REGISTER NOW – First come, first serve!

Getting Started with Git & GitLab

A Hands-On Workshop for Students & Young Researchers – Managing Scripts & Code in the Life Sciences

Wednesday, 04 March 2026, 14:00 – 17:00, Room 01 711, GFG (Georg-Forster-Gebäude), Jakob-Welder-Weg 12, 55128 Mainz

Lecturers: Dr. Helge Vatheuer (IQCB, JGU), Dr. Jörg Steinkamp (ZDV, JGU)

Registration: https://indico.zdv.uni-mainz.de/e/git

Overview

Git is a distributed version control system that allows all changes to code, data sets, or scripts to be accurately documented and, if necessary, restored to previous states. This makes it easier to debug, understand development steps, and generate reproducible research results.
GitLab provides a central repository that allows multiple people to work on the same project at the same time. Branches, merge requests, and code reviews help structure collaboration and avoid conflicts.
Additional task and project management features (issues, milestones, and an integrated wiki) make Git and GitLab the industry standard, far beyond academic research.

Target group

Beginners (e.g. BSc/MSc students in natural sciences and medicine) who code or at least work with scripts

Prerequisites

- A **JGU account** is necessary to use the GitLab instance
- You can bring your own laptop (no tablets or alike!)

Agenda

- Welcome, introductions & brief discussion of why version control matters for research reproducibility.
- A JGU account is necessary to use the GitLab instance
- Theory & demo of core Git concepts (repository, staging, commits, branches, merges) and usage of an SSH key.
- Hands-on local Git workflow: initialize a repo, add/commit files, create and merge a feature branch.
- Overview of GitLab's main UI elements (projects, issues, merge requests, wiki) and how they support collaboration and open-science publishing.
- Hands-on GitLab workflow: add SSH key to GitLab, create a new project, push the local repo, open and review a merge request, merge and tag a release.
- Wrap-up: best-practice checklist for research projects, resources for further learning, and open Q&A.

Learning goals

Git:

- Use your SSH key for the interaction with GitLab (command line)
- Be able to use the most important Git commands

GitLab:

- Get to know the essential functions of GitLab
- Be able to create your first project
- Collaboration & backup tool, open science (public project)