

# CLASSROOM INFORMATION: COMPUTER SCIENCE 221

## EQUIPMENT

Projector	Lectern
<ul style="list-style-type: none"><li>• 2 data projectors</li><li>• 2 screens for projector output</li></ul>	<ul style="list-style-type: none"><li>• Classroom PC with mouse, keyboard and optical drive</li><li>• Crestron control panel</li><li>• Laptop and HDMI input panel</li><li>• Audio volume control dials</li><li>• Document camera</li><li>• Pull-out trays on sides of the lectern</li><li>• Cable drawer on right-and side of lectern (containing VGA, HDMI, audio and network cables)</li></ul>

## LIGHTING

Use the light switches on the teaching wall to adjust the lighting as needed.

## LECTERN HEIGHT

To adjust the lectern height as needed, hold down the **Λ** or **V** button on the left-hand side of the lectern.

## DATA PROJECTORS

Projector positions are indicated as if you're facing the teaching wall.

### 1. SETTING UP THE SCREENS

Use the **Screen Left** and **Screen Right** dials near the light switches to set the screens at the required height.

### 2. OPERATING THE PROJECTORS

- **Left projector:** On the lectern Crestron control panel, press the top row **POWER** button to turn the projector on/off.
- **Right projector:** On the lectern Crestron control panel, press the bottom row **POWER** button to turn the projector on/off.

**Note:** Projectors may take a minute to warm up before you can use them. If they've recently been switched off, wait a few minutes before switching them on.

### 3. SELECTING INPUTS

Use the lectern Crestron control panel to select inputs for the left and right projectors:

Input	Instructions
Classroom PC	<ul style="list-style-type: none"><li>• <b>Left projector:</b> Press the top row <b>PC</b> button.</li><li>• <b>Right projector:</b> Press the bottom row <b>PC</b> button.</li></ul>
Laptop	<ul style="list-style-type: none"><li>• <b>Left projector:</b> Connect your laptop to the lectern's input panel (instructions below), then press the top row <b>LAPTOP</b> button.</li><li>• <b>Right projector:</b> Connect your laptop to the lectern's input panel (instructions below), then press the bottom row <b>LAPTOP</b> button.</li></ul>
Document camera	<ul style="list-style-type: none"><li>• <b>Left projector:</b> Open the document camera (instructions below) then press the top row <b>DOC CAMERA</b> button.</li><li>• <b>Right projector:</b> Open the document camera (instructions below), then press the bottom row <b>DOC CAMERA</b> button.</li></ul>
HDMI laptop / device	<ul style="list-style-type: none"><li>• <b>Left projector:</b> Connect your laptop / HDMI device to the lectern's input panel (instructions below), then press the top row <b>HDMI</b> button.</li><li>• <b>Right projector:</b> Connect your laptop / HDMI device to the lectern's input panel (instructions below), then press the bottom row <b>HDMI</b> button.</li></ul>

## 4. USING THE CLASSROOM PC

The classroom PC is built into the lectern and is accessible by using the classroom PC control panel on the right-hand side of the lectern. Press the **A** button to open the screen. To access the keyboard and mouse, pull out the tray next to the built-in optical drive. In case of emergency, press the **X** button to stop the movement. When you're done, press the **V** button to close the screen, and manually push the keyboard and mouse tray back into the lectern.

<b>Logging into the PC</b>	<p>The classroom PC is already connected to the UCT network, which allows you to access the internet and your network drives (e.g. G: drive).</p> <ol style="list-style-type: none"><li>1. At the login screen, log in using your UCT username and password.</li><li>2. When you've finished using the PC, click the <b>Start button</b> &gt; <b>Log off</b>. This will log you out so that others can't access your UCT network account.</li></ol>
<b>Using a CD / DVD</b>	<p>You can play CDs or DVDs using the classroom PC's built-in optical drive. The drive is located on the right-hand side of the lectern – next to the keyboard.</p>
<b>Using a USB flash drive</b>	<p>To access content from your own USB flash drive, plug your flash drive into one of the <b>USB</b> ports on the right-hand side of the lectern.</p>






**Caution:** Do not save any files onto the classroom PC because your data will be lost when the PC reboots. Save all files to your own USB flash drive, cloud storage, or a network drive.


