BISC 536 Advanced Seminar in Marine Biogeochemistry
2024 Spring Semester
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Course Description (BISC 536, Spring 2024)

New records for global temperatures are being set almost on a month-by-month basis. The ocean is now warmer than previous recordings in modern times (Jones, 2023. Nature. Link Here). A major challenge is to understand and predict the impact of climate change on life in the ocean. Given the vast diversity of species and ecosystem links, it remains daunting to consider where to start to address the critical issue of predicting the adaptation potential (resilience) of marine organisms to the complex scenarios of abiotic and biotic interactions impacted by climate change.

The complex interactions of abiotic and biotic processes will be considered in this course, with a view to integrating across geochemical, biochemical, and functional (physiological) perspectives. Depending upon the interests of participating students, the scope of this course will consider any level of chemical and/or biological analysis — spanning from individual bioactive elements, molecules to genes, and to whole organisms — at any scale (different global environments, and single cell or multicellular organisms).