

## Courses Description

**College:** Science

**Department:** Biology

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**Couse ID:** 104711      **Description:** Electron Microscopy

**Full Course Description:**

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**Couse ID:** 104721      **Description:** Advanced Molecular Biology

**Full Course Description:**

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**Couse ID:** 104722      **Description:** Advanced Biochemistry

**Full Course Description:**

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**Couse ID:** 104723      **Description:** Advanced Cell Biology

**Full Course Description:**

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**Couse ID:** 104724      **Description:** Enzymology

**Full Course Description:**

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**Couse ID:** 104725      **Description:** Modeling and Biostatistics

**Full Course Description:**

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**Couse ID:** 104731      **Description:** Cancer Biology

**Full Course Description:**

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**Couse ID:** 104741      **Description:** Food Bacteriology

**Full Course Description:**

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**Couse ID:** 104743      **Description:** Medical Mycology

**Full Course Description:**

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**Couse ID:** 104744      **Description:** Pathogenecity

**Full Course Description:**

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**Couse ID:** 104745      **Description:** Virology

**Full Course Description:**

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**Couse ID:** 104751      **Description:** Advanced Plant Physiology

**Full Course Description:**

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**Couse ID:** 104752      **Description:** Applied Ecology

**Full Course Description:**

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**Couse ID:** 104753      **Description:** Integrated Pest Management

**Full Course Description:**

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**Couse ID:** 104754      **Description:** Envirnomental Physiology of Plants

**Full Course Description:**

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**Couse ID:** 104762      **Description:** Comparative Animal Physiology

**Full Course Description:**

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**Couse ID:** 104763      **Description:** Medical Entomology

**Full Course Description:**

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**Couse ID:** 104764      **Description:** Advanced Parasitology

**Full Course Description:**

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**Couse ID:** 104765      **Description:** Molecular Immunology

**Full Course Description:**

## Courses Description

**College:** Science

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**Couse ID:** 104771      **Description:** Population and Community Ecology

**Full Course Description:**

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**Couse ID:** 104772      **Description:** Enviromental Management

**Full Course Description:**

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**Couse ID:** 104795      **Description:** Special Topics (1)

**Full Course Description:**

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**Couse ID:** 104796      **Description:** Special Topics (2)

**Full Course Description:**

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**Couse ID:** 104799      **Description:** Thesis

**Full Course Description:**

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**Couse ID:** 2104791      **Description:** Research Methods and Analysis

**Full Course Description:**

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**Couse ID:** 2104793      **Description:** Seminar

**Full Course Description:**

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**Couse ID:** 3104799      **Description:** Thesis

**Full Course Description:**

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**Couse ID:** 6104799      **Description:** Thesis

**Full Course Description:**

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**Couse ID:** 9104799      **Description:** Thesis

**Full Course Description:**

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**Couse ID:** 130104711      **Description:** Electron Microscopy

**Full Course Description:** The course deals with the study of biological specimens by electron microscopy; it also focuses on examining the effects of different chemical solutions on tissue fixing. Detailed review of new methodologies and techniques concerned with the analysis of cell structure at the chemical level is also included.

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**Couse ID:** 130104721      **Description:** Advanced Molecular Biology

**Full Course Description:** The course focuses on detailed review of the mechanisms of replication, transcription, translation and gene control in prokaryotes and eukaryotes.

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**Couse ID:** 130104722      **Description:** Advanced Biochemistry

**Full Course Description:** This course examines the theoretical and practical aspects of analytical methods employed to study different biological systems. Specific examples of biological systems studied by such methods will be discussed in some detail.

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**Couse ID:** 130104723      **Description:** Advanced Cell Biology

**Full Course Description:** This course describes the cell and its various metabolic activities with emphasis on signaling transduction pathways leading to cellular responses. In this context, the role played by cellular enzymes and transmitters will be discussed.

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**Couse ID:** 130104741      **Description:** Food Bacteriology

**Full Course Description:** This course is concerned with the study of food poisoning bacteria in terms of general and specific characteristics in addition to poisonous secretions made by such bacteria. Food spoilage in white and red meat, Sea food, dairy products, vegetables and fruits in addition to detailed review of conventional as well as new methods for detection of food poisoning bacteria will be eluted to.

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**Couse ID:** 130104743      **Description:** Medical Mycology

**Full Course Description:** The course includes an introduction to mycology, general properties of fungi, pathogenecity of fungi and fungi-related diseases, anti-fungal agents and the specific mode of action of the various classes of such agents. The practical part of the course deals with pathogenic specimen collection, culture media and culturing techniques and methods of isolation and characterization.

