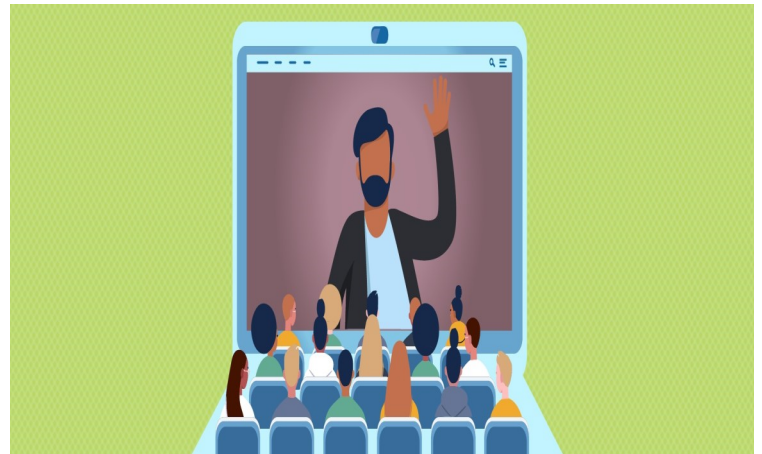


UCSD General Assignment Classrooms: Adapting Traditional Teaching to Synchronous Hybrid Learning

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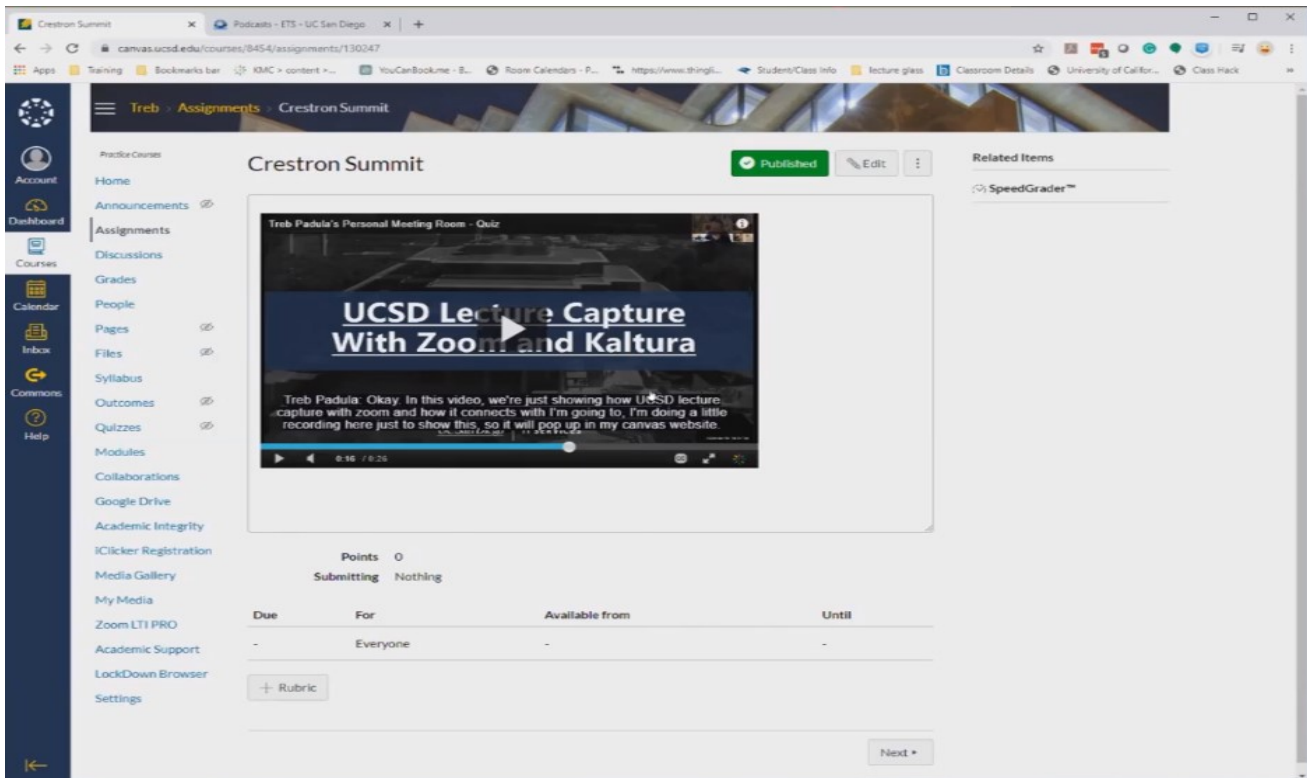
Introduction

