



<b>Form: Course Syllabus</b>	<b>Form Number</b>	EXC-01-02-02A
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	<b>Number and Date of Revision or Modification</b>	
	<b>Deans Council Approval Decision Number</b>	2/3/24/2023
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	<b>Number of Pages</b>	06

1.	<b>Course Title</b>	<b>Agricultural Finance &amp; Project Analysis</b>
2.	<b>Course Number</b>	<b>605722</b>
3.	<b>Credit Hours (Theory, Practical)</b>	<b>3 credit hours</b>
	<b>Contact Hours (Theory, Practical)</b>	<b>3 lectures a week</b>
4.	<b>Prerequisites/ Corequisites</b>	-
5.	<b>Program Title</b>	<b>Master in Agricultural Economics and Agribusiness</b>
6.	<b>Program Code</b>	<b>05</b>
7.	<b>School/ Center</b>	<b>School of Agriculture</b>
8.	<b>Department</b>	<b>Agricultural Economics and Agribusiness Management</b>
9.	<b>Course Level</b>	<b>700</b>
10.	<b>Year of Study and Semester (s)</b>	<b>2024-2025 / Summer Semester</b>
11.	<b>Program Degree</b>	<b>Master in Agricultural Economics and Agribusiness</b>
12.	<b>Other Department(s) Involved in Teaching the Course</b>	-
13.	<b>Learning Language</b>	English
14.	<b>Learning Types</b>	<input checked="" type="checkbox"/> Face to face learning <input type="checkbox"/> Blended <input type="checkbox"/> Fully online
15.	<b>Online Platforms(s)</b>	<input type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams
16.	<b>Issuing Date</b>	2023
17.	<b>Revision Date</b>	

**18. Course Coordinator:**

Name: Prof Dr. Emad Al-Karablieh	Contact hours: S,M,T,W,Th 12:15-13:00
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## 19. Other Instructors:

Name:

Office number:

Phone number:

Email:

Contact hours:

Name:

Office number:

Phone number:

Email:

Contact hours:

## 20. Course Description:

As stated in the approved study plan.

This course will introduce the role of agricultural and agro-industry in economic development. The course focuses on identifying the costs and benefits of agricultural projects. Student will learn how to conduct economic and financial analysis of agricultural projects using the main financial indicators. Analysis of the social and environmental dimensions and sensitivity analysis are essential components in the feasibility study. The course includes training students and applications for feasibility studies using a personal computer.

### Teaching Methods

Traditional lectures on the principles and theoretical foundations of feasibility studies and identifying components and different stages. Take into consideration the theoretical and practical issues in the identification, preparation and evaluation of agricultural projects and allocated some lectures to solve exercises, exercises and case studies, and review a number of economic and financial feasibility studies and technical and students preparing feasibility studies for selected agricultural projects. being clarified and view themes using the overhead projector and case studies using Excel and used the program @Risk in the analysis of investment risk

### Objectives of the course are:

This course aims to introduce the graduate students to the agricultural enterprises and their relationship to the development plan, defining the investment project and the types of investment statistics and inform them of ways to prepare an assessment and project analysis. agricultural and agro-industrial and investment risk analysis .As well as refining capacity Students develop their skills in preparing economic feasibility studies and evaluation of projects, investment and trade-offs among available alternatives include specific objectives (1) to identify the key concepts in the analysis and evaluation of projects, (2) Analysis links project and select the project relation with relevant parties (3) understanding and applying the stages of the project and the information necessary to analyze the project (4) how to make investment decisions. (5) The distinction between certain conditions and uncertain conditions of risk and the circumstances of uncertainty (6) Investment costs and cash flows, (7) The distinction between cash flows and accounting profit.



**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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\* 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	
1.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identify and recall fundamental concepts of agricultural finance, feasibility studies, and investment appraisal.
2.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Explain and interpret marketing, technical, legal, and financial components of feasibility studies.
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Apply cash-flow analysis, discounted financial indicators (NPV, B/C, IRR), and risk analysis tools in evaluating agricultural projects.
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Critically analyze project alternatives under risk and uncertainty and evaluate investment decisions.