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**Couse ID:** 130104745      **Description:** Virology

**Full Course Description:** The course entails a systematic review of the different groups of viruses in terms of structure, classification, replication, pathogenicity, latency in viral infection, vaccination and viral immunology.

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**Couse ID:** 130104746      **Description:** ss

**Full Course Description:** A survey of modern developments emphasizing the application of the knowledge of fundamental microbiology to address problems which exist in today's environment. Topics will be discussed using case studies and problem-based learning and will include emerging infectious diseases, antibiotic resistance, bioterrorism, and prion biology.

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**Couse ID:** 130104751      **Description:** Advanced Plant Physiology

**Full Course Description:** The course is intended to introduce students to issues in plant physiology related to the regulation of water movement between plant cells; water tension, its components and its role in water movement between various tissues in the plant in addition to photosynthesis at the organic, cellular and molecular levels.

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**Couse ID:** 130104752      **Description:** Applied Ecology

**Full Course Description:** Introduction to ecosystems: carbon sources and skins in modern biosphere; human impacts on the nitrogen cycle; human population dynamics and the environment. Ecosystem health: biodiversity; habitat invasion; invading species; overexploitation; pollution; conservation biology; restoration ecology; rangeland and protected areas management. Agro-ecosystem management; sustainable agriculture; crop genetic engineering. Biomedicine issues: infectious diseases; antibiotic resistance; aerobiology and allergy.

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**Couse ID:** 130104762      **Description:** Comparative Animal Physiology

**Full Course Description:** The course aims at introducing students to a detailed comparative study of the structure and physiology of selected groups of vertebrates with special emphasis on body physiology, homeostasis and adaptation to different environments. Particular attention will be paid to class mammalia.

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**Couse ID:** 130104763      **Description:** Medical Entomology

**Full Course Description:** The course deals with insects and other arthropods of medical significance in terms of structure, growth and classification in addition to detailed description of mouth structure and how it relates to food type and the capacity to transfer disease. The course also focuses on disease-causing or transferring insects and other arthropods, its significance in the spread of disease and the various means of control of such arthropods.

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**Couse ID:** 130104764      **Description:** Advanced Parasitology

**Full Course Description:** This course includes an introduction on parasitism, physiology of parasitism, evolution of parasitic relationships, distribution of parasites and the outer wall of worms. Parasite immunology, diagnosis of parasitic infections, vaccines to parasitic infections, special topics concerned with the significance of parasites in Jordan in addition to an introduction into insects of medical importance will be discussed in some detail.

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**Couse ID:** 130104765      **Description:** Molecular Immunology

**Full Course Description:** This course will introduce students to the basic concepts in immunology, molecular immunology of antigen receptors and other molecular moieties of significance in the development of the immune response, molecular aspects of signal transduction in relation to cell activation. Detailed account of the molecular aspects of immunity both in health and disease will be included.

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**Couse ID:** 130104771      **Description:** Population and Community Ecology

**Full Course Description:** The course entails detailed discussions on population density and dispersion, demography and analysis of demographic studies, logistic models of population growth, biological and ecological regulation of populations, evolution of life histories and succession, biodiversity and factors that influence it.

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**Couse ID:** 130104791      **Description:** Research Methods and Data Analysis

**Full Course Description:** The seminar course is intended to train student on the appropriate usage of research articles and other references in preparing manuscripts. It takes the format of asking each student to prepare a manuscript under the supervision of a faculty member and to present the manuscript in a departmental seminar.

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**Couse ID:** 130104793      **Description:** Seminar

**Full Course Description:** The course deals with issues pertaining to: science as a process, the scientific method, hypothesis testing, scientific literature and resources, writing of research proposals, experimental design, sampling, data collection, statistical analysis, distribution and group analysis, tabulation and presentation of results.

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**Couse ID:** 130104795      **Description:** Special Topic (1)

**Full Course Description:** The course involves the selection of a specific topic of interest at the beginning of the semester by the faculty member supervising the course. Depending on the topic designated, experimental work may be conducted, but only during the semester in which the course is given.

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**Couse ID:** 130104796      **Description:** Special Topics (2)

**Full Course Description:** The course involves the selection of a specific topic of interest at the beginning of the semester by the faculty member supervising the course. Depending on the topic designated, experimental work may be conducted, but only during the semester in which the course is given.

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**Couse ID:** 130104799      **Description:** Thisis

**Full Course Description:** √