



Learning outcomes for BSc in Animal Production

At the successful completion of the Bachelor Program of Animal Production the student should be able to:

1. Demonstrate a depth of understanding of different disciplines within animal production such as nutrition, physiology, management, breeding, animal health, and animal biotechnology, and apply this acquired knowledge under commercial and field conditions.
2. Develop research skills and demonstrate knowledge of research methodologies and evidence-based decision making.
3. Implement basic agricultural concepts acquired when working in public and/or private sector, research institutions, multinational corporations, and regional and international agricultural entities.
4. Utilize critical thinking to analyze and tackle problems encountered when working in the livestock industry, and formulate strategies and working plans to solve these problems and improve efficiency and production of farm animals.
5. Appraise the laws, regulations, and statutes governing animal production in Jordan.
6. Interact with stakeholders such as livestock producers and investors at a local level to provide the appropriate extension services requested.
7. Articulate ideas and develop communication skills especially those that promote collaborative problem-solving, mutual understanding, and team work.

8. Identify and assess individual values, knowledge, skills, and abilities in order to set forth and achieve lifelong personal, educational, and professional goals.

9. Practice decision-making that builds self-awareness, fosters self-reliance, and nourishes physical, mental, and social health.

10. Apply skills of cooperation, collaboration, negotiation, and group decision-making through practical training and workshops.

11. Exhibit leadership capabilities, quality judgment, dependability, and accountability while maintaining flexibility in an ever-changing world.

Learning outcomes for MSc in Animal Production

At the successful completion of the Master Program of Animal Production the student should be able to:

1. Create and implement plans, programs and systems to help in the development of animal production.
2. Work in research institutions and conduct applied research to tackle current issues in animal production.
3. Demonstrate effective communication skills with livestock producers especially at the local level to provide the appropriate extension services.
4. Implement the results of scientific studies to take the appropriate decisions.
5. Utilize critical thinking capabilities and problem solving skills in providing solution for outstanding issues facing the livestock sector in Jordan.
6. Work as a manager in the animal production companies and enterprises.
7. Implement strategies and working plans to improve efficiency and productivity.
8. Conduct scientific projects under the supervision of faculty members.
9. Write scientific literature and technical reports.
10. Develop technical skills to manage different enterprises of animal production.
11. Prepare and present seminar to a professional standards.



Learning outcomes for PhD in Animal Production

At the successful completion of the Doctorate Program of Animal Production the Student should be able to:

1. Demonstrate advanced knowledge and understanding of the animal production specific fields.
2. Develop and evaluate animal production and management systems by integrating knowledge of animal genetic, nutrition and reproduction.
3. Connect between the cognitive sciences to increase the understanding of the various vital processes associated with animal's body, which affect directly and indirectly on the productivity.
4. Collect, analyze and draw conclusions from data on scientific research.
5. Evaluate animal production projects, spot the improper conditions and provide solutions to the arising problems.
6. Apply the proper conditions needed for the basic concepts of safety and quality management regarding animal products.
7. Employ depth understanding regarding to the management and production of farm animals.
8. Investigate conditions, techniques, and technologies required to enhance the productivity of farm animals and quality of their products.
9. Improve the conditions of animal productivity within our local environment.
10. Write research projects to solve real-world challenges related to different aspects of animal production and publish the results in international journals.
11. Contribute to the teaching of animal production materials in universities and scientific institutes.
12. Publish a research article in a scientific peer reviewed journal.



Learning outcomes for BSc in Nutrition and Dietetics

At the successful completion of the Bachelor Program of Nutrition and Dietetics the student should be able to:

1. Demonstrate a depth understanding of the basis of nutritional science and the nutrient composition of food, and discover the links between diet and disease and health and the social/ethical factors which impinge on diet and health.
2. Explain the principles of cellular metabolic processes, the structure and function of the various physiological systems and the principles of biological chemistry.
3. Evaluate critically scientific research from a variety of sources in relation to nutrition and health through working with others, communication, self-Management and problem solving and reflect on the various components.
4. Communicate ideas and information clearly and effectively both to individuals and to groups using both oral and written means.
5. Utilize the methods of data analysis using computer software and apply these methods to analyze data obtained from a wide variety of sources and situations
6. Demonstrate skills to support the enhancement of employability including skills necessary for employment requiring the exercise of some personal responsibility; decision making in complex and unpredictable contexts; and the learning ability needed to undertake appropriate further training of a professional or equivalent nature.
7. Communicate effectively with groups and individuals to promote the benefits of a balanced diet throughout the lifespan and demonstrate the ability to use scientific laboratory skills.
8. Assess diet, food and nutrient intake and the consumption of food constituents in individuals and groups.



