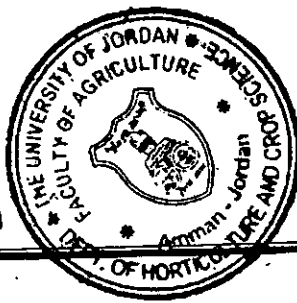




مركز الاعتماد
و ضمان الجودة



الجامعة الأردنية

التاريخ: ٢٠١٦/٤/١

الخطة الدراسية ماجستير

الإصدار: ٠١

مركز الاعتماد وضمان الجودة

رقم النموذج: QF-AQAC-02.04

1.	School	Agriculture
2.	Department	Horticulture and Crop Science
3.	Program title (Arabic)	ماجستير في الزراعة العضوية
4.	Program title (English)	MSc. In Organic agriculture
5.	Track	Thesis

Plan Number	Specialization #	Degree	Dep #	School #	Year	Track
		8	01	06	2017	Thesis

First: General Rules & Conditions:

1. This plan confirms to the valid regulations of programs of graduate studies.
2. Areas of specialty for admission in this program:

Holders of the Bachelor's degree in:

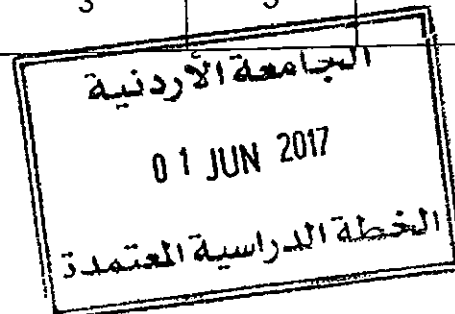
- First Priority: Plant Protection, Plant Production, and Horticulture & Crop science
- Second Priority: General Agriculture, or Biological sciences, or Environmental sciences

Second: Special Conditions: None.

Third: Study Plan: Studying (33) Credit Hours as following:

1. Obligatory Courses (15) Credit Hours:

Course No.	Course Title	Credit Hrs	Theory	Practical.	Pre/Co-requisite
0601700	Research methods	1	1	-	-
0641701	Experimental design and analysis (1)	3	3	-	-
0601709	Seminar in organic farming	1	1	-	-
0601725	Management of organic crop production	3	3	-	-
0602720	Organic animal production	2	2	-	-
0654712	Management of organic fertilizers	2	2	-	-
0606720	Pest management in organic farming	3	3	-	-



Handwritten signature and date: ٢٠١٦/٤/١

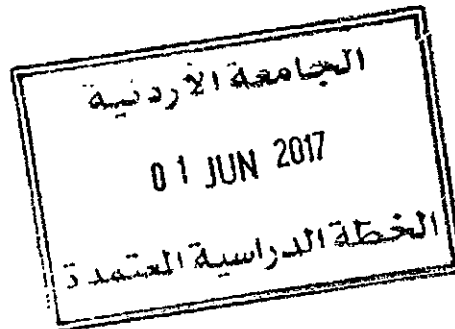
2. Elective Courses: Studying (9) Credit hours from the following:

Course No.	Course Title	Credit Hrs	Theory	Practical.	Pre/Co-requisite
0601705	Crop physiology	3	3	-	-
0631710	Selected topics in organic farming	3	3	-	-
0631723	Cropping systems	3	3	-	-
0602704	Range animal nutrition	3	3	-	-
0602713	Environment and farm animals productivity	3	3	-	-
0634701	Soil, water and plant analysis	3	3	-	-
0634702	Nutrient management	3	3	-	-
0634710	Environmental soil microbiology	3	3	-	-
0635720	Agribusiness management	3	3	-	-
0635722	Agricultural project appraisal and finance	3	3	-	-
0636732	Weed Management in Organic Agricultural	3	3	-	-
0636791	Biopesticides	3	3	-	-

C. (0601799) Thesis: 9 credit hours

D. Arabic proficiency exam

*notes



Course description

(0601700) Research methods (1 credit hours)

This course covers scientific research methods, research process, proposal writing, literature collection, materials and methods, Students are required to give presentations on various topics related to selected research proposals, data collection, entering data to computer, statistical methods for analyzing, results and discussion, conclusion and reference citations. Academic dishonesty. There is a **zero tolerance policy** for any form of academic dishonesty. This includes copying from books and articles and internet sources without proper credit.

(0641701) Experimental design and analysis (1) (3 credit hours)

Multiple regression and correlation concepts. Computation and interpretation for I, II, III and IV way analysis of variance. Basic concepts in designing experiments and analysis of multiple comparison methods.

