epiphan video

Design guide

The hands-free lecture capture workflow

How to transform lecture recording at your school and win over students, faculty, and staff

A workflow that works for everyone

That's the dream, isn't it? Make it real with this winning lecture capture workflow that delivers great results for teachers, students, and administrators.

Intuitive interfaces, timesaving automations, and flexible hardware are essential to the hands-free lecture capture concept. Building a video workflow centered around Pearl can deliver all this and more.

Key outcomes

- Create high-quality lecture recordings that impress and engage students

- Deploy user-friendly solutions that anyone can grasp, no matter their technical background

- Automate workflows for hands-free video spaces

- Make it a breeze to manage multiple video spaces across different campuses

Set the standard for lecture capture

A webcam and built-in microphone won't cut it if you hope to impress and engage students. If your goal is to transcend lackluster video and create a memorable experiences, you'll need professional quality gear. At the same time, you need to keep your solution accessible to faculty of all levels of technical expertise and reasonable for IT to manage. Put a Pearl hardware encoder at the center of your lecture capture efforts and you can have it all.

PTZ camera

Laptop
My **Slides**

PTZ camera

Analog audio

SDI

HDMI

HDMI

XLR/TRS/RCA

MultiViewer monitor

HDMI OUT

ISO recordings

AUTOMATIC TRANSFER

Content management system (CMS)

PEARL MINI

3 inputs | HD

PEARL²

6+ inputs | 4K

Essential components

Production system

With its giant touch screen, Pearl Mini is easy for anyone to use. Three physical inputs make it possible to connect two cameras and a slide deck.

For lecture capture setups that require more than three physical inputs for video, Pearl-2 is the ultimate all-in-one video production system.

Cameras

For unmatched flexibility, use pan-tilt-zoom (PTZ) cameras. Connect these directly to Pearl with HDMI or SDI, or over the network using NDI.

Confidence monitor

Verify your video and audio with a glance at Pearl's built-in screen, or use MultiViewer to display up to six sources on an external monitor.

Microphone

A lavalier mic will allow instructors to move about. Alternatively, advanced room-scale array or beamforming microphones can capture the instructor as well as in-class questions.

Content management system

Automate recording and streaming events through Pearl's direct integration with Kaltura, Panopto, or YuJa.

Equipping your classrooms

Figuring out what gear you'll need

To mirror the in-classroom experience as closely as possible, take stock of the courses that have lecture capture as a component and list the equipment you'd need to capture every element of every lesson.

What exactly you need can vary with:

Kind of class

Certain subjects may require specialized equipment (e.g., a document camera or video microscope for a chemistry lab).

Supplemental materials

To incorporate slide decks, videos, and the like, you'll need a way to capture a laptop screen (e.g., a hardware encoder with HDMI inputs).

Nature of coursework

Classes with lots of hands-on demonstrations benefit from multiple cameras (e.g., one for close-ups and another a wide-angle shot of the professor and whiteboard).

Perfecting your audio

Poor audio is a sure way to make students tune out. Opt for a professional array beamforming microphone system, or a wireless lavalier or table mic with XLR or USB connectivity. If there's an existing in-room audio system, ensure whatever encoder you choose is compatible.

Also consider how to capture questions from students in class. The instructor can always repeat the question before answering, but an array microphone system or handheld microphone is another option.

### Capture video from any source

Use an Epiphan AV.io to capture video signals from cameras, computer, projectors or lab equipment.

Integrating your systems

Maximum efficiency demands tight integrations between your content management system (CMS), learning management system (LMS), and lecture capture solution.

Pearl production systems directly integrate with the industry-leading Kaltura, Panopto, and YuJa, letting you streamline your CMS-supported workflows for even more efficient content production and management. Users can authenticate to either platform through Pearl Mini's touch screen to automatically push recordings to their folders after unscheduled events.

The Pearl Crestron Control Module makes it easier to integrate Pearl hardware into your school's Crestron AV systems as secure, reliable, and robust lecture recording devices. Most of the coding is done for you, letting you build on Crestron's robust code base to enable secure API control over HTTP or HTTPS.
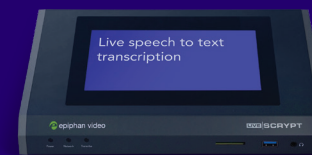
Promote accessibility in your classrooms

Add Epiphan LiveScrypt to your workflows for automatic real-time speech-to-text transcriptions.

Keeping your campus network safe

To keep your network secure, favor gear that's designed to work with your existing network policies rather than requiring exceptions that could leave your network vulnerable.

A bevy of advanced security features ensure Pearl systems are secure additions to your campus IT network, including:

- LDAP integration

- 802.1x network access control

- RTMPS

- SSL certification

Letting students know the cameras are rolling

It might be a policy at your institution to inform in-class students that streaming or recording is underway. If that's the case, invest in a USB status light to visually indicate when lecturing recording is in progress. Pearl Mini supports select models from Busylight and Delcom Products.

HARVARD UNIVERSITY
Division of Continuing Education

"I'm very happy with our decision to use Pearl. It's now our lecture capture standard."

