

Environmental pollution control technologies (IVnd Year of study, VIIIth Semester)

Credit value (ECTS) 4

Course category

Domain (Imposed)

Course holder:

Lecturer PhD. Cristina SLABU

Objectives (lecture and practical course work)

The aims of the course and practicum are to provide basis knowledge about environmental depollution techniques, which will allow the students to correctly identify of pollutants and pollution types, as well as the application in practice of the appropriate depollution techniques and technologies, chosen according to the specifics of the pollutant and of the affected ecosystem. Students should gain all the necessary skills to independently provide solutions for environmental problems.

Contents (syllabus)

Course (chapters / subchapters)
1 Pollutants, types of pollution and effects on the environment
2. Water depollution techniques
3. Air depollution techniques
4. Soil depollution techniques
5. Phytoremediation as a method of soil and water depollution

Practicum
Management problems: information of students about course aims, the targeted skills, the criteria and methods of evaluation, work safety rules; laboratory equipment and utensils.
1. Field observation of environmental changes caused by pollution.
Methods of pollutants sampling collecting, in various media of the chemical analysis
Physico-chemical techniques for water purification. Visit a sewage treatment plant
Methods for assessing soil quality. Activity carried out within ICAM
Phytoremediation as a method of soil decontamination - phytotron experiment - chemical laboratory analyzes
Final colloquium of knowledge evaluation.

References

1. Badiu Valeria, 2019 – Poluarea solului. Tehnologii de depoluare <https://www.academia.edu/>
2. Gavrilesco E., 2007 - Surse de poluare și agenți poluanți ai mediului. Ed. Craiova <http://www.mmediu.ro>
3. Lăzăroiu Gh., 2006 – Soluții moderne de depoluare a aerului, editura AGIR, București
4. Malschi Dana, 2014 – Biotehnologii si depoluarea sistemelor ecologice Manual online. Ed. Bioflux. <http://www.editura.bioflux.com.ro/docs/2014.Malschi.pdf>

5. Neag, Gh., 2001 – Depoluarea solurilor si apelor subterane. Editura Casa Cartii de Stiinta, Cluj-Napoca,
6. Oancea Servilia, 2007 – Ghid de prelucrare rapidă a datelor experimentale. Edit. Performantica Iași
7. Oros V. 2002 – Reabilitarea ecologica a siturilor degradate industrial. Editura Universitatii "Transilvania".
8. Rădulescu H., 2001 – Poluare și tehnici de depoluare a mediului, Ed. Eurobit, Timișoara,
9. Rădulescu H., 2003 – Prevenirea și combaterea poluării mediului, Ed. Eurobit, Timișoara
10. Rădulescu H., Baghina N., 2003 – Poluare și tehnici de depoluare a mediului –Indrumător de lucrari practice, Ed. Eurobit, Timișoara

Evaluation

Evaluation forms	Evaluation Methods	Percentage of the final grade
Exam	Oral evaluation	60%
Assessment of activity during the semester.	Oral evaluation during the semester, verification tests, laboratory colloquium.	40%

Contact

Lecturer PhD. Cristina SLABU

Faculty of Agriculture - USAMV Iași

Aleea Mihail Sadoveanu nr. 3, Iași, 700490, Romania

phone: 0040 232 407349, fax: 0040 232 219175

E-mail: cslabu@uaiasi.ro