UNIVERSITY "UKSHIN HOTI" PRIZREN
International Summer School (ISSP) 2023
Faculty of Life and Environmental Sciences

SYLLABUS

Academic unit / faculty:	**Faculty of Life and Environmental Sciences**		ISS edition:	**2023**
Course title:	**Measuring Sustainability and Resilience of Agri-food Systems**			
Course status:	**Obligatory**	Code:	ECTS credits:	**4**
Teaching days/weeks:	**14 days / 2 weeks**	Teaching hours:	Lectures:	Exercises:
			3	**1**
Office hours:	**Daily (Monday-Friday, 2 Weeks)**			
Course professor 1. / Supervisor:	**Kehinde Olagunju**	E-mail:	**kehinde.olagunju3@unibo.it**	
		Tel.:	**447589593805/**	
Course co-professor 2. / Co-supervisor:	**Nol Krasniqi**	E-mail:	**+383 44 702 505**	
		Tel.:	**nol.krasniqi@uni-prziren.com**	

COURSE CONTENT:

This course considers the most pertinent issues facing the global agri-food production systems, particularly in the face of climate change, growing demand for food and an increasing world population. The issues include questions regarding the following: How can agri-food system be environmentally, socially and economically sustainable? How can the global agri-food sector be resilient against climate change? What are driving factors of sustainability and resilience of agri-food systems?

To answer these questions require having a good understanding of how to measure sustainability and resilience of agri-food production systems. Consequently, this course will students to three main valuable points:

- Concepts of sustainability and resilience.
- Different approaches used in measuring sustainability and resilience indicators.
- Analyses of the drivers of sustainability and resilience.
- Designing for policy strategies to improve sustainability and resilience of agri-food systems.

By doing this, the students will understand the best practices involves in driving sustainability and farm resilience against climate change. We will achieve this by using a wide range of quantitative as well as qualitative methods, interactive lectures, hands-on exercises, and case studies, and presentations.

Course objectives:	Course learning outcomes:
➢ Students will learn the key concepts, frameworks and theories concerning sustainability and resilience of agri-food systems. ➢ Students will learn how to analyse the driving factors of sustainability and resilience of agri-food systems using different countries as case studies. ➢ Students will develop competencies with software to facilate measuremnt of sustainability and resilience of agri-food systems. ➢ Students will learn how to design innovative strategies to faciliate farm sustainability.	Following succeful completion of this course students are expected to be able to : ➢ Have an indepth understanding of the elements, concepts and theories underlying sustainability and risk managment. ➢ Critically conduct analysis of the drivers of farm sustainability and resilience ➢ Design innovative tools applicable to large-scale and small-scale farms to achieve sustability and resilience aginst any form of shocks. The course is highly appropriate for students from a wide range of social science disciplines, especially economics, agri-business managment, rural development and international developement. The core concepts taught in the course are very transferrable and would also be suited for practitioners or policy makers working in relevant fields.

TEACHING METHODS:

The format of the course is a combination of lectures, exercises, case discussion in class, course projects, homework, class presentations and office hours (consultations).

CONDITIONS FOR COURSE IMPLEMENTATION:

Classroom equipped with computer, projector and other IT devices.

STUDENT EVALUATION METHODS AND GRADING SCALE:

The course is subject to continuous evaluation. At regular intervals we also ask students to participate in a more comprehensive evaluation. Student evaluation is done by exam and presentations, and the final grade consists of the following components:
➢ Regular and active attendance: 10%,
➢ Course project: 25%,
➢ Final presentation/exam: 65%,

GRADING SCALE		
Evaluation in %	**Final grade**	
91 – 100	10	(ECTS – A)
81 – 90	9	(ECTS - B)
71 – 80	8	(ECTS - C)
61 – 70	7	(ETCS - D)
51 – 60	6	(ETCS - E)
0 – 50	5*	(ETCS – FX)

LANGUAGE OF EXAMINATION:

The examination tests are provided in English language, and students submit response in English.

STUDENT DUTIES AND OBLIGATIONS:

Lectures	Exercises and other study activities
➢ Regular and active lecture attendance ➢ Active participation in discussions ➢ Respect of the University Code of Ethics etc.	➢ Regular attendance of exercises and study activities ➢ Respect of the University Code of Ethics etc.

STUDENT WORKLOAD:			
Activity	**Hours**	**Days**	**Total hours**
Lectures	3	10	30
Exercises	1	10	10
Field work visits	2	4	8
Reading (Own study time)	2	10	20
Assignments (project, presentation, homework)	2	6	12
Exam preparation	1.5	10	15
Exam assessment	2	3	6
Total student workload:			**101**

Note: 1 ECTS credit = 25 hours, for example if the course has 4 ECTS credits a student must have workload of at least 100 hours during the International Summer School (ISS).

