جامعة الشرقية
A' SHARQIYAH UNIVERSITY

Course Descriptor

AHND 494 International Food Situation

ACADEMIC YEAR	2020-2021	**SEMESTER**	Fall
Course Code & Title	**AHNP 494 International Food Situation**		
Credit hours	3 (3+0)	**Level of study**	Undergraduate
College / Centre	CAHS/FSHNN		
Co-requisites		**Pre-requisites**	AHND 452

1. COURSE OUTLINE

Hunger and nutrient deficiency are among the leading causes of mortality in the present world. We need to increase our food production to keep pace with continuous population growth. For this purpose, it is important to understand the rationales for hunger and their solution. To achieve this goal, we must understand the food in a systemic way, and not simply focusing on production alone.

This course will provide students a basic understanding of the environmental and developmental challenges of industrial food production in a global world.

2. AIMS

This course will teach students about the history of agriculture, and the changes leading to globalization and nutrition transition. The impact of food systems in modern world and how to inter-relate the agriculture and conservation to biological resources. As well, emphasize on various factors including the social, economic and environmental dimensions of agriculture and food security. We will also examine the effect of global climate changes and government mandates, policies and world program to combat starvation and malnutrition, different revolutions that had profound effects in agriculture history.

3. LEARNING OUTCOMES, TEACHING, LEARNING and ASSESSMENT METHODS (Indicative)

Learning Outcomes (Definitive)	Teaching and Learning methods (Indicative)	Assessment (Indicative)
1. Understand the history of agriculture, and gradual changes leading towards globalization and nutrition transition.	Lectures and presentations	Assignment, Quiz, Written exam
2. Explore the impact of Industrial and non-industrial food systems in modern world.	Lectures and presentations	Assignment, Quiz, Written exam
3. Explain how to inter-relate	Lectures and presentations	

the agriculture and conservation of its biological resources.		Assignment, Quiz, Written exam
4. Understand, government mandates, policies and world program to combat starvation and malnutrition.	Lectures and presentations	Assignment, Quiz, Written exam
5. Understand the role of different environmental and social factors in food systems.	Lectures and presentations	Assignment, Quiz, Written exam

4. ASSESSMENT WEIGHTING

Assessment	Percentage of final mark (%)
Mid-term Examination	25
Quizzes	15
Assignment/ Homework	20
Final Examination	40
TOTAL	**100%**

5. ACHIEVING A PASS

Students will achieve **<u>03</u>** credit hours for this course by passing **<u>ALL</u>** of the course assessments *(quizzes , Midterm examinations and final examinations)*and achieving a **minimum overall score of <u>50%</u>**

COURSE CONTENT (Indicative)	
LECTURE TOPIC	**TIME (HOURS)**
• Introduction to Agroecology	3
• Agroecology and the Agroecosystem Concept	3
• Plants and Abiotic Factors of the Environment o The Plant o Light o Temperature o Humidity and Rainfall o Wind o Soil o Water in the Soil o Fire	3
• Autecological Perspective o Biotic Factors o The Environmental Complex o Heterotrophic Organisms	3
• Population Ecology of Agroecosystems o Population Growth o Colonization of New Areas o Life History Strategies o Ecological Niche o Applications of Niche Theory to Agriculture	3

Midterm Exam	
• Genetic Resources in Agroecosystems o Genetic Change in Nature and The Production of Genetic Diversity o Directed Selection and Domestication o Methods of Directed Selection in Plants o Transgenic Modification	3
• Species Interactions in Crop Communities o Interference at The Community Level o Beneficial Interferences of Cover Crops o Species Interactions for Sustainability	3
• Agroecosystem Diversity o Ecological Diversity o Diversity in Natural Ecosystems o Ecological Diversity In Agroecosystems	3
• Disturbance, Succession, and Agroecosystem Management o Disturbance and Recovery in Natural Ecosystems o Intermediate Disturbance	3
• Animals in Agroecosystems o Role of Animals in Ecosystems o Enabling Energy Flow o Influencing Community Dynamics o Coevolution of Livestock Animals and Agriculture o Integrated Farming Systems o Livestock and Food-System Sustainability	3
• Energetics of Agroecosystems o Energy and The Laws of Thermodynamics o Use of Biological Cultural Energy o Toward Sustainable Use of Energy in Agroecosystems o Future Energy Directions	3
• Landscape Diversity o Agricultural Landscape o Management at The Level of The Landscape o Agriculture, Land Use, And Sustainability	3
• Bringing about a Sustainable World Food System o Agriculture, Society, and Agroecology o Community and Culture in the Remaking of the Food System o From Sustainable Agroecosystems to a Sustainable Food System	3
FINAL EXAM	
Recommended Study Hours 1-15	17
Total Hours	56

6. RECOMMENDED READING

1. Gliessman, Stephen R. Agroecology: The Ecology of Sustainable Food Systems. (2017), Third Edition, CRC Press.
2. Milan Collins. Principles of Agroecology. (2017), Larsen and Keller Education.