Exchange programme Vrije Universiteit

Vrije Universiteit Amsterdam - Exchange programme Vrije Universiteit - 2022-2023

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 visit the exchange programmes webpages.

Global Sustainability Analysis

Course Code	AB_1289
Credits	6.00
Period	P5
Course Level	300
Language Of Tuition	English
Faculty	Faculty of Science
Course Coordinator	dr. M. Mazzoleni
Examiner	dr. M. Mazzoleni
Teaching Staff	dr. M.C. de Ruiter, dr. M. Mazzoleni, prof. dr. S. Poelhekke
Teaching method(s)	Study Group, Lecture

Course Objective

The course will provide students with a multi-disciplinary view of the Sustainable Development Goals (SDGs) in geoscience. The objectives of this course are:
• To understand the international dimensions of sustainability challenges
• To compare the operation of international conventions and policies (e.g. IPCC and Sendai Disaster Framework)
• To evaluate Sustainable Development Goals and their relationship with geosciences, links between SDGs, between Global North and Global South
• To develop a communication tool to support the future pathway towards the achievement of SDGs
• To write a research report focused on the role of research in dealing with sustainability challenges

Course Content

The United Nations Agenda 2030's SDGs constitute an ambitious roadmap of 17 goals and 169 targets aimed at reducing global inequities, ending unsustainable consumption patterns, facilitating sustained and inclusive economic growth, social development, and ensuring a sustainable future for all humanity. The SDGs mark an essential shift in the way nature and human relations are understood and addressed. For example, the SDGs promote the idea of coupled human-nature systems in which poverty reduction and health are seen as intrinsically intertwined. Their transformative potential can materialize if the relation between poverty and environmental degradation is made explicit.
Meeting the SDG targets requires collaboration among scientists involved in monitoring, protecting, managing, assessing, and restoring the natural environment, including geoscientists. Interdisciplinary approaches are thus needed in geoscience to meet the SDGs in order to manage and allocate natural resources taking into account the links between natural and human systems. This implies the geoscience engagement in the SDGs across multiple disciplines (e.g. engineering, ecology, social sciences, anthropology, psychology) and sectors (e.g. academia, industry, government, and civil society) to ensure an effective translation of knowledge into tools to inform policy and practice.
This course is aimed at increasing societal awareness of environmental issues and the links between SDGs and geoscience to achieve a better and more sustainable future for all. The course will allow students to get a deeper understanding of timely and important issues such as environmental sustainability and apply these concepts in real-life examples in preparation for their professional careers. After the successful competition of the course, the students will be able to communicate the importance of considering earth-system context, boundaries and feedbacks to policymakers and stakeholders charged when

considering different SDGs. The acquired knowledge will then prepare the students that will decide to either specialize by taking a master's degree or to work as an advisor at a research institute, water board, ministry or NGO or a company that works on sustainable solutions.

Additional Information Teaching Methods

The course sessions consist of topical lectures by relevant experts. Different teaching methods (e.g. group and peer discussions, games, quizzes, etc.) will be used to actively engage students and enhances critical and scientific thinking. Different experts will be invited to show links between SDGs (e.g. social sustainability, clean water and sanitation, and health) and geoscience (e.g. water-related issues, climate, and geology and land use). Lectures will be on-campus, except where specified in the schedule; any Zoom links are posted on the Canvas page.
It is important that you attend all sessions. Although attendance is not formally checked, please make sure you participate as interaction in the classroom is a highly valuable part of the course. This course grants 6 credits, with an expected workload of about 157h hours, in accordance with the standard workload of BSc courses at VU.

Method of Assessment

The course assessment is performed by means of two summative assignments delivered at two different moments within the course. The first assessment is a group work in which each group will have to analyze the relationships between SDGs, geoscience, and Global North and South. The assignment will be introduced and explained during the first lecture of week 2 of the course. Students will prepare a 5-min video summarizing their findings. The second assessment is an individual summative assignment in which each student will have to select one particular SDG and develop a proposal for one year of research on the role of science and research in dealing with sustainability. The grades of both assignments will be combined to form the final course grade.

Entry Requirements

In order to address the learning objectives and to successfully pass the course, the students will have to follow some preceding courses. In particular, the other courses to follow up are:
• Global Change
• Human Environment Systems and Sustainability Transformations (Year 1, period 4)
• Concepts and Solutions for Sust Science (Year 2, period 3)
• Wijsbegeerte voor AED (Year 3, period 4).

Literature

Readings for each lecture are specified on the Canvas page. They consist of book chapters and papers, and aim to give you a broad understanding of the SDGs in geoscience. Some items are specified as “supporting material”, and they are meant as a support to explore in greater detail specific aspects of the course

Additional Information Target Audience

3rd year Earth, Economy and Sustainability BSc students