

Ecotoxicology (Bojan Sedmak, Ph.D, Full Prof.)

Subject code: ECO

Module 3 - Environment and Health

Academic year: 2

Lectures: 25

Tutorials and seminars: 20

ECTS: 5

Aims of the course:

The aim is to present to the students professional concepts such as being poisonous, toxicity and biological activity. The aim of the subject is not only getting acquainted with all negative effects of the modern development and human activities, but also objective understanding of how biologically active substances function by means of understanding physiological processes in organisms. These include mechanisms of detoxification and transformation of toxic substances in organisms, and in various conditions or places.

Subject content:

- (1) Basics of toxicology.
- (2) Methods in toxicology.
- (3) Polluters and their destiny in eco-systems.
- (4) Influencing physiological processes.
- (5) Estimation and risk management.
- (6) Effects of polluters on populations and groups.
- (7) Biomarkers.

Teaching methods:

Lectures, tutorials with the use of database sources, seminar work and its presentation / defence

Student's obligations:

Written or oral examination, seminar work, its presentation and defence

Basic literature

1. C.H. Walker, S.P. Hopkin, R.M. Sibly, D.B. Peakall: Principles of Ecotoxicology. 2nd Edition, Taylor & Francis, London 2001.
2. J.A. Timbrell: Introduction to Toxicology. 3rd Edition, Taylor & Francis, London 2001.

Additional literature

3. study literature (handouts of lectures available via computer)
4. P A.W. Hayes: Principles and Methods of Toxicology. 4th Edition, Taylor & Francis, London 2001.
5. J.A. Timbrell: Principles of Biochemical Toxicology. 3rd Edition, Taylor & Francis, London 2001.