

General Information	
Academic subject	Circular economy in food supply chains (I.C.: Sustainability of agri-food supply chains)
Degree course	Master programme: Food Science and Technology
ECTS credits	3 ECTS
Compulsory attendance	No
Teaching language	Italian

Subject teacher	Name Surname	Mail address	SSD
	<b>Luigi ROSELLI</b>	<a href="mailto:luigi.roselli@uniba.it">luigi.roselli@uniba.it</a>	AGR/01

ECTS credits details		
Basic teaching activities	2 ECTS Lectures	1 ECTS Laboratory or field classes

Class schedule	
Period	I semester
Course year	Second
Type of class	Lectures, workshops

Time management	
Hours	75
In-class study hours	30
Out-of-class study hours	45

Academic calendar	
Class begins	September 27 <sup>th</sup> , 2021
Class ends	January 21 <sup>st</sup> , 2022

Syllabus	
Prerequisites/requirements	Base knowledge of production economics and agri-food markets
Expected learning outcomes	<p><i>Knowledge and understanding</i></p> <ul style="list-style-type: none"> <li>○ Knowledge about the principles of environmental economics, the concepts of sustainable development and circular economy. Understanding the importance of improving the environmental performance as strategic tool for increasing the competitiveness of companies operating in food supply chains.</li> </ul> <p><i>Applying knowledge and understanding</i></p> <ul style="list-style-type: none"> <li>○ Ability to analyse and assess properly the implementation of circular business models, according to the different structural and organizational contexts of food supply chains.</li> </ul> <p><i>Making informed judgements and choices</i></p> <ul style="list-style-type: none"> <li>○ Ability to contribute effectively to the solution of complex issues related to the improvement of environmental performance in modern companies operating in the food supply chains.</li> </ul> <p><i>Communicating knowledge and understanding</i></p> <ul style="list-style-type: none"> <li>○ Ability to discuss effectively on complex issues related to the management of the environmental performances in modern food companies even within a multidisciplinary working group.</li> </ul> <p><i>Capacities to continue learning</i></p> <ul style="list-style-type: none"> <li>○ Ability to deepen and update own knowledge about legislation, European policies for the circular economy and innovative solutions capable of increasing environmental sustainability and competitiveness of companies operating in food supply chains.</li> </ul>

	The expected learning outcomes, in terms of knowledge and ability, are detailed in the Regulation of Master in Food Science and Technology - Annex A (expressed by European descriptors).
Contents	<ul style="list-style-type: none"> <li>- <b>Economy and environment:</b> the functioning of markets and the causes of their failure, externalities and public goods, limits to economic growth, sustainable development.</li> <li>- <b>Paradigm of the circular economy:</b> main characteristics of current linear agri-food system, potential for transition to a circular agri-food system, indicators for measuring circularity.</li> <li>- <b>Regulatory framework and policies for the circular economy:</b> European action plan, main environmental certifications schemes (Environmental Product Declaration, Product Environmental Footprints, etc.).</li> <li>- <b>Circular business models:</b> Definition of business model, the business model Canvas and its constituent elements, the process of designing a circular business model.</li> </ul>
Course program	
Reference books	<ul style="list-style-type: none"> <li>- Notes of the lectures.</li> <li>- Didactic material provided by the teacher.</li> <li>- Bateman, I., Pearce, D. W., &amp; Turner, K. (2003). <i>Economia ambientale</i>. Il Mulino, Bologna.</li> <li>- Kovacic, Z., Strand, R., &amp; Völker, T. (2019). <i>The circular economy in Europe: Critical perspectives on policies and imaginaries</i>. Routledge.</li> <li>- MacArthur, F. E. (2019). <i>Cities and circular economy for food</i>. Ellen Macarthur Foundation.</li> <li>- Osterwalder, A., &amp; Pigneur, Y. (2020). <i>Creare modelli di business: Un manuale pratico ed efficace per ispirare chi deve creare o innovare un modello di business</i>. Edizioni Lswr.</li> </ul>
Notes	
Teaching methods	<p>The course topics will be handled with the help of Power Point presentations.</p> <p>Theoretical discussion will be accompanied by the illustration of specific case studies. Some lectures will be given starting from the presentation of one or more students based on readings of pre-assigned texts.</p> <p>For teaching / student communication and exchange of teaching materials, online platforms will be used (Microsoft Teams)</p>
Evaluation methods	<p>The exam consists of an oral dissertation on the topics developed during the theoretical and theoretical-practical lectures in the classroom and in the laboratory/production plants, as reported in the Academic Regulations for the Master Degree in Food Science and Technology (article 9) and in the study plan (Annex A).</p> <p>Students attending at the lectures may have a middle-term preliminary exam, consisting of a written test, relative to the first part of the program, which will concur to the final evaluation and will be considered valid for a year.</p> <p>The evaluation of the preparation of the student occurs on the basis of established criteria, as detailed in Annex B of the Academic Regulations for the Master Degree in Food Science and Technology.</p>

	Non-Italian students may be examined in English language, according to the aforesaid procedures.
Evaluation criteria	<p><i>Knowledge and understanding</i></p> <ul style="list-style-type: none"> <li>○ Being able to argue the principles of environmental economics, the concepts of sustainable development and circular economy with reference to the agri-food system.</li> <li>○ Being able to argue the importance of improving environmental performance as a strategic tool for increasing the competitiveness of food businesses.</li> </ul> <p><i>Applying knowledge and understanding</i></p> <ul style="list-style-type: none"> <li>○ Being able to correctly contextualize real issues related to the implementation of business models capable of increasing the circularity of agri-food companies.</li> </ul> <p><i>Making informed judgements and choices</i></p> <ul style="list-style-type: none"> <li>○ Introducing reasonable hypotheses for solving possible problems related to the improvement of environmental performances in companies operating in food supply chains.</li> </ul> <p><i>Communicating knowledge and understanding</i></p> <ul style="list-style-type: none"> <li>○ Using technical language properly and correctly in discussing issues related to the management of environmental performances in companies operating in food supply chains.</li> </ul> <p><i>Capacities to continue learning</i></p> <ul style="list-style-type: none"> <li>○ Demonstrating a sufficient critical approach in identifying and arguing the theoretical and practical limitations of the current knowledge on management of environmental issues in companies operating in food supply chains.</li> </ul>
Receiving times	From Monday to Friday 16.00-18.00, by appointment only.