

Time and Location: 2:00 – 3:50 Tue, RRI-301

Instructors:

Dr. Seva Katritch	213-821-1488	katritch@usc.edu	TRF 118
Dr. Mark Chaisson	213-740-2415	mchaisso@usc.edu	RRI 408H

Tentative Course Schedule:

Class	Topic
1	Katritch (01/9) Protein structure analysis and homology modeling
2	Katritch (01/16) Molecular interactions and docking
3	Katritch (01/23) Protein flexibility and dynamics
4	Katritch (01/30) Membrane protein modeling
5	Katritch (02/06) Structure based ligand discovery & design
6	Katritch (02/13) Analysis and predictions of nucleic acid structure
7	Guest Lecture (02/20)
8	Katritch (02/27) Protein-nucleic acid interactions
9	Chaisson (03/06) Sequencing and alignment
-	NO CLASS: Spring Break (03/13)
10	Chaisson (03/20) Detecting genetic variation
11	Chaisson (03/27) Methods for genome assembly
12	Chaisson (04/03) RNA-Seq analysis
13	Chaisson (04/10) Sequence composition analysis
14	Chaisson (04/17) Method distribution and reproducibility
15	Chaisson (04/24) Proteomics

Homework:

Both instructors will assign a set of homework assignments. You should hand in each homework by the specified due date. Points will be subtracted for late submissions.

Grade:

The course grade will be a letter grade based on the grade average of the homework assignments from the two sections of the course.

Statement for Observance of Religious Holidays:

The university's policy grants students excused absences from class to observe religious holidays (<http://orl.usc.edu/religiouslife/holydays/absences.html>). In this case, please contact your instructor in advance to agree on alternative course requirements.

Statement for Students with Disabilities:

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to your instructor as

early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.

Statement on Academic Integrity:

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. All students are expected to understand and abide by these principles. SCampus, the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A: <http://www.usc.edu/dept/publications/SCAMPUS/gov/>. Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at: <http://www.usc.edu/student-affairs/SJACS/>.