LEARNING PROGRAMME

How Geodiversity Becomes Identity

5-DAY COURSE

25 learning hours | Course programme

How Geodiversity Becomes Identity – 5-Day Course

Introduction and Description

The Azores Archipelago, positioned along a complex boundary zone between the North American, Eurasian, and African tectonic plates, represents a uniquely instructive context for examining the dynamic processes that shape volcanic island systems. Characterised by a high degree of geodiversity—including calderas, lava fields, geothermal zones, pyroclastic deposits, and basaltic cliffs—the region serves as an exceptional living laboratory in which to study the mechanisms of plate tectonics, magmatic activity, and geomorphological evolution over geological time. Equally significant is the intimate relationship between the islands' physical environment and the socio-cultural development of local communities, whose urban forms, architectural practices, livelihood strategies, and cultural identities have been profoundly shaped by the archipelago's volcanic foundations.

This course provides educational professionals with an academically rigorous and pedagogically relevant exploration of this interconnected geosystem. Through a structured sequence of theoretical seminars, guided interpretation of geolandscapes, and inquiry-based field experiences, participants examine how geological phenomena underpin ecological patterns, influence historical trajectories, and generate distinctive cultural landscapes. The inclusion of a (geo)urban route in Angra do Heroísmo—an area recognised for its historical and architectural significance—allows participants to analyse the material imprint of geological processes on human settlement, resilience, and heritage preservation.

Drawing on principles of earth science education, place-based pedagogy, and interdisciplinary curriculum design, the course equips participants with advanced interpretive and communicative competencies for teaching about geoscientific phenomena in formal and non-formal educational settings. Participants learn to translate complex volcanic processes into meaningful learning opportunities, to scaffold student inquiry through authentic field observations, and to design learning experiences that foster scientific literacy, environmental awareness, and a deeper appreciation of the interdependencies between natural systems and human societies. By situating geological knowledge within broader ecological and cultural narratives, the programme

cultivates a holistic understanding of landscape as a dynamic, multifaceted object of study and a powerful pedagogical resource.

Methodology and Assessment

The course employs an experiential, inquiry-based methodology combining theoretical seminars with extensive fieldwork at selected geosites and cultural locations. Participants engage in observational tasks, sketch mapping, interpretive exercises, and guided (geo)urban exploration, supported by reflective discussions and individual mentoring. Learning is collaborative, practice-oriented, and grounded in authentic encounters with volcanic landscapes. Assessment is continuous and formative, based on participants' engagement in field activities, reflective field notebooks, and the creation of a final educational micro-project demonstrating how course concepts can be adapted to their professional context.

Learning Objectives

By the end of the course, participants will be able to:

Scientific and Conceptual Understanding

- Analyse the geological context of the Azores within the broader dynamics of plate tectonics and hotspot volcanism.
- Distinguish key volcanic processes and products, interpreting their formation, distribution, and implications for island morphology.
- Interpret geolandscapes using scientific criteria, recognising calderas, lava fields, geothermal features, and other characteristic morphologies.

Holistic Landscape Interpretation

- Evaluate how geodiversity influences ecological patterns, urban structures, cultural practices, and heritage narratives.
- Apply interdisciplinary approaches to landscape analysis that integrate geological, environmental, and socio-cultural dimensions.

- Critically examine the relationship between natural processes and human adaptation in volcanic environments.

Pedagogical and Professional Competencies

- Design educational strategies that use field observations, geosite interpretation, and outdoor environments to foster scientific literacy.
- Communicate complex geological concepts through accessible, inquiry-based pedagogical techniques suitable for various learners.
- Reflect on their own professional practice and develop classroom applications or micro-projects rooted in place-based and experiential methodologies.

Preparation

After registration participants will receive pre-course questionnaire which will be used by the trainer to learn about participants' teaching backgrounds and to assess their exact needs. Before the beginning of the course a basic reading list will be suggested to participants to prepare for the training. Participants will also be asked to prepare a presentation about themselves, their professional context and their culture. The presentation will be presented on the first day of the course to facilitate networking opportunities. Participants will receive information about the country they are going to visit in order to prepare them for their cultural experience.

