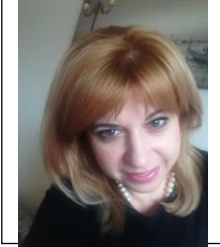




Syllabus on Training Course
«Waste Utilization and Recuperation»
Educational and Professional Program:
«Ecology and Environmental Protection»
Field of Study: 10 «Natural Sciences»
Specialty: 101 «Ecology»

Level of Higher Education	The first (Bachelor)
Status of the Course	Compulsory component EPP
Year	2 nd (the second)
Semester	4 th
Total (credits ECTS/hours)	4.5 /135
Teaching Language	Ukrainian, English
What will be studied (subject of study)	Environmentally friendly waste management methods and technologies to reduce the pressure on the environment.
Why it is interesting / necessary to study (goal)	Theoretical knowledge and practical skills in the classification and management of waste from various industries necessary to address environmental issues, the ability to make timely, scientifically sound and economically feasible decisions to improve the environmental safety of any industrial complex.
Why you can learn (learning outcomes)	Understand the basic environmental laws, rules and principles of environmental protection and natural resource management. Understand the basic concepts, theoretical and practical problems in the field of natural sciences that are necessary for analysis and decision-making in the field of waste management, environmental protection and optimal nature management. Choose the optimal waste management strategy to minimize potential negative impacts on the environment and public health.
How to use the acquired knowledge and skills (competencies)	Ability to solve complex specialized tasks and solve practical problems in the field of waste management in particular and sustainable environmental management in general. Ability to participate in the management of environmental activities and/or environmental projects of enterprises and governments of any level in the field of waste management. Ability to substantiate the need and develop measures aimed at preserving natural resources, preventing environmental pollution and maintaining environmental safety in the places of residence of the population.
Training Logistics	<p>Content of the subject: Legislative and regulatory aspects of waste management. The Law of Ukraine «On Waste». National Waste Management Strategy. International trade in waste.</p> <p>Waste classification. Methods of waste utilization and disposal.</p> <p>Determination of the toxicological profile and impact on human health and the environment. Organic waste: biomass as a source of energy.</p> <p>Strategy of alternative methods to solve the problem of waste management. Analysis of waste management methods in the world. Using the experience of EU countries. Environmental management system.</p> <p>Types of classes: lectures, practical</p> <p>Teaching methods: discussion, debate, testing, presentations</p> <p>Forms of study: full-time, distance learning.</p>
Prerequisites	The knowledge obtained as a result of studying such subjects as: «Higher mathematics», «General Ecology and Neocology», «Chemistry».

Perequisites	The knowledge gained will be used in the study of the following subjects: «Standardization of Anthropogenic Pressure on the Environment», «Natural Resources Management», «Environmental Safety», as well as for qualification paper and a term paper development.
Information support from the fund and repository of STL NAU	<p>1. Utilization and recuperation of wastes: навчальний посібник / уклад.: R.M. Kramarenko, L.I. Pavliukh. – К.: НАУ, 2014. – 240 с.</p> <p>2. М.М. Radomska, L.I. Pavliukh. Wastes utilization and recuperation: Guide to Laboratory works for students of specialty 101 “Ecology”. К.: NAU, 2021. 90 p.</p> <p>3. Радовенчик В. М., Гомеля М. Д., Радовенчик Я. В. Утилізація та рекуперація відходів / Підручник. — Київ: Видавничий дім «Кондор», 2021. – 248 с.</p> <p>4. Краці європейські практики управління відходами (посібник) / А. Войціховська, О. Кравченко, О. Мелень-Забрамна, М. Панькевич, [за заг. ред. О. Кравченко] – Видавництво Компанія “Манускрипт”. – Львів, 2019. – 64 с.</p> <p>5. Управління та поводження з відходами. Частина 3. Полігони твердих побутових відходів: навчальний посібник / Петрук В. Г., Васильківський І. В., Іщенко В. А. Петрук Р.В. – Вінниця : ВІТУ, 2016. – 137 с.</p> <p>6. Утилізація та рекуперація відходів. Навчальний посібник для денної і заочної форм навчання / В.М. Кропівний, О.В. Медведєва, А.В. Кропівна. Загальна редакція В.М. Кропівного. – Кропивницький: КОЛ, 2019. – 243 с.</p> <p>7. Поводження з відходами: Курс лекцій. Для студентів денної форми навчання. Спеціальність 101 «Екологія» Освітньо-кваліфікаційний ступінь «магістр»/ Укладач: О.В. Рибалова. –Х: НУЦЗУ, 2016. – 530 с.</p>
Location and Logistics	Multimedia audience
Semester control, examination methods	Examination
Department	Environmental Sciences
Faculty	Environmental Safety, Engineering & Technologies
Teacher	<div style="display: flex; align-items: center;">  <div> <p>LESIA PAVLIUKH Position: Associate Professor Academic Status: Associate Professor Scientific Degree: Candidate in Engineering Sciences (PhD) Teacher’s Profile: Тел.: +38 0507200862 E-mail: lenyo@ukr.net, lesiapavliukh003@gmail.com</p> <p>Office: 5.609</p> </div> </div>
Originality of the Course	Author's course
Link on the Course	https://classroom.google.com/c/NTg2OTE1NTY1OTk4