|  |  |
| --- | --- |
| **Subject** | **Sustainable Water Management** |
| **Type** | **Semester** | **ECTS** | **Code** |
|  O |  I |  6 | / |
| **Aims and Objectives** | The purpose of this course is to develop students' understanding of the role of water in economic development and for environmental and social well-being, as well as to develop knowledge and managerial skills that will enable them to take an active role in the management of water resources. At the national and international levels.The main objectives of the program on this subject are:* familiarity with the problem of water pollution and ways of sustainable management of this resource
* the recognition and importance of integrated management of water resources, with a focus on the Management of Basins (basins) of rivers in accordance with the Framework Directive for European waters, as well as with the Monitoring and evaluation of water resources.
* Knowledge of flood management, irrigation water use, the water cycle and the impact of climate change on aquatic ecosystems.
 |
| **Learning outcomes** | After completing this course, students will be able to:* Understand the importance of water and its circulation cycle
* Have a satisfactory understanding of Integrated Water Resources Management
* Analyze the management phases of Water Basins
* Develop a watershed management plan in accordance with the DEU
* Classify water quality based on morphological, Physico-chemical and biological quality parameters
* Analyze the impact of land use and climate change on water resources
 |
| **Literature/References** | * Ziglio, G., Flaim, G., & Siligardi, M. (Eds.). (2008). *Biological monitoring of rivers: applications and perspectives*. John Wiley & Sons.
* The Water Framework Directive 2000/60/EC
* Jackson, M. C., Weyl, O. L. F., Altermatt, F., Durance, I., Friberg, N., Dumbrell, A. J., & Woodward, G. (2016). Recommendations for the next generation of global freshwater biological monitoring tools. In *Advances in ecological research* (Vol. 55, pp. 615-636). Academic Press.
* Bytyçi P, Shala-Abazi A, Zhushi-Etemi F, Bonifazi G, Hyseni-Spahiu M, Fetoshi O, Çadraku H, Feka F, Millaku F. 2022. The Macrophyte Indices for Rivers to Assess the Ecological Conditions in the Klina River in the Republic of Kosovo. Plants. 2022; 11(11):1469. <https://doi.org/10.3390/plants11111469>
* Pajtim Bytyqi, Marton Czikkely, Albona Shala-Abazi, Osman Fetoshi, Murtezan Ismaili, Mimoza Hyseni-Spahiu, Prespa Ymeri, Edona Kabashi-Kastrati, Fadil Millaku (2020): Macrophytes as biological indicators of organic pollution in the Lepenci river basin in Kosovo. Journal of Freshwater Ecology. 35:1, 105-121, DOI: 10.1080/02705060.2020.1745913
* Ferdije Zhushi Etemi, Pajtim Bytyçi, Murtezan Ismaili, Osman Fetoshi, Prespa Ymeri, Albona Shala–Abazi, Nesade Muja-Bajraktari , Marton Czikkely (2020): The use of Macroinvertebrate based biotic indices and diversity indices to evaluate the water quality of Lepenci river basin in Kosovo. Journal of Environmental Science and Health, Part A 3 Toxic/Hazardous Substances and Environmental Engineering. 55 (6),748-758(2020). <https://doi.org/10.1080/10934529.2020.1738172>
* Bytyçi P, Ymeri P, Czikkely M, et al. 2019. The Application of Benthic Diatoms in Water Quality Assessment in Lepenci River Basin, Kosovo. Journal of Ecological Engineering. 20(11), 43-57. doi:10.12911/22998993/113409.
 |