

Syllabus

Date	Lecture (Mondays @ 12:00)	Reading Material	Lab	Due Date [†]
1–25	<u>Course intro: Structural genomics, JCSG, and your role...</u> <u>Cast of characters: Overview of your POIs</u> [‡]	Tmaritima.pdf, Tmaritima2.pdf	No lab	
2–01	<u>Some practical tools:</u> (1) Biochem literature searches; (2) Databases (e.g., PDB); (3) Molecular graphics & viz		TAs available in the Chemistry computer lab	
2–08	Intro to Bioinformatics, focusing on function prediction	Punta <i>et al.</i> , 2008, Mazumder <i>et al.</i> , 2008	TAs available in the Chemistry computer lab	
2–15	<u>Experimental design:</u> Over-expression of recombinant proteins, and your particular expression system	EnzymeAssays1.pdf LabFax1.pdf	Check-in and Express your POI [‡]	
2–22	<u>Experimental design:</u> Important aspects of kinetics assays	EnzymaticAssays2.pdf LabFax5.pdf	Purify and dialyze your POI and prepare buffers for kinetic assay	Project 1 & Project 2
3–01	Enzyme kinetics, I		Determine your POI concentration and the optimal concentration for the enzymatic assay	
3–08	No lecture (Spring recess = 3/6→3/14)		No lab	
3–15	Dissecting a paper		Kinetics assay (test run)	
3–22	No lecture		Kinetics assay (take 2)	
3–29	Dissecting a paper (cont'd); Preparing a poster	LabFax3.pdf	Prepare lab for next kinetic assay	Project 3
4–05	Preparing a poster (cont'd)	EnzymaticAssays3.pdf	Kinetic Assay II (test run)	
4–12	Enzyme kinetics, II		Kinetic Assay II (take 2)	
4–19	Enzyme kinetics, III		Kinetic Assay III	
4–26	Cellular-scale enzymology, towards “systems biology”		Clean-up and check-out	
5–03	No lecture – Poster sessions		Poster sessions	
5–10	2:00 PM No exam, but PROJECT #4 DUE			Project 4

[†] Projects are due in your lab sections on the weeks indicated.

[‡] POI = “**P**rotein **O**f **I**nterest”