(0601705) Crop physiology (3 credit hours)

Topics covered in this course include: Plant water relationship with special emphasis on osmoregulation and water stress in higher plants. Plant light interaction including the role of light in photosynthesis, photo-periodism and photomorphogenesis. Plant hormones with special reference to their metabolism, transport and mode of action. Nitrogen metabolism and biological nitrogen fixation. Secondary plant products and defense compounds. Developmental physiology with emphasis on juvenility, senescence and abscission.

(0601709) Seminar in organic farming (1 credit hour)

Students are required to prepare and present one or more recent topics in organic farming.

(0631710) Selected topics in organic farming (3 credit hours)

Study of topic(s) not listed in the studying plan or other related topics. Offering such topics depends on availability of the specialist and on the importance of the offered topics as well as needs of graduate students.

(0631723) Cropping systems (3 credit hours)

Crop rotation, intensive cultivation monoculture, intercropping, multiple cropping, alternative farming systems including organic farming, low input sustainable agriculture. Tillage and soil management practices, under dry land and irrigated conditions.

(0601725) Management of organic crop production (3 credit hours)

This course provides tools to manage the practices of organic field and horticultural crop systems including physical and biological soil fertility and nutrient cycling, and to develop understanding of crop production methods, nutrition and protection, harvesting and storage. This course will provide students with skills to undertake whole farm analysis and in particular organic conversion planning. Laws of regulation and certification of organic production, application of Quality Assurance (QA) schemes in the organic food production to meet the needs of relevant legislation and consumer concerns will be covered.

(0602704) Range animal nutrition (3 credit hours)

Factors influencing the performance of grazing animals; techniques for determining feed intake of grazing animals; assessment of nutritive characteristics of forage plants and their effect on voluntary forage intake; factors affecting selection of plants; grazing behavior; investigating the functional relationship between forage production and animal performance.

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(0635722) Agricultural project appraisal and finance (3 credit hours)

Theory, application of concepts relating to economic and social benefit-cost analysis of private and public agricultural projects. This course aims at enabling students to setup project management systems, apply techniques of network analysis, and establishing a monitoring, and evaluation system for a specific project. The course covers Critical Path Analysis (CPA) and Project Evaluation and Reviewing Technique (PERT) for financial and accounting management, investment appraisal and financial analysis, capital budgeting, capital structure, and institutions involved in agricultural finance.

(0606720) Pest management in organic farming (3 credit hours)

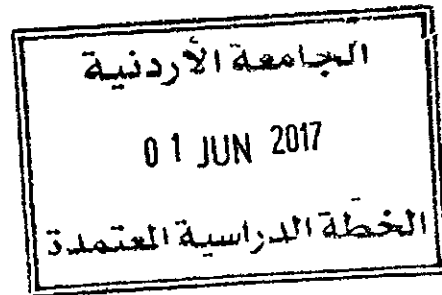
This course will emphasize the identification of pests (insect and pathogen pests and weeds), the non-chemical, managerial, cultural and environmental methods for controlling pests in organic agriculture, companion plants and the use of non-synthetic pesticides of plant origin; study cases, term papers and presentations about the recent advances of non-chemical pest control.

(0636732) Weed Management in Organic Agricultural (3 credit hours)

The course covers the socioeconomic impact of weeds, review of various control methods, excluding chemical means, integrating them at the farm level, especially in small farming systems. The rational use of cultivation activities towards better weed management. Study of the biology of some common weeds and examples on their management with the available methods and recent means. The course includes field study cases and presentation of research papers.

(0636791) Biopesticides (3 credit hours)

The course includes microbial biopesticides for controlling bacteria, viruses and other pests, biopesticides of plant origin, allelopathy and allelochemicals, genetically modified resistant plants against pests, pheromones, modes of action and molecular identification of resistance against pests. Technical and legal aspects of registration. Environmental impact.



(0602713) Environment and farm animals productivity (3 credit hours)

Effects of environmental factors on farm animal production parameters: management, nutrition, reproduction, growth and animal products (milk, meat, eggs and wool); animal housing in relation to environmental factors.

(0602720) Organic animal production (2 credit hours)

This course includes an overview of the philosophical basis for organic livestock production, organic standards, health management strategies, marketing methods, and ethical concerns relating to livestock production. Topics include organic production of beef, sheep, dairy, and poultry; nutrition and feeding, pasture management, housing, manure management, health, and breed selection. In addition, milk house wastewater management, mastitis control, and pipeline sanitation in organic dairy production, and egg marketing and alternative housing systems in organic poultry production.

