مركز الاعتماد وضمان الجودة
ACCREDITATION & QUALITY ASSURANCE CENTER

Course Syllabus

1	**Course title**	**Agricultural Production Economics**	
2	**Course number**	**605350**	
3	**Credit hours**	**3**	
	Contact hours (theory, practical)	**Theory**	
4	**Prerequisites/co-requisites**	**Agr. Econ. (605101)**	
5	**Program title**	**Agriculture Economics and agribusiness Management**	
6	**Program code**	**05**	
7	**Awarding institution**		
8	**School**	**Agriculture School**	
9	**Department**	**Agriculture Economics and agribusiness Management Department**	
10	**Course level**	**Third**	
11	**Year of study and semester (s)**	**2021/2022- Fall**	
12	**Other department (s) involved in teaching the course**	**None**	
13	**Main teaching language**	**English**	
14	**Delivery method**	☐Face to face learning XBlended Fully online	
15	**Online platforms(s)**	☐Moodle X Microsoft Teams ☐Skype ☐Zoom ☐Others……	
16	**Issuing/Revision Date**	**Oct 2021**	

17 Course Coordinator:

Name: Dr. Tala Qtaishat Contact hours: 9:30-10:30 am

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18 Other instructors:

Name: Office number: Phone number: Email: Contact hours: Name: Office number: Phone number: Email: Contact hours:

19 Course Description:

As stated in the approved study plan. Studies the theory of production economics with emphasis on applications to agriculture and natural resources. Topics include the derivation, estimation and use of production, cost, profit, revenue, demand and supply functions. Discusses the concepts of efficiency and productivity. Production response over time and under risk. Agricultural production economic theory under static and dynamic situations. Analysis of allocation of factors of production, production efficiency, demand for factors of production and supply of agricultural products, costs of products and farm growth.

20 Course aims and outcomes:

A- Aims:

By the end of the course, as a student, you will:

a) Develop a deeper understanding and facility with the principles, concepts, and mathematical expression of production economics, as applied to problems in agriculture, the food system, and the environment,

b) Integrate principles and practice so that you develop the capacity to conceptualize and analyze problems within an abstract and coherent theoretical framework that can be applied to the agricultural system and a wide variety of other contexts.

B- Students Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

A. Knowledge and Understanding: Student is expected to

A1- Gain student information to Economic concepts, types of economics, agricultural economics.

A2- Demonstrate basic knowledge on Agricultural production economics.

A3-Understand external and internal factors, which are influencing Production Function and Cost Function.

B. Intellectual Analytical and Cognitive Skills: Student is expected to

B1- Practical strategy how to allocate resources to produce one or more outputs.

B2-Know about minimization and maximization problems.

C. Subject- Specific Skills: Students is expected to

C1- Be able to assess the performance of firm under risk analysis.

C2-.Make recommendations for optimization problems with constraints (Lagrange multiplier)

D. Transferable Key Skills: Students is expected to

D1- Agricultural production economics students will be able to effectively communicate in both an oral and written format.

D2- Agricultural production economics students will be able to demonstrate skills enabling them to work effectively as individuals and in groups especially with issues related to production through time and technology change.

Program SLOs / SLOs of the course	SLO (1)	SLO (2)	SLO (3)	SLO (4)
1- Gain student information to Economic concepts, types of economics, agricultural economics	√	√	√	
2- Demonstrate basic knowledge on Agricultural production economics.	√	√	√	
3-Understand external and internal factors, which are influencing Production Function and Cost Function.	√	√	√	
4- Practical strategy how to allocate resources to produce one or more outputs.	√	√		
5-Know about minimization and maximization problems. .	√	√		
6-Know about the balance sheet and income statement to evaluate the financial situation of agribusiness.	√	√	√	
7-Be able to assess the performance of firm under risk analysis.	√	√	√	
8-.Make recommendations for optimization	√	√	√	

problems with constraints (Lagrange multiplier)				
9-Agricultural production economics students will be able to effectively communicate in both an oral and written format.	√	√	√	
10- Agricultural production economics students will be able to demonstrate skills enabling them to work effectively as individuals and in groups especially with issues related to production through time and technology change.	√	√		

