

Natural water quality. Course description

5 credits

The course is dedicated to the estimation of natural water quality. Sustainable water management is one of the most important challenges facing humanity; one that requires the active participation of dedicated professionals who are committed to the interdisciplinary nature of the subject. Our generation has the unenviable task of making hard, possibly irrevocable, decisions on water resource, allocation and management issues at local, regional and international levels. Our aim is to equip our graduates with all the skills necessary to go out and make a significant contribution to the future of water on our planet. In this context, the aim of the one-year course is to provide a critical understanding of natural water science and the socioeconomic, political, cultural and institutional environments within which management decisions are made. The subject of the course is focused on the problems of difference in estimation water quality and correlation between health and water quality.

Course content

1. Environmental setting and the quality of natural waters Organization of quality control of water. Determination of total and non-carbonate hardness
2. Environmental monitoring of surface water bodies. Hydrochemical investigations (sampling was founded types of laboratory exploration). Analysis and interpretation of research data. Hydrobiological studies (method of sampling was founded. types of laboratory studying).

The outcomes of the course are achieved both through focused study of selected specialized aspects of geographical research and through development of more general research skills and methods. The main outcomes of student learning sought are that students:

- are familiar with an appropriate range of intellectual and methodological traditions within geographical research and questions of water quality
- become critical and skilled readers of geographical and other research publications
- develop in-depth knowledge of some substantive area(s) of natural water quality, geography and geographical research
- develop their capacity to frame research questions, to derive appropriate research designs, and develop awareness of alternative approaches
- develop a competence and confidence in using a range of both qualitative and quantitative methods of gathering, analyzing and interpreting evidence
- develop their skills in presentation of research-based evidence and argument
- develop a capability to manage research, including data management, conducting and disseminating research, working in a team, and understanding codes of research practice and research ethics

The following methods and forms of study are used in the course: Lectures; Seminars; Colloquium; Writing; Self-study; Use of different reference books and Internet resources

At the end of the course the students are supposed to write an essay, make an oral presentation and participate in discussion. Upon the successful completion, the students will gain credits.