Moving Rapidly to All On-line Instruction

Department of Mechanical Engineering
Iowa State University
March 12, 2020  10:00 AM

All statements in this presentation are subject to change at short notice as the situation develops.
Slowing the spread of COVID-19

**Classroom Instruction:**

- All 3 Regents Universities, including Iowa State will go to all on-line instruction for 2 weeks following Spring Break: **Monday, March 23 – Friday, April 3.**
- Students are encouraged not to return to ISU immediately after spring break.
- Dorms and food services will stay open at some level.
- Employees can continue to come to campus, as usual.
Moving Rapidly to all on-line Instruction

- **Two weeks of on-line:** plan to record your lectures between March 23 and April 3.
- **Lecture recording studio** will be set up in **Black 2025 (TA office).** Can schedule Nick Fetty to video for you: [https://www.signupgenius.com/go/9040849A8A929A7FF2-course](https://www.signupgenius.com/go/9040849A8A929A7FF2-course)
- **Lecture capture from home:** We are gathering approaches for DIY lecture capture since some people may need to produce lectures from home:
  - Tripod
  - Laptop camera or cellphone
  - whiteboard or sheet of paper
  - Camtasia
- **Posting of lectures** can be thorough many methods: Canvas, YouTube, etc.
- **CELT** has a rich set of on-line resources
- **Cris Schwartz’ examples** of simple, low tech lecture/whiteboard capture:
  - [https://youtu.be/TrvtrOKkRDE](https://youtu.be/TrvtrOKkRDE)
  - [https://youtu.be/MRCcuY2IV1l](https://youtu.be/MRCcuY2IV1l)
Suggestions for success

• Don’t aim for highly produced videos.  **Simple is good.**
• **Low tech** methods may be more reliable than fancy tools.
• **Low resolution** may be desirable since some student will be viewing them from internet challenged locations.
• **It is useful to familiarize yourself & your students with multiple options** for lectures or office hours -- in case one fails.
• You only need to stay one lecture ahead of your students.
• Pre-recorded lectures w/ scheduled live streaming Q&A periods may be easier to manage than live streaming of lectures.
• You are encouraged to do “dry runs” in the few remaining classes this week, for example:
  • Try a on-line lecture,
  • In class, walk your students through the use of tools such as Zoom (or whatever group meeting tool you choose) to make sure they can connect.
Challenges: experiential learning components

• Hands-on learning in teaching labs
  • MINE teaching Laboratories: Fluids, Controls, etc.
  • Shared ME/IMSE Manufacturing labs on Black 1rst floor: casting, welding, etc.
• Design Studio Courses: ME 270 and Capstone
• Use of special software (CAD, HVAC)
Taking our Teaching Laboratories on-line

• Taylor, John H. and Jim D. are working on taking most labs in the Mine on-line. (Video using equipment in use, plus datasets to analyze).

• Jim S. and Wyman are considering what parts of the manufacturing labs can be meaningfully delivered on-line. (Can we reschedule some of the hands-on activities to later in the semester?)

• ME 160, ME 170, HVAC, etc: Nate and COE are looking into increased remote access to machines with special software (VDI Virtual Desktop, VPN, Chrome Remote Desktop ...)

Sophomore and Senior Design

• No fabrication – physical models of any kind will not be considered in grading – because we don’t want to students to feel:
  • They must come to campus and work in the shop to get a good grade,
  • Others with access to outside machine shops have an unfair advantage over those with no access.

• Focus on analysis only in design classes.
• Teams should meet on-line only.
• Boyd Labs, Design Studio Rooms, ME computer labs will be closed to students.
• Design show – wait and see.
A Few Resources

• COE page on COVID-19: https://www.engineering.iastate.edu/covid-19/

• Nick will set up ME quick reference page on COVID-19 resources: ME specific policies, and links to other sites.

• CELT Website: https://www.celt.iastate.edu/teaching/preparing-to-teach/course-continuity/

• Campus cancellations and closures page: https://web.iastate.edu/safety/updates/covid19/cancellations

• Student FAQ’s: https://web.iastate.edu/safety/updates/covid19/studentfaq

• Campus Safety page: https://web.iastate.edu/safety/updates/covid19
Student Employees

• Graduate RAs and TAs will continue to be paid.

• **RAs** can continue to do work in research labs, but are encouraged to keep 6’ between themselves and co-workers.

• **TAs** will be expected to continue supporting classes, but grading assignments and holding normal office hours will be done on-line.

• **Undergraduate hourly workers** can continue to work if their duties allow (although this may change).