

SIO 242A Marine Biotechnology, Tools

TTh 3:30-5pm	Vaughan 300	
---------------------	--------------------	--

Class content	Instructors	Guest lecturer
Introduction, course expectations. Bioinformatics I	L. Gerwick/W. Fenical	Lena Gerwick SIO
Bioinformatics II	L. Gerwick/W. Fenical	Tristan Carland, Illumina
Bioinformatics III	L. Gerwick/W. Fenical	Tristan Carland, Illumina
Sequencing resources	L. Gerwick/W. Fenical	The UCSD IGM Genomics Center, Kristen Jepson
Bioinformatics III/computer science	L. Gerwick/W. Fenical	Hosein Mohimani, UCSD
Bioinformatics IV/metagenomics	L. Gerwick/W. Fenical	Lisa Ziegler, JCVI
Protein structures/ in silico modeling MOE	L. Gerwick/W. Fenical	Lena Keller, SIO
Synthetic biology	L. Gerwick/W. Fenical	Arnaud Taton, UCSD
Single cell genomics, genetic manipulations, mutagenesis, and other techniques CRISPR	L. Gerwick/W. Fenical	Lena Gerwick SIO
Quantification: qPCR, Western blots and ELISA's, protein-protein interactions, protein-DNA interactions	L. Gerwick/W. Fenical	Lena Gerwick SIO
Microscopy I	L. Gerwick/W. Fenical	Amro Hamdoun, SIO
Microscopy II	L. Gerwick/W. Fenical	Amro Hamdoun, SIO
Flowcytometry	L. Gerwick/W. Fenical	Mark Hildebrand SIO
Proteomics, mass spec methods, protein identification	L. Gerwick/W. Fenical	Pieter Dorrestein, UCSD
Mass spec, MALDI TOF, MS small molecules	L. Gerwick/W. Fenical	Pieter Dorrestein, UCSD
NMR, new advances	L. Gerwick/W. Fenical	Bill Fenical SIO
Proposal due		