

BIOLOGY (BIOLOGY)

Biology (BIOLOGY) 100**Critical Readings In Biology**

Prepares students to read in the life sciences. Writing assignments, as appropriate to the discipline, are part of the course.

3 Lecture hours. 3 Credit Hours.

Offered At: HW

Biology (BIOLOGY) 101**General Course Biology I**

Basic principles and concepts of biology; general considerations of biological processes, including cellular and organismic levels. Writing assignments, as appropriate to the discipline, are part of the course.

3 Lecture hours. 3 Credit Hours.

Offered At: KK, TR

Biology (BIOLOGY) 102**General Course Biology II**

Continuation of Biology 101. Basic principles and concepts of biology, including how organisms reproduce and inherit; how life on earth evolved and how present day organisms relate to each other. Writing assignments, as appropriate to the discipline, are part of the course.

Grade of C or better in BIOLOGY 101, or Consent of Department Chairperson.

3 Lecture hours. 3 Credit Hours.

Offered At: KK

Biology (BIOLOGY) 103**Biology Of Human Sexuality**

Structure and function in human sexuality; sexuality related to physical, mental, and emotional health; the relationships between sexual behavior and human ecology, population, gene frequencies, and society. Writing assignments, as appropriate to the discipline, are part of the course.

3 Lecture hours. 3 Credit Hours.

Offered At: DA

Biology (BIOLOGY) 107**Nutrition-Consumer Education**

Science of food as it relates to health, including food composition and utilization, food preparation and preservation, nutrition, special diets, fad foods, and foods of the future; social and political aspects of food in the world's future. Writing assignments, as appropriate to the discipline, are part of the course.

3 Lecture hours. 3 Credit Hours.

Offered At: DA, HW, KK, MX, OH, TR

GE: Life Sciences

Biology (BIOLOGY) 109**Human Genetics & Evolution**

Basis of inheritance; analysis of human pedigrees; sex-linkage; physical and behavioral aspects of human evolution. Writing assignments, as appropriate to the discipline, are part of the course.

3 Lecture hours. 3 Credit Hours.

Offered At: HW

IAI: L1 907 **GE:** Life Sciences

Biology (BIOLOGY) 110**Human Ecology**

Effects of dense population, effect of humans on air, minerals, water, noise; and how these affect humans. Writing assignments, as appropriate to the discipline, are part of the course.

3 Lecture hours. 3 Credit Hours.

Offered At: KK

Biology (BIOLOGY) 113**The Biology Of Women**

A comprehensive look at the human female throughout her entire life span. Deals with Biological sex differentiation, fetal development and reproductive anatomy. Explains events of a woman's reproductive life from menarche to menopause, sexuality, birth control, infertility, and pregnancy. Discusses sexually transmitted diseases, gynecological problems, breast cancer, controversial treatments and health care. Examines sociological and cultural health factors that influence a woman's nutrition, physical activity, use of cosmetics, use and abuse of drugs. Writing assignments, as appropriate to the discipline, are part of the course.

Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair

3 Lecture hours. 3 Credit Hours.

Offered At: DA, HW, KK, MX, OH, TR

GE: Life Sciences **HD Course**

Biology (BIOLOGY) 114**General Education Biology**

A laboratory course emphasizing scientific inquiry through selected concepts of biology, such as organization, function heredity, evolution, and ecology. Biological issues with personal and social implications will be introduced to enable students to make informed decisions.

This course is equivalent to the Illinois Articulation Initiatives General Education generic course numbered L1900L. Writing assignments, as appropriate to the discipline, are part of the course.

Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair

2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.

Offered At: DA, HW, KK, MX, OH, TR, WR

IAI: L1 900L **GE:** Life Sciences

Biology (BIOLOGY) 115**Human Biology**

Examines practical aspects of selected concepts in biology and their application to technology. Concepts may include heredity, growth, development, health, and ecology. Human systems may be studied as they relate to the major topics. Emphasis will be placed on the relationship of the issues to the individual and society. This course is equivalent to the Illinois Articulation Initiative's General Education generic course numbered L1904L. Writing assignments, as appropriate to the discipline, are part of the course

Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair

2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.

Offered At: DA, HW, KK, MX, OH, TR, WR

IAI: L1 904L **GE:** Life Sciences

Biology (BIOLOGY) 116**Introduction to Anatomy And Physiology**

An introduction to human structure and function, from cellular structures to organ systems, with emphasis on scientific processes and common laboratory techniques. Writing assignments, appropriate to the discipline, are part of the course.

Eligibility for ENGLISH 101, or successfully completing BIOLOGY 120 with a grade of "C" or higher, or consent of Department Chairperson.

4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.

Offered At: DA, MX, OH, TR, WR

GE: Life Sciences

Biology (BIOLOGY) 119

Environmental Biology

This general education laboratory course is geared for both environmental science majors as well as non-science majors. The environment and human impacts on natural resources, pollution, and ecosystems are emphasized. Writing assignments, as appropriate to the discipline, are part of the course.

Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair

4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.

