

2 Preparation

Safety

Some of the following points may seem a little scary. Don't be afraid: in almost all cases, nothing bad happens. For your security though, we will be assuming the worst case scenario. Please check the following points:

1. Make sure you have signed the document at the welcome desk, stating with your signature that you take the responsibility for your hardware and data.
2. Please rethink whether you have backed up any important data. You will be re-partitioning your hard drive. If anything goes wrong with that (which is unlikely but possible), any data not on your backup is lost!
3. It's advisable to connect your laptop to the power outlet.

Supply

We have some supplies that you can borrow in case you need any. At the Supply Desk you will find USB Install Sticks for Ubuntu and OpenSUSE, USB to LAN adapters, USB hubs and USB keyboards.

Make sure you have gotten a USB key with your chosen distribution from the Supply Desk . The Supply Desk will create install media for other distributions for you as well.

Make space

We recommend to have at least 20 GB of free space on your disk. If you know you need programs for your studies (e.g. Matlab), please have at least 40 GB of free space on your disk. In case you are missing space, you can empty the trash and cleanup your disk:

1. In Windows Explorer, go to *My computer* and right click *your main drive* (typically C:\), then pick *Properties* and select *Disk Cleanup* in the bottom right.
2. In the opening window, select *Clean up system files*, select as many boxes as you can and press *ok*. This takes a while.

Shrink your Windows partition

If you already have unallocated disk space on your computer, you can skip this step. Normally, however, you will now need to shrink your Windows partition so Linux can use the new space.

- Navigate to your system panel. Under the section *Administrative Tools*, click *Create and format hard disk partitions*. If you can't find it, just press *Windows + R* and type *diskmgmt.msc*, then press *Enter*.
- A new window opens up. Take a look at the bottom half of the window, where you should see a graphical representation of which partitions take up how much space. Right click the partition that you want to shrink and click *Shrink Volume...* (Usually, you want to shrink your Windows partition, which is the largest).
- Shrink the volume as much as necessary. As mentioned before, is recommended to at least shrink it by 20 GB. If you need some programs for studies (e.g. Matlab), at least 40 GB is advisable.

If you have done everything correctly, you should now see some disk space that says *unallocated* (*Nicht zugeordnet* in German).

Disable Fast Boot

Important: Windows 8 and 10 has a feature called Fast Boot that replaces the shutdown by a sort of extended sleep mode. This speeds up Windows' boot process but leaves the file system in an inconsistent state, preventing Linux from tampering with it. Fast boot must be disabled in order to setup your dual boot system:

1. In your Windows Control Panel, go to the Power Options and pick *Choose what the power buttons do*.
2. If you can't find Power Options in your control panel, you can search for "power" (german: "Energie") from your start menu.
3. If you see *Change settings that are currently unavailable*, click it.
4. Now, on the bottom, disable the checkbox saying *Turn on fast startup (recommended)* and save.

BIOS configuration

1. In the Windows shutdown menu, select Restart **while** holding *Shift* on your keyboard. A blue screen should appear.

2. Under Troubleshoot, Advanced Options, select *UEFI Firmware Settings*. You should now arrive in the BIOS setup.

Note: If this doesn't work, please ask a helper.

The navigation in your BIOS setup highly depends on your computer. Usually, a key description can be found in the bottom. Try to find the boot options (sometimes called *startup*). Now, check again on your cover sheet whether you have Legacy or UEFI BIOS:

- Legacy: Set your UEFI/BIOS boot mode to Legacy.
- UEFI: Set your UEFI/BIOS boot mode to UEFI.

Note: If you see an option called CSM (typically on Lenovo), make sure it's enabled for Legacy and disabled for UEFI.

Note: If you can't find this setting at all, it simply doesn't exist on your laptop. That is perfectly fine. You can continue with the guide.

Finally, some distros won't boot with SecureBoot enabled. Look for a page called Security and disable the option SecureBoot.

2 Boot

We will now boot from your USB Install Medium.

1. Plug the USB Install Medium into your laptop.
2. In the Windows shutdown menu, select Restart **while** holding *Shift* on your keyboard. A blue screen should appear.
3. Pick *Use a device* and select your USB key.

Note: On Lenovo the USB key is usually called *USB HDD*.

Now control is passed to the Linux installer. Refer to the sheet concerning the installation of your distribution for instructions how to go on.