## 5. CONNECTING YOUR LAPTOP TO THE DATA PROJECTORS

<b>Laptop</b>	<p><b>HDMI-enabled laptops:</b></p> <p>Connect the HDMI cable from the lectern to your laptop's HDMI port.</p> <p><b>Non-HDMI-enabled laptops:</b></p> <ol style="list-style-type: none"><li>1. Connect the VGA cable from the lectern to your laptop's VGA port.</li><li>2. If you want your laptop's sound to be projected, connect the audio cable from the lectern to your laptop's audio socket.</li></ol> <p>If the projection screen doesn't display your laptop screen output:</p> <ol style="list-style-type: none"><li>1. Look for a <b>Function / Fn</b> (F1, F2, etc.) key on your laptop keyboard that represents the monitor display.</li><li>2. Hold the <b>Fn</b> key and press the relevant monitor display key.</li></ol>
<b>Internet / network access</b>	<p>To use the wired network, connect the network cable from your laptop LAN socket to the <b>NETWORK</b> port on the right-hand side of the lectern.</p> <p>To use the wireless network, connect your laptop to UCT's <i>eduroam</i> WiFi service*.</p> <p>* Visit <a href="http://www.icts.uct.ac.za/wireless-at-UCT">www.icts.uct.ac.za/wireless-at-UCT</a> for instructions.</p>

## 6. USING THE DOCUMENT CAMERA

The document camera acts as a writing surface – similar to writing on an overhead projector slide – and can project existing documents, images, and objects. Basic instructions for these features are provided below. Advanced functionality includes freezing an image, hiding or emphasising parts of your images, recording video and saving these captures to external storage. Consult the information later in this instruction set to learn how to use the advanced functionality.

1. Set the switch on the right-hand side of the document camera to **RGB**.
2. Turn the document camera on by pressing the  button on the document camera control panel. The power light turns solid blue.
3. Place your display item (document or object) on the document camera display surface.
4. Adjust the document camera as required:
  - Move the camera head as needed.
  - To brighten your display item, press the **LAMP** button on the document camera control panel. Adjust the brightness using the  and  buttons.
  - To adjust image quality or size, either press the **AF** button once, or use the  and  buttons on the document camera control panel to zoom.

5. When you've finished using the document camera, switch the light off then press the  button to turn the document camera off. Leave the camera head as is.

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## AUDIO LEVELS

Use the **PC** dial on the lectern to adjust the audio level of the classroom PC or the laptop / other device you have connected.

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## PACKING UP

1. If your class is the last before Meridian or at the end of the day, turn off the data projectors and the document camera. Also close the classroom PC screen, keyboard, and mouse.
2. If you've used the classroom PC, log out by clicking the **Start button > Log off**.
3. Remove all devices you've plugged into the lectern, such as your flash drive or laptop.
4. Put the lapel mic, body pack, and cables back into the cable drawer and close the cable drawer.
5. Store the chalk and the chalk duster in the holder on the wall (i.e. not the lectern).
6. Roll up the projector screens.

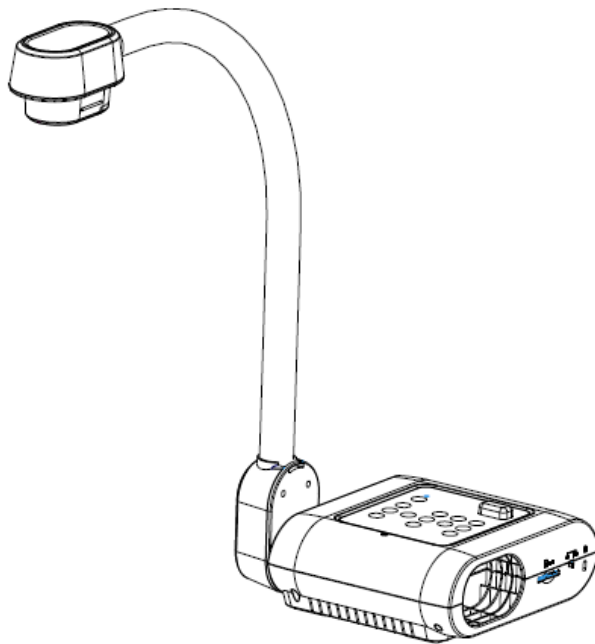
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## NEED HELP? *(Telephonic support hours: 7.30 AM to 6PM, Monday to Friday)*

Send an email to [icts-css@uct.ac.za](mailto:icts-css@uct.ac.za), or for immediate assistance, use the phone on the teaching wall:

1. If a list of UCT departments is not visible, tap **People**.
2. Tap the relevant service:
  - **Campus Protection** for safety and security issues, and other emergencies
  - **Classroom Support** for classroom support
  - **P & S Maintenance** for maintenance issues
3. You can take the call over the built-in speaker, or pick up the handset to take the call privately.
4. Hang up the phone to end the call.

