So, You’re Going to Teach Online

MIT Math Department
March 2020

Adapted from slides created by Digital Learning Scientist Meghan Perdue of SHASS
DON’T PANIC!

We will be offering links and online Zoom office hours for you to ask questions about how to:

- Record asynchronous lectures,
- Hold synchronous lectures over Zoom,
- Hold recitations over Zoom,
- Hold office hours over Zoom,
- Upload videos to share with students
- Use asynchronous forums (Piazza or Slack) to communicate with students

You will have opportunity to practice before your classes go online March 30.

We will develop a network of support so that everyone feels successful.
TAKE A DEEP BREATH: THINGS TO CONSIDER

1. **Develop new ways to communicate with your students:** Will you use email? Forums? Tell students how you will be communicating important information, and give them a chance to tell you how they are doing with all of the changes. Make sure you give them space to be heard, they will probably tell you what they need!

2. **Your assignments and strategies may change:** Let students know due date and exam date changes as soon as possible to reduce the stress they are feeling right now.

3. **Strategically Reduce Your Goals:** It's very likely that in all of this transition, you will not be able to teach as much as you would in a normal semester. Think carefully about what is most important, and where to cut content. Better to strategically decide reductions now rather than while scrambling at the end of the semester.
CHOOSING THE RIGHT PATH

You can start by asking the following questions:

ASYNCHRONOUS

Is your class mostly lecture-based?

Do you have more than 40 students?

Would you rather the students work at their own pace to watch the lectures and do the assignments?

Are your students in very different time zones that would make it difficult to join at the same time?

Film the lectures ahead of time and post on the class platform (Stellar / Website / etc)

SYNCHRONOUS

Is your class a mixture of lecture and discussion?

Do you have less than 40 students?

Would you rather keep your scheduled meeting time?

Are the majority of your students in relatively the same time zone and can join the class?

Hold your class at the same time it is currently taught on a web conference (Zoom / Webex / etc)
BUT... KEEP IN MIND IT WILL LIKELY BE BOTH

If you choose **asynchronous** you will likely also be hosting live office hours through web-conference, or meeting with small groups of students.

If you choose **synchronous** you should also record the sessions of the classes and post them on the class platform: in case some students aren’t able to join the live class, they can watch the filmed lectured later.
(FOR BOTH) VIDEO DELIVERY

Different modes:

- Tablet + pen
  - Surface Pro (4 - 7) or iPad + pen
- Slides
  - Annotating as you talk is even better!
- Filming yourself on black/whiteboard
  - Be careful of view and detail on board

Webcam: laptop/tablet or
Logitech HD WebCam Laptop ($36)
Audio has to be good!

Are you stationary (USB mike) or walking around room (wireless mike + audio jack)?

If you want something better than built-in:
Microphone recommendations:

1. Samson Go Mic ($30): small and portable
2. Blue's Yeti Nano ($100): larger but great sound (popular with podcasters)
3. FIFINE Wireless Microphone ($41)
ASYNCHRONOUS CLASSES: BASIC WORKFLOW

- Figure out which **platform** is right for your needs (Stellar / webpage / MITx / other)
- **Communicate** your expectations to your students
  - Where they can find the lectures & when they will be posted each week
  - What your expectations for due dates & assignments are
  - Expectations for participating in discussion forums
  - How the students can contact you
- **Film your lecture** and post at a regular time period each week
- **Send a weekly email** to students noting when the lecture is posted and any notices about assignments / due dates / office hours / etc
- Manage any **discussion forums**
- Hold **office hours** over web-conference
ASYNCHRONOUS CLASSES: FILMING YOUR LECTURE

You can **record your lecture** using a variety of options:

- Record lectures in classroom at chalk board, or using LightBoard studios (reach out to Krishna and Sheryl at Open Learning for support)
- **QuickTime** is also an option for recording audio and your computer screen - using a tablet to create Khan Academy style videos.
- Once you have a video, recommend to upload to ODL video hosting site (kerberos protected), uploaded through dropbox. To (not public) Stellar course. Unlisted YouTube account (least secure, see legal considerations)

Keep in mind that your lecture recording may be shorter than a regular class, since there will be no interaction.
If you have Apple, you already have QuickTime; you can download it [here](#) if you do not. You can also use QuickTime to create an audio-only file.

