

CDM-L2: Reproducibility

Person in charge and Representative	Dr. Colin Davenport
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Semester	2
Topic cluster	Computational method development
Duration/Credit	2 x 1.5h
Time	The exact date incl. time will be announced separately
Place	Online. Dial-in data are sent separately
Prerequisite for the lecture/course	Basic knowledge of the linux command line will be helpful
Aim of the lecture/course	<p>A key skill in both wet-lab and bioinformatics science is reproducible generation and analysis of data. These lectures will introduce students to concepts and software for version control and reproducibility. The field of bioinformatics will serve as a backdrop and provide examples for the course. A practical demo will be shown, which students can follow themselves.</p> <p>Version control</p> <ul style="list-style-type: none">● Life before version control● Early version control systems● Git● Github as a hub of global software development● Practical git <p>Reproducibility</p> <ul style="list-style-type: none">● Open source code● Galaxy workflow manager● Combining code and analysis● R and Rstudio● Nextflow and Snakemake pipelines● Transparent and versioned data analysis● Reproducible manuscripts <p>Data archiving</p> <ul style="list-style-type: none">● Documentation● Naming● Technologies