How can UCSD General Assignment classrooms continue to provide the same in-room instruction to students remote or have limited access during the Covid-19 Pandemic closures? Thus, leading us to brainstorm and developing a plan! The Adapting Traditional Teaching to Synchronous Hybrid Learning Plan combines traditional methods and tools found in a classroom environment and allows the students enrolled to learn together while distanced during these times and future.

The Plan -

With over 100 General Assignment Classrooms on the UC San Diego Campus and limited to studentless instruction, we developed a plan to incorporate chalkboard lecture and in-room experiences remotely and effectively on a timely basis, allowing traditional instruction to resume.

Incorporating an Auto Tracking Camera to every classroom was the first step in our design process. As each room already had a dedicated video lecture capture system, the issue we faced is the recordings would be published after the class has ended not allowing synchronous learning to be achieved. With UC San Diego providing access to Zoom Accounts Campus wide to all instructors, students and staff we were able to encode the camera feeds into Zoom providing instructor and chalkboard lecture capture.



Lecture Capture with Crestron – Zoom - Kaltura

Hosted by: Andrew Snyder (ITS) and Treb Padula (ETS)

<https://crestron.showpad.com/share/3lqf8Fv7XppiqDwSV1lrB>

In June 2020, Crestron a worldwide manufacturer in the control and automation industry held a Virtual Technology Summit with UCSD, UCLA, USC, UNLV, USU and UofA. Our teams development and integration of Lecture Capture with Crestron – Zoom and Kaltura Model sparked interest among the other universities and provided us hope as a solution to converting a brick and mortar learning environment to a hybrid solution utilizing existing in-room tools and allowing instruction to continue for the start of fall.


Continuous Improvement—

But our efforts didn't stop there. Our team continued to brainstorm on how can we provide other educational tools such as the document camera or vhs/dvd player to allow that to be shared during normal in-room instruction remotely. We developed a solution and modified our initial approach to encode any video source as shown on the projector locally, and ingest that as the camera feed option within Zoom. Providing all instructional methods whether by chalkboard, document camera, vhs/dvd to be shared to the far end. Creating a seamless solution to have students remote and experience the same atmosphere they would as if attending the classroom on campus.

USING AUDIOVISUAL DEVICES

Lecture Halls

Connect via HDMI or VGA



Getting Started

1. To start the system, connect a laptop using the HDMI or VGA cables provided.
2. If you intend to use Zoom, plug in the USB cable to your laptop.
3. The projector will turn on & the screen will lower.
4. Or touch anywhere on the control panel screen to turn the system on.

Room Source

1. Press the desired source button to connect to the display (also triggers projector & screen).
2. The Signal Detected light will turn green when a source is connected.
3. Adjust the source volume by pressing the volume up, down, or mute icons.
4. Adjust the mic volume with the dedicated buttons.

Podcast

1. Please visit podcast.ucsd.edu to request a podcast recording for your class session.
2. This control page shows the recording status and a small preview of what's being recorded.
3. Click on Preview Window for full screen view.

Help Desk

For assistance with the audiovisual system, please refer to the contact information on this page or view information located on the wall.

System Off

When finished, please remember to shut down the audiovisual system from this page.

For Zoom App Instructions: please see the back side of this AV guide.

Contact Tech Support | es.servicedesk@ucsd.edu | p:858-534-5784 | w.servicedesk.ucsd.edu | UC San Diego

USING ZOOM APP

Lecture Halls

Using Zoom App

1. When launching the Zoom app, make sure the USB cable from the cubby has been connected to your laptop.
2. Make sure you are using the clip-on lavalier mic so that you can be heard remotely over Zoom. Otherwise, no one will hear the instructor since the audio will neither be broadcast nor recorded.
3. In the software settings, please select "USB Capture SDI+ #x" to act as your camera.
4. For your audio, select "DisplayPort (Crestron)" as your audio speaker when using the HDMI connector.
5. For your microphone select "USB Capture SDI+ Line In."