# **DOCUMENT CAMERA USER INSTRUCTIONS**



## **AVER F17 (SOFTWARE INSTRUCTIONS)**


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# Control the document camera

1. On the lectern Crestron control panel, select **PC** for the projector(s) that need to show the document camera output.
2. **Basic operations:** Use the buttons on the document camera control panel.
3. **Advanced features:** Open  **Sphere 2** on classroom PC desktop.

## Set up your display



### Basic setup

1. Set the switch on the right hand side of the document camera to **RGB**.
2.  Turn the document camera on. The power light turns solid blue.
3. Place your item on the display surface.
4. Adjust the document camera as required:

<b>Position</b>	Move the camera head as needed
<b>Brightness</b>	Use the  and  buttons
<b>Light</b>	Press the <b>LAMP</b> button
<b>Focus</b>	Press  to autofocus
<b>Zoom</b>	Use the  and  buttons


### Advanced display settings

Adjust your contrast, white balance, exposure, and other display elements:




1.  Click **Camera Control**.
2.  Click **Image adjustment** to access the image settings.
3. Adjust the settings as required.

# Manipulate your image




## Manipulate your image

1.  Click **Camera Control**.
2. Click each icon to adjust your display image as required – e.g. freeze, rotate 90<sup>o</sup>, zoom.


## Hide parts of your image

1.  Click **Presentation Tools**.
2.  Click **Visor**.
3. Drag the visor to move or resize it.
4.  Click **Menu** to adjust visor transparency.

## Emphasise parts of your image

1.  Click **Presentation Tools**.
2.  Click **Spotlight**.
3. Drag the spotlight to move or resize it.
4.  Click **Menu** to adjust the spotlight shape and transparency.

## Annotate your image

1.  Click **Annotation Tools**.
2. Use the **Pen**, **Highlighter**, **Line**, **Text**, and **Shapes** tools to add annotations to your image. Annotation tools can be customised further.
3. Use the **Eraser** to erase an annotation, or **Clear all** to remove all annotations.
4. To save your drawing, see the *Capture images* section below.

## Draw something new

1. Click the **Whiteboard** tab near the top of the screen.
2. Use the tools provided to draw.
3. To save your drawing, see the *Capture images* section below.

# Capture, view and copy images and video

## What kind of media do I need to bring?

You can capture images and videos using the document camera. If you don't need to keep these captures, don't bring any media. If you do need to keep them:

- Bring a flash drive with enough free storage space.








### Caution

If you don't bring your own media, captures will be deleted after your class and cannot be recovered later on.

## 1. Set up your storage media

1. Plug your flash drive into an available USB port connected to the classroom PC.


## 2. Capture images

1.  Click **Capture**.
2. Select relevant capture type:
  -  Standard quality snapshot
  -  High definition snapshot
  -  Section of your image
  -  Series of images at custom-defined intervals

## 3. View images




1. On the classroom PC, open **Documents – Aver – Media Library – Picture**.
2. Double-click each image to open it.

## 4. Show images side by side

1. Click the **Side by Side** tab near the top of screen.
2.  Click **Media Library**.
3. Drag up to six captured images from left panel into right hand section of screen.



## 5. Record video

1.  Click **Record**.
2.  Click **Mute** if you don't want to record sounds.
3.  Click **Record**.
4. Use the recording controls to **Pause** or **Stop** recording.


## 6. Save images and video onto your own media

1. On the classroom PC, open **Documents – Aver – Media Library**.
2. Copy **Picture** and **Video** folders to your flash drive\*.



\*This method copies *all* captures. Alternatively, copy only the individual items you need. Everything else will be deleted when you log out of the classroom PC.

## ***Packing up***

1.  Turn the document camera off.
2. Remove your flash drive and pack away your display items.
3. Leave the camera head as is (i.e. do not stow it away).

## ***Support***

For assistance, use the phone on the teaching wall to contact classroom support.