5.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Design and create comprehensive feasibility studies integrating financial, marketing, technical, and economic components.
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### 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
1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

\*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:

We ek	Lect ure	Topic	ILO/s Linked to the Topic	Learning Types	Platform Used	Sync/As ync	Evaluation Methods	Learning Resources
1	1.1	Definition of agricultural projects; inflows/outflows	CLO1	Face to Face	MS Teams	Synchro nous	Quiz / Discussion	Course Materials
	1.2	Role of agricultural enterprises in development	CLO1	Face to Face	MS Teams	Synchro nous	Quiz	Course Materials
	1.3	Structure and purpose of feasibility studies	CLO1	Face to Face	MS Teams	Synchro nous	Assignment	Course Materials
2	2.1	Pre-feasibility study and project idea sources	CLO2	Face to Face	MS Teams	Synchro nous	Quiz	Course Materials
	2.2	Project identification and selection criteria	CLO2	Face to Face	MS Teams	Synchro nous	Discussion	Course Materials
	2.3	Market identification and demand estimation	CLO2	Face to Face	MS Teams	Synchro nous	Assignment	Course Materials
3	3.1	Market size, demand, and supply analysis	CLO2	Face to Face	MS Teams	Synchro nous	Quiz	Course Materials



	3.2	Competition and market share analysis	CLO2	Face to Face	MS Teams	Synchronous	Discussion	Course Materials
	3.3	Price forecasting	CLO2	Face to Face	MS Teams	Synchronous	Assignment	Course Materials
4	4.1	Technical feasibility: production process	CLO2	Face to Face	MS Teams	Synchronous	Quiz	Course Materials
	4.2	Project requirements (land, buildings, labor)	CLO2	Face to Face	MS Teams	Synchronous	Discussion	Course Materials
	4.3	Technology selection and know-how	CLO2	Face to Face	MS Teams	Synchronous	Assignment	Course Materials
5	5.1	Project location analysis (SWOT)	CLO2	Face to Face	MS Teams	Synchronous	Quiz	Course Materials
	5.2	Raw materials and logistics	CLO2	Face to Face	MS Teams	Synchronous	Discussion	Course Materials
	5.3	Infrastructure and operations	CLO2	Face to Face	MS Teams	Synchronous	Assignment	Course Materials
6	6.1	Financial feasibility fundamentals	CLO3	Face to Face	MS Teams	Synchronous	Quiz	Course Materials
	6.2	Undiscounted measures (Payback, ARR)	CLO3	Face to Face	MS Teams	Synchronous	Assignment	Course Materials
	6.3	Book value income measures	CLO3	Face to Face	MS Teams	Synchronous	Discussion	Course Materials
7	7.1	Time value of money	CLO3	Face to Face	MS Teams	Synchronous	Quiz	Course Materials
	7.2	Compounding and discounting	CLO3	Face to Face	MS Teams	Synchronous	Assignment	Course Materials
	7.3	Present worth and future worth	CLO3	Face to Face	MS Teams	Synchronous	Discussion	Course Materials
8	8.1	Discounted measures: NPV and B/C	CLO3	Face to Face	MS Teams	Synchronous	Quiz	Course Materials
	8.2	Internal Rate of Return (IRR)	CLO3	Face to Face	MS Teams	Synchronous	Assignment	Course Materials
	8.3	Ranking investment alternatives	CLO3	Face to Face	MS Teams	Synchronous	Discussion	Course Materials
9	9.1	With/without project appraisal	CLO4	Face to Face	MS Teams	Synchronous	Quiz	Course Materials
	9.2	Depreciation, replacement, salvage	CLO4	Face to Face	MS Teams	Synchronous	Assignment	Course Materials
	9.3	Working capital & construction period analysis	CLO4	Face to Face	MS Teams	Synchronous	Discussion	Course Materials
10	10.1	Economic feasibility: shadow pricing	CLO3	Face to Face	MS Teams	Synchronous	Quiz	Course Materials
	10.2	Import/export parity prices	CLO3	Face to Face	MS Teams	Synchronous	Assignment	Course Materials
	10.3	Wage adjustments and distortions	CLO3	Face to Face	MS Teams	Synchronous	Discussion	Course Materials
11	11.1	Economic NPV and EIRR	CLO4	Face to Face	MS Teams	Synchronous	Quiz	Course Materials
	11.2	Market distortions and corrections	CLO4	Face to Face	MS Teams	Synchronous	Discussion	Course Materials
	11.3	Economic costs and benefit allocations	CLO4	Face to Face	MS Teams	Synchronous	Assignment	Course Materials
12	12.1	Social feasibility analysis	CLO4	Face to Face	MS Teams	Synchronous	Quiz	Course Materials
	12.2	Employment, equity, income distribution	CLO4	Face to Face	MS Teams	Synchronous	Discussion	Course Materials
	12.3	Contribution to food security &	CLO4	Face to	MS	Synchro	Assignment	Course



