

### Course Description

• **Compulsory University Requirement (18 Credit Hours):**

<b><u>205107</u></b>	<b>Course Number:</b>	<b><u>Military sciences</u></b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
<p>Study the development and organization of the Jordanian armed forces, and information on: types of weapons for the Jordanian armed forces, general intelligence, military intelligence, electronic warfare, air force, helicopters, navy, women's police, the role of women in the armed forces, the role of the armed forces in development, and the role of the armed forces in preserving Peace, Special Courts, Nursing, Weapons of Mass Destruction, Special Operations, Great Arab Revolt, Battle of Karama, 1973 War, and a military visit.</p>					

<b><u>205110</u></b>	<b>Course Number:</b>	<b><u>National Education</u></b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
<p>This course aims to enrich the knowledge of students in all academic disciplines at Irbid Private University, with the intellectual assets and primary concepts on the subject of homeland and patriotism, and the consequent establishment of the concepts of national education, including the definition of citizens' rights and duties, and knowledge of the set of norms, laws and institutions that guarantee The rights of individuals and groups and controls the relations between them.</p>					

<b><u>205123</u></b>	<b>Course Number:</b>	<b><u>Arabic Skills (1)</u></b>			<b>Course Name:</b>
<b><u>My catch-up</u></b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
Studying the basic grammatical chapters, linguistic and spelling problems by identifying and analyzing ancient and modern texts.					

<b><u>205125</u></b>	<b>Course Number:</b>	<b><u>English Skills (1)</u></b>			<b>Course Name:</b>
<b><u>) RemedialE (</u></b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
This course is intended to enrich the students' skills of reading comprehension, speaking, listening and writing. The course aims at helping students to learn the basic sentence patterns of English and to improve their vocabulary as well. The learning of how to form words through the process of affixation, and the proper use of prepositions are two more objectives of this course.					

<b><u>205126</u></b>	<b>Course Number:</b>	<b><u>E ntrepreneurship and innovation</u></b>			<b>Course Name:</b>
<b><u>Leadership and social responsibility ( 205126 )</u></b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
The course covers a historical overview of the development of creativity and the emergence of ,entrepreneurship, the concept of creativity and innovation, the elements and types of creativity the personal characteristics of the innovative person, the advantages and objectives of entrepreneurship, and the importance of creativity and innovation in planning and following up on entrepreneurship, on creativity and innovation.					

<b><u>205127</u></b>	<b>Course Number:</b>	<b><u>Leadership and social responsibility</u></b>			<b>Course Name:</b>
<b><u>) Leadership and innovation</u></b> <b><u>( 205126</u></b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
<p>This course aims to introduce the student to the concept of leadership and its importance, know the difference between a manager and a leader, identify the sources of leadership power, and the impact of each of them on leadership behavior. Knowing the types, methods and theories of leadership, and the qualities of successful personal and administrative leadership. This course aims to introduce the student to the importance of working within a team, the foundations and skills of teamwork, how to build an effective team on a scientific basis, the tasks of team leadership, the foundations of setting goals, and methods for evaluating progress towards achieving the goal. The course also aims to refine the academic personality and build the national social aspect. among the students, and providing them with practical experience through early integration into the local community, and activating both their methodological and systematic aspects, which is represented by promoting the idea of acceptance of volunteer work, based on the focus on the overarching message that partnership in working with the local community has become teamwork and the spirit of one team, and achieving it. It is an urgent necessity to build nations and advance them towards progress and competition.</p>					

<b><u>205128</u></b>	<b>Course Number:</b>	<b><u>Life Skills</u></b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
<p>The course addresses the life skills that a university student needs, such as the skills of setting goals, time management, communication and communications, analytical thinking, decision-making and problem solving, time management, managing situations and crises, managing conflict situations, and conducting negotiation processes. In this course, the student will put these skills into practical practice. Through the service-learning methodology for the purpose of enriching educational outcomes and contributing to strengthening local communities, the</p>					

course also contributes to building the student's leadership and professional skills and enhancing the concept of caring for others and feeling their needs.

