

Course name: Biological databases and online analysis tools	Credits: 5 ECTS
Class type: On-line lectures + individual practice	Hours per week:
Type of the exam: Project work	
Prerequisites (if exist): basic biochemistry and molecular biology	
<p>Course description: An overview of the major biological databases and an introduction of the basic sequence analysis methods</p> <ul style="list-style-type: none"> • Biological databases with the main focus on DNA and protein sequences • Comparison and alignment of sequences, similarity-based searches in databases • Discovery of protein sequence motifs and sequence features; metabolic pathway data • Genome browsers and sources of gene expression data; gene lists and the concept of enrichment • Micro-RNAs and their targets; protein visualization 	
Required reading:	
<p>Recommended reading: Pevzner, P. (2011): Bioinformatics for biologists, Cambridge University Press; Lesk, A.M. (2005): Introduction to bioinformatics, Oxford University Press</p>	
Lecturer (<i>name, position, degree</i>): Attila Csikász-Nagy, associate professor, PhD	
Additional lecturers , if exist:	