


Due to the COVID-19 crisis, the information below is subject to change, in particular that concerning the teaching mode (presential, distance or in a comodal or hybrid format).

3 credits	30.0 h + 10.0 h	Q1
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Teacher(s)	Gatto Laurent ;
Language :	English
Place of the course	Bruxelles Woluwe
Aims	<i>The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".</i>
Evaluation methods	Due to the COVID-19 crisis, the information in this section is particularly likely to change. The students will be evaluated based on the presentations and reports they will prepare during the year and a final oral exam.
Teaching methods	Due to the COVID-19 crisis, the information in this section is particularly likely to change. The course will be composed of practical sessions, during which the students will analyse omics data using R, RStudio, Bioconductor packages and command line tools. Students will also present their results as individual and/or group reports. Course attendance to all sessions (volume 1 and 2) is mandatory. In case of repeated unjustified absence, further attendance to the final exam might be excluded.
Content	This bioinformatics and high throughput biology data analysis course will teach how to analyse contemporary omics data using open source tools such as R/Bioconductor packages. At the end of the course, students will be in a position to analyse omics experiments, including raw data processing, quantitative data transformation and normalisation, and the statistical analysis and interpretation thereof. This omics data analysis course will focus on the following themes: <ul style="list-style-type: none"> - Raw data processing, including high throughput sequencing and mass spectrometry data. - Omics data quality control. - Quantitative data transformation and normalisation. - Statistical data analysis. - Omics data annotation. - Omics data and project management and reproducible research.
Inline resources	The course material is available online: https://uclouvain-cbio.github.io/WSBIM2122/
Faculty or entity in charge	SBIM

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Biomedicine	SBIM2M	3		
Master [120] in Chemistry and Bioindustries	BIRC2M	3		