• **Elective University Requirement (9 Credit Hours) :**

<b><u>205105</u></b>	<b>Course Number:</b>	<b><u>Current issues</u></b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
The course examines the concepts of democracy and political pluralism, social and poverty policies, demographic policies/the harmonization of resources and population, the peace process and the Arab-Israeli conflict, crime and delinquency, the problem of unemployment and productivity in Jordan, and the concept of environment and pollution.					

<b><u>205106</u></b>	<b>Course Number:</b>	<b><u>Jordanian society</u></b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
History of Jordan, population in Jordan, political system in Jordanian society, general concepts in customs, traditions and values, clan system in Jordanian society, and problems of Jordanian society.					

<b><u>205112</u></b>	<b>Course Number:</b>	<b><u>Islamic culture</u></b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	

The course deals with Culture and science and the difference between them, Islamic culture: its sources and characteristics, Islamic belief, the social system in Islam, the economic system in Islam, the penal system in Islam, Islam and contemporary issues.

<b><u>205117</u></b>	<b>Course Number:</b>	<b><u>The Palestinian issue and the history of Jerusalem</u></b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	

This course aims to explain the importance of the Arab homeland to colonial countries in the modern era, the emergence of the non-Jewish Zionist movement and the emergence of Jewish Zionism, the Balfour Declaration and the circumstances of its declaration, the British mandate over Palestine and the Mandate, the mechanism of formation of the Zionist entity, partition projects, the Palestinian position on the issue, and the Jordanian position. From the issue, the Arab position on the issue, the Arab League and its position on the Palestinian issue, the 1948 \_\_\_ war, and the unity of the two banks

This course also aims to provide students with scientific and objective knowledge of the Arab ,city of Jerusalem: its history, geography, religious status, and political status over the centuries starting from its founding and continuing through its political and cultural status in Islamic times, and ending with its falling under the British Mandate, which paved the way for its occupation by the Zionists. This course also aims to highlight the status of Jerusalem among Arabs and Muslims, and to introduce students to the enormous sacrifices made by Muslims during the time of the Crusades in order to preserve and liberate Jerusalem. All of this is in order to give hope to Arab students who are now living the tragedy of Jerusalem and Palestine and are burdened with grief, despair, and the absence of a glimmer of hope for liberation.

<b><u>205118</u></b>	<b>Course Number:</b>	<b><u>Islamic and Arab civilization</u></b>			<b>Course Name:</b>
		<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	

	pre-requisite	0	3	3	credit hours
The concept of civilization, the difference between it and civility and an explanation of its elements, the characteristics of Islamic civilization, the effects of Islamic civilization in the field of faith, public service, urban facilities, human relations and science, the Arab-Islamic civilization as a basis for European civilization, and how to resurrect Islamic civilization.					

<u>205122</u>	Course Number:	<u>Law in our lives</u>			Course Name:
	pre-requisite	practical	theoretical	Accredited	credit hours
		0	3	3	
An introductory introduction to law, its genesis, its divisions, and its branches, and some practical applications from both branches of public and private law.					

<u>205129</u>	Course Number:	<u>Computer Skills</u>			Course Name:
Catch-up (401099h)	pre-requisite	practical	theoretical	Accredited	credit hours
		0	3	3	
,Skills in using the Internet, Internet browser, search engines, e-mail, e-commerce, the Internet distance learning, skills in using the slide processor (Microsoft PowerPoint), creating and designing presentations including texts, graphics, animation, etc.					



<b>205199</b>	<b>Course Number:</b>	<b>Community service and volunteer work</b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
<p>The Community Service and Volunteer Work course aims to enhance students' social awareness and equip them with the skills necessary to understand community problems and contribute to finding solutions by applying the principles of volunteer social work in areas such as youth, elderly, and vulnerable groups. The course also includes studying fundamental concepts, enabling students to identify social problems in their communities, and developing their abilities to scientifically analyze these problems and propose solutions</p>					

<b><u>205210</u></b>	<b>Course Number:</b>	<b><u>Human rights</u></b>			<b>Course Name:</b>
		<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	



	pre-requisite	0	3	3	credit hours
Humanitarian concepts related to human rights, human rights sources, civil, political, economic, social and cultural rights. and public freedoms in Jordan. and the regional protection of human rights in times of war and peaceful conflict.					

