UCLouvain

## wsbim1322

## Bioinformatics

| 3.00 credits 30.0 h + 10.0 h Q1 |
|---------------------------------|
|---------------------------------|

| Teacher(s)                  | Gatto Laurent ;  |  |  |  |  |
|-----------------------------|--|--|--|--|--|
| Language :                  | French   |  |  |  |  |
| Place of the course         | Bruxelles Woluwe   |  |  |  |  |
| Prerequisites               | The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.  |  |  |  |  |
| Learning outcomes           |  |  |  |  |  |
| Evaluation methods          | Continuous evaluation: the students will be given regular test throughout the course. Those that have and average mark equal or greater than 12 and have succeeded the summary test(s) will be dispensed of the final exam. The final exam will be practical and computer-based; the students will prepare a reproducible report in Rmd using RStudio answering exam questions addressing small scale data analysis task similar to those presented during the course. The test scores will be ignored when taking the final exam. |  |  |  |  |
| Teaching methods            | The course will be composed of practical sessions, during which the students will implement solutions to data analysis problems using the R programming language and the RStudio development environment, and will use the unix command line.  Course attendance to all sessions (volume 1 and 2) is mandatory. In case of repeated unjustified absence, further attendance to the final exams might be excluded.  |  |  |  |  |
| Content                     | This bioinformatics course will focus on the following themes:  • Improvement of R programming  • Experimental designs using in omics analyses.  • Omics data transformation and visualisation.  • Multivariate data exploration and analysis.   |  |  |  |  |
| Inline resources            | The course material is available online: https://uclouvain-cbio.github.io/WSBIM1322/   |  |  |  |  |
| Faculty or entity in charge | SBIM   |  |  |  |  |

| Programmes containing this learning unit (UE) |         |         |  |                   |  |  |
|---|---------|---------|--|-------------------|--|--|
| Program title                                 | Acronym | Credits | Prerequisite                             | Learning outcomes |  |  |
| Additionnal module in Biomedical Sciences     | APPSBIM | 3       |  | •                 |  |  |
| Bachelor in Biomedicine                       | SBIM1BA | 3       | WSBIM1001 AND<br>WFARM1247 AND WSBIM1207 | •                 |  |  |