Offered At: DA, MX, OH, TR, WR

IAI: L1 905L **GE:** Life Sciences

Biology (BIOLOGY) 120

Terminology For Medical Careers

Basic medical vocabulary for allied health professionals and others with minimal background in anatomy and physiology; includes study of the human body systems. Writing assignments, as appropriate to the discipline, are part of the course.

3 Lecture hours. 3 Credit Hours.

Offered At: DA, HW, KK, MX, OH, TR, WR

Biology (BIOLOGY) 121

Biology I

Cellular and Molecular Biology. Introduction to biochemistry, molecular genetics, cell structure, function and processes. Laboratory required. Writing assignments, as appropriate to the discipline, are part of the course.

Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair

2 Laboratory hours. 4 Lecture hours. 5 Credit Hours.

Offered At: DA, HW, KK, MX, OH, TR, WR

IAI: BIO 910,L1 910L **GE:** Life Sciences

Biology (BIOLOGY) 122

Biology II

Continuation of Biology 121. Organismal biology, ecology, and evolution. An introduction to structure and function of major groups of microorganisms, fungi, animals, and plants. Emphasis on evolutionary relationships and ecological principles. Laboratory required. Writing assignments, as appropriate to the discipline, are part of the course. Biology majors intending on transferring to a four-year institution must complete both Biology 121 and 122 with a grade of C or better.

Grade of C or better in BIOLOGY 121, or Consent of Department Chairperson.

2 Laboratory hours. 4 Lecture hours. 5 Credit Hours.

Offered At: DA, HW, KK, MX, OH, TR, WR

IAI: BIO 910,L1 910L **GE:** Life Sciences

Biology (BIOLOGY) 130

Human Cadaver Anatomy I

Student-directed learning experiences designed to enhance histology and human cadaver competence. Includes osteology, articulations. Skeletal muscles, and neurology. Writing assignments, as appropriate to the discipline, are part of the course.

Grade of C or better in BIOLOGY 226.

1 Laboratory hours. 0.5 Lecture hours. 1 Credit Hours.

Offered At: MX

Biology (BIOLOGY) 131

Human Cadaver Anatomy II

Continuation of Biology 130. Directed learning experiences are designed to enhance histology and human cadaver competence. Primarily stresses the following areas: cardiovascular, thoracic and abdominal cavity systems. Writing assignments, as appropriate to the discipline, are part of the course.

Grade of C or better in (BIOLOGY 226 and BIOLOGY 227), or Consent of Department Chairperson.

1 Laboratory hours. 0.5 Lecture hours. 1 Credit Hours.

Offered At: MX

Biology (BIOLOGY) 200

Field Biology

Natural history of local biota. Laboratory and field identification of plants and animals with a study of their habitats and relationships. Writing assignments, as appropriate to the discipline, are part of the course.

Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair

3 Laboratory hours. 2 Lecture hours. 3 Credit Hours.

Offered At: KK, TR, WR

Biology (BIOLOGY) 201

Individual Topics in Biology

Students may conduct laboratory research, engage in a library project, and attend seminars. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: No more than 2 credit hours counted toward graduation.

0.5 Laboratory hours. 1 Lecture hours. 1 Credit Hours.

Offered At: HW, KK, TR, WR

Repeatable: Yes, up to 2 times

Biology (BIOLOGY) 205

Pathophysiology

This course introduces the students to pathophysiology, which is the systematic study of the functional changes in cells, tissues, and organs altered by disease and/or injury. Students will also be introduced to the molecular and cellular basis of disease. Background in Anatomy and Physiology (Biology 226 and 227) is highly recommended for this course. Writing assignments, as appropriate to the discipline, are part of the course.

Completion of BIOLOGY 115 or BIOLOGY 116 with a grade of C or higher or BIOLOGY 226 and BIOLOGY 227 completion or BIOLOGY 226 completion and concurrent enrollment in BIOLOGY 227.

3 Lecture hours. 3 Credit Hours.

Offered At: DA, MX, OH

Biology (BIOLOGY) 209

Biochemistry

Biochemistry is designed to give the student in life sciences, allied health fields, and biotechnology a basic understanding of the biological processes at the molecular, cellular and organismic level. An emphasis is placed on the use of laboratory tools and equipment in order to familiarize the student with current biochemical techniques. Writing assignments, as appropriate to the discipline, are part of the course.

Grade of C or better in BIOLOGY 121 and CHEM 205. Concurrent enrollment or prior completion of CHEM 207 with a grade of C or better, or Consent of Department Chairperson.

4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.

Offered At: HW, MX, TR

Biology (BIOLOGY) 226

Human Structure and Function I

Human anatomy and physiology. This laboratory course is recommended for those contemplating a career in the health professions and emphasizes the structure and function of the human body. Microscopic and gross anatomy are correlated with physiology. Writing assignments, as appropriate to the discipline, are part of the course.

Grade of C or better in BIOLOGY 121.

4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.

Offered At: DA, HW, KK, MX, OH, TR, WR

Biology (BIOLOGY) 227

Human Structure and Function II

Continuation of Biology 226. Writing assignments, as appropriate to the discipline, are part of the course.

Grade of C or better in BIOLOGY 226, or Consent of Department Chairperson.

