Remote Teaching & Learning

**Lightning Talks**

**Speaker Series**

**Hands-on Teaching**

**JULY 31 at 12 PM**
Quick Reminder

For optimal viewing experience, you can change your view options. We recommend **Speaker View** over Gallery View.

**Optional:** Add your department, program or school to your Zoom name.
Q&A

Please share your questions in the chat feature and the moderator will address at the completion of all presentations.
MODERATOR

Seth Blumenthal

PRESENTERS

John Caradonna  Daniel Dona  Caleb Farny  Amber Navarre  Malavika Shetty
John Caradonna
Associate Professor, Department of Chemistry
College of Arts & Sciences

Approaches to Remote Laboratory Instruction: A Long-term View
Define the top learning goals for the particular class and major

Remote lab classes are challenging to convert to a hybrid or online presentation format owing to their hands-on nature and requirement of specialized equipment/reagents and/or safety concerns.

◆ Need to address: What is the goal of the lab experiment?
◆ Ask yourself: What do you want the students to learn by doing the lab?
◆ Use a “backwards design” approach in developing the lab to help this process (https://cft.vanderbilt.edu/guides-sub-pages/understanding-by-design/)

- Extending understanding of content
- Fostering skill in experimental design
- Data collection
- Visualizing and interpreting data via appropriate analyses
- Presenting experiments and results
- Connecting data to global concepts, conclusions
Use Your Identified Goals as Guides and Realize that Much of the Work May Not Require a Lab Setting

➔ Extending understanding of content
  ◆ Pre-lab presentations, literature searches, linking labs to current course content
  ◆ Free lab simulations vs. video demonstrations vs. interactive discussions with predictions vs. free collections of annotated papers vs. commercial online labs

➔ Data collection - Challenge
  ◆ Using data from previous years vs. remote instrumentation use vs. free lab simulations

➔ Visualizing and interpreting data via appropriate analyses
  ◆ Online software packages available to students at no/reduced cost through BU TechWeb

➔ Presenting experiments and results
  ◆ Standard written labs vs. oral team presentations with feedback and response

➔ Connecting data to global concepts, conclusions
  ◆ Remote friendly, library services, professional databases and literature
Things to always remember…..

➔ The lab course will be different
  ◆ Interactions can be in groups or individually, synchronously or asynchronously
  ◆ Is collaboration a HUB unit? If so, how will you facilitate it?

➔ Integrate over the full four years of a student’s undergraduate education
  ◆ STEM labs are vertical and build in sophistication
    ● Issue of homogeneous vs. heterogeneous student population
    ● Different requirements for different stages of students
  ◆ Be prepared to offer lecture only and lecture/lab courses (LfA)
    ● If lab is required, use new course numbers to track student experiences
    ● May need to create intensive lab-only courses at a future date
    ● May need to alter advanced lab curriculum to offset student experiences

➔ It will require additional work
  ◆ Don’t be hesitant to make changes based on the current situation
  ◆ Be flexible with students and the curriculum

➔ Be prepared to pivot
  ◆ Decisions are not under faculty control
Daniel Doña
Senior Lecturer, School of Music

Look, Feel, Sound: Translating the Applied Music Lesson to the Remote Classroom
Look

- importance of camera angles
- use the remote platform technology to your advantage
- using multi-device functionality of Zoom
  - second camera
  - whiteboard
- consistency of written materials
Feel

- hardest to translate but most important to communicate
- importance of developing broad toolbox of action words and analogies
- pedagogical value of body awareness
- term can also cover emotional/expressive content
Sound

- optimizing equipment and Zoom settings
- using language to convey concepts of sound
- utilizing asynchronous modality on both student and teacher sides

Additional resources

https://www.rcmusic.com/teaching/how-to-teach-music-online
Thank You
Caleb Farny
Master Lecturer, College of Engineering

Moving the Engineering Lab Experience Out of the Lab
ENGINEERING CORE:
4 COURSES
9 CORE KITS

FRESHMAN/SOPHOMORE

Biomedical (2)

JUNIOR/SENIOR

Electrical & Computer (2)

Mechanical (13)

Pure residential: Controlled lab setting
LfA: Student-controlled, focused
ENG ME310: INSTRUMENTATION

Residential: 4 labs, 1 design project

LfA planning:

- Course concept map + hardware cost, availability, usability
- Shipping
- Lab manuals
- Instructional team training: videos
- Lab period
- Group, instructional team interaction
Guiding principles

Lab value: course concepts, transferable skills
Cost value
Student ability: technical, time duration
Procedure guidance
Instructional team training
Thank You
Amber Navarre
Senior Lecturer, College of Arts & Sciences

Promoting Interaction in Synchronous Classrooms with Google Jamboard
Jamboard without the “board”

- Post sticky notes
- Draw
- Hand-write
- Insert images
- Move objects
Application in Live Classrooms

Example
Thank You
Malavika Shetty
Lecturer, College of Arts & Sciences
Writing Program

Teaching with Wikipedia
Wikipedia: More People Rely on it; Fewer Create it

54 million articles

1.5 billion unique visitors per month

91% editors worldwide are male

Editors: 20% US, 12% Germany, 7% Russia, 3% India (only country in the top 10 not from Europe or North America)

Content Gaps on Wikipedia

Sources: Wikipedia Editors Survey 2011

Why Teach with Wikipedia?

Academic writing and research skills

Attribution and Fair Use

Opportunity to improve coverage of underrepresented people, cultures, topics

Engagement in knowledge construction and evaluation of information

Writing on a Public Forum

WikiEdu/BU Libraries Support

https://library.bu.edu/wikipedia

https://dashboard.wikiedu.org/
Wikipedia in the Classroom

7-Week Timeline

1. Proposal
2. Draft
3. Peer Review
4. Presentations
5. Assessment

https://en.wikipedia.org/wiki/Wu_Lei

https://en.wikipedia.org/wiki/Deportation_and_removal_from_the_United_States

Total impact made by Mettysh's students

131K Words Added
1.09K References Added
2.17M Article Views
106 Articles Edited
8 Articles Created
127 Commons Uploads
Thank You
Q&A
Thank you for your participation in the Lightning Talks Speaker Series.

For a list of upcoming talks, visit bit.ly/BULightningTalks

Questions or feedback?
Email digital@bu.edu.