

WHAT IS OBS STUDIO:

Open Broadcaster Software or OBS is a free, open-source software for video recording and video streaming. It can be used to capture your screen and /or PowerPoint presentations and record it as a video or stream it live to the audience. It is thus a useful tool for preparing short videos for a “flipped classroom” setup. This guideline will cover the steps required to quickly setup OBS Studio to record videos from PowerPoint presentations with a webcam overlay.

WHAT DO YOU NEED OF EQUIPMENT:

The equipment needed for recording your screen with a webcam overlay is a camera and a microphone. You can either use the integrated camera in your computer or use a USB webcam that you plug in. You also need a good microphone to capture the audio. The audio can be captured from your laptops built in microphone or from a web camera but the quality will be better if you use an external microphone e.g. Rode Filmmaker kit, Audio-Technica – USB or through a headset. If you need to borrow equipment e.g. webcam and microphones, we have some equipment at bioCEED that can be borrowed. It is also more practical and more comfortable to work with two screens, one which displays the OBS software and the controls, and the other one that shows your presentation in full screen.

OBS SETUP GUIDE

1. INSTALL OBS ON YOUR COMPUTER:

- Download the program for free on <https://obsproject.com/>; choose between Windows, MacOS and Linux.
- Follow the prompts to install.
- Open OBS.

Default screen: When you first open up OBS you will see a screen that looks like the one below. Under the black screen there are five boxes; Scenes, Sources, Mixer Scene Transitions and Controls. For this guideline we will look into three of them (marked out with a red circle).

2. QUICK START FOR SCREEN RECORDING

• Scene box:

A scene is a prearranged set of sources (see further below) that you have arranged beforehand. A typical scene would be for instance 1x Display Capture, 1x Video Capture Device and 1x Audio Input Capture which allow you to capture your voice, the screen with the presentation and the video from your webcam as overlay.

When you first launch OBS you will see there is already a scene added in by default. You can rename it by right clicking on it. If you would like to create more scenes you can click on the

+. For this guideline we will stick to one scene to make it simple.

• Source box:

To get started capturing, you need to add a Source – see below. Click on the + and pick the source you want.

For capturing your desktop select Display capture. Choose the display you want to capture. When you select the primary display, OBS Studio shows an infinite loop of a window within a window, which is normal for OBS Studio – see below. Select your second display from the drop-down to resolve this.

For capturing yourself on the screen select Video Capture Device (webcam). You should see a screen that looks something like the one below. You only need to focus on the device menu and select the webcam that you are using. If you are using an external web camera and installing it when OBS is open you might have to restart OBS to get it working.

Depending on where you would like to appear on the screen and in which proportions, you can resize and move your picture around by adjusting the red frame.

• Control box:

Before you start recording you should check if all settings are right. Click on the controls box and go to Settings. We will make it simple and only focus on a few things when it comes to settings.

Select:

1. Output:

Under recording: Choose a recording path where you would like to store your recorded files.

Under recording: Choose a recording format that your computer support – mp4 is a good, rather universal format.

2. Audio:

Under devices: Choose the type of audio that you would like to record the sound. Remember to disable the ones that you would not like to work. You can double check if this is working by looking at the Audio Mixer box.

Then you are ready to record and you can click on the button **Start Recording**. When you want to end the recording click **Stop Recording**. You can easily find your recordings by going to the File Menu in the upper left corner of your OBS screen under “Show Recordings”.

VIDEO LECTURE RECORDING WITH OBS

Free software download:
<https://obsproject.com/>



Agenda

- Lecture recording in a Studio
- About OBS
- Practical Demonstration
 - Instructor only Scene
 - Instructor with PPT Slides
- Lessons Learned
- Q/A



Lecture recording

Studio recording process: camera settings, audio / microphone, light, background adjustment, Chroma key / green/blue screen)



NATO SCHOOL
Oberammergau

When recording video lectures in a green room studio, there are several important factors to consider to ensure a successful recording. Here are some key considerations:

Lighting: Proper lighting is crucial for high-quality video recordings. Ensure that the green room studio has adequate lighting equipment, such as softbox lights or LED panels, to illuminate the subject evenly and avoid shadows or harsh lighting. Test the lighting setup before recording to achieve the desired professional look.

