

Syllabus SIO 242B – Winter 2022

Marine Biotechnology

Instructors:

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Tuesday/Thursday 3:30 – 4:50 PM

Vaughan Hall 100

(4 Units)

Date	#	Instructor	Topic	Speaker
Jan 4	1	Jensen	Introduction to biotechnology	Paul Jensen (SIO)
Jan 6	2	Moore	Mass spectrometry technology	Pieter Dorrestein (UCSD/SSPPS)
Jan 11	3	Jensen	Industry relations	Vanessa Scott (SIO)
Jan 13	4	Moore	Marine enzymes in biotech	Bradley Moore (SIO)
Jan 18	5	Jensen	Deep-sea microbiology	Doug Bartlett (SIO)
Jan 20	6	Moore	Genomes and other omics	Todd Michael (Salk)
Jan 25	7	Jensen	Genomatica	John Trawick
Jan 27	8	Moore	Algae biotechnology	Stephen Mayfield (UCSD)
Feb 1	9	Jensen	BluNalu	Lauran Madden
Feb 3	10	Moore	Intellectual property & patents	Skip Cynar (UCSD Innovation)
Feb 8	11	Jensen	HABS research at SCCOOS	Clarissa Anderson (SIO)
Feb 10	12	Moore	Marine models in medicine	Emma Farley (UCSDSOM)
Feb 15	13	Jensen	SCCWRP	John Griffith
Feb 17	14	Moore	Plant biotechnology	Joseph Noel (Salk)
Feb 22	15	Jensen	Omics at NOAA	Kelly Goodwin (NOAA)
Feb 24	16	Moore	Biotech start up	Peter Jordan (Lassogen)
Mar 1	17	Jensen	BASF	Xuqiu Tan BASF)
Mar 3	18	Moore	Marine natural products	William Fenical (SIO)
Mar 8	19	TBN	Algal biotech	Lisa Ziegler (SIO)
Mar 10	20	TBN	Neuroscience	Nathan Shaner (Neurosci)

Final Mar 15, 3:00

SIO242B is a graduate level course in marine biotechnology. It is designed to provide exposure to diverse aspects of industrial and academic biotechnology. Speakers will provide perspectives on their career development in addition to specifics about their field of research. The course aims to provide a broad perspective on career opportunities in biotechnology along with a practical understanding of what is involved in starting a biotechnology company. Each student will be required to develop a concept for a biotechnology start-up company and write an SBIR-style NIH grant application, which will be due the last week of class. The final exam will consist of 10-minute oral presentations describing the concepts behind each company.

Grading: attendance and participation in discussions (20%), SBIR/NIH application (50%), oral presentation (30%).

Title IX Statement

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