DAY	LECTURES		EXERCISES	
	Topic	**Hours**	**Topic**	**Hours**
1.	**Concept of Sustainability in Agri-food Systems** - Introduction to concepts and elements of Sustainability in Agri-food Production Systems - Approaches for measuring Sustainability Indicators in in Agri-food Production Systems	3	**Exercise topic 1.** Discussion and distribution of the course project topics.	1
2.	**Measurement of Sustainability Indicators** - Approaches for measuring Sustainability Indicators in in Agri-food Production Systems ❖ Social Sustainability ❖ Environmental Sustainability ❖ Economic Sustainability	3	**Exercise topic 2.** Assignments, quizzes and case studies related to the topic of the second day lecture.	1
3.	**Measurement of Sustainability Indicators**	3	**Exercise topic 3.**	1

	- Approaches for measuring Sustainability Indicators in in Agri-food Production Systems ❖ Social Sustainability ❖ Environmental Sustainability ❖ Economic Sustainability		Assignments, quizzes and case studies related to the topic of the third day lecture.	
4.	**Driving Factors of Sustainability** - Quantitative and Qualitative tools of analysing the driving factors of Sustainability ❖ Data collection from EUROSTAT ❖ Data Analysis – Using Excel & STATA. The software package that will used will depend on how familiar students are with this. ❖ Interpretation of results. -	3	**Exercise topic 4.** Assignments, quizzes and case studies related to the topic of the fourth day lecture.	1
5.	**Innovative Policy Tools for Sustainable Development** - Project development on different policy tools to improve sustainability of agri-food systems. - Case studies discussions	3	**Exercise topic 5.** Class Presentations	1
6.	**Concept of Resilience in Agri-food Systems** - Introduction to concepts and elements of Resilience in Agri-food Production Systems - Approaches for measuring Resilience Indicators in in Agri-food Production Systems	3	**Exercise topic 5.** Assignments, quizzes and case studies related to the topic of the sixth day lecture.	1
7.	**Measurement of Resilience Indicators** - Approaches for measuring **Resilience** Indicators in Agri-food Production Systems ❖ Income Resilience ❖ Production Resilience ❖ Climate Resilience	3	**Exercise topic 7.** Assignments, quizzes and case studies related to the topic of the seventh day lecture.	1
8.	**Factors Influencing Resilience of in Agri-food Systems** - Quantitative and Qualitative tools of analysing the driving factors of **Resilience** ❖ Data collection from EUROSTAT ❖ Data Analysis – Using Excel & STATA. The software package that	3	**Exercise topic 8.** Assignments, quizzes and case studies related to the topic of the eighth day lecture.	1

	will used will depend on how familiar students are with this.			
9.	**Innovative Policy Tools for Building Farm Resilience** - Project development on different policy tools to improve agri-food systems resilience against shocks. - Case studies discussions	3	**Exercise topic 9.** Assignments, quizzes and case studies related to the topic of the ninth day lecture.	1
10.	- Group Presentation and grading	3	**Exercise topic 10.** Group Presentation and grading	1

LITERATURE:

Books:

- Blackburn, W. R. (2007). The sustainability handbook: The complete management guide to achieving social, economic, and environmental responsibility. Environmental Law Institute.
- Dovers, S. and Hussey, K. (2013). Environment and sustainability: a policy handbook. Federation Press.
- Victor, P.A. and Dolter, B. eds. (2017). Handbook on growth and sustainability. Edward Elgar Publishing.
- Wu, J. and Wu, T. (2012). Sustainability indicators and indices: an overview. Handbook of sustainability management, pp.65-86.
- Lipper, L., McCarthy, N., Zilberman, D., Asfaw, S. and Branca, G. (2017). Climate smart agriculture: building resilience to climate change. Springer Nature.
- Borron, S. (2006). Building resilience for an unpredictable future: how organic agriculture can help farmers adapt to climate change. Food and Agriculture Organization of the United Nations, Rome.
- Dubey, P.K., Singh, G.S. and Abhilash, P.C. (2020). Adaptive agricultural practices: Building resilience in a changing climate. Cham, Switzerland: Springer.
- Wooldridge, J. M. (2015). Introductory econometrics: A modern approach. Nelson Education.

Compendium reading list:

- De Zeeuw, H., Van Veenhuizen, R. and Dubbeling, M. (2011). The role of urban agriculture in building resilient cities in developing countries. *The Journal of Agricultural Science*, 149(S1), pp.153-163.
- Magar, D.B.T., Pun, S., Pandit, R. and Rola-Rubzen, M.F. (2021). Pathways for building resilience to COVID-19 pandemic and revitalizing the Nepalese agriculture sector. *Agricultural Systems*, 187, p.103022.
- Olagunju, K.O., Olagunju, K.A., Ogunniyi, A.I., Omotayo, A.O. and Oyetunde-Usman, Z., 2023. To own or not to own? Land tenure security and production risk in small-scale farming. *Land Use Policy*, 127, p.106584.
- Munda, G. (2005). "Measuring sustainability": a multi-criterion framework. *Environment, Development and Sustainability*,7, pp.117-134.
- Keeble, J.J., Topiol, S. and Berkeley, S., (2003). Using indicators to measure sustainability performance at a corporate and project level. *Journal of Business Ethics*, 44, pp.149-158.

REMARKS FOR STUDENTS:

- Student should be aware of and respect the institution and Code of ethics.
- Student should respect the schedule of lectures, exercises and other study activities.
- Student should possess and show student ISS ID card during exam.
- Student course project/presentation/homework must comply with professor instructions.
- During the exam is strictly forbidden to use of mobile phone devices.