

## Group IV

# Sustainability and Sustainable Development Competences

*These modules are designed to acquire and/or develop competences in sustainable use of natural resources, ecological thinking and responsible societal development*

- **Natural and Recreational Resources (Dovilė Gustienė) LT, ENG, R, P.**  
The module examines the characteristics of various recreational areas and their evaluation criteria. Particular attention is given to natural elements suitable for recreation – forests, water bodies, relief, soil, flora and fauna. Recreation in protected areas, regulation of recreational activities, and the protection and maintenance of natural sites are also discussed. Upon completion, students will be able to assess the potential of recreational territories, apply appropriate planning methods and understand the legal framework governing the use and conservation of natural resources.
- **Recreational Landscape (Giedrė Ivavičiūtė) LT, ENG, R, P.**  
The module explores the concept of recreational landscape planning and its legal regulation, examining territorial planning processes and documents. It introduces the use and protection of recreational landscapes, with particular emphasis on the planning of recreational resources at national level. The Lithuanian natural landscape, the role of forests in maintaining ecological balance, and the development and planning of recreational activities in forests, including infrastructure development, are studied.
- **Green Roofs (Gitana Vyčienė) LT, ENG, R, P.**  
The course provides introductory knowledge of the history of green roofs and their significance within the context of sustainable cities. Students acquire knowledge of green roof types, systems and installation, as well as design and maintenance aspects. The module also covers plant selection, soil and substrate choice, and principal irrigation models.
- **Sustainable Construction (Rosita Norvaišienė) LT, ENG, R, P.**  
The module provides knowledge of durable, cost-effective and energy-efficient buildings that use energy rationally throughout all stages of their life cycle. Implemented examples are presented, including operational experience and demonstrated benefits.
- **Arboriculture (Ingė Auželienė) LT, ENG, R, P.**  
Students will acquire knowledge and skills related to ensuring the welfare and protection of woody plants in anthropogenic (urbanised) environments. As an interdisciplinary field, arboriculture seeks to regulate the growth of woody plants while maintaining their biological vitality within the context of sustainable landscape management.
- **Building Engineering Systems (Irmantas Miliuskas) LT, R, P.**  
The aim of the module is to provide students with theoretical knowledge and practical skills concerning building engineering systems, including the use of smart technologies to reduce energy consumption.
- **Forest Management and Timber Supply (Giedrius Vaičiukynas) LT, R, P.**  
The module provides knowledge of timber harvesting technologies, work organisation, application options and possibilities, timber storage, use of harvesting machinery, environmental impacts and economic aspects.