21. Topic Outline and Schedule:

Week	Lecture	Topic	Intended Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
1	1.1	**Introduction** **Economic concepts ,types of**	**A-1, A-2**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter One in Doll P. John and Orazem**

		economics ,agricultural economics						**Frank, 1978 , Production Economics**
	1.2	**Agricultural production economics.**	**A-1, A-2**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter One in Doll P. John and Orazem Frank, 1978 , Production Economics**
2	2.1	**Production Function and Cost Function**	**A-3, B-1**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter Two in Doll P. John and Orazem Frank, 1978 , Production Economics**
	2.2	**Classical production function ,stages of production function ,law of Diminishing**	**A-3, B-1**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter Two in Doll P. John and Orazem Frank, 1978 , Production Economics**
	2.3	**Returns, elasticity of production.**	**A-3, B-1**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter Two in Doll P. John and Orazem Frank, 1978 , Production Economics**
Week	**Lecture**	**Topic**	**Intended Learning Outcome**	**Learning Methods (Face to Face/Blended/ Fully Online)**	**Platform**	**Synchronous / Asynchronous Lecturing**	**Evaluation Methods**	**Resources**

	3.1	**Cost of production ,fixed cost and variable cost ,cost function ,**	**A-3, B-1**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter Two in Doll P. John and Orazem Frank, 1978 , Production Economics**
3	3.2	**deriving cost function from production function**	**A-3, B-1**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter Two in Doll P. John and Orazem Frank, 1978 , Production Economics**
	3.3	**deriving cost function from production function**	**A-3, B-1**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter Two in Doll P. John and Orazem Frank, 1978 , Production Economics**
4	4.1	**Allocation of One Variable Input:** **Economic efficiency ,profit**	**B-1**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter Three in Doll P. John and Orazem Frank, 1978 , Production Economics**
5	5.1	**maximum profit versus maximization ,the optimum amount of input to use ,the optimum amount of output to produce .**	**B-1**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter Three in Doll P. John and Orazem Frank, 1978 , Production Economics**

	5.2	**Short-run equilibrium ,long-run equilibrium**	**B-1**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter Three in Doll P. John and Orazem Frank, 1978 , Production Economics**
	5.3	**Maximum yield, derive demand for input**	**B-1**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter Three in Doll P. John and Orazem Frank, 1978 , Production Economics**
6	6.1	**Opportunity cost and profit.**	**B-1**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter Three in Doll P. John and Orazem Frank, 1978 , Production Economics**
7	7.1	**Production with Two or More Variable Inputs:** **Production function for two variable inputs , marginal rate of input Substitution.**	**B-1 and B-2**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter 4 in Doll P. John and Orazem Frank, 1978 , Production Economics ,**
	7.2	**Relation between inputs ,elasticity of factor substitution ,iso-cost line**	**B-1 and B-2**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter 4 in Doll P. John and Orazem Frank, 1978 , Production**

								Economics
8	8.1	**Least cost criterion ,iso-cline ,expansion path ,profit maximization .**	**B-1 and B-2**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter 4 in Doll P. John and Orazem Frank, 1978 , Production Economics ,**
	8.2	**Alternative production functions**	**B-1 and B-2**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter 4 in Doll P. John and Orazem Frank, 1978 , Production Economics ,**
9	9.1	**Substitution and expansion effect.**	**B-1 and B-2**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter 4 in Doll P. John and Orazem Frank, 1978 , Production Economics ,**
10	10.1	**Derived demand for inputs**	**B-1 and B-2**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter 4 in Doll P. John and Orazem Frank, 1978 , Production Economics ,**
	10.2	**Minimizing cost and profit maximization.**	**B-1 and B-2**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter 4 in Doll P. John and Orazem Frank, 1978 , Production Economics ,**
10	10.3	**General criteria for two or more inputs.**	**B-1 and**	Blended	Microsoft team	Synchronous	Exam, Quizzes	**Chapter 4 in Doll P. John and Orazem**

