biweekly virtual sessions to collaborate with and support others in the network and receive mentoring.

Applications are due September 30, 2023. Space is limited so apply now!

The Inclusive Ecology Spotlight Webinar Series With The BioGraphl Faculty Mentoring Network

Do you want to highlight counterstereotypical scientists in your classes? And do you want your students to improve their graph interpretation skills? Then look no further than the Biologists and Graph Interpretation (BioGraphI) Faculty Mentoring Network.



Join Inclusive Ecology for the inaugural webinar in our Spotlight Series featuring the leaders of BioGraphl. We'll learn about BioGraphl lesson modules, how you can become a lesson coauthor by contributing your research and personal story, and how to join a mentoring network to learn how to make a BioGraphl lesson. The webinar will be a combination of a presentation and open discussion with the presenters.

When: Monday September 25 from 2-3 pm Eastern (11 am-12 pm Pacific).

Where: **Zoom Registration Link** 

The Inclusive Ecology Spotlight Series is a new webinar series to celebrate and highlight projects promoting justice, equity, diversity, and inclusion in ecology. Do you have an idea for a future webinar or want to join our planning committee? Email <a href="mailto:allyson.salisbury@gmail.com">allyson.salisbury@gmail.com</a>.

# Teaching Modules from QB@CC: Tools to Improve Biology Student's Quantitative Skills Webinar

Join the NABT and QB@CC communities for a special webinar to examine cellular biology content through a



quantitatively focused exploration. Using the popular open educational resource (OER) entitled <u>Sizes, Scales, and Specialization: An activity highlighting the diversity in cell types</u>, participants of the webinar will go through portions of the module as learners, observe how to implement various active learning sessions, and then discuss the module with their fellow educators.

When: Wednesday, September 20th, from 6:00 PM - 8:00

PM (ET) 5:00 PM CT / 3:00 PM MT / 2:00 PM PT

Where: Zoom Registration Link

# **COMAP: 10 Interesting Math Modeling Modules to Try Today**

As part of the expansive collection of resources COMAP provides to the math community, they have a series of math modeling modules designed for



Consortium for Mathematics and Its Applications

teaching mathematics through real-world phenomena. There are many modules available on their website, but they compiled a sample of 10 diverse modules you might want to try in the classroom with your students.

These math modeling modules are free to download and use in classrooms. <u>Find them here.</u>

#### **ASK BIO Network Workshops**

What makes a good question? Writing good test questions for students is a daunting task that biology faculty typically do in isolation. An NSF funded network has been developed to help support



faculty through this process and provide guidance and peerreview to help work in community to improve life sciences assessment. They are excited to offer a series of upcoming workshops as part of the Assessment Skills in Biology (ASK BIO) network. These leveled workshops provide information, guidance, and dedicated time to improve and develop your assessment items. For more information <u>visit</u> <u>their website</u>.

#### 2023 Upcoming Workshops

- Level One: Wednesday, September 20, 2023 1:00-4:00 pm
   CST
- Level Two: Thursday, September 28, 2023 2:00 5:00 pm CST
- Level Two: Wednesday, October 4, 2023 1:00 4:00 pm CST
- Level Three: Thursday, October 12, 2023 2:00 6:00 pm CST
- Level Three: Wednesday, October 18, 2023 1:00-5:00 pm CST

Not sure which level to attend? Check out their <u>leveling</u> <u>assessment</u> to help guide you.

Let them know you are interested in one or more of our upcoming workshops by submitting this <u>quick form</u>.

#### **Inclusive Teaching Course from HHMI**

Hhmi Biointeractive and SEAS (Science Education And Society) program recently launched a FREE course on 'Inclusive Teaching'. More than anything, this course asks



participants amidst the haste to slow down, pause and reflect on what being human-centered in teaching looks like.

They brought together visual art, music, education theory, spoken word and storytelling in ways that they believe support a deep and safe reflection process. Take at your own pace or consider forming a community of allies. Built for 9th grade to higher education teachers, but in reality, it's for anyone who seeks to think more deeply about how our shared humanity is fundamental to education. Visit here to learn more and register.

# CBE -- LSE Special Issue - Equity, Inclusion, Access, and Justice in Biology Education

Call for Research Papers

To bring attention to Equity, Inclusion, Access, and Justice in biology



education, CBE - Life Sciences Education (LSE; http://www.lifescied.org/) will publish a special issue in 2024 highlighting research articles, essays, and features that offer new insights into these topics. As a team of LSE Special Issue Guest Editors, we are passionate and enthusiastic about engaging the LSE community in deepening our collective understanding of Equity, Inclusion, Access, and Justice. A key goal of this special issue is to elevate research that investigates the unique experiences, assets, and resilience of communities impacted by systemic oppression in ways that intentionally marginalize them within the life sciences, biology education and other research, and STEM education. An additional goal of this special issue is to bring the theoretical frameworks, antideficit perspectives, methodological approaches, and critical lenses from fields such as higher education, race and resistance studies, gender and sexuality studies, disability justice, and other disciplines to biology education research and to the LSE readership. We welcome authors at all phases of their career, in a variety of professional positions and institutional contexts, and from diverse backgrounds and perspectives. Visit here to find more information, and submission deadlines.









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