The University of Jordan

الجامعة الاردنية

Form: Course Syllabus	Form Number	EXC-01-02-02A
	Issue Number and Date	2/3/24/2022/2963 05/12/2022
	Number and Date of Revision or Modification	
	Deans Council Approval Decision Number	2/3/24/2023
	The Date of the Deans Council Approval Decision	23/01/2023
	Number of Pages	09

1.	Course Title	Agricultural Econometrics
2.	Course Number	605711
3.	Credit Hours (Theory, Practical)	3 Credit Hours (Theory)
	Contact Hours (Theory, Practical)	3 Hours
4.	Prerequisites/ Corequisites	None
5.	Program Title	Agricultural Economics & Agribusiness
6.	Program Code	
7.	School/ Center	School of Agriculture
8.	Department	Agricultural Economics & Agribusiness
9.	Course Level	Advanced Graduate
10.	Year of Study and Semester (s)	2025
11.	Program Degree	Master
12.	Other Department(s) Involved in Teaching the Course	None
13.	Learning Language	English
14.	Learning Types	Face to Face learning
15.	Online Platforms(s)	Microsoft Teams
16	Issuing Date	2025
17.	Revision Date	2025

18. Course Coordinator:

Name: Prof. Dr Amer Salman   Contact hours: Office number: 167   Phone number: 22503 Email: asalman@ju.edu.jo

19. Other Instructors:

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

20. Course Description:

This course introduces modern methods of analyzing economic and agricultural data. It covers simple and multiple regression analysis, econometric modeling, model selection, forecasting, dummy variables, diagnostic problems (multicollinearity, autocorrelation), and applied analysis using econometric software. Students develop practical skills in econometric modeling, hypothesis testing, interpretation, and forecasting for agricultural decision-making.

21. **Program Intended Learning Outcomes:** (To be used in designing the matrix linking the intended learning outcomes of the course with the intended learning outcomes of the program)

PLO's	*National Qualifications Framework Descriptors*		
	Competency (C)	**Skills (B)**	**Knowledge (A)**
1.	☐	☐	☒
2.	☐	☒	☐
3.	☐	☒	☐
4.	☒	☐	☐
5.	☐	☐	☒

* Choose only one descriptor for each learning outcome of the program, whether knowledge, skill, or competency.

22. Course Intended Learning Outcomes: (Upon completion of the course, the student will be able to achieve the following intended learning outcomes)

Course ILOs #	The learning levels to be achieved						Competencies
	Remember	**Understand**	**Apply**	**Analyse**	**Evaluate**	**Create**	
CLO1: Explain importance of econometric models and tools	☒	☒	☐	☐	☐	☐	
CLO2: Use econometric, statistical & economic models	☒	☒	☒	☒	☐	☐	
CLO3: Analyze data, choose suitable models	☐	☒	☒	☒	☐	☐	
CLO4: Use software for data analysis	☐	☒	☒	☒	☐	☐	
CLO5: Interpret results & make decisions	☐	☒	☒	☒	☒	☐	

23. The matrix linking the intended learning outcomes of the course -CLO's with the intended learning outcomes of the program -PLOs:

PLO's * CLO's	1	2	3	4	5	Descriptors**		
						A	B	C
CLO1	A							
CLO2		B	B					
CLO3		B	B	C				
CLO4		B	B	C				
CLO5		B	B	C	A			

*Linking each course learning outcome (CLO) to only one program outcome (PLO) as specified in the course matrix.

**Descriptors are determined according to the program learning outcome (PLO) that was chosen and according to what was specified in the program learning outcomes matrix in clause (21).

24. Topic Outline and Schedule:

Week	Lecture	Topic	ILO(s)	Learning Type	Platform	Sync/Async	Evaluation	Resources
1	1.1	Introduction to econometrics	A1	Face-to-Face	Microsoft Teams	Synchronous	Participation, Quiz	Main Textbook
1	1.2	Econometrics methodology	A1	Face-to-Face	Microsoft Teams	Synchronous	Participation, Quiz	Main Textbook
2	2.1	Descriptive statistics: measures of central tendency	A2, B2, D1	Face-to-Face	Microsoft Teams	Synchronous	Participation, Quiz	Main Textbook
2	2.2	Measures of dispersion	A2, B2, D1	Face-to-Face	Microsoft Teams	Synchronous	Participation, Quiz	Main Textbook
3	3.1	Frequency distributions & graphs	A2	Face-to-Face	Microsoft Teams	Synchronous	Participation, Quiz	Main Textbook
3	3.2	Hypothesis testing (Z & t-	A2	Face-to-Face	Microsoft Teams	Synchronous	Participation, Quiz	Main Textboo