9. Demonstrate consistent professional behavior in accordance with the legal and ethical boundaries of the dietetic profession.
10. Apply Critically knowledge of diet and health to evaluate and communicate and comment on dietary or health information both from scientific sources and that which is available to the public.
11. Apply critical thinking by questioning given information, testing hypotheses, formulating suggestions with awareness of the ethical and social issues that are involved in diet and health.

Learning outcomes for MSc in Nutrition and Dietetics

At the successful completion of the Master Program of Nutrition and Dietetics the student should be able to:

1. Demonstrate a critical approach to the science of human nutrition and dietetics and a capacity for independent evaluation of research.
2. Demonstrate consistent professional behavior in accordance with the legal and ethical boundaries of the dietetic profession.
3. Apply evidence-based nutrition information to solve practical problems among diverse populations and geographic settings and apply advanced and integrated knowledge of nutrition and health to nutrition related health problems.
4. Select and develop appropriate modes of communication to obtain and share evidence based nutrition knowledge, and appropriate technologies to analyze and synthesize complex nutrition information and problems, and to interpret and share knowledge, skills and ideas.
5. Critically analyze, reflect on and synthesize complex information and problems in nutrition, to come to well-reasoned conclusions.
6. Apply best practice and evidence to identify problems and generate and evaluate practical solutions to complex nutrition issues.
7. Develop, implement, and evaluate nutrition programs at the community, national, and global levels using interdisciplinary approaches.
8. Integrate nutrition fundamentals into the treatment and prevention of chronic disease.



9. Discuss and appraise the way public health strategies evolve and nutritional guidelines are developed and identify the key nutrition concepts for developing food-based dietary guidelines.
10. Employ high level personal responsibility, accountability and autonomy to demonstrate expert judgment, adaptability to new situations, effective work practices, and responsibility as a nutritionist.
11. Select, develop and validate, appropriate study methods to evaluate the nutritional status of a population and to assess the relationship between diet and disease/health outcomes.
12. Present a critical in depth review of a specialized area of the literature in the format of a review article to a peer reviewed journal, analyze and apply research methods within a variety of nutrition studies and settings and generate new knowledge through research in nutrition.



Learning outcomes for PhD in Nutrition and Dietetics

At the successful completion of the Doctorate Program of Nutrition and Dietetics the student should be able to:

1. Establish advanced scholarship in a specialty area related to nutrition and dietetics.
2. Demonstrate appropriate exposure to social and career-building disciplines.
3. Write an original scholarly research, and effectively dissemination research findings via peer-reviewed journals.
4. Prepare and present seminars in the various subjects of nutrition and dietetics.
5. Analyze and apply current research into practice and use these nutrition principles in the treatment and prevention of diseases and evaluate varying techniques and methods used in nutritional research.
6. Investigate and evaluate theories to facilitate the adoption of healthy behaviors, and assess the complex factors that influence nutritional choices
7. Articulate the significance of applied nutrition concepts and practices in terms of the challenges and current trends in the field of nutrition.
8. Solve nutrition-related problems, propose effective nutrition policies, guide new product and service development
9. Contribute through original research that extends the frontier of knowledge by developing a substantial body of work, some of which merits national or international refereed publication.