			B-2			Lecturing		**Frank, 1978 , Production Economics ,**
11	11.1	**Production of Two or More Products:** **Production possibility curve , relation among products ,maximum Revenue combination of outputs.** **possibility curve ,intermediate and final products , one input-several** **Products, two inputs-two outputs.** **Constrained optimization**	**B-1 and B-2**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter 5 in Doll P. John and Orazem Frank, 1978 , Production Economics ,**
	11.2	**Marginal criterion for resource allocation ,derivation of production**	**B-1 and B-2**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter 5 in Doll P. John and Orazem Frank, 1978 , Production Economics ,**
12	12.1	**possibility curve ,intermediate and final products , one input-several** **Products, two inputs-two outputs.**	**B-1 and B-2**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter 6 in Doll P. John and Orazem Frank, 1978 , Production Economics ,**
	12.2	**Constrained optimization**	**B-1 and B-2,**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter 6 in Doll P. John and Orazem**

								Frank, 1978 , Production Economics ,
13	13.1	**Economics of Size:** **Production in the long-run Homogeneity in production economics.**	**B-1 , B-2 and C-2**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter 7 in Doll P. John and Orazem Frank, 1978 , Production Economics ,**
	13.2	**Return to scale. Equilibrium in the long-run External economics in agriculture**	**B-1 , B-2 and C-2**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter 7 in Doll P. John and Orazem Frank, 1978 , Production Economics ,**
14	14.1	**Production Process through Time:** **Time within the year.** **Time over a period of years.**	**B-2,C-1,C-2, D-1, D-2**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter 8 in Doll P. John and Orazem Frank, 1978 , Production Economics ,**
	14.2	**Valuing of agricultural land**	**B-2,C-1,C-2, D-1, D-2**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter 8 in Doll P. John and Orazem Frank, 1978 , Production Economics ,**
15	15.1	**Decision Theory:** **Analyzing risky production process.** **Utility of risk.**	**D-1 and D-2**	Blended	Microsoft team	Synchronous Lecturing	Exam, Quizzes	**Chapter 9 in Doll P. John and Orazem Frank, 1978 , Production Economics ,**

22 Evaluation Methods:

Opportunities to demonstrate achievement of the SLOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	SLOs	Period (Week)	Platform
Midterm Exam	30	Ch1-Ch6	A1.D1, B1,C1, A2,B2,C1,D1, A3,C1, A4,C1	8/12/2021	In Class
Homeworks	20	Ch1-Ch17	A1, A2, A3, A4, B1, B2, C1 , C2, and C3	Every week	Microsoft Team
Final	50	Comprehensive	A1, A2, A3, A4, B1, B2, C1 , C2, and C3	From the Registration	In Class

23 Course Requirements

g: students should have a computer, internet connection, webcam, account on the Microsoft team, and frequent access to Moodle platform.

24 Course Policies:

A- Attendance policies: **Students should attend all classes on time**.
B- Absences from exams and submitting assignments on time: **No makeup exams will be made. Only medical excuses from the JU hospital.**
C- Health and safety procedures: **Please consider the safety procedures as announced.**
D- Honesty policy regarding cheating, plagiarism, misbehavior: **cheating, plagiarism, misbehavior will be handled according to JU regulations.**
E- Grading policy: **according to JU regulations**
F- Available university services that support achievement in the course:
D- Honesty policy regarding cheating, plagiarism, misbehavior:

E- Grading policy:

F- Available university services that support achievement in the course:

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25 References:

1- Doll P. John and Orazem Frank , 1978, Production Economics , John Wiley &Sons, Inc , USA .

2- Sankhayan P.L. , Introduction to the Economics of Agriculture production , Prentice-Hall of India , New Delhi .

26 Additional information:

Name of Course Coordinator: ----------Signature: ---------- Date: ----------
Head of Curriculum Committee/Department: ---------- Signature: ----------
Head of Department: ---------- Signature: ----------
Head of Curriculum Committee/Faculty: ---------- Signature: ----------
Dean: ---------- Signature: ----------