

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

**Instructors:**

Dr. Ting Chen	213-740-2415	tingchen@usc.edu	RRI 408H
Dr. Seva Katritch	213-821-1488	katritch@usc.edu	TRF 118
Dr. Remo Rohs	213-740-0552	rohs@usc.edu	RRI 413H

**Tentative Course Schedule:**

Class	Topic
1	Chen (01/12) Introduction to metagenomics
2	Chen (01/19) 16s rRNA gene sequencing analysis I
3	Chen (01/26) 16s rRNA gene sequencing analysis II
4	Chen (02/02) Metagenome shotgun sequencing analysis I
5	Chen (02/09) Metagenome shotgun sequencing analysis II
6	Katritch (02/16) Protein structure analysis and homology modeling
7	Katritch (02/23) Molecular interactions and docking
8	Katritch (03/01) Protein flexibility and dynamics
9	Katritch (03/08) Structure based ligand discovery & design
-	NO CLASS: Spring Break (03/15)
10	Katritch (03/22) Membrane protein modeling
11	Rohs (03/29) Analysis of nucleic acid structure
12	Rohs (04/05) Prediction of nucleic acid structure
13	Rohs (04/12) Protein-nucleic acid interactions
14	Rohs (04/19) High-throughput binding assays
15	Rohs (04/26) Statistical machine learning

**Homework:** Each of the three instructors will assign one set of homework each. 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 average of the three homework assignments.

**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 me (or to TA) 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: . 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/>