Course name: Introduction to structural bioinformatics	**Credits**: 5 ECTS
Class type: On-line lectures + individual practice	**Hours per week**:
Type of the exam: Project work	
Prerequisities (if exist): basic biochemistry and molecular biology. Ability of downloading and installing the free UCSF Cimera sofware	
Course description: Basics of search, manipulation and analyses of structures of large biological molecules, especially proteins. • Basics of protein structures and structure determination. Simple validation of models by Ramachandran plots. Basic use of molecular graphics software • Molecular graphics: illustrating and highlighting molecular details on screen and print; generating molecular surfaces • Comparison of structures: overlaying molecules and measuring their structural similarity • Molecular animations • Theory of protein modeling and protein dynamics • Validation and analysis of models	
Required reading:	
Recommended reading: Gu, J & Bourne, P.E. (eds, 2009): Structural bioinformatics, 2nd ed. Wiley-Blackwell	
Lecturer (*name, position, degree*):Zoltán Gáspári, associate professor,, PhD.	
Additional lecturers, if exist:	