Flexible Solutions for Digital Teaching
As of: 11.03.2020

Are you wondering how you can conduct a current or upcoming course partially or completely online?

In this document we will give you an overview of the following possibilities:

- How can I conduct an online lecture from home?
- How can I conduct an online seminar from home?
- How can I conduct online office hours from home?
- How can I create my own educational videos?
- How can I provide my own or external teaching materials?

Please note:

- Most solutions require a very good Internet connection and software systems that can scale well: We are currently increasing the server capacity of our own systems (Moodle learning platform, Mediasite video server), but most other systems are operated by external providers, on whose load management we have little influence.
- Teaching on screen is very different from teaching face-to-face: it is more strenuous for both teachers and students, important non-verbal communication is reduced or eliminated altogether, handling the technology requires more attention and new skills.
- University didactics for virtual university teaching is demanding: A 1:1 transfer of face-to-face teaching to a video conference does not usually work. Therefore, you should consider which parts of your lecture need to be live and which parts can be substituted with educational videos, readings, or activities on Moodle.

We would be happy to advise you within the scope of our capacities. Please do not call us at the moment, but write us at info@prolehre.tum.de. We will respond as soon as possible.

We will continue to update this document; the latest version can be found on our website at https://www.prolehre.tum.de/aktuelles/coronavirus
How can I conduct an online lecture?

Pexip

Summary

- Tool: Pexip
- Provider: External (DFN)
- Website: https://my.conf.dfn.de
- Integration in Moodle: Linked
- Instructor login: TUM-ID
- Student login: No login, by invitation link
- No. of participants: No limit
- Platform:
  - Instructor: Web-based
  - Students: Web-based or client

Scenario

- Online Lecture
  - Video/Audio is provided by only the instructor.
  - Screen sharing for instructor possible, in order to show, e.g. documents, images, videos; PPT presentation mode not possible (PDF sharing possible instead).
  - Students can only pose questions by a chat function.
  - External interaction tools, like Pingo or Tweedback, can be used in parallel.
  - Recording/archiving possible.

First Steps

Register with Pexip and create a lecture. In the lecture settings, activate the stream and enable the streaming chat. A URL will be generated, which must be made available to the students.

Very short training period (about 5 minutes)
How can I conduct an online seminar?

Adobe Connect

Summary

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<td>Provider:</td>
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<td>Platform:</td>
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<td></td>
<td>Students: Web-based, Mobil device: Connect App</td>
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</table>

Scenario

- Lecturer usually transmits video/audio
- Screen sharing for lecturer possible, e.g. to show documents, pictures, videos; integration of PowerPoint (slide mode).
- Collaborative whiteboard, live voting integrated
- Students can ask questions via chat
- Video/audio of the students can be shared, students can also present after approval by the instructor
- Group work mode
- Recording/archiving possible

First Steps

In Moodle, add a new activity *Virtual Classroom* into the course. Students can start the activity directly from Moodle.
Outside of Moodle, go to https://webconf.vc.dfn.de, login via DFN-AAI with your TUM-ID and create a new meeting, a URL is generated and can be distributed to students.

Longer training period (about 30 minutes)
How can I conduct online meetings?

Jitsi Meet

![Jitsi Meet](image)

**Summary**

- **Tool:** Meet
- **Provider:** External (LRZ)
- **Website:** [https://meet.lrz.de](https://meet.lrz.de)
- **Integration in Moodle:** Linking from within Moodle
- **Instructor login:** TUM-ID
- **Student login:** No login, by invitation link
- **No. of participants:** 1-6
- **Platform:**
  - Instructor: Web-based
  - Students: Web-based

**Scenario**

Meetings

- All participants can transmit video/audio
- Screen sharing possible, e.g. to show documents, images, videos; PPT presentation mode not possible (PDF sharing possible instead)
- Recording/archiving possible

**First Steps**

Assign a meeting name at [https://meet.lrz.de](https://meet.lrz.de) and send the link to all participants. Software runs in the browser, webcam and microphone must be enabled there.

Very short training period (about 5 minutes)
How can I record or stream a lecture?

**Mediasite**

![Mediasite screenshot](image)

**Summary**

A total of 12 lecture halls are currently equipped with recording technology that allows free recording and/or streaming of lectures (full-service recordings in these lecture halls):

- City center: Audimax, Hörsaal N 1190, Medizin HS-A, Medizin HS-B
- Garching: PH HS1, PH HS2, MW 0001, MW 2001, Alter Interims-HS1, Neuer Interims-HS1, Neuer Interims-HS2, MI HS1

If you want to record in a lecture hall that is not already equipped with recording devices, you can book a mobile recording with ProLehre (full-service recording via Lecturio).

**Scenario**

Course recording

- This offer is well-suited if the course takes place in person and will be made available online for students who are not present (sick).
- Furthermore, an empty lecture hall can also be used for a recording. For example, before the start of the semester, lectures can be pre-recorded and “stockpiled” to be shown to students at a later time.

**First Steps**

Reservation of a suitable room, then apply for a recording/livestream at [https://www.prolehre.tum.de/angebote/infrastrukturen/vorlesungsaufzeichnungen/](https://www.prolehre.tum.de/angebote/infrastrukturen/vorlesungsaufzeichnungen/)
How can I create my own instructional videos?

More information will follow.
Additional tools

The following tools can also be used to support your online course:

**Tweedback**  
https://tweedback.de is actually a live voting tool for classroom teaching. However, the Tweedback forum is also ideal for providing students with feedback via chat within a video conferencing system.

**Rocket.Chat**  
[https://chat.tum.de](https://chat.tum.de) is the WhatsApp/Slack of TUM. Messages and documents can easily be sent through this service. All instructors and students have access to Rocket.Chat with their TUM-ID.

The following tools can also be used, if the previously mentioned tools do not work (e.g. server overload).

**YouTube**  
Courses can also be live-streamed via YouTube. For this, you need a Google account to set up the stream. Students can follow the stream without their own account. Password protected access is not possible, but a stream can be created as unlisted. Only those who know the URL will have access. In order to give students a feedback channel via chat without having to register with Google, we recommend using [https://tweedback.de](https://tweedback.de) in parallel.

**Zoom**  
[https://zoom.us](https://zoom.us) is a popular conference application. It is not licensed at TUM. However, meetings with a maximum of 100 people can be held for up to 40 minutes using the free basic account. The lecturer are required to register with Zoom, while students can participate without registration.