Learning outcomes for of BSc program in Food Science and Technology

At the successful completion of Bachelor Program of Food Science and Technology the student should be able to:

1. Analyze critically the interaction of food science and technology with a wide range of other scientific disciplines and assess the contribution of each discipline to the resolution of multidisciplinary problems.
2. Interpret, explain and use major aspects of terminology, nomenclature and classification systems associated with food science and engineering.
3. Evaluate and critically analyze different aspects of food science, and their influence on food processing, demonstrate an understanding of the applicability of science, nutrition and food technology careers and manage future professional development.
4. Demonstrate intellectual flexibility in identifying and defining complex problems and the application of appropriate knowledge, tools/methods to their solution.
5. Plan, design, cost and execute experiments using a wide range of analytical instrumentation and techniques, qualitative and quantitative, appropriate to food science, nutrition and food technology experimentation and practice.
6. Handle biological materials, chemicals, and food safely taking into account their physical, chemical and biological properties including any specific hazards associated with their use, and conduct risks assessment.
7. Develop arguments involving moral and ethical issues associated with food science, nutrition and food technology, and use ethical standards and professional codes of conduct, and recognize the environmental and sustainability issues associated with food production.



8. Plan, manage and evaluate strategies for updating, maintaining and enhancing knowledge and skills set associated with the food industry and recognize how this relates to other areas of personal development.
9. Carry out sample selection; record or analyze data in the field and/or laboratory; ensure validity; accuracy, calibration, precision, replicability and evaluate uncertainty during collection.
10. Prepare, process, interpret, appraise and present data, using appropriate qualitative and quantitative techniques, statistical programs, spreadsheets and programs for presenting data visually.



Learning outcomes for MSc program in Food Science and Technology

At the successful completion of Master Program of Food Science and Technology the student should be able to:

1. Demonstrate advanced knowledge of the fundamental aspects of the food science topics studied and their application to current practice in the industry
2. Apply the principles developed in the program to other aspects of food science and technology.
3. Evaluate critically the functionality and safety of foods in the context of human health including the relation with raw materials and their processing into foods based on analytical data and scientific literature data.
4. Master the skills and acquire the problem solving capacity to analyze problems of food quality and safety along the food chain and elaborate interdisciplinary and integrated qualitative and quantitative approaches and solutions (including implementation) appreciating the complexity of food systems and the processes used while taking into account technical limitations and socio-economic aspects such as feasibility, risks, and sustainability.
5. Investigate interaction with other relevant science domains and integrate them within the context of more advanced ideas and practical applications and problem solving.



6. Identify and apply appropriate research methods and techniques, design, plan and execute targeted experiments or simulations independently and critically evaluate and interpret the collected data.
7. Demonstrate critical consideration of and reflection on known and new theories, models or interpretation within the broad field of food technology.
8. Develop and execute independently original scientific research and/or apply innovative ideas within research environments to create new and/or improved insights and/or solutions for complex multi-disciplinary research questions respecting the results of other researchers.
9. Act in a manner appropriate to a professional Food Scientist / Technologist and communicate effectively (orally and in writing) original scientific material to both an academic and lay audience, and generate new knowledge through research in food systems.

Learning outcomes for PhD program in Food Science and Technology

At the successful completion of the Doctorate Program of Food Science and Technology the student should be able to:

1. Acquire in-depth knowledge about food science, scientific theories and methods associated with food science and technology.
2. Assess and analyze different theories, methods and processes in research and academic development projects– also from an international perspective.
3. Contribute to the development of new knowledge, new theories and methods in food science and technology.
4. Formulate issues, and plans and conduct research and academic development work of high international caliber within the field.
5. Utilize the scientific equipment, instruments and analysis tools and be familiar with equipment.
6. Master relevant statistical methods and conduct original research that lead to new knowledge that can be published in international peer-reviewed journals.
7. Handle complexity, create an overview, and synthesize scientific information, and perform critical assessments and give constructive criticism on scientific work.
8. Disseminate research results orally and in writing, in both scientific and popular scientific forums.
9. Conduct and write research with professional and ethical integrity, identify and evaluate relevant environmental and ethical issues in food sector.
10. Perform risk assessments, and take health, safety and environmental aspects into consideration.
11. Participate in complex interdisciplinary tasks and projects and teach students within the field of food science and technology.



