

Exchange programme Vrije Universiteit Amsterdam

Vrije Universiteit Amsterdam - Exchange programme Vrije Universiteit Amsterdam - 2024-2025

Exchange

Vrije Universiteit Amsterdam offers many English-taught courses in a variety of subjects, ranging from arts & culture and social sciences, neurosciences and computer science, to economics and business administration.

The International Office is responsible for course approval and course registration for exchange students. For details about course registration, requirements, credits, semesters and so on, please <u>visit the exchange</u> <u>programmes webpages</u>.

Earth and Life through Time

Course Code	AB_1097
Credits	6
Period	P1
Course Level	300
Language Of Tuition	English
Faculty	Faculty of Science
Course Coordinator	dr. E. Ufkes
Examiner	dr. E. Ufkes
Teaching Staff	dr. E. Ufkes
Teaching method(s)	Practical, Seminar, Excursion, Computer lab, Lecture

Course Objective

The main goal of this course is to achieve insight in the geological and biological history of the Earth as a continuum of interrelated events that have shaped our planet; to recognize the sequence of, and interrelationships between major events in the history of the Earth, its surface, and its life forms. This will create an increasing awareness on links between various (sub)systems. Sedimentological practicals will provide an insight into small-scale, local facies development in relation to large-scale global patterns e.g. during the Neoproterozoic as well as an application in reading cores from the North Sea region of the Late Paleozoic – Early Paleogene.

By the end of the course the student should be able to:

- know the main (plate) tectonic, climatological and evolutionary events in their context in space and time.
- to set up and assess a sedimentological log in relation to large-scale global patterns.

Course Content

The course starts with a brief history of historical geology and an overview of the major global events. We address major themes – sedimentology, stratigraphy, structural geology, paleontology, climate and plate tectonics in time and space –, which are brought together to unravel the Earth's history. The focus is on large-scale processes relevant for understanding how climatic and tectono-sedimentary changes are recorded in the geological record. In addition, the interdependent aspects of these themes will be addressed. Smaller-scaled events will be highlighted during the sedimentologically-oriented practicals.

Additional Information Teaching Methods

14 lectures (28 hours), sedimentological practical (1 x 4 hours), 1 day core workshop VU, 1 day presentations related to core workshop.

Method of Assessment

The final mark consists of the following components: (1) Written exam (70%), (2) assignments (10%) and (3) practicals (20%).

For the written exam a minimum mark of 5.0 is required to pass the course. Grades resulting from exercises and assignments can only be obtained during the first year of subscription.

Entry Requirements

AB_450069; Sedimentologie en Stratigrafie

Literature

Suggested literature (however not required): Steven M. Stanley and John A. Luczaj, 2015. Earth System History. 4th Edition, ISBN-13: 978-1429255264, 608 pages, W.H.Freeman & Co Ltd.

Additional papers will be made available on Canvas.

Additional Information Target Audience

Third year students in Earth Sciences; Minor Geology & Geochemistry. This course is also open for students following the Minor Earth Surface.

Recommended background knowledge

AB_1062; Paleontologie (Global Change) AB_1120; Sedimentaire systemen AB_1119; Duurzaam gebruik van de Nederlandse ondergrond