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| **Subject**   | **Environmental Protection in the Food Industry** |
| **Type**   | **Semester**  | **ECTS**  | **Code**  |
| Elective (E)   | 4  | 4 | 130PEFI255  |
| **Course Lecturer**  | Prof. Asoc. Sami Makolli   |
| **Course Assistant**  | Prof. Asoc. Prof. Sami Makolli   |
| **Course Tutor**  |   |
| **Aims and Objectives**  | The aims of this course is to provide basic knowledge in the field of environment and sustainable management by the food industry. Addressing basic theoretical concepts of the environment, such as the atmosphere, the hydrosphere and the lithosphere, their relation with the food sciences, the contamination of these layers by industries, the degradation of the environment by waste and food packaging, the causes of contamination in the food life-cycle. Environmental protection from food industry contaminants, contaminant treatment, understanding of environmental impact assessment (EIA) and environmental protection legislation. To learn how to reduce waste and use it in the food industry.  |
| **Learning Outcomes**  | * Recognize sustainable management of the food industry
* Analyse the solution of environmental problems,
* To know and understand the structure of the environment,
* Waste treatment by the food industry,
* Treatment of hazardous waste and their toxicological characteristics,
* Knowledge of laboratory work for the most common chemical analysis by environmental pollutants
* To know the pollution legislation and limit values
* Learn how to reduce waste and utilize it by drawing on the experiences of successful food industries.
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| **Content**  | **Weekly Plan \_ Lecture**  | **Week**  |
| Introduction - Pollution of the environment by industries The concept of environmental resources Atmospheric pollution by industry Water pollution by industries Pollution of land by industry Environmental pollution by the Dairy and Meat industry Food industry waste treatment Environmental pollution from food packaging Environmental Impact Assessment (EIA) Environmental Protection Legislation Waste management in the Food industry Utilization of food waste for energy production Recapitulation of the subject Exam preparation **Final Exam**  | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15       |
| **Weekly Plan \_ Exercises**  | **Week**   |
| Introduction to the practical part in the subject: Environmental protection from food industries. Environmental impact assessment EIA Practical work from legislation study visit Seminar papers Seminar papers  | 1 2 3 4 5 6  |
|   | 2  |
|   | 3  |
| **Literature/References**  |  * Authorized lectures
* Waste Management for the Food Industries- Ioannis S. Arvanitoyannis (Dr, Ph.D.)
* Dr.Alqi Çulaj, Kimia e mjedisit, Tiranë, 2010;
* Dr. ElmazShehu,Teknologjia kimike dhe mjedisi, Tiranë, 2009;
* Roy M. Harrison, Principles of Environmental Chemistry, The Royal Society of Chemistry, Cambridge, 2007;
* Lushaj S. Monitorimi i tokës dhe i ujërave që përdoren në bujqësi, Tiranë, 2005
* [LIGJI NR. 02/L-30 PËR MBETURINA](https://gzk.rks-gov.net/ActDetail.aspx?ActID=2497)
* [LIGJI NR. 08/L-071 PËR NDRYSHIMIN DHE PLOTËSIMIN E LIGJIT NR.04/L-060 PËR MBETURINA](https://gzk.rks-gov.net/ActDetail.aspx?ActID=62435), [LIGJI NR. 04/L-060 PËR MBETURINA - SHTOJCA](http://javascript:__doPostBack('ctl00$MainContent$rAktet$ctl00$lblAn','')/)
* [LIGJI NR.03/L-043 PËR PARANDALIMIN DHE KONTROLLIN E INTEGRUAR TË NDOTJES DHE ANEKSET](http://javascript:__doPostBack('ctl00$MainContent$rAktet$ctl00$lblAn','')/)
* [LIGJI NR. 03/L-214 PËR VLERËSIMIN E NDIKIMIT NË MJEDIS](https://gzk.rks-gov.net/ActDetail.aspx?ActID=2708)

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