Learning outcomes for BSc program in Agricultural economics and Agribusiness

At the successful completion of the Bachelor Program of Agricultural economics and Agribusiness the student should be able to:

1. Apply economic principles and research methods in solving economic problems and to agricultural production management.
2. Analyze extension programs to deliver relevant information to farmers and employ the economic and business principles in making decisions.
3. Collaborate effectively with scientists and educators in other disciplines to incorporate economic analysis into multi-disciplinary programs.
4. Design , analyze and evaluate agricultural and development projects.
5. Utilize the economic concepts and factors for successful natural resources management in agriculture and agribusiness.
6. Discuss issues related to the agricultural sector, natural resource policies, and rural community development.
7. Work effectively in promoting the teamwork environment for pursuing professional goals.
8. Apply principles of scientific skills and argumentation and ethics of scientific discussion research skills in both oral and written forms.
9. Demonstrate ethical and professional responsibilities for being an agricultural engineer, especially with regard to agricultural sector, environment and society.
10. Apply critical thinking and problem solving skills, and pursue continuous education in aspects of agricultural economics and agribusiness management.



Learning outcomes for MSc program in Agricultural economics and Agribusiness

At the successful completion of the Master Program of Agricultural economics and Agribusiness the student should be able to:

1. Develop specialized problem-solving skills in research or other professional activity by applying the newest knowledge in the field of Agricultural Economics and other related areas.
2. Integrate knowledge of economics and strategic management for evaluation and drafting of the strategies for increasing international competitive capacity in agricultural business and the food chain.
3. Provide assessment of agrarian policy and national, regional and international trade policy.
4. Analyze concepts of sustainable development and urgent global and local problems currently in discussion.
5. Integrate various theories of economics and marketing for performing research in and forecasting of the local, regional, and international agricultural and food markets.
6. Analyze, evaluate and model scenarios for sustainable agricultural and rural development and for intervention policies in the areas of sustainable resource exploitation and environment protection.
7. Communicate effectively, both written and orally, advanced economic concepts and apply those to agricultural and natural resource issues and apply those in a professional or academic environment.
8. Apply principles of scientific argumentation and ethics of scientific discussion.



9. Demonstrate ethical and professional responsibilities for being an agricultural engineer, especially with regard to agricultural sector, environment and society.
10. Apply critical thinking and problem solving skills, and pursue continuous education in aspects of agricultural economics and agribusiness management.



Learning outcomes for BSc program in Land, Water and Environment

At the successful completion of the Bachelor Program of Land, Water and Environment the student should be able to:

1. Show deep understanding and knowledge pertinent to land, water and environment.
2. Commit to the rights and duties and apply the ethical rules and conduct of the profession and mastered the methods of verbal processing and communication skills necessary for future carrier.
3. Employ the gained knowledge to evaluate land properties and its suitability of various agricultural uses.
4. Discuss and propose solutions to the fundamental problems of the sectors of water, land and environment.
5. Apply and implement the acquired skills for the analysis of soil and water and to assess their quality.
6. Apply scientific methods to determine water requirements for agricultural crops and to design appropriate irrigation methods that serves the objective of water management.
7. Apply appropriate solutions to optimize the use of water and land and to ensure the sustainability of the resource and the environment.
8. Develop and evaluate appropriate solutions to water scarcity caused by climate change and desertification.
9. Apply scientific research methods to find solutions to agricultural problems and uses communication skills to transfer technology and results of scientific research.



Learning outcomes for MSc program in Land, Water and Environment

At the successful completion of the Master Program of Land, Water and Environment the student should be able to:

1. Possess the comprehensive knowledge in the areas of land, water and the environment
2. Apply the methods of scientific research needed to assess and find solutions to the problems of land, water and environment.
3. Implement the scientific and standard methods of sampling and analysis of soil and plant needed for evaluating soil fertility and quality.
4. Develop the technical means and models needed to study the issues related to the agricultural environment, water and models.
5. Apply scientific and research-based techniques needed to solve environmental and agricultural problems.
6. Write scientific research proposals and journal articles that address problems of land, water and environment.
7. Participate effectively in community service through the possession of scientific research and skills needed to solve agricultural and environmental problems.
8. Possess the adequacy of self-assessment and to take responsibility, with a commitment to the ethics of research and carrier.