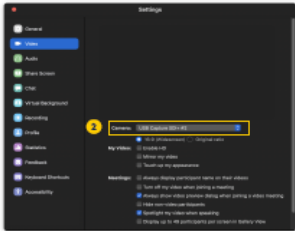
***Please note for steps #3 - 5: The video and audio options may vary depending on the device (Mac or PC) and the lecture hall you are in.**

6. Your Zoom camera will now be the Auto Tracking Camera in the room.
7. In order for the remote students to see your presentation or laptop screen, you will need to "share" your screen in the Zoom app.
8. To do this you select the green "Share Screen" button at the bottom of your Zoom window, choose the screen or application you wish to share, then click the blue "Share" button on the bottom right.
9. If you would like to stop sharing your screen you can click the red "Stop Sharing" button at the top of the screen.
10. If you select the Document Camera or the DVD player the outgoing image on Zoom will switch from the tracking camera to the image from the document camera or DVD player.
11. To return to the tracking camera you will need to select "Laptop" as your video source.
12. The sound from the room will be sent over to Zoom. The remote student's responses will be played over the room sound system. If you wish to mute the remote students, you will need to do so manually through Zoom.


*** REMEMBER to shut down the AV system when you leave.**

1. Connect USB cable from the cubby to your laptop.

Connect to Video Camera



Connect to Audio



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Classroom / Lecture Hall Instruction Sheets

Designed by Valeria Ayala - ITS Classroom Support

Utilizing the original classroom infrastructure and standardizing all classrooms and lecture halls, has simplified the complexities the end user faces to teach as if they were instructing prior to the pandemic.

Goals -



Our first goal achieved was to provide 25 general assignment classrooms by the start of Fall Quarter '20.

Allowing in-room classroom instruction to be held with no students. Concurrently, designing went into the "Class Outside the Box", providing an outdoor educational space as limited engagement settings were opening following social distance and safety guidelines. 6 Outside Classrooms are now deployed and incorporate the same design structure to have in-room students and remote the ability to learn synchronously.



Limited Students attending "Class Outside the Box" - UC San Diego Spring 21'

Conclusions and Updates -

With over 60 rooms retrofitted and growing along with outside spaces being utilized for educational classes, our team has been able to successfully provide our students and instructors the ability to continue teaching in-room and to remote students without losing the aspect of the traditional classroom environment.

Classrooms / Lecture Halls Zoom Ready

(Instructor Capture, Chalkboard, Document Camera, VHS/DVD)

- Fall of 2020 - 25 Classrooms Completed
- Winter Quarter 2021 - 50 Classrooms Completed + 4 Outdoor Educational Spaces
- Spring 2021 - 60 Classrooms Completed + 6 Outdoor Educational Spaces
- Summer / Fall 2021 - 100 Classrooms Projected + 7 New Classrooms located at the UCSD NTPLLN Project utilizing the same method of technology deployment to future proof a hybrid learning environment



Feedback-

"Both the ITS Audiovisual Design & Installation and Classroom Technology Support teams deserve praise for their efforts to introduce Zoom-ready classrooms throughout UC San Diego. They applied innovation and ingenuity in designing the Zoom A/V and instructor interface, then spent long days and nights installing and supporting the technology.

Not only did they do this for our existing 100+ classrooms, but then also took on the challenge of engineering from the ground up new outdoor classrooms and solving the challenges associated with making technology work seamlessly across varying conditions. While all this would have been a challenging feat under normal circumstances, they accomplished the entire project during the height of the pandemic and under a very tight deadline.

Thanks to the teams' innovation with Zoom-ready classrooms, UC San Diego was able to offer much of the in-classroom experience to our remote students."

- Carlos Jensen, Associate Vice Chancellor for Educational Innovation, and Dan Suchy, Senior Director for Educational Technology