2052102	Course Number:	<u>German language</u>			Course Name:
	pre-requisite	practical	theoretical	Accredited	credit hours
		0	3	3	
The German language course aims to introduce students to the German language and the cultures of German-speaking countries. It also provides students with opportunities to find employment in Germany or other German-speaking countries, particularly those in scientific fields, given the abundance of job opportunities in these areas. Furthermore, students apply their language skills through various activities during the lectures.					

<b><u>205214</u></b>	<b>Course Number:</b>	<b>Health sciences</b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
<p>This course deals with a number of general concepts related to public health, such as health, disease, optimal health, infection and community health... It sheds light on the most prominent health sciences, such as nutritional health, preventive health, occupational health, environmental health, and personal health.... It is known as the most prominent Common infectious and non-communicable diseases, prevention and treatment methods.</p>					

<b><u>205215</u></b>	<b>Course Number:</b>	<b>Scientific research</b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
<p>This course deals with the definition of the concept of science and its objectives, scientific thinking, and scientific research methods in terms of: their concept, nature, objectives, and areas of application. It also deals with the basics of scientific research in terms of: the problem and its sources, practical examples of its formulation, scientific research hypotheses, their formulation, how to test them, analyze their data, and interpret their results. The course also deals with the tools of scientific research and methods of writing and evaluating scientific research, in addition to how to publish scientifically, and the types of international journals and their classification in global databases.</p>					

<b><u>205216</u></b>	<b>Course Number:</b>	<b><u>Learning and moral education</u></b>			<b>Course Name:</b>
		<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	

	<b>pre-requisite</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>credit hours</b>
<p>This article deals with the concept of moral education, its importance in the formation of an individual's personality, and the stages of moral and spiritual growth as monitored by moral theories. and daily experiences of the student, and through what is known as student-oriented learning by encouraging them to discuss, think, analyze and conclude.</p>					

<b><u>205219</u></b>	<b>Course Number:</b>	<b><u>Communication skills</u></b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
<p>This course aims to introduce the student to the elements of the communication process, and to provide him with communication skills with others, including clarity, brevity, persuasion, correctness of writing and expression, coherence of the speech, completeness of the intended, friendliness in the speech, and the appropriateness of the speech to the recipient.</p>					

<b><u>205221</u></b>	<b>Course Number:</b>	<b><u>Critical thinking and problem solving skills</u></b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
<p>This course deals with the concept of conscious and conscious thinking, and its use as a method, training and activities. And the characteristics of thinking, and its relationship to learning, memory and language. Thinking classifications, theories, and obstacles. The stages of critical thinking, starting with observations, facts and inference, and ending with assumptions, opinions and arguments. It deals with educational methods for developing critical thinking and problem-solving skills, and their role in meaningful dialogue and self-learning as a culture. And the mechanisms of induction, deduction, conclusion, and generation of information, the ability to scientific interpretation, systematic analysis, and the distinction</p>					

between conventional concepts and subjective opinions. And scrutiny of information, logical judgment and rational criteria. And formulating a set of logical rules that help analyze hypotheses, and contribute to solving the problem. Critical thinking criteria in terms of clarity, degree of validity, accuracy, linkage, significance, and importance. In addition, the skill of understanding and evaluating different information, including listening, reading and speaking. and critical thinking strategy. Moreover, management of positive thinking, decision-making mechanism.

<b><u>205222</u></b>	<b>Course Number:</b>	<b><u>Introduction to Philosophy and Logic</u></b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	

This course deals with the concept of philosophy and its connection with the essence of man in content, entity and behavior, and existence as wisdom, knowledge and research. Philosophical schools and their pioneers The relationship of philosophy with ethics Historic Greek moral thought Sources of normative and relativistic moral values philosophically and doctrinally Roots of Islamic philosophy in history, influence, and development. characteristics of philosophical thought. The methodology of integrating the philosophical heritage, and the cultural challenge of values.