		balance of payments		Face	Teams	nous		Materials
13	13.1	Environmental feasibility (EIA)	CLO4	Face to Face	MS Teams	Synchro nous	Quiz	Course Materials
	13.2	Soil, water, and biodiversity impacts	CLO4	Face to Face	MS Teams	Synchro nous	Discussion	Course Materials
	13.3	Climate implications	CLO4	Face to Face	MS Teams	Synchro nous	Assignment	Course Materials
14	14.1	Risk and uncertainty in project analysis	CLO4	Face to Face	MS Teams	Synchro nous	Quiz	Course Materials
	14.2	Probabilities, correlations, risk measures	CLO4	Face to Face	MS Teams	Synchro nous	Assignment	Course Materials
	14.3	Sensitivity and scenario analysis	CLO4	Face to Face	MS Teams	Synchro nous	Discussion	Course Materials
15	15.1	PSP and PPP in agricultural projects	CLO5	Face to Face	MS Teams	Synchro nous	Quiz	Course Materials
	15.2	Student project presentations	CLO5	Face to Face	MS Teams	Synchro nous	Presentatio n	Course Materials
	15.3	Final wrap-up and course review	CLO5	Face to Face	MS Teams	Synchro nous	Participation	Course Materials

### Week 1

1.1 Introduction to agricultural projects: components, outflows, inflows — CLO1

1.2 Role of agricultural enterprises in development — CLO1

1.3 Structure and purpose of feasibility studies — CLO1

### Week 2

2.1 Pre-feasibility study: sources of project ideas — CLO2

2.2 Project identification and selection criteria — CLO2

2.3 Market identification and demand assessment — CLO2

### Week 3

3.1 Market size, demand, and supply — CLO2

3.2 Competition and market share — CLO2

3.3 Price forecasting techniques — CLO2

### Week 4

4.1 Technical feasibility: production techniques — CLO2

4.2 Project requirements (land, buildings, labor, infrastructure) — CLO2

4.3 Technology selection and know-how — CLO2

### Week 5

5.1 Project location analysis (SWOT) — CLO2

5.2 Raw material assessment and logistics — CLO2

5.3 Infrastructure and operational considerations — CLO2

### Week 6

6.1 Introduction to financial feasibility — CLO3

6.2 Undiscounted measures: payback period, average return — CLO3

6.3 Book value income measures — CLO3

### Week 7

7.1 Time value of money — CLO3

7.2 Compounding and discounting — CLO3

7.3 Present worth and future worth — CLO3

### Week 8



8.1 Discounted measures: NPV and B/C ratio — CLO3

8.2 Internal Rate of Return (IRR) — CLO3

8.3 Comparing investment alternatives — CLO3

#### Week 9

9.1 Appraisal with and without project — CLO4

9.2 Depreciation, replacement, salvage value — CLO4

9.3 Working capital and construction period analysis — CLO4

#### Week 10

10.1 Economic feasibility: shadow pricing — CLO3

10.2 Import/export parity pricing — CLO3

10.3 Wage adjustments and market distortions — CLO3

#### Week 11

11.1 Economic NPV and EIRR — CLO4

11.2 Price distortions and adjustments — CLO4

11.3 Allocation of economic costs and benefits — CLO4

#### Week 12

12.1 Social feasibility analysis — CLO4

12.2 Employment, equity, income distribution — CLO4

12.3 Contribution to food security and balance of payments — CLO4

#### Week 13

13.1 Environmental feasibility (EIA) — CLO4

13.2 Impacts on soil, water, and biodiversity — CLO4

13.3 Climate-related considerations — CLO4

#### Week 14

14.1 Risk and uncertainty in project analysis — CLO4

14.2 Probabilities, correlations, and risk indicators — CLO4

14.3 Sensitivity and scenario analysis — CLO4

#### Week 15

15.1 Public Sector Participation (PSP) and Public-Private Partnership (PPP) — CLO5

15.2 Student project presentations — CLO5

15.3 Final reflections and course wrap-up — CLO5

## 25. Evaluation Methods:

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

Activity	Weight	CLO1	CLO2	CLO3	CLO4	CLO5
Midterm Exam	30%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Classwork, Assignments, Quizzes	20%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Project Report / Presentation	20%	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



Final Exam	30%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Total</b>	<b>100%</b>					

\* According to the instructions for granting a Bachelor's degree.