(0634701) Soil, water and plant analysis (3 credit hours)

Fundamentals of soil, water, and plant sampling Sample treatment, Methods of analysis and their scientific foundation: Thermal methods. Emission and atomic absorption spectrophotometry. Radiochemical, chromatographic and paleographic methods. Mass spectrometry.

(0634702) Nutrient management (3 credit hours)

Criteria of classification for plant nutrients: Macronutrients: N, P, K, Mg, Ca. Micronutrients: Fe, Zn, Mn, Mo, B, Cu, Co and S. Beneficial nutrients Na, Cl, Se, Role and function of essential nutrients in plant, soil fertility evaluation, management of fertilizer application, cropping system and soil fertility, crop rotation, legumes in crop rotation, fertilizers & efficient use of water, nutrients cycles and balance in nature.

(0634710) Environmental soil microbiology (3 credit hours)

The course includes, Cell composition, Microbial community in soil, Environmental influences, Microbial transport of toxic metals, Transport of pathogens through soils and aquifers, Innovations in biological processes for pollution control, Bio-remediation, biodegradation, biofertilizers, Microbial control of plant diseases. Microorganisms and biochemical cycles.

(0654712) Management of organic fertilizers (2 credit hours)

This course covers sources and kinds of organic fertilizers, composting, application methods recommended for organic fertilizers and other soil amendments for organic agriculture, identification of beneficial soil organisms, and their introduction to organic production systems to improve plant health and crop quality. Nitrogen and sulfur cycles. Functions of microorganisms, micro-arthropods and earthworms living in soil, and the role of 'balanced' soil food web to help protecting organic crops from pests and diseases.

(0635720) Agribusiness management (3 credit hours)

Planning, organizing, directing and controlling functions of management as they relate to agricultural business firms, and economic concepts, which underscore strategic management principles. Examination of agribusiness firms management with emphasis on effective communication in the management process, methods and tools which are used to evaluate business opportunities, management and control of financial resources and human resource management. Students will complete a market analysis study for an agribusiness product as part of the course requirements.

الجامعة الأردنية

01 JUN 2017

الخطة الدراسية الاعتماد

الجامعة الأردنية

الخطة الدراسية - ماجستير

التاريخ: ٢٠١٦/٤/١

الإصدار: ٠١



مركز الاعتماد وضمان الجودة

رقم النموذج: AQAC-02.04

الزراعة	الكلية	١.
البستنة والمحاصيل	القسم	٢.
ماجستير في الزراعة العضوية	اسم الدرجة العلمية (بالعربية)	٣.
MSc in Organic agriculture	اسم الدرجة العلمية (بالإنجليزية)	٤.
رسالة	المسار	٥.

رقم الخطة	رقم التخصص	الدرجة	رقم القسم	رقم الكلية	السنة	رسالة/شامل
رسالة		٨	٠١	٠٦	٢٠١٧	رسالة



أولاً: أحكام وشروط عامة:

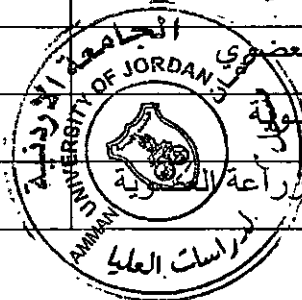
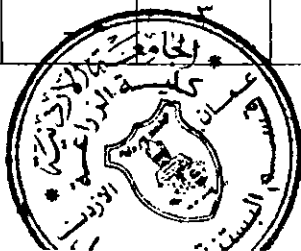
١. تتفق الخطة مع تعليمات برامج الدراسات العليا النافذة.
٢. التخصصات التي يمكن قبولها:
الأولوية الأولى - بكتوريوس في وقاية النبات، الإنتاج النباتي، البستنة والمحاصيل.
الأولوية الثانية - بكتوريوس في العلوم الزراعية أو العلوم الحياتية أو العلوم البيئية.

ثانياً: شروط خاصة : لا يوجد

ثالثاً: تتكون مواد هذه الخطة من (٣٣) ساعة معتمدة موزعة كما يلي:

١. مواد إجبارية (١٥) ساعات معتمدة كما يلي:

رقم المادة	اسم المادة	الساعات المعتمدة	نظري	عملي	المتطلب السابق
0601700	اساليب بحث	١	١	-	-
0641701	تصميم وتحليل التجارب	٣	٣	-	-
0601709	ندوة في الزراعة العضوية	١	١	-	-
0601725	ادارة الانتاج العضوي للمحاصيل	٣	٣	-	-
0602720	الانتاج الحيواني العضوي	٢	٢	-	-
0654712	ادارة الاسمدة العضوية	٢	٢	-	-
0606720	ادارة الافات في الزراعة العضوية	٣	٣	-	-



عماد