<b><u>205223</u></b>	<b>Course Number:</b>	<b><u>Digital culture</u></b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	

This course aims to introduce the student to the role of information and communications technology and related media in developing the individual and society. The most important topics discussed in the course are: general concepts of information and communications technology, media and informatics, a general presentation of recent technological developments in the field of personal computing and home computing, communication networks and home



,and personal Internet services, means of protecting devices from viruses and illegal hacking and the ethics of using computers and information systems. The role of information technology in societal communication between individuals, the use of social media networks as media platforms, the ethics of this use, the privacy and confidentiality of information, some information technology services such as: e-learning, e-government, e-commerce, and the most important risks and threats involved in the increasing use of computers and the Internet.

**: College requirements**

- **Compulsory College Requirements : 19 Credit Hours :**

<u>504111</u>	Course Number:	<u>General Biology</u>			Course Name:
	pre-requisite	practical	theoretical	Accredited	credit hours
		0	3	3	
This course provides the students with the basic information's regarding The chemistry of water, Biological macromolecules and lipids, Cell structure, cell membrane, cell respiration, cell cycle, Sexual life cycle and meiosis, and gene expression.					

<b><u>504113</u></b>	<b>Course Number:</b>	<b><u>General Chemistry</u></b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
Principles of chemical change, the periodic table and some properties of elements, weight calculations, scale calculations, quantitative chemical relationships, interactions between ions in aqueous solutions, oxidation and reduction reactions, atomic and electronic structure of elements, chemical bonds of all kinds and molecular structures.					

<b><u>504118</u></b>	<b>Course Number:</b>	<b><u>General physics</u></b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
This course will familiarize the students with the basic concepts and principles of mechanics (the motion of the objects, laws of motion, work and energy), elasticity, and fluid dynamics. Describing the elasticity and general information about fluid dynamics, heat and temperature, waver (sound, electromagnetic).					

<b><u>902100</u></b>	<b>Course Number:</b>	<b><u>Principle of agriculture economic</u></b>			<b>Course Name:</b>
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	pre-requisite	practical	theoretical	Accredited	credit hours
		0	2	2	
<p>This course aims to introduce students to the importance of agricultural economics principles, the relationship between inputs and outputs of plant production, understanding the production function and its stages, the law of diminishing returns, the laws of supply and demand, measuring the elasticity of each, and the factors affecting the laws of supply and demand. It also includes understanding consumption theory, market organization, and production under perfect competition, as well as the fields of land and water and their uses (land economics), management and organization of agricultural institutions (agricultural management economics), how to market agricultural products, agricultural price policy and its components, and understanding the economics of agricultural policies, agricultural development economics, and agricultural cooperation economics.</p>					

<u>902102</u>	Course Number:	<u>Principle of plant production</u>			Course Name:
	pre-requisite	practical	theoretical	Accredited	credit hours
		1	0	1	
<p>The course includes providing the student with an overview of the basic information about the production of horticultural and field crops, which includes plant classification, plant division, plant morphological traits, and an introduction to the biological and physiological processes that the plant needs for growth. The main methods of plant propagation, in addition to understanding plant hormones and their functions.</p>					

<u>902103</u>	Course Number:	<u>Principle of animal production</u>			Course Name:
	pre-requisite	practical	theoretical	Accredited	credit hours
		0	1	1	
<p>This course covers the importance of the livestock sector by addressing the products of farm animals (meat, milk, and eggs), the types of cattle, sheep, goats, and poultry breeds, the principles of reproduction in these species, milk production and digestion in farm animals, the fundamentals of nutrition and care, and the adaptation of farm animals to environmental conditions, as well as the importance and future of livestock production in Jordan.</p>					



