

Precambrian Paleoceanography, 206-26151, 3 credits

Dr. Alexey Kamishny

The course will be focused on co-evolution of Earth hydrosphere and life during the Archean and Proterozoic Eons. In the first part of the course, the composition of prebiotic ocean and possible scenarios of origins of life in the ocean will be discussed. In the next part of the course, the influence of ocean chemistry on evolution pathways of microbial metabolism will be considered. The last part of the course will deal with progressive oxygenation of atmosphere and its consequences for ocean composition as well as with Snowball Earth events. Application of proxies for reconstruction of chemical and physical parameters of Ancient Ocean will also be discussed. As a part of course requirements, each student will make an oral presentation on the selected topic.

Course will include 3 hours of lecture per week.

The final grade will be based on

- Oral presentation during the semester (50%)
- Final examination (50%)