- Open QuickTime application and click “File / New Screen Recording”.
- Set up your presentation and select the portion of your screen you want to record. At the bottom of the screen you should see “Options”; click on that and make sure the Microphone is set to “Built In Microphone” (or your own USB microphone device)
- Press “Enter” or click “Record” when you are ready, and “Stop Recording” when you are done. Export the video to your computer.
- Then upload to YouTube or ODL video, and post link to Stellar
ASYNCHRONOUS CLASSES: RE-USE CONTENT

Do you have any **pre-existing content** that you can use?

- Videos made for MITx or OCW?
- Talks that you have given on a related topic?
- Other faculty lectures from MITx / OCW / edX?

Consider bringing in outside videos or resources if you have any readily available.
ASYNCHRONOUS CLASSES: BEST PRACTICES

- **Find a quiet space** where you can film your lecture uninterrupted.
- **Do a practice run** filming 1-2 minutes of presentation before you attempt to film the whole lecture. This will allow you to test your audio & process.
- If you want students to engage in the **discussion forums**, post clear prompts or topics for them to react to. Be sure to tell the students where the discussion forums are, and how to interact with them.
- **Send a weekly email** to students noting when the lecture is posted and any notices about assignments / due dates / office hours / etc.
- **Try to maintain as much normalcy as possible**. Keep your scheduled office hours over Zoom (or other webconference) and be as available to the students as you would normally be.
SYNCHRONOUS CLASSES: BASIC WORKFLOW

- Decide on a **web conferencing** tool (Zoom / Webex / other).

- **Communicate** your expectations to your students:
  - What time classes will be / the link to access the conference room
  - What your expectations for due dates & assignments are
  - How the students can contact you

- Prepare for and **host your classes** at the same time as your regularly scheduled class. Plan for small group discussion & activities.

- **Record your class**, and **post to Stellar** for any students who were not able to join.

- Manage any **discussion forums**.

- **Hold office hours** over web-conference.
ZOOM: GETTING STARTED

*As of March 11, 2020* MIT is in the process of purchasing a full site license. You might need to purchase an account in the interim period, if you don’t already have one. You can sign up [here](#).

**Only the host of the meeting needs a Zoom account.** Students can join by clicking on the link that you send them to invite them to the class.
ZOOM: BASICS OF A ZOOM CLASS

Components of a ZOOM Class:
- Video
- Audio
- Text chat
- Screen sharing
- Sharing files
- Breakout sessions
- Recording
- Whiteboard

Activities of a ZOOM Class:
- See and hear each participant
- Record the class
- Lecture from your slides
- Have large group discussion
- Have small group discussions
- Allow students to give presentations to the whole class or private groups
- Write on the whiteboard
- Students can use text chat during a lecture or presentation
ZOOM: YOUR ACCOUNT

Use personal meeting to practice
ZOOM: SCHEDULING A MEETING

- Sign in to the Zoom.us website and click “Schedule a Meeting” at the top of the screen.
- Name the meeting name & time accordingly. If this is for a class, click the “recurring meeting” button so that the class will use the same link each week.
- You can choose to allow the students to gather in the class before you get there by “enabling join before host”. You can also “mute participants on entry” to make sure all microphones start off muted.
- Send your meeting link to your students, and post it in your Stellar (or other course platform) site.
## WHY
- Lets students review the class afterward
- Provides access for different learning styles
- Allows absent students to see what they missed
- Allows students in different time zones to watch the lecture afterwards
- Can review to take attendance afterward

## HOW
- In your Zoom meeting, click “Record” on the bottom panel of the Zoom platform
- Find link for class video in email from Zoom, or in your account. Sign in to “My Account”, click on “Profile” then “Recordings”
- Upload the video to Stellar, ODL video channel through dropbox, or unlisted YouTube and post a link
- Switch between the **Gallery View** and **Speaker View** ([more here](#))
- Students can control the view that they see
- Enter Full Screen or Exit Full Screen
ZOOM: MANAGE PARTICIPANTS

ALL PARTICIPANTS

ONE PARTICIPANT
Students can “raise their hand” if they would like to speak. You have the ability to “unraise” their hand if they forgot to do so, or did so by mistake.