<b>902104</b>	<b>Course Number:</b>	<b><u>Principle of Agricultural extension</u></b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
<p>The origin and development of agricultural extension, the nature, principles, and objectives of agricultural extension education, areas of extension work and its developmental roles, agricultural extension systems and organizations, training extension personnel, effective communication in extension work, methods and means of extension communication, dissemination and adoption of agricultural innovations, leadership and its role in extension communication, basics of planning and evaluating agricultural extension programs, practical applications in course topics.</p>					

• **Compulsory Specialty Courses (72 Credit Hours):**

<b>802201</b>	<b>Course Number:</b>	<b><u>Biochemistry</u></b>			<b>Course Name:</b>
<b>504116</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	
		<b>0</b>	<b>3</b>	<b>3</b>	
<p>,Introduction to the study of vital compounds in the cell, the representation of energy in the cell as well as the representation of carbohydrates, fats, proteins, and the rest of the nutrients in the cell.</p>					

<b><u>504230</u></b>	<b>Course Number:</b>	<b><u>Human physiology</u></b>			<b>Course Name:</b>
<b>504128</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
			<b>3</b>	<b>3</b>	
<p>This course teaches the study of how body organs function, deals with the functions of the various body systems with some clinical applications, including study of the respiratory system, circulatory system, circulatory system, urinary system, gastrointestinal system, endocrine system, muscles and nervous system. Where natural functions.</p>					

<b><u>504231</u></b>	<b>Course Number:</b>	<b><u>Human physiology lab</u></b>			<b>Course Name:</b>
<b>504230 (co)</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>1</b>	<b>0</b>	<b>1</b>	
<p>This course practical experience of functions of the various body systems with some clinical applications, including study of the respiratory system, circulatory system, circulatory system, urinary system, gastrointestinal system, endocrine system, muscles and nervous system. Where natural functions.</p>					

902105	Course Number:	<u>Principles of food science</u>			Course Name:
504113	pre-requisite	practical	theoretical	Accredited	credit hours
		0	3	3	
<p>,The course includes a study of definitions and basic principles of food science and technology food components, their role in food processing, and the impact of processing on food characteristics. The course also addresses the causes of food spoilage and an introduction to food manufacturing methods.</p>					

902106	Course Number:	Fundament of nutrition			Course Name:
902304	pre-requisite	practical	theoretical	Accredited	credit hours
		0	3	3	
<p>Fundamentals related to nutrients and energy with respect to digestion, absorption, metabolism, functions, dietary sources, diseases of malnutrition and requirements throughout the life cycle; assessment of nutritional status, formulation and planning of diets in the management of common diseases of different body systems, nutrition counselling, and use of therapeutic diets and selected chronic diseases of affluence.</p>					



<b><u>902107</u></b>	<b>Course Number:</b>	<b><u>Organic chemistry</u></b>			<b>Course Name:</b>
<b>504113</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
<p>The student learns how to classify organic compounds, in addition to the mechanism of chemical reactions and industrial applications of organic compounds. The practical part includes some practical applications in organic chemistry.</p>					

<b><u>902200</u></b>	<b>Course Number:</b>	<b><u>Food microbiology</u></b>			<b>Course Name:</b>
<b>504111</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>1</b>	<b>2</b>	<b>3</b>	
<p>This course provides information on foodborne microorganisms and their role and significance in quality and safety of foods. Factors affecting life and death of microorganisms in foods. Microbiology of selected food commodities with emphasis on safety and quality. Role of microorganisms in food processing. Practical part provides basic knowledge and skills needed in food microbiology laboratory.</p>					

<b><u>902202</u></b>	<b>Course Number:</b>	<b><u>Biochemistry lab</u></b>			<b>Course Name:</b>
		<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	

	<b>pre-requisite</b>	<b>1</b>	<b>0</b>	<b>1</b>	
Topics covered in this course include methods for the isolation, purification, and characterization of amino acids, proteins, nucleic acids, carbohydrates and lipids.					