Learning outcomes for PhD program in Land, Water and Environment

At the successful completion of the Doctorate Program of Land, Water and Environment the student should be able to:

1. Evaluate scientific theories and factors affecting the productivity of land, water and environment.
2. Analyze and evaluate the interactions between natural and biological, chemical and human components of the environment.
3. Develop and evaluate alternatives and solutions for the management of land and water through scientific analysis of the data and the application of scientific methods.
4. Distinguish and evaluate the impacts of different social motivator and environmental factors on agricultural and environmental sectors.
5. Design and implement sustainable solutions to the farmers and the country with respect to land, water and environment.
6. Write and publish findings of scientific research in peer-reviewed journals.
7. Possess and apply knowledge and technology-based solutions to problems of land, water and environment.
8. Develop new ideas in the field of specialization in a way that reflects creativity, independence and leadership.
9. Adhere to the ethics of scientific research with sufficient competence to address environmental issues with responsibility and neutrality.

Learning outcomes for program BSc in Horticulture and Crop Science

At the successful completion of the Bachelor Program of Horticulture and Crop Science the student should be able to:

1. Demonstrate a deep understanding of basic agricultural information and practical skills and employing these concepts efficiently in different work locations.
2. Apply modern concepts of agricultural systems in horticulture and crop science.
3. Prepare and manage plants precisely.
4. Improve and develop new horticulture and field crops.
5. Apply modern mechanization techniques and employ it in agricultural sector.
6. Analyze and present solutions for related problems in the production process.
7. Develop thoughtful, clear, and consistent perspectives on ethical issues with minimal damage to environment.
8. Communicate and work efficiently with farmers, investors and agricultural institutions at the local, regional and international levels.
9. Employ creative ideas and use production programs that fit the prevailing conditions and meet the needs of the local, regional and international markets.
10. Apply concepts of research to select, manage and improve plants and their products.
11. Commit to sustainable learning and critical thinking.



Learning outcomes for MSc in Horticulture and Crop Science

At the successful completion of the Master Program of Horticulture and Crop Science the student should be able to:

1. Develop plans to solve problems related to horticulture and crop science in a scientific and practical manner.
2. Write and carry out research projects under the supervision of specialists in the area of horticulture and crop science and provides scientific reports.
3. Prepare and implement programs and brochures in the field of horticulture and crop science to serve those interested in this sector.
4. Apply the possible recommendations and outputs of scientific research in horticulture and crop science.
5. Apply modern ideas and use advanced tools in agricultural production.
6. Apply quality standards in production projects, agricultural companies and institutions working in the field of horticulture and crop science.
7. Lead professionally production projects, agricultural companies and institutions working in the field of horticulture and crop science.
8. Develop thoughtful, clear, and consistent perspectives on ethical issues with minimal damage to environment.
9. Commit to sustainable learning and seeks to generate new knowledge in his specialty.



Learning outcomes for PhD in Horticulture and Crop Science

At the successful completion of the Doctorate Program of Horticulture and Crop Science the student should be able to:

1. Write pioneer research projects and acquire needed funds and logistical support from local, regional and international resources.
2. Work as a principal investigator and publish in highly ranked scientific journals.
3. Lead research teams efficiently and professionally.
4. Prepare and teach courses in the field of horticulture and crop science, and supervise professionally graduate students.
5. Solve effectively problems related to horticulture and crop sciences.
6. Performs professionally workshops, field days, and scientific bulletins.
7. Apply modern statistical techniques to reach the best possible solutions.
8. Apply efficiently the results of experiments and scientific research to develop new ideas in horticulture and crop sciences.
9. Prepare and implement effectively studies to introduce new crops.
10. Develop thoughtful techniques to use production inputs to achieve the best results with minimal damage to environment.
11. Develop thoughtful, clear, and consistent perspectives on ethical issues with minimal damage to environment.
12. Commit to sustainable learning and seeks to generate new knowledge in his specialty.



Learning outcomes for BSc in Landscape and Flower Production

At the successful completion of the Bachelor Program of Landscape and Flower Production the student should be able to:

1. Demonstrate a deep understanding of basic agricultural information and practical skills and employing these concepts efficiently in different work locations.
2. Apply modern concepts of agricultural systems in landscape and gardening.
3. Prepare and manage plants precisely.
4. Improve and develop new landscape and gardening plants.
5. Apply modern mechanization techniques and employ it in agricultural gardening sector.
6. Analyze and present solutions for related problems in the production process.
7. Develop thoughtful, clear, and consistent perspectives on ethical issues with minimal damage to environment.
8. Communicate and work efficiently with gardens owners, investors and agricultural institutions at the local, regional and international levels.
9. Employ creative ideas and use production programs that fit the prevailing conditions and meet the needs of the local, regional and international markets.