Follow up

After the course participants will be asked to share what they have learned with the rest of the staff in their schools. Further books and articles to deepen the topic and contacts with some other practitioners all over Europe and in the world will be suggested by the trainer. The methods shared and explored and the bibliography given will allow the participants to complete and improve their educational path.

Certificate

Certificate complies with the guidelines of the Erasmus+ programme and includes the topic, number of didactic hours, dates and location of the course. We can list the record of learning outcomes on the Europass Mobility Document on request of participants. In

case a participant requires a specific format of certificate we can accommodate that if requested at least one week before the start of the course. It is necessary to attend at least 80% of the hours in order to receive the certificate.

Accommodation

We do not directly offer accommodation and subsistence and participants are responsible for organizing it by themselves.

Paperwork

We also provide all the support with paperwork you might need for your Erasmus+ project documentation such as mobility agreement and registration letter.

Fee: 400 €

Cancelation policy

We have a flexible cancellation policy in force at the moment and you can cancel your registration up to 30 days before the course and receive a full refund. In case you don't cancel the registration more than 30 days before you will not receive any refunds, but you will be able to choose to attend any other confirmed course session later (within 6 months) without any additional costs. In case you are not able to travel, your school can send someone else to take instead of you and you can change the details of the participant any time before the start of the course at no additional cost.

TENTATIVE PROGRAMME (25 didactic hours - 5*45min per day) Monday to Friday	
Day 1	Orientation & Geological Foundations
09.00 - 09.45	Introductions & Icebreakers
09.45 - 10.30	Course Overview & Learning Agreement
10.30 - 11.15	Geological setting of the Azores: Mid-Atlantic Ridge, triple junctions, tectonic plates

11.15 - 11.30	Break
11.30 - 12.15	Reading volcanic landscapes
12.15 - 13.00	Observation of local geomorphological features
Day 2	Volcanic Processes and Products
09.00 - 09.45	Magma dynamics, eruption styles, and volcanic hazards
09.45 - 10.30	Hands-on classification
10.30 - 11.15	Visit to lava fields and recent volcanic morphologies
11.15 - 11.30	Break
11.30 - 12.15	Implications of volcanic activity for human settlement and hazard planning
12.15 - 13.00	Building a field notebook for scientific and educational purposes
Day 3	Geolandscapes of the Azores
09.00 - 09.45	Geodiversity of the archipelago and island evolution processes
09.45 - 10.30	Mapping and interpreting geolandscapes
10.30 - 11.15	Guided interpretation of selected geosites
11.15 - 11.30	Break
11.30 - 12.15	Practicing short interpretive explanations in the field
12.15 - 13.00	Connecting field experiences to cross-curricular teaching approaches
Day 4	Cultural (Geo)Urban Route in Angra do Heroísmo
09.00 - 09.45	Exploring heritage streets, architecture, and urban planning shaped by geology 1
09.45 - 10.30	Exploring heritage streets, architecture, and urban planning shaped by geology 2
10.30 - 11.15	Case study**:** The 1980 earthquake and its impact on cultural identity
11.15 - 11.30	Break
11.30 - 12.15	Using cultural sites to teach earth sciences
12.15 - 13.00	How religiosity, rituals, myths and traditions emerge from geophysical realities
Day 5	Synthesis, Presentations & Closing Session
09.00 - 09.45	Development of final educational projects

09.45 - 10.30	Preparing the final presentations and individual support (part 2)
10.30 - 11.15	Final presentations and feedback
11.15 - 11.30	Break
11.30 - 12.15	Evaluation & Reflection
12.15 - 13.00	Validation of learning outcomes and certification

*This is only a tentative timetable. The exact hours or the course might differ and will be announced for each session 2 weeks before the start. However, there will always be a total of 5 didactic hours per day and all will be in line with the Erasmus+ quality standards. The trainer might slightly modify the content in response to the needs of the group.
**Cultural and social programmes will be organized in addition to the academic programme. The exact cultural and social programme depends on the location, season, weather, etc.