

Introduction to Git -- Fall 2024

# Lecture A: Course info



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Slides: <https://hackmd.io/@git-fall-2024/LA-intro>

# Introduction to Git

This course will be an introduction to version control, with a strong focus on Git.

Instructors:

- Pedro Ojeda-May (HPC2N)
- Birgitte Brydsö (HPC2N)
- Diana Iusan (UPPMAX)

The course will have a mixture of lectures and hands-ons, and will be split into modules. It will consist of five half-days.

# Introduction to Git - continued

- The lectures will be done in the main Zoom room.
- Most modules will have hands-ons. These are done in the main Zoom room, but with the possibility to go to break-out rooms for help. There will also be a silent room for those who prefer to work undisturbed.
- Some hands-ons will be done locally on your own computer and some will be done using GitHub.
- If there is a problem using your own computer, the backup solution is logging in to Tetralith and using that (if you have an account).
- The hands-ons for the module named "Teamwork" will be done in small groups, using GitHub.

# Introduction to Git - continued

- During the hands-ons you can just ask the instructors if there is anything you need help with.
- You can ask in the chat, but the recommended option is using the Questions and Answers page (Q&A page). The link can be found on the "Important information" page.
- Please write any questions you have during the lectures etc. to the Q&A page. The instructors will try to answer as quickly as possible.
- Scroll down on a slide page to get to access the slides in a text form (small pen icon)

# Overview

## 1. day

- B. Optional installation help (Git)
- A. Course info
  - 0. Introduction and setup
  - 1. Motivation - Why use version management?
  - 2. Basics commands, part 1
    - Creating & cloning repositories, Adding files, Committing, etc.
    - Hands-on
  - 2. Basics commands, part 2
    - Creating & cloning repositories, Adding files, Committing, etc.
    - Hands-on

# Overview

## 2. day

- 3. Basic concepts, part 1
  - Blobs, Trees, Commits, References, etc.
- 3. Basic concepts, part 2
  - Blobs, Trees, Commits, References, etc.
- 4. Traversing the commit tree, part 1
  - History, Tags, HEAD, Diffs, etc.
  - Hands-on

# Overview

## 3. day

- 4. Traversing the commit tree, part 2
  - History, Tags, HEAD, Diffs, etc.
  - Hands-on
- 4. Traversing the commit tree, part 3
  - History, Tags, HEAD, Diffs, etc.
  - Hands-on
- 5. Branches, merges, and conflicts, part 1
  - Basics concepts, Creation, deletion, Conflicts, etc.
  - Hands-on

# Overview

## 4. day

- 5. Branches, merges, and conflicts, part 2
  - Basics concepts, Creation, deletion, Conflicts, etc.
  - Hands-on
- C. Brief intro to SSH-keys and using GitHub
- 6. Working with remotes, part 1
  - Basics concepts, Pull, push, fetch, GitHub, etc.
  - Hands-on
- 6. Working with remotes, part 2
  - Basics concepts, Pull, push, fetch, GitHub, etc.
  - Hands-on



# Overview

## 5. day

- 7. Teamwork, part 1
  - Hands-on
- 7. Teamwork, part 2
  - Hands-on
- 7. Teamwork, part 3
  - Hands-on
- Catch-up from previous days