4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.

Offered At: DA, HW, KK, MX, OH, TR, WR

Biology (BIOLOGY) 236

Environmental Biology II

This course is a continuation of Biology 119. Environmental sampling and analysis techniques will be taught in the laboratory. Topics such as environmental toxicology, bioremediation, genetic contamination of plant species, conservation biology, and environmental law, policy and ethics may be covered in the lecture. Writing assignments, as appropriate to the discipline, are part of the course.

4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.

Offered At: OH

Biology (BIOLOGY) 240

Vertebrate Embryology

Introduction to the major morphogenetic events in vertebrate development, including development of gametes, fertilization, and the development of organ systems. Special attention will be paid to human development, developmental anomalies, and teratogens. Laboratory required. Writing assignments, as appropriate to the discipline, are part of the course.

Grade of C or better in BIOLOGY 226, or consent of department chairperson.

2 Laboratory hours. 4 Lecture hours. 5 Credit Hours.

Offered At: MX

Biology (BIOLOGY) 241

Genetics

Principles of heredity, structure of genetic material, mechanism of transmission, and the role of genetics in evolution. Application of these principles to humans and other organisms is included. Writing assignments, as appropriate to the discipline, are part of the course.

Grade of C or better in BIOLOGY 121 (Biology I), or Consent of Department Chairperson.

3 Lecture hours. 3 Credit Hours.

Offered At: DA, MX, OH, TR, WR

Biology (BIOLOGY) 242

Evolution

Origin, history and development of plants and animals. Includes evidence from anatomy, paleontology, comparative physiology, biochemistry, immunology, and genetics. Writing assignments, as appropriate to the discipline, are part of the course.

Grade of C or better in (BIOLOGY 101 and BIOLOGY 102), or (BIOLOGY 114 and BIOLOGY 115), or Consent of Department Chairperson.

2-3 Lecture Hours. 2-3 Credit Hours.

Offered At: DA, KK

Biology (BIOLOGY) 250

Intro To Molecular Biology

The first course in a three-part series in the biotechnology program/plan 215. This course stresses an introduction to current concepts and progress in modern molecular biology with emphasis on DNA science and genetic engineering as it applies to molecular, cellular and organismic biology. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than an accumulated six credit hours will be counted toward graduation.

Grade of C or better in BIOLOGY 121, or Consent of Department Chairperson.

3 Lecture hours. 3 Credit Hours.

Offered At: HW, KK, TR

Repeatable: Yes, up to 2 times

Biology (BIOLOGY) 251

Molecular Biology I

The second course in a three-part series in the biotechnology program/plan 215. The course stresses the theory and practice of separation techniques and safety procedures that would be employed in the purification and assay of such biomolecules as nucleic acids, proteins and other related substances and the relationship of these molecules to living organisms. Writing assignments, as appropriate to the discipline, are part of the course.

Grade of C or better in BIOLOGY 250, or Consent of Department Chairperson.

4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.

Offered At: HW, TR

Biology (BIOLOGY) 252

Molecular Biology II

The third course in a three part series, stresses the theory and practice of current techniques used in DNA science, protein isolation, immunology and introduces selected biotechnology protocols. An emphasis is placed on the use of laboratory tools and equipment in order to familiarize the student with current biochemical techniques. Writing assignments, as appropriate to the discipline, are part of the course.

Grade of C or better in BIOLOGY 251, or Consent of Department Chairperson.

4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.

Offered At: TR

Biology (BIOLOGY) 253

Plant Molecular Biology

This course is designed for students in the life sciences, and biotechnology to understand how plants function at the molecular level and discuss the current advances in plant molecular biology and genetic engineering. Writing assignments, as appropriate to the discipline, are part of the course.

Grade of C or better in (BIOLOGY 121 or 250), or Consent of Department Chairperson.

3 Lecture hours. 3 Credit Hours.

Offered At: HW

Biology (BIOLOGY) 295

Undergraduate Research In Biology

Undergraduate Research in Biology allows the student to explore a topic of interest under the supervision of a faculty member. The course may include literature readings, research methodologies, attending seminars and professional meetings, engaging in independent research project/study, applying for scholarships, formal presentations or other activities deemed appropriate. In summary, this course provides students firsthand research experience and it encourages them to explore opportunities at upper levels to further develop their research skills. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: not more than an accumulated six credit hours will be counted toward graduation.

Grade of C or better in BIOLOGY 121 or 122 or Consent of Department Chairperson.

1-4 Lecture Hours. 2-4 Laboratory Hours. 2-6 Credit Hours.

Offered At: MX

Repeatable: Yes, up to 4 times

Biology (BIOLOGY) 299

Special Topics In Biology

Special topics in biology and biotechnology will be discussed along with appropriate lab and/or field trip activities. New developments will be emphasized, especially materials useful in K-12 education and industry. Writing assignments, as appropriate to the discipline, are part of the course.

0.5-5 Lecture Hours. 0-2 Laboratory Hours. 1-6 Credit Hours.

Offered At: DA, HW, KK, OH, TR, WR

Repeatable: Yes, up to 4 times