



PhD Program in Plant Sciences: Genetic Diversity: Analysis (GDA) (ETH 701-1425-01L)

Lecturers: Dr. Jean-Claude Walser and Dr. Niklaus Zemp
Genetic Diversity Centre (GDC), ETH Zürich

Location: CHN G42

Dates: 16.06.-27.06.25(W25-W26)

Credit Points: 2 ECTS

The **Genetic Diversity: Analysis** course is organized by the Genetic Diversity Centre (GDC), a knowledge and technology platform of the D-USYS Department at ETH Zurich. We offer two annual courses: Genetic Diversity: Techniques (focused on molecular laboratory techniques) and Genetic Diversity: Analysis (focused on sequencing data analysis).

For over 15 years, the GDC has supported researchers in planning experiments, as well as obtaining and analyzing their data. This course is designed to pass on our accumulated knowledge to the next generation of scientists.

Course Objectives

This course provides comprehensive training in the handling and analysis of genomic data, with a strong emphasis on high-throughput sequencing data. Key components of the course include:

- Ensuring reproducibility in data analysis.
- Emphasizing the importance of clear and detailed report writing.
- Encouraging self-study through targeted learning objectives to apply theoretical knowledge.

Participants are encouraged to actively engage, ask questions, and discuss different approaches, as this course is not intended to be a simple copy-paste exercise.

Course Format

The course runs over two weeks, allowing participants ample time to absorb the material and apply what they have learned at their own pace. Our goal is for students to gain a deep understanding of the applications and to critically evaluate them.

Participant Limit

The course is limited to a maximum of 4 students from the PSC (Plant Science Center).

Individual Performance and Assessment

Participants will have the opportunity to work on a project of their choice, using their own data. Students seeking course credit must submit a final project report.

Contact Information

For any questions about the course, please contact us:

Jean-Claude Walser

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Subject: MDA23: Question

Course Website: <https://www.gdc-docs.ethz.ch/GeneticDiversityAnalysis/GDA/site/>