

68.

<b>Course title</b>	<b>Sustainable Gastronomy Systems</b>				
<b>Course code</b>	ENVR402				
<b>Course type</b>	Theoretical				
<b>Level</b>	Bachelor's				
<b>Year / Semester</b>	4 <sup>th</sup> Year / 8 <sup>th</sup> Semester				
<b>Teacher's name</b>	Dr. Dimitrios Sarris				
<b>ECTS</b>	4	<b>Lectures / week</b>	2	<b>Laboratories / week</b>	
<b>Course purpose and objectives</b>	<p>The course introduces students to the main sustainability issues related to the production, transportation, processing and consumption of food in the light of the United Nations Sustainable Development Goals (SDGs). In particular, the course focuses on the methods of promoting sustainability throughout the food industry production and supply chain, i.e. from farm to fork, in line with climate change mitigation, resource saving and human health and environmental protection objectives. Particular emphasis is placed on issues such as organic farming and regenerative farming techniques, reducing greenhouse gas (GHG) emissions, reducing food waste and sustainable catering waste management.</p>				
<b>Learning outcomes</b>	<p>Upon the completion of the course, students are expected to:</p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• <b>Analyse</b> the environmental problems associated with conventional agriculture and the food industry</li> <li>• <b>Explain</b> the concept of sustainability and how it relates to the production, transportation, processing and consumption of food</li> <li>• <b>Describe</b> the methods for promoting sustainability throughout the food industry production and supply chain, i.e. from farm to fork.</li> </ul> <p><b>Skills</b></p> <ul style="list-style-type: none"> <li>• <b>Assess</b> processes such as production, transportation, processing and consumption of food in the light of the United Nations Sustainable Development Goals (SDGs).</li> </ul> <p><b>Competences</b></p> <ul style="list-style-type: none"> <li>• <b>Think critically</b> about how a food business can align with the concept of sustainability in terms of product sourcing, choice of energy sources,</li> </ul>				

	reduction of food waste and kitchen waste management.		
<b>Prerequisites</b>		<b>Required</b>	
<b>Course content</b>	<ul style="list-style-type: none"> <li>• Environmental degradation on the planet and the Mediterranean. Depletion of natural resources, climate change, desertification, air, soil and water pollution, loss of biodiversity in the terrestrial and the aquatic environment.</li> <li>• The concept of sustainability and the circular economy. The UN Sustainable Development Goals (SDGs). How do they relate to the production, transportation, processing and consumption of food?</li> <li>• The environmental impact of conventional agriculture and the food industry.</li> <li>• Greenhouse gases (GHG) and their emission sources from the food industry. The concepts of the carbon and the water footprint.</li> <li>• The advantages of organic farming and animal husbandry as well as the techniques of regenerative agriculture and sustainable fishing. How do they contribute to the protection of the environment (air, soil, water, biodiversity)?</li> <li>• Methods of processing, packaging and transporting of food and ways to improve their sustainability in the food industry.</li> <li>• Catering management and sustainability - environmental impact of product procurement and ways to save energy and kitchen waste.</li> </ul>		
<b>Teaching methodology</b>	Lectures with the use of power point presentations and guided classroom discussion.		
<b>Bibliography</b>	<p><b>Greek Bibliography</b></p> <ul style="list-style-type: none"> <li>• Αυλωνίτης, Δ., και Αυλωνίτης, Σ. (2013). Προστασία Περιβάλλοντος. [<i>Environmental protection</i>]. Ιων. ISBN: 9789605081140.</li> <li>• Καρβούνης, Σ. Κ., και Γεωργάκελλος, Δ. (2003). Διαχείριση του περιβάλλοντος : Επιχειρήσεις και βιώσιμη ανάπτυξη. [<i>Environmental management: Business and sustainable development</i>]. Εκδόσεις Αθ. Σταμούλης. ISBN: 9603514802.</li> <li>• WWF US &amp; AHLA (n.d.). Hotel Kitchen: Οδηγός για τη μείωση σπατάλης τροφίμων στα ξενοδοχεία. [<i>Hotel kitchen: Guide for the reduction of food waste in hotels</i>]. Retrieved from: <a href="https://www.contentarchive.wwf.gr/images/pdfs/Hotel-Kitchen-Greek.pdf">https://www.contentarchive.wwf.gr/images/pdfs/Hotel-Kitchen-Greek.pdf</a></li> </ul>		

	<ul style="list-style-type: none"> <li>• Αντωνίου, Θ. (n.d.). Βιώσιμη Γαστρονομία: Οι κουζίνες μαγειρεύουν ‘πράσινα’ μενού. [<i>Sustainable gastronomy: Kitchens cook “green” menus</i>]. Grill magazine &amp; dairy news. Ανακτήθηκε από: <a href="https://www.unileverfoodsolutions.gr/nea-taseis/Food-waste/viosimi-gastronomia.html">https://www.unileverfoodsolutions.gr/nea-taseis/Food-waste/viosimi-gastronomia.html</a></li> <li>• Ζουμπούλης, Α. Ι., Πελέκα, Ε. Ν., και Τριανταφυλλίδης, Κ. Σ. (2015). Πράσινη χημεία και τεχνολογία στη βιώσιμη ανάπτυξη. [<i>Green chemistry and technology in sustainable development</i>]. Kallipos, Open Academic Editions. Retrieved from: <a href="http://hdl.handle.net/11419/2320">http://hdl.handle.net/11419/2320</a>. ISBN978-960-603-089-5.</li> <li>• Gue Varas, Jack (2021). Food Waste : Οδηγός Επιβίωσης. Gastronomy Essentials. ISBN: 978-618-85091-0-8</li> <li>• KES College notes</li> </ul> <p><b>English Bibliography</b></p> <ul style="list-style-type: none"> <li>• Riley, Garrett Leonard (2016). Food Waste : Practices, Management and Challenges. Hauppauge, New York : Nova Science Publishers, Inc. 2016. EbscoHost.</li> <li>• Miller, G. T. and Soolman, S. E. (2016). Environmental Science. 5<sup>th</sup> Edition. Cengage Learning. ISBN: 978-1305090446.</li> <li>• Naeem, S., and Lipton, S. (2020). <i>Sustainable food production</i>. Columbia University Press. ISBN-13978-0231189651: .</li> <li>• Basilio, M. A. (2011). <i>Global Ecological Footprint</i>. VDM Verlag Dr. Müller. ISBN: 978-3639285895.</li> <li>• KES College handouts.</li> </ul>
<b>Assessment</b>	<ul style="list-style-type: none"> <li>• Attendance and class participation:..... 10%</li> <li>• Written essay on sustainability in the kitchen: 40%</li> <li>• Final examination: .....50%</li> </ul>
<b>Language</b>	Greek or English