

COURSE DETAIL

MARINE ENVIRONMENTS AND GEODYNAMICS

Country

China

Host Institution

Peking University, Beijing

Program(s)

Peking University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Environmental Studies Biological Sciences

UCEAP Course Number

134

UCEAP Course Suffix**UCEAP Official Title**

MARINE ENVIRONMENTS AND GEODYNAMICS

UCEAP Transcript Title

MARINE ENVR&GEODYNM

UCEAP Quarter Units

3.00

UCEAP Semester Units

2.00

Course Description

This course demonstrates the dynamic earth, and how ideas from marine magnetism were utilized to revolutionize our understanding of the structure and dynamics of the Earth's outer surface. Later, it explains fundamentals of marine magnetic anomalies, including measurements and modelling, and how it is used to explore fine-scale structures of oceanic crust. The second part of this course deals with marine sediments and marine environmental change. Firstly, the physical and chemical properties of marine sediments are presented, followed by illustrations of complex physical, chemical and biogeochemical processes in marine sedimentary environments. Later, it presents the establishment of geomagnetic polarity timescales, and principles and applications of magnetic stratigraphy and environmental magnetism for quantitatively reconstructing environmental and climatic changes. Development of various stages of the exciting international ocean drilling programs will be briefly presented.

Language(s) of Instruction

English

Host Institution Course Number

01231860

Host Institution Course Title

MARINE ENVIRONMENTS AND GEODYNAMICS

Host Institution Course Details

<https://dean.pku.edu.cn/service/web/courseSearchEn.php>

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Course Last Reviewed

2025-2026

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