Acoustics and Soundproofing: The audio quality of your video lectures is essential for clear and immersive learning experiences. Select a green room studio with good acoustics or consider adding soundproofing materials to minimize echo and external noise. This will help capture clean audio without distractions, ensuring that your message is easily understandable.

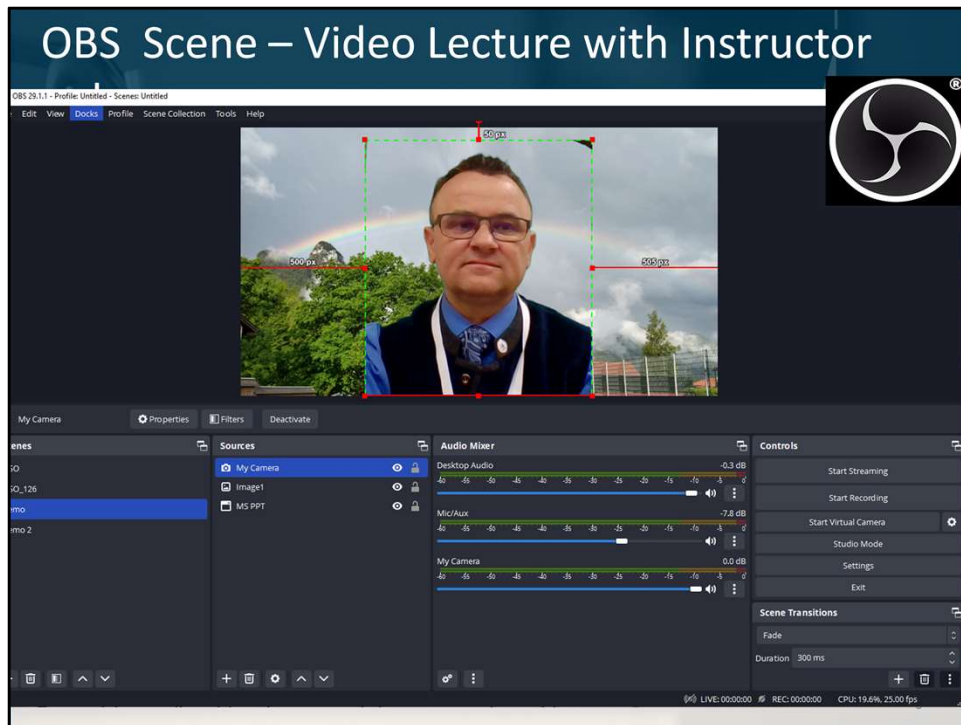
Background and Set Design: While the focus is on the lecturer, the background and set design play a crucial role in the overall visual appeal. Choose an appropriate background that is visually pleasing and relevant to the topic being discussed. Avoid cluttered or distracting backgrounds that could divert attention from the content. Additionally, consider adding branding elements or props that enhance the visual experience.



Camera and Equipment: Selecting the right camera and equipment is essential for recording high-quality video lectures. Invest in a good-quality camera that can capture clear and sharp footage. Consider using a tripod or stabilizer to maintain steady shots. Ensure that the green room studio has the necessary audio equipment, such as microphones and audio interfaces, to capture high-quality sound.

Comfort and Ergonomics: Recording video lectures can be time-consuming, so it's important to prioritize the comfort of the lecturer. Choose a green room studio that offers comfortable seating and ergonomic setup for the lecturer, including adjustable chairs, proper desk height, and easy access to any required materials. A comfortable and well-organized setup will contribute to a more relaxed and engaging presentation.

Remember to test and adjust the settings and equipment before starting the actual recording. Doing a few trial runs can help identify and address any technical or logistical issues beforehand, ensuring a smoother recording process and higher-quality video lectures.



OBS streaming video software is an open-source, community-developed project. OBS's broadcasting software is fairly basic in operation and features. However, OBS does offer a wide range of plugins that can add lots of functionality.

