

## Online Teaching Tools Menu by Dan Baker and Sam Bechara

We designed this menu to lay out a series of options for online class components. We have prioritized tools that are freely available to all students/faculty at Colorado State University and added value with links, advantages, and disadvantages.

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### Lectures / Capture

Solution for	Description	Advantages	Disadvantages
Record PowerPoint slideshow	Use computer + microphone + <a href="#">PowerPoint narration tools</a> to produce either (a) an MP4 video which I would recommend upload to YouTube / <a href="#">Echo360</a> to share or (b) a PowerPoint slide show with narration (PPSX) which you could share via Canvas (upload to Canvas Files and link to in a <a href="#">Canvas Module</a> ).	Could use these presentations for future supplemental or flipped use.	Note PPSX files can be large, limit slide show length to <10 minutes.
Record Multi-Material Lecture: Tech-savvy option	Use a touchscreen computer/tablet + stylus + microphone + software to write notes ( <a href="#">OneNote</a> is free with your <a href="#">CSU Microsoft 365 account</a> ) + <a href="#">Echo360 Universal Capture</a> to record anything on the screen (handwritten notes, PowerPoint, video, etc.). You can then <a href="#">link the Echo360 videos directly into your Canvas course</a> .	You can record from anywhere. Could use these presentations for future supplemental or flipped use.	Need a tablet or touchscreen computer with note-taking software.
Record Multi-material Lecture: Low-tech option	Find <a href="#">campus classroom</a> with a document camera + a microphone + use <a href="#">Echo360 Universal Capture</a> in one of the campus classrooms. Universal Capture records anything you project on the screen (handwritten notes, PowerPoint, video, etc.). You can then <a href="#">link the Echo360 videos directly into your Canvas course</a> .	Echo350 team will record these for you if you set up a schedule with them	You need to go to a classroom to record.

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### Online Homework – Grading and Submissions

Solution for	Description	Advantages	Disadvantages
Online Homework: Canvas Assignments	With <a href="#">Canvas Assignments</a> you can create online homework assignments. To create an assignment: (1) upload assignment file to <a href="#">Canvas Files</a> , then (2) add the file link in the assignment description, and (3) <a href="#">set submission type</a> to 'online' and student can upload their work.	Uses available software to post and receive assignments. <a href="#">Speedgrader</a> grading tool available to faculty and TA's.	Students must access/ use/ upload the file types you require. For example, for written work, students will need to scan & upload a PDF.
Online Homework: Assignments with LMS (Wiley+, McGraw Hill Connect, etc.)	Several textbooks have online learning management systems associated with the book. Contact your publisher representative to see if they have an LMS for your specific book.	You can easily assign automatically graded book problems. Some systems even allow you to assign reading.	It may be difficult or impossible to implement mid-semester. Will cost students more money.

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## Office Hours and Interacting with Students

Solution for	Description	Advantages	Disadvantages
Faculty-to-student written communication: Canvas Announcements	With <a href="#">Canvas Announcements</a> you can provide <a href="#">direct links to all course content within an announcement</a> , which is not possible using the Canvas email tool. All course communication gets put in one place (as compared to email where students need to search for information).	Students can control how they receive announcements, including <a href="#">text messages</a> . Allows replies, like a discussion forum.	Students control intervals and methods of receiving notification.
Student-to-faculty + student-to-student written communication: Canvas Discussions	<a href="#">Canvas Discussions</a> is a flexible tool built into Canvas which can serve for general questions/ answers or assigned questions/ replies.	Participation can be assigned and graded. Students and faculty can subscribe to receive notifications of new posts in specific threads. Can reply from email if subscribed.	Students often perceive discussion forums as not engaging. External tools like <a href="#">Slack</a> and <a href="#">Piazza</a> have more features and are more natural to use.
Synchronous Audio + Video Communication: Canvas Conferences	<a href="#">Canvas Conferences</a> provide a full-featured recordable meeting experience. Note that you will need to <a href="#">enable Canvas Conferences in your Canvas Menu</a> if it is not currently showing.	Built into Canvas, making link and account management easy. Each conference has chat window, group notes page, a multi-user whiteboard, and you can upload any PDF presentation/file to view.	Screen sharing from participants seems to be limited to participants with a PC or Mac (tested limitation on an Android tablet, Android Phone, and iPhone). Separate conferences are required for each
Synchronous Audio + Video Communication: Microsoft Teams	<a href="#">Microsoft Teams</a> has a broad range of features, which include the ability to set up and record meetings.	Robust meeting tool with a chat window, live captions, meeting notes, and multi-user screen sharing	Difficult to find meeting link: Set up a meeting in <a href="#">Microsoft Teams</a> , once you invite at least one person, close the setup window, then reopen it and the meeting link from the description window can be copied via a right mouse click.

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## Exams/Quizzes

Solution for	Description	Advantages	Disadvantages
Problem-based Exams	Post exam as PDF to a Canvas Quiz question, use file upload problem type then grade with <a href="#">Speedgrader</a>	Uses available software to post and receive an exam. A timed option is available.	Requires a student to upload assignments as DOC, DOCX, PPT, PPTX, or PDF files to be graded in <a href="#">Speedgrader</a> . Proctoring currently uncertain.
Multiple-choice Exams	Program exam into <a href="#">Canvas Quizzes</a>	Canvas will auto-grade many <a href="#">question types</a> and allow you to grade others in <a href="#">Speedgrader</a> .	Proctoring currently uncertain, check with CSU Testing Center for options.

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## Feedback and Student Experience Support

Solution for	Description	Advantages	Disadvantages
Ongoing anonymous feedback	Use <a href="#">Free Suggestion Box</a> for students to submit feedback.	Students unwilling to email can still provide feedback. Easy to post access link on Canvas Homepage.	Does not allow for follow-up due to anonymous nature

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## Labs and Software Access

Solution for	Description	Advantages	Disadvantages
Off-campus software access	ETS Virtual Classroom <a href="https://www.engr.colostate.edu/ets/virtual-classroom/">https://www.engr.colostate.edu/ets/virtual-classroom/</a>	There supported clients for Windows, Mac, and Linux.	Requires the use of a secure VPN connection