10. Apply concepts of research to select, manage and improve plants and their products.

11. Commit to sustainable learning and critical thinking.

Learning outcomes for MSc in Biotechnology

At the successful completion of the Master Program of Biotechnology the student should be able to:

1. Develop plans to solve problems related to the subject of biotechnologies in a scientific and practical way using advanced devices.
2. Write and execute the research projects and special technical reports professionally in the areas of biotechnology.
3. Develop and design programs and guidance in the field of biotechnology to serve those interested in this sector.
4. Manage production projects at agricultural companies and institutions dealing with biotechnology.
5. Application of biotechnological research recommendations and findings in different work locations.
6. Demonstrate a deep understanding of quality standards and applies them in production projects and agricultural companies and institutions working in the field of biotechnology.
7. Develop thoughtful, clear, and consistent perspectives on ethical issues and applied the general safety rules.
8. Commit to sustainable learning and seeks to generate new knowledge in his specialty.

Learning outcomes for program BSc in Plant protection

At the successful completion of the Bachelor Program of Plant Protection the student should be able to:

1. Demonstrate a depth in understanding of the fundamental knowledge and skills required in the field of Plant Protection sciences, which include weeds, insects, mites, fungi, bacteria, viruses and nematodes.
2. Identify and distinguish harmful and beneficial weeds, insects, mites, fungi, bacteria, and nematodes.
3. Predict the outbreaks of pests and determine the level of infection based on skills gained in the field of Plant Protection Sciences.
4. Recognize different techniques (biological, chemical, cultural, and physical) in pest control.
5. Design and develop appropriate management strategies of pests in an environmentally friendly manner.
6. Participate efficiently in agricultural projects in the field of pest management in various public and private sectors in Jordan and worldwide.
7. Communicate effectively in written, oral, and graphical forms.
8. Employ the gained skills in communication and serving different communities.
9. Commit to ethics and compliance responsibilities for being an agricultural engineer, especially with regard to agricultural sector, environment and society.

Learning outcomes for program MSc in Plant protection

At the successful completion of the Master Program of Plant Protection the student should be able to:

1. Implement the advanced concepts and processes in various disciplines in Plant Protection.
2. Extract information and findings of science from literature in Plant Protection.
3. Plan, conduct and analyze the results of scientific research.
4. Communicate effectively with his supervisors and colleagues orally and in writing.
5. Employ expertise and skills gained in the development production, research, and extension on different levels in the public and private sectors in Jordan and worldwide.
6. Engage efficiently in a scientific team work.
7. Publish research in the field of Plant Protection in peer-reviewed scientific journals.
8. Commit to ethics and compliance responsibilities for being an agricultural engineer, especially with regard to agricultural sector, environment and society.



Learning outcomes for program PhD in Plant protection

At the successful completion of the Doctorate Program of Plant Protection the student should be able to:

1. Demonstrate a broad depth knowledge of core concepts in plant protection.
2. Exhibit teaching competence through teaching, seminars and speaking experiences.
3. Interpret scientific literature related to Plant pathology, Entomology, or Weed science.
4. Formulate hypotheses, and develop experimental designs to test these hypotheses.
5. Establish and maintain experiments in the field of Plant Pathology, Entomology, or Weed science.
6. Perform appropriate statistical analyses for data collected in in Plant Pathology, Entomology, and Weed science.
7. Think critically, solve research problems, and draw conclusions in the field of Plant Pathology, Entomology, or Weed science
8. Interpret and present research results in both oral and written formats.
9. Publish research in the field of Plant Protection in peer-reviewed scientific journals.
10. Maintain a leadership role in Plant Protection at the national and international levels.
11. Commit to ethics and compliance responsibilities for being an agricultural engineer, especially with regard to agricultural sector, environment, and society.