- You should “mute all participants upon entry” so the mics are muted from the beginning.Tell your students to unmute when they are ready to speak, and then to mute again when they are done. You have the ability to mute / unmute participants if they forget.

- Students should use their **given names** when they log in. You can “rename” a student if they neglect to do so.

- You can make other participants **co-hosts** if needed, for instance your TA should be a co-host.

- You can **remove** students from the class if needed.
# ZOOM: MANAGING THE CHAT

<table>
<thead>
<tr>
<th>WHY</th>
<th>HOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Share hyperlinks or files</td>
<td>- Send chat to entire class</td>
</tr>
<tr>
<td>- Ask questions</td>
<td>- Send private chat by selecting the name of 1 person</td>
</tr>
<tr>
<td>- Add comment to discussion</td>
<td>- To share a file click “Share file in meeting”</td>
</tr>
<tr>
<td>- Take attendance</td>
<td>- Save the chat by clicking “More/Save Chat”</td>
</tr>
<tr>
<td>- Chat with teaching staff</td>
<td></td>
</tr>
<tr>
<td>- Get tech support during class</td>
<td></td>
</tr>
</tbody>
</table>
You can choose to share your entire screen with class, or just a certain file or program. For instance you can choose to ONLY share your PowerPoint slides:
ZOOM: WHITEBOARD

WHY
- Short explanations
- Simple drawings
- Brainstorming
- Reports back from breakout rooms

HOW
1. Click “Share Screen” in Meeting Toolbar
2. Choose “Whiteboard” from top row of Basic Tab
3. Use Annotation Toolbar to type, draw, highlight, etc.

NOTE: If you want to use this feature, make sure to test it out before class.
Zoom Tutorial

FEATURES

- Zoom can automatically assign students or you can assign students to rooms manually
- Students can use their mics & cameras to chat and share screens in breakout rooms
- Students can ask for help
- Host can move in and out of all rooms
- Host can send a message to all rooms
- Host can close breakout rooms and move students back to the main class

REMEMBER

- Rooms must be created during class
- It’s best to post discussion prompts in the Chat before students enter rooms
- Only Hosts can create breakout rooms
- Co-Host must be assigned to a room and enter it before moving between rooms
- Students can leave before the room closes
ZOOM: HOST, CO-HOST, ALT-HOST

- The **Host** starts and manages the meeting. The instructor is usually the account holder and host, but it could also be a TA.
- A **Co-Host** has almost the same privileges as the host.
  - Co-hosts can’t create or move others into and out of breakout rooms
  - Anyone can enter as a participant and be promoted to co-host by the host
- **Alt-Hosts** can be added to a session when a co-instructor or TA wants to open the session and enter as a host or co-host. (see [Zoom article](https://zoom.us) for how to do this)
ZOOM: STUDENT CONDUCT

- Try to keep the same culture as your residential class. (IE Eating in class, leaving before the scheduled breaks, preparing for discussion, etc)
- Students may not join a class while driving or riding in a car.
- Students are expected to join from a suitable, quiet location, with a device that permits full participation in the class activities, including use of video.
- Many courses include activities that cannot be adequately performed on a mobile device; using a computer is the best option.
- Students should keep their microphones on mute unless they are speaking, or in a breakout room.
ZOOM: BEST PRACTICES

- Use a computer to teach.
- Use a headset with a microphone if you have one (or want to buy one)
- Try to get a good WiFi signal. Sit as close to the router as possible. Plan for your best internet connection.
- Make sure no one on your network is streaming movies or games.
- Only open the programs you need for class.
- Mute all participants upon entry, so their microphones start off on mute.
- Keep Zoom updated.
- Keep your browser & computer updated.
- Restart your computer before you teach to clear out any bugs. Advise students to restart their computers before class.
- **Practice hosting a session** before you start class!
ONLINE CLASSES: MANAGING COMMUNICATIONS

