

Course name: Biological data analysis with R	Credits: 6 ECTS
Class type: On-line lectures + individual practice	Hours per week:
Type of the exam: Assignments + online tests	
Prerequisites (if exist): essentials of molecular biology, essentials of evolution, usage of command line, knowledge about biological databases.	
<p>Course description: The purpose of this course is to teach how the R statistical environment can be applied for biological data analysis.</p> <ul style="list-style-type: none"> • Introduction to R: Installation, package management, basic operations • Sequences and sequence analysis • Annotating gene groups: Ontologies, pathways, enrichment analysis • Proteomics: mass spectrometry • Reconstructing gene regulation networks • Network analysis: iGraph 	
Required reading:	
Recommended reading: Ortutay & Ortutay (2017): Molecular Data Analysis Using R. ISBN: 978-1-119-16502-6. , Wiley-Blackwell	
Lecturer (<i>name, position, degree</i>): Balázs Ligeti, assistant professor, PhD.	
Additional lecturers , if exist:.	