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Paleoecology in Ancient Forested Ecosystems - GEOS 492

Course Description

This seminar course explores topics in the evolution and ecology of forested ecosystems through geologic time. Lecture and discussion of primary scientific literature will focus on the macrofossil record of plants and the ecological phenomena in ancient forests that are discernible from the fossil record.

Course Goals

To explore topics in how forested ecosystems can be understood in deep time.

To synthesize the importance and scope of scientific studies through preparation of article digests.

To develop an eye toward utilizing paleobotanical techniques toward new questions.

Course Schedule

- Meeting 1: 9/3 Welcome, Lecture I (Preservation)
- Meeting 2: 9/8 Model discussion leading, Lecture II (Tour through Plant History), & Assignment of papers
- Meeting 3: 9/10 Mini-reports & Lecture III (Paleogene World)
- Meeting 4: TBA Student discussion leading (Taphonomy)
- Meeting 5: 9/17 Student discussion leading (Fossilized Plant-Insect Interactions)
- Meeting 6: 9/22 Student discussion leading (Leaf Physiognomy)
- OPTIONAL FIELD TRIP TO MATANUSKA VALLEY
- Meeting 7: 9/24 Student discussion leading (Stomata, Wood Anatomy/Chemistry)
- Meeting 8: 9/29 Student discussion leading (Carbon Isotopes, Comprehensive Studies)
- Meeting 9: 10/1 Examination (1/2 take-home, 1/2 in-class)

Assessment

Discussion Leading: 25%

In-class writing: 25%

Participation: 25%

Examination: 25%