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

Mid-term exam specifications table\*

CLO	Weight	Total Questions	Remember	Understand	Apply	Analyse	Evaluate	Create
1	10%	10	3	3	2	1	1	0
2	25%	25	6	7	6	4	2	0
3	35%	35	5	6	12	7	5	0
4	20%	20	2	4	6	5	3	0
5	10%	10	1	2	3	2	1	1

Final exam specifications table

CLO	Weight	Total Questions	Remember	Understand	Apply	Analyse	Evaluate	Create
1	10%	10	3	3	2	1	1	0
2	20%	20	4	6	5	3	2	0
3	30%	30	5	6	10	5	3	1
4	25%	25	3	5	7	5	4	1
5	15%	15	1	2	4	3	3	2

## 26. Course Requirements:

(e.g.: students should have a computer, internet connection, webcam, account on a specific software/platform...etc.):

- Laptop with Excel and @Risk
- Microsoft Teams account
- Internet connection
- Ability to conduct independent analysis and prepare reports





## 27. Course Policies:

### A. Attendance Policies

Students are required to attend all scheduled lectures. A maximum absence of 15% of the total course hours is permitted. Exceeding this limit without an officially approved excuse results in the student being barred from the final exam and receiving a failing grade. Late arrival to class may be recorded as an absence at the instructor's discretion.

### B. Absences from Exams and Submitting Assignments on Time

Students who miss an exam must provide an official excuse within three working days. Approved excuses entitle the student to a make-up exam scheduled by the instructor.

Assignments must be submitted on time; late submissions are not accepted and will receive a grade of zero unless an official excuse is approved before the deadline.

### C. Health and Safety Procedures

Students must follow all health and safety instructions issued by the University of Jordan, including maintaining a safe learning environment, complying with laboratory or computer lab rules when applicable, and following emergency instructions. Any unsafe behavior may result in disciplinary action.

### D. Honesty Policy Regarding Cheating, Plagiarism, and Misbehavior

The course follows the University of Jordan Academic Integrity Policy. Cheating in exams, plagiarism in assignments or reports, fabrication of data, disruptive behavior, impersonation, and unauthorized collaboration are strictly prohibited. Violations result in disciplinary actions, including exam cancellation, failing course grade, or referral to the university disciplinary committee.

### E. Grading Policy

Grades are assigned based on the officially approved assessment components:

Midterm Exam: 30%

Classwork (Quizzes, Assignments, Participation): 20%

Project/Report: 20%

Final Exam: 30%

Grades are posted according to university regulations. Students have the right to review exam papers within the announced period.

### F. Available University Services Supporting Achievement in the Course

Students may benefit from:

The University of Jordan Library (digital databases, journals, books)

Microsoft Teams support for online communication and materials

Computer labs at the Faculty of Agriculture

### E-learning support services for technical assistance

Student Counseling and Academic Advising

IT Support Unit for software-related help (Excel, @Risk installation guidance)

## 28. References:



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

- European Investment Bank. (2023). The economic appraisal of investment projects at the EIB: European Investment Bank.
- FAO/IFAD. (2016a). Economic and Financial Analysis of Rural Investment Projects. Basic concepts and rationale: IFAD's Internal Guidelines. Policy Support and Governance | Food and Agriculture Organization of the United Nations.
- FAO/IFAD. (2016b). Economic and Financial Analysis of Rural Investment Projects. Case Studies: IFAD's Internal Guidelines. Policy Support and Governance | Food and Agriculture Organization of the United Nations.
- FAO/IFAD. (2016c). Economic and Financial Analysis of Rural Investment Projects. Minimum requirements and practical examples: IFAD's Internal Guidelines. Policy Support and Governance | Food and Agriculture Organization of the United Nations.
- Florio, Massimo, Morretta, Valentina, & Willak, Witold. (2018). Cost-benefit analysis and European Union cohesion policy: Economic versus financial returns in investment project appraisal. Journal of Benefit-Cost Analysis, 9(1), 147–180.
- IFAD. (2015). Financial Analysis of Rural Investment Projects. IFAD'S Internal Guidelines.
- Platon, Victor, & Constantinescu, Andreea. (2014). Monte Carlo Method in Risk Analysis for Investment Projects. Procedia Economics and Finance, 15, 393–400. doi:https://doi.org/10.1016/S2212-5671(14)00463-8
- Gittinger, J. P. (1982). Economic Analysis of Agricultural Projects (2nd ed.). Johns Hopkins University Press.
- Behrens, W., & Hawranek, P. (1991). Manual for the Preparation of Industrial Feasibility Studies. United Nations Industrial Development Organization (UNIDO).

#### B- Recommended books, materials, and media:

- Asian Development Bank. (2002). Handbook for Integrating Risk Analysis in the Economic Analysis of Projects. Asian Development Bank.
- Johansson, P.-O., & Kriström, B. (2015). Cost-Benefit Analysis for Project Appraisal. Cambridge University Press.
- NENARACA. (1999). Evaluation of Small-Scale Rural Projects: Training Module No. 2. Near East North Africa Regional Agricultural Credit Association.

### 29. Additional information:

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