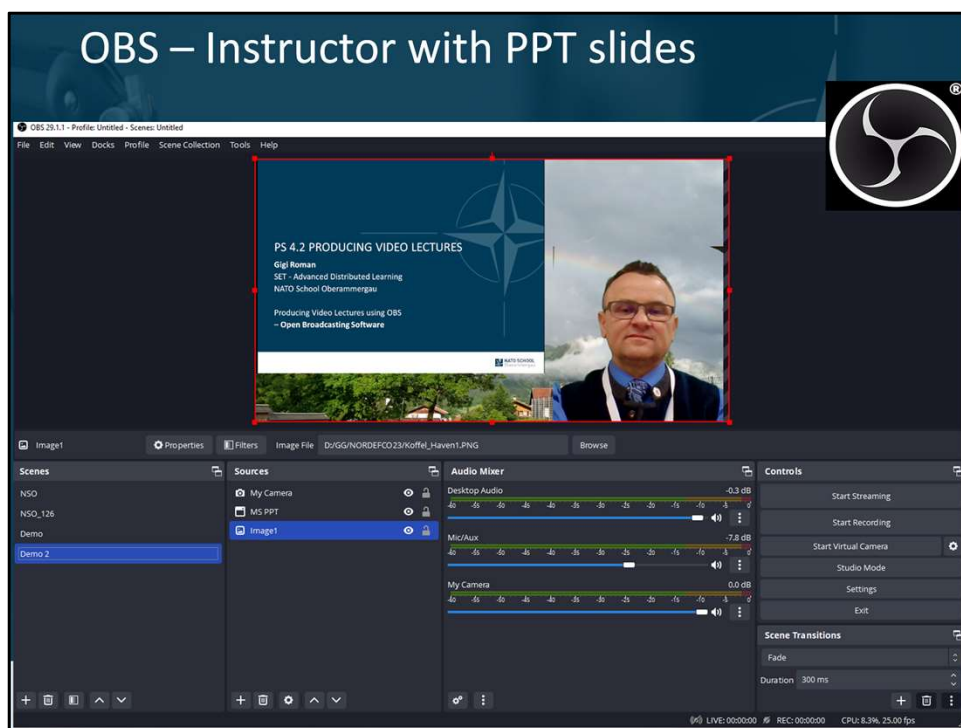
Features:

- Switching between multiple sources, including cameras via a capture card
- Support for audio, video, image, web browser, and graphics sources
- Pre-program scenes with multiple elements
- Transitions, filters, and audio mixer
- Studio mode and multi-view features
- Chroma key (green / blue screen)
- Overlays
- Supports video recording or RTMP live streaming
- Wide range of community developed plugins
- NDI support via a plugin
- Websocket API for remote control (plugin)

Pricing and Compatibility:

OBS Studio is free to download, and this article is based on the version 29.1. Download latest version here: obsproject.com

This open-source live streaming software is available for Windows, macOS, and Linux operating systems.



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Lessons Learned

- **Familiarize yourself with OBS features:** Take the time to explore and understand the various features and functionalities of OBS.
- **Plan and organize your scenes:** Before starting the recording process, plan out the scenes you'll need for your video lecture.
- **Optimize your settings:** Adjusting OBS settings is crucial for achieving high-quality video recordings.
- **Test and practice before recording:** Before recording an actual video lecture, conduct several test runs to ensure everything is functioning as expected.

Familiarize yourself with OBS features: Take the time to explore and understand the various features and functionalities of OBS. This includes learning how to set up scenes, configure audio and video settings, and adjust recording parameters. Understanding the software's capabilities will enable you to make the most of its potential for short video lecture recording.

Plan and organize your scenes: Before starting the recording process, plan out the scenes you'll need for your video lecture. Determine the layout, transitions, and any overlays or additional elements you want to include. Organizing your scenes in advance will help streamline the recording process and ensure a smoother workflow.

Optimize your settings: Adjusting OBS settings is crucial for achieving high-quality video recordings. Pay attention to factors such as resolution, frame rate, and bitrate to strike a balance between video quality and file size. Experiment with different settings to find the optimal configuration that meets your specific needs.

Test and practice before recording: Before recording an actual video lecture, conduct several test runs to ensure everything is functioning as expected. Check audio levels, video quality, and the overall appearance of your scenes. Practicing in advance will help you identify any issues or areas for improvement, allowing you to deliver a polished final product.

Prepare for potential challenges: Working with OBS may come with certain challenges, such as audio syncing issues, screen capture difficulties, or compatibility problems with certain software or hardware. Be prepared to troubleshoot and find solutions to these challenges. Familiarize yourself with online resources, forums, and tutorials that can provide guidance and help address common OBS-related issues.