<b>902203</b>	<b>Course Number:</b>	<b><u>Human nutrition and metabolism</u></b>			<b>Course Name:</b>
<b>902106</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
Applications of concepts related to human nutrition with a focus on the integration of the effects of nutrients and nutritional status on physiological and metabolic functions at the level of the ,cell, tissue, organ and the entire body and its relationship to health and disease in humans ,malnutrition at the individual and societal levels, health claims related to food and Nutrition ,nutritional decisions and the basis for determining them In the various physiological stages nutrition and drug interactions, nutrition and physical fitness, biodynamics to regulate metabolic processes.					

<b>902204</b>	<b>Course Number:</b>	<b><u>Meal planning and dietetics</u></b>			<b>Course Name:</b>
<b>902106</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>1</b>	<b>2</b>	<b>3</b>	
The psychological, social and historical aspects of dietary patterns. And the correct methods for planning and preparing a healthy meal for the family. Nutrition education programmes.					

<u>902205</u>	Course Number:	<u>Food Safety And Hygiene</u>			Course Name:
902200	pre-requisite	practical	theoretical	Accredited	credit hours
		0	3	3	
<p>The importance of food health and safety, then diseases that are transmitted to humans through food and the remains of foreign substances in foods, food health and safety requirements in places of production, harvesting, manufacturing, preparation and storage of food, methods of Corruption and spoilage, personal and public health .protecting food from contamination ,requirements for workers preparing and manufacturing food, and the importance of cleaning disinfection, sterilization and pest control methods. Introducing the Hazard Analysis and Critical Control Points (Hazard Analysis and Critical Control Points) system and its application in institutions.</p>					

<u>902206</u>	Course Number:	<u>Nutrition through the life cycle</u>			Course Name:
902203	pre-requisite	practical	theoretical	Accredited	credit hours
		0	3	3	
<p>Physical growth and the most important physical, physiological and psychological developments during the pre- and post-natal stages of growth, as well as the most important physiological changes during pregnancy and breastfeeding and their relationship to nutritional The psychological and social aspects of needs and nutrition. As well as physiological changes</p>					



the elderly and their nutritional needs. In addition to some problems related to nutrition and its management at different stages.

<b>902207</b>	<b>Course Number:</b>	<b>Statistics and agricultural experiments</b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		-	3	3	

The course aims to develop an understanding of the fundamental concepts of statistical thinking, specifically the statistical analysis required for use, and how the results of statistical analysis are interpreted. The course presents statistical concepts and provides descriptive and inferential statistical methods for analyzes and their applications in agricultural business. Students are expected to understand and apply statistical concepts thoughtfully, as well as perform numerical calculations.

<b>902300</b>	<b>Course Number:</b>	<b>Food chemistry and analysis</b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		1	3	4	

The chemical structure of food components including fats, proteins, carbohydrates and the chemical changes that take place with food components during processing and storage such lipid oxidation and the reactions and mechanisms important in food chemistry such as fat hydrogenation and Carmalization of sugars .The roles of food analysis, sampling, recording and interpreting of results.

<b><u>902301</u></b>	<b>Course Number:</b>	<b><u>Assessment of nutritional status</u></b>			<b>Course Name:</b>
<b>902204</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		1	2	3	
<p>Foundations for evaluating the nutritional status of the body in health and disease using food ,and nutrition standards, body measurements, and standards. Clinical, biochemical, social economic and psychological for the purpose of appropriate nutritional intervention.</p>					

<b><u>902302</u></b>	<b>Course Number:</b>	<b><u>Diet therapy 1</u></b>			<b>Course Name:</b>
<b>902204</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		1	2	3	
<p>Therapeutic nutrition in cases of diseases of children, the digestive system, the heart, blood ,vessels, kidneys, diabetes, and some cases of surgery. Its role in controlling the physiological ,biochemical and clinical imbalance that afflicts humans and applying the principles of nutrition diets and nutritional guidance in these disease cases. The practical part includes studying selected disease cases, treating them, and planning appropriate diets to treat them.</p>					

<b><u>902203</u></b>	<b>Course Number:</b>	<b><u>Diet therapy 2</u></b>			<b>Course Name:</b>
<b>902302</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		1	2	3	

A study of some medical conditions and their treatment with nutrition, with a focus on the role of nutrition in rehabilitating patients, especially in cases of major surgery and various severe diseases such as burns, accidents, and cancer, as well as the use of nutritional methods. Tube and intravenous feeding. The practical part includes studying selected disease cases and using the appropriate diet to treat them.

