

Research proposal

15 pages, NSF format

Abstract (300 words)

Introduction

Hypotheses

Background

Proposed Research

Methods (if necessary)

Tables/Figures

References

Choice of topic March 3rd

Outline and presentations due March 10th

Meet with instructors week of March 22nd

Meet with instructors week of April 14th

Final draft and presentations May 10th & 12th

Suggested research proposal topics

Organic ligand-metal biogeochemistry

Carbon sequestration/iron fertilization and old DOC in the deep ocean

Dissolved organic nutrients and climate change

Carbon preservation in marine sediments-testing the Mayer/Hedges hypothesis

Early diagenesis and light isotope (CHN) fractionation on paleoenvironmental studies using biomarkers

The deep biosphere: molecular evidence and consequences for interpretation of the sedimentary record

Anaerobic methane oxidation and the formation of gas hydrates, carbon cycling and burial on continental margins, and climate: molecular evidence

Climate extremes during Cretaceous oceanic anoxic events (OAEs).

Molecular evidence for dramatic variations in sea surface temperature, pCO₂ and photic zone anoxia.

The biogeochemical role and molecular manifestation of viruses in the ocean.