- You can continue to communicate with your students via email lists.
- Post announcements on the class platform page.
- Be consistent and clear with your messaging and expectations.
- Continue to hold live office hours over web conference, so students can come to you with problems or issues.
- Consider providing a space for students to contact each other, like Slack or piazza.
ONLINE CLASSES: MANAGING DISCUSSION FORUMS

WHY

- Allows the students to respond to discussion prompts and engage ideas outside class
- Allows students who don’t feel comfortable speaking up in class to participate
- If class or some students are asynchronous, forums give a space for discussion and interaction
- Allow for student to student Communication

HOW

- Stellar allows discussion forums; just make sure it is visible following the steps in the link.
- Use both kinds of discussion prompts:
  - Open Reflection: encourage students to make their own posts based on ideas or questions they want to share with the group
  - Topic Response: write a specific discussion prompt based on the lecture or reading content to which you want students to react.
- Check and engage in the forums regularly.
- Consider giving some participation credit for student participation.
ONLINE CLASSES: ASSESSMENTS

- **Stellar**: Scanned assignments sent directly to you/TAs for grading
  - Upload to Stellar
  - Upload to Google forms

- **GradeScope**:
  - Students photograph and upload documents, graders create systematized grading rubrics
  - Works well for problem sets and exams (though settings may need to be separate).
  - Contact Theresa Cummings for more information.

- **MITx**
  - Automated grading for close-ended assessments
  - Crowd-learn for peer-feedback + open-ended assessments
ONLINE CLASSES: TESTING

- Honor code: give a time limit and specify what resources are OK to use
- Remote exam with Zoom “pseudo” proctoring
  - E.g. break out into small groups of 12, form a system with TAs to monitor
- MITx: online timed (not easy to set up and test quickly!)
COMMUNICATION INTENSIVE ONLINE CLASSES:  
Shared Annotated Documents

You can share annotated documents with individual students, or groups of students. Good resources for this are:

**Kami**: There is a free version and paid version. You can assign documents to individuals or groups. Anyone with access to the documents can annotate in real time, comment on annotations. Very good resource for PDFs.

**Google Documents**: Users will need a google account to use effectively. Better for use with “live” documents, if students are writing papers (&etc) together.

**Use ShareLaTeX for shared LaTeX document like a Google Document.**

**Overleaf**: Users need an account but does track changes with LaTeX shared documents
ONLINE CLASSES: LEGAL CONSIDERATIONS

- Posting videos
  - Copyright concerns OK
  - Private site (Stellar, ODL video, residential MITx) OK
  - Unlisted on YouTube: if students are in recording (video and/or audio) you NEED to get students to legal sign release form
  - Remember can have students not show voice/audio
- Most classes will not violate FERPA but check to be sure HERE.
  - EX1: student identifying a medical condition
  - EX2: student releasing information from confidential or private government records on the video
  - Can suggest telling students NOT to mention that type of information
- The new disability rules require us to transcribe any posted videos. If you upload to YouTube they will be transcribed automatically. However, these transcripts are not ADA compliant. You must use a transcription services like 3PlayMedia. Easiest option is to make sure videos are only available through Stellar site that is closed to public or through ODL video which is kerberos protected. If you’d like more information about disability services, you can check out more details here.
DON’T PANIC!

It is challenging to move a class online, even with advance planning and preparation. These are extraordinary events, and we all have to learn how to manage this as we go. There will be problems, and we will figure it out together! Try to find help if you can, through TAs, staff, or students. Practice and test everything before you go live.

Open Learning has put this website together to assist you in moving online.

CONTACT:

IS&T for Technical Issues: 617.253.1101, servicedesk@mit.edu, or your department IT office

Open Learning Support: teachremote@mit.edu

Math remote help: remote-help@math.mit.edu
Articles

Read Chronicle of Higher Education’s “How to Be a Better Online Teacher”.

Inside Higher Ed: “So You Want to Temporarily Teach Online”

Inside Higher Ed: “Peer Advice for Teaching Online for the First Time”