<b>902304</b>	<b>Course Number:</b>	<b>Food preparation</b>			<b>Course Name:</b>
<b>902305</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		1	2	3	
,Cooking methods and the advantages of each, ingredients, composition, nutritional value selection, storage and preparation of food, and the most important chemical and physical changes in the nutritional value and quality of the product.					

<b>902305</b>	<b>Course Number:</b>	<b>Food preparation lab</b>			<b>Course Name:</b>
<b>902105</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		1	0	1	
The students learn the skills of cooking methods, their advantages, and the changes that occur during the cooking and manufacturing process.					

<b><u>902306</u></b>	<b>Course Number:</b>	<b>Nutritional education and counseling</b>			<b>Course Name:</b>
<b>902203</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>1</b>	<b>2</b>	<b>3</b>	
<p>The concept of guidance, education, and nutritional education, its importance, methods, and methods for evaluating and implementing its programs. The importance of communication skills in achieving healthy nutrition and nutritional awareness for individuals and groups in cases of health and illness, and following up and evaluating work and extension activities, Food ,habits, their development and evaluation, and their mutual relationship with social, cultural economic, political, psychological, physiological, environmental factors and food media.</p>					

<b><u>902309</u></b>	<b>Course Number:</b>	<b>Vitamins and minerals</b>			<b>Course Name:</b>
<b>902106</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
<p>This course presents the basic concepts of vitamins and minerals, how they work inside the human body, their role in human health, understanding the symptoms of deficiency and excess and their effect on the human body, knowing their sources in foods and the appropriate recommended doses for each.</p>					

<b><u>902400</u></b>	<b>Course Number:</b>	<b><u>Community nutrition</u></b>			<b>Course Name:</b>
<b>902305</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
Studying the target community and its nutritional status, including nutritional intervention and monitoring, the role of the community nutritionist, planning and managing various governmental and non-governmental community nutrition programs, especially the less fortunate and more vulnerable groups.					

<b><u>902401</u></b>	<b>Course Number:</b>	<b><u>Food Quality management</u></b>			<b>Course Name:</b>
<b>902207</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	
Principles and applications of quality management systems, including ISO 9000 and other quality management systems.					

<b>902402</b>	<b>Course Number:</b>	<b><u>Management of nutrition institutions services</u></b>			<b>Course Name:</b>
<b>902304</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>2</b>	<b>2</b>	

Types of food service establishments, their organizational structure, and specifications of the ,production kitchen and its equipment. Employee management. Processes of purchasing, receiving storing and issuing food items, planning menus, and controlling prices and quality.

<b><u>902403</u></b>	<b>Course Number:</b>	<b><u>A seminar in nutrition and dietetics</u></b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>1</b>	<b>1</b>	
completes an applied project in any of the fields of nutritional technology and dietetics, whether alone or in collaboration with one or more students, under the supervision of faculty members.					

<b><u>902404</u></b>	<b>Course Number:</b>	<b><u>Weight control and management</u></b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>1</b>	<b>2</b>	<b>3</b>	
This course provides an in-depth exploration of the theories, techniques, and practical approaches to body weight management. It emphasizes evidence-based strategies to promote healthy weight loss, prevent weight gain, and maintain long-term weight control. It presents the weight-related problems of overweight, obesity, underweight, and eating disorders. All of these conditions represent significant problems associated with health risks. The course combines					

knowledge from nutrition, physiology, exercise, and behavior change to provide students with a comprehensive understanding of weight management.

• **Elective specialty courses ( 9 credit hours ):**

902406	Course Number:	<b><u>Contemporary issues in nutrition and diets</u></b>			Course Name:
902203	pre-requisite	practical	theoretical	Accredited	credit hours
		0	3	3	
Develop and expand student knowledge and skills on contemporary issues in therapeutic general nutrition and highlight the latest developments in selected current topics of particular importance.					