Gabe Russell, Harvard Division of Continuing Education

Making device management a breeze

Time is everything when you have multiple devices to manage. Save your IT team the trouble of trekking across campus to assess your lecture recorders by opting for lecture recorders that include centralized, cloud-based device management.
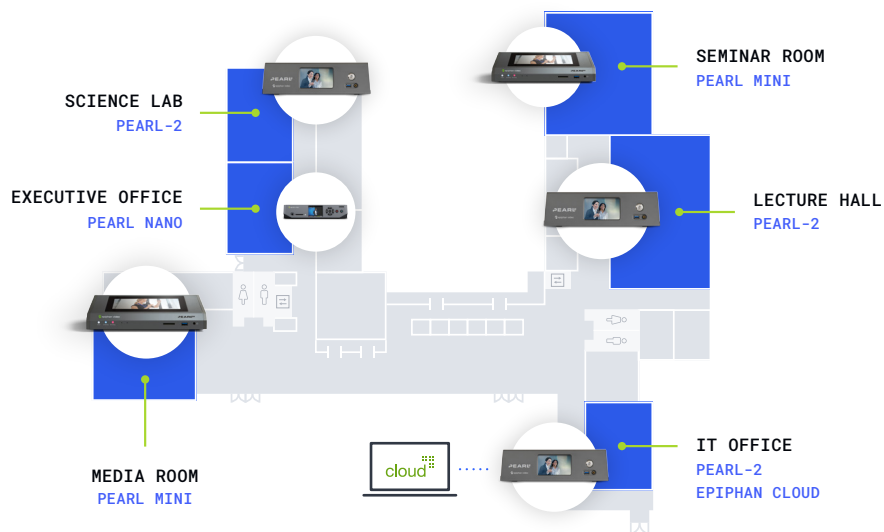
SCIENCE LAB
PEARL-2

EXECUTIVE OFFICE
PEARL NANO

MEDIA ROOM
PEARL MINI

SEMINAR ROOM
PEARL MINI

LECTURE HALL
PEARL-2

IT OFFICE
PEARL-2
EPIPHAN CLOUD

cloud

---

epiphan cloud

🔔 3

Pearl-2   10.1.2.208   43 / 500 GB   System Load

✓ Classroom 1B

✓ Zoom Class   ))) Start

✓ ▶ YouTube   ))) Start

Take the legwork out of multi-device management

Centralized configuration and monitoring

Assess, configure, and control paired Epiphan devices from Epiphan Cloud's intuitive dashboard.

24/7 monitoring and alerting

Learn of any lecture capture issues immediately with Epiphan Cloud's always-on monitoring and customizable alerting system.

Easy deployment

Simplify deployment and keep your campus network secure with 802.1x and LDAP authentication and other advanced features.

Recording lectures

Creating a hands-free experience

The dream lecture capture workflow is one where all an instructor has to do is walk into the room and start teaching.

You can make it happen by pairing Pearl encoders with a CMS that lets you schedule your lecture recorders to start streaming and/or recording based on your school's timetables.

Pearl systems integrate directly with Panopto, Kaltura, and YuJa. Comprehensive integration streamlines setup significantly and unlocks a number of other workflow enhancements such as touch-screen authentication and control (e.g., hitting a button to pause a recording, or adding time to a session that runs long).

Automating file management

Direct CMS integration with your encoder also has the benefit of automating file uploads. Based on the schedule, the encoder will automatically send any lecture recordings to the right place on the platform.

One-touch recording

And what about unscheduled events? No problem. Faculty can use Pearl Mini's built-in touch screen to authenticate to the CMS. The system will send any resulting recordings to the correct folder to minimize administration time.

kaltura · Panopto™ · YuJa

Simplifying control with operator mode

If your lecture capture setup involves instructors interacting directly with Pearl Mini, you can choose what touch-screen menu options are available to users to minimize errors and confusion.

Promoting confidence in the classroom

Instructors appreciate a confidence monitor so they can confirm at a glance that the lecture recording is going smoothly. Being able to quickly see, for example, that their laptop screen is properly connected and recording is an asset for efficiency and for peace of mind.

You have a few options here:

- Treat Pearl Mini's built-in touch screen as a confidence monitor, if the encoder will be near the instructor (e.g., on a lectern).

- Send your lecture capture program or a single source via HDMI to an external display that the instructor can reference easily.

- Set up a multi-source confidence monitor with Pearl's MultiViewer (available as an HDMI output) on an external display.

THOMAS
MORE

"Everything works very fast, very quickly. You get in the studio, you log in. You make a video clip and it is transmitted to the Kaltura platform immediately."

Piet Lamberts Van Assche, Professor

Results you can count on

Intuitive enough for faculty to use without hours of training. Professional quality with long-term reliability. Low maintenance and simple for staff to manage. Compatible with your campus network and other tech. All while justifying the budget spend. This Pearl-powered workflow does it all, giving you the tools you need to record high-quality, uncompressed video of lectures and seminars for on-demand viewing.

Power your productions with Epiphan Pearl

Make an Epiphan Pearl video production system the anchor of your on-premises video studio and reap the benefits of flexible features, reliable hardware, and user-friendly interfaces. It's everything you need to make great-looking video content easily and conveniently.

We're here to help

Clarify your studio plans with a free 15-minute consultation with an Epiphan support specialist.

info@epiphan.com