								k
		tests)						
4	4.1	Nonparametric tests: Chi-square	A2, B2	Face-to-Face	Microso ft Teams	Synchrono us	Participatio n, Quiz	Main Textboo k
4	4.2	Wilcoxon & Mann-Whitney	A2, B2	Face-to-Face	Microso ft Teams	Synchrono us	Participatio n, Quiz	Main Textboo k
5	5.1	Intro to regression	A3	Face-to-Face	Microso ft Teams	Synchrono us	Participatio n, Quiz	Main Textboo k
5	5.2	OLS method	A3	Face-to-Face	Microso ft Teams	Synchrono us	Participatio n, Quiz	Main Textboo k
6	6.1	Significance tests & goodness of fit	A3, B2	Face-to-Face	Microso ft Teams	Synchrono us	Participatio n, Quiz	Main Textboo k
6	6.2	Properties of OLS	A3, B2	Face-to-Face	Microso ft Teams	Synchrono us	Participatio n, Quiz	Main Textboo k
7	7.1	Using econometric software	A4, B1	Face-to-Face	Microso ft Teams	Synchrono us	Participatio n, Quiz	Main Textboo k
7	7.2	Hands-on data analysis	A4, B1	Face-to-Face	Microso ft Teams	Synchrono us	Participatio n, Quiz	Main Textboo k
8	8.1	Multiple regression: 3-variable model	A3, B2	Face-to-Face	Microso ft Teams	Synchrono us	Participatio n, Quiz	Main Textboo k
8	8.2	Testing significance	A3, B2	Face-to-Face	Microso ft Teams	Synchrono us	Participatio n, Quiz	Main Textboo k
9	9.1	Coefficient of determination	A3, B2	Face-to-Face	Microso ft Teams	Synchrono us	Participatio n, Quiz	Main Textboo k
9	9.2	Partial correlation & prediction	A3, B2	Face-to-Face	Microso ft Teams	Synchrono us	Participatio n, Quiz	Main Textboo k
10	10.1	Forecasting: concepts	A3	Face-to-Face	Microso ft Teams	Synchrono us	Participatio n, Quiz	Main Textboo k
10	10.2	Time series analysis	A3	Face-to-Face	Microso ft Teams	Synchrono us	Participatio n, Quiz	Main Textboo k
11	11.1	Forecast accuracy	A3	Face-to-Face	Microso ft Teams	Synchrono us	Participatio n, Quiz	Main Textboo k

11	11.2	Choosing a forecasting method	A3	Face-to-Face	Microsoft Teams	Synchronous	Participation, Quiz	Main Textbook
12	12.1	Functional forms	A2, A3	Face-to-Face	Microsoft Teams	Synchronous	Participation, Quiz	Main Textbook
12	12.2	Dummy variables	A2, A3	Face-to-Face	Microsoft Teams	Synchronous	Participation, Quiz	Main Textbook
13	13.1	Regression applications	B2, C3	Face-to-Face	Microsoft Teams	Synchronous	Participation, Quiz	Main Textbook
13	13.2	Model extension	B2, C3	Face-to-Face	Microsoft Teams	Synchronous	Participation, Quiz	Main Textbook
14	14.1	Problems: multicollinearity	A2, B1	Face-to-Face	Microsoft Teams	Synchronous	Participation, Quiz	Main Textbook
14	14.2	Problems: autocorrelation	A2, B1	Face-to-Face	Microsoft Teams	Synchronous	Participation, Quiz	Main Textbook
15	15.1	Review & integration	All ILOs	Face-to-Face	Microsoft Teams	Synchronous	Participation, Quiz	Main Textbook
15	15.2	Project presentations	All ILOs	Face-to-Face	Microsoft Teams	Synchronous	Participation, Quiz	Main Textbook

25. Evaluation Methods:

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

Activity	Weight	CLOs
Midterm Exam	30%	CLO1–CLO3
Project & Term Paper	30%	CLO3–CLO5
Final Exam	40%	CLO1–CLO5
Total	**100%**	

* According to the instructions for granting a Master's degree.**According to the principles of organizing semester work, tests, examinations, and grades for the bachelor's degree.

Mid-term exam specifications table*

No. of questions/ cognitive level						No. of questions per CLO	Total exam mark	Total no. of questions	CLO/ Weight	CLO no.
Create %10	Evaluate %10	analyse %10	Apply %20	Understand %20	Remember %30					
1	1	1	4	2	1	10	100	100	10%	1

Final exam specifications table

No. of questions/ cognitive level						No. of questions per CLO	Total exam mark	Total no. of questions	CLO Weight	CLO no.
Create %10	Evaluate %10	analyse %10	Apply %20	Understand %20	Remember %30					
										1
										2
										3
										4
										5

26. Course Requirements:

- Laptop with statistical software
- Internet access
- Microsoft Teams account

27. Course Policies:

A- Attendance policies:

B- Absences from exams and submitting assignments on time:

C- Health and safety procedures:

D- Honesty policy regarding cheating, plagiarism, misbehavior:

E- Grading policy:

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

28. References:

A- Required book(s), assigned reading and audio-visuals:

1. Gujarati, D. N., "Essentials of Econometrics ", McGraw-Hill Company Inc., New York, 1992.

2. Ragsdale C., Spreadsheet Modelling and Decision Analysis, 2nd ed. Southwestern College Publishing 2007.

B- Recommended books, materials, and media:

1. Maddala, G. S.: Introduction to Econometrics, John Wiley & Sons, 3d ed., New York, 2001
2. Gujarati, D. N., "Basic Econometrics ", 3rd ed., McGraw-Hill Company Inc., New York, 1995.
3. Series in Economics, McGraw-Hill Book Company, New York, 1982.
4. Stevenson W. J., Production / Operation Management, 2nd ed. IRWIN, 2021

29. Additional information:

Name of the Instructor or the Course Coordinator:	Signature:	Date:
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Name of the Head of Quality Assurance Committee/ Department	Signature:	Date:
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Name of the Head of Department	Signature:	Date:
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Name of the Head of Quality Assurance Committee/ School or Center	Signature:	Date:
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Name of the Dean or the Director	Signature:	Date:
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