<b><u>902407</u></b>	Course Number:	<b><u>Food packaging</u></b>			Course Name:
902105	pre-requisite	practical	theoretical	Accredited	credit hours
		0	3	3	

Metal, glass, paper and plastic packaging materials, their production, specifications, chemical ,and physical composition, mutual influences with food materials and their measurement methods for evaluating packaging materials and choosing appropriate containers for different food groups, packaging and packaging systems. GleeF, principles of machines used in packaging operations.

<b>902407</b>	<b>Course Number:</b>	<b><u>Nutrition and modern diseases</u></b>			<b>Course Name:</b>
<b>902105</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	

The relationship of nutrition and simultaneous changes in the pattern of food consumption to ,contemporary chronic diseases such as obesity, cancer, diabetes, gout, and heart, blood vessel and kidney disease. The epidemiology of diseases and their prevention, with a focus on the use of a healthy diet.

<b>902409</b>	<b>Course Number:</b>	<b><u>Functional foods</u></b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		<b>0</b>	<b>3</b>	<b>3</b>	

Definition of functional foods; popularity and uses; chemistry and components which include prebiotics, probiotics, phytochemicals, herbs, some animal and plant products, some active chemicals such as sterols, polyphenols, ergogenic aids and antioxidants; brief description of their production; legislative aspects claims, and health risks related to them.



902410	<b>Course Number:</b>	<b>geriatric Nutrition</b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		0	3	3	
<p>Study theories of aging. Physiological and biochemical changes Psycho-social developments during aging. Their influence on the nutritional status and requirements, Emphasis on diseases related to nutrition, Nutrient drug interaction. It also deals with the study of nutritional care principles, nutrition programs and services for the aged.</p>					

902411	<b>Course Number:</b>	<b>The use of computers in nutrition</b>			<b>Course Name:</b>
	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		0	3	3	
<p>This course explores the application of computer technology in the field of nutrition. It covers the following key areas: 1.Introduction to Nutrition Informatics: Understanding the role of information technology in managing and analyzing nutritional data.2. Nutritional Databases: Overview of various nutritional databases and their use in dietary assessment and planning.3. Software for Nutritional Analysis: Training on specialized software used for analyzing nutrient intake, meal planning, and dietary recommendations.4. Data Management: Techniques for collecting, organizing, and managing large sets of nutritional data.5.Emerging Technologies:</p>					

Exploration of new and emerging technologies in nutrition, such as mobile apps, wearable devices, and AI-driven tools.

• **Practical training (9 credit hours ):**

<b>902307</b>	<b>Course Number:</b>	<b><u>Training in management of nutrition services institutions</u></b>			<b>Course Name:</b>
<b>902301, 902303</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		3	-	3	
Training the student in a food service institution in the field of nutrition management, which includes human resources and various processes, from purchasing to service, and quality control					

<b>902308</b>	<b>Course Number:</b>	<b><u>Trainings in nutrition of healthy people</u></b>			<b>Course Name:</b>
<b>902301,902303</b>	<b>pre-requisite</b>	<b>practical</b>	<b>theoretical</b>	<b>Accredited</b>	<b>credit hours</b>
		3	-	3	
Training in nutrition for healthy people for different age groups and physiological conditions ,with the aim of providing the student with the necessary skills in assessing nutritional status education, nutritional guidance, planning meals and diets, and using electronic nutrition programs.					

<b>902310</b>	<b>Course Number:</b>	<b><u>Trainings in therapeutics nutrition</u></b>			<b>Course Name:</b>
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902301,902303	pre-requisite	practical	theoretical	Accredited	credit hours
Training in diets for patients with the aim of providing the student with the necessary skills in assessing nutritional status, planning appropriate diets in various cases of illness, and using electronic nutrition programs.		3	-	3	

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**Irbid National University**  
**Faculty Agriculture**  
**Department of Nutrition and**  
**Dietetics**



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