



EASTERN
GATEWAY
COMMUNITY
COLLEGE

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COLLEGE CATALOG 2022-2023 ADDENDUM

ORIGINAL CATALOG PUBLISHED March 14,2022

Addendum approved by cabinet (date): July 7, 2022

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Catalog Addendum Purpose:

What is the purpose of this addendum?

To add new course descriptions for BIO200, BIO201 and BIO203.

Catalog Addendum Effective Date:

What is the effective date of this addendum?

July 7, 2022

Catalog Addendum:

List the detailed changes to the catalog, i.e. updated curriculum grid, updated tuition or fee, updated policy, etc.

New Course Descriptions:

BIO200-This course offers the student an introduction to the study of the properties, effects, and therapeutic value of agents used to treat conditions of the organ systems. Topics include drug categories, generic and brand names, drug forms, routes of administration, and modes of actions. The implications of drugs on health care and current controversies surrounding drugs will be explored.

BIO201-This course serves as an introduction to the study of the pathological changes in body systems due to disease. Topics include the etiology, manifestation, diagnostic procedure, treatment (traditional and complementary), and prognosis for major human disorders. The proper coding for reimbursement based on the International Classification of Diseases, 10th revision will be included.

BIO203-This course will encompass an introduction to the biology of pathogenic and non-pathogenic microbes, including bacteria, viruses, fungi, protozoans, helminths, and prions. A basic understanding of the mechanisms by which microbes cause human

disease and the mechanisms of host defense against infectious microbes will be emphasized. Laboratory exercises will include aseptic technique, microscopy, staining, biochemical testing, differential/selective media, and antibiotic sensitivity. Identification of unknown bacteria will be included.

The above information replaces, supplements, or updates, the corresponding section(s) of the 2022-2023 Catalog on Page(s) [List the page number(s) to which the addendum specifically applies.]

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BIO200 Principles of Pharmacology**3 Credits**

This course offers the student an introduction to the study of the properties, effects, and therapeutic value of agents used to treat conditions of the organ systems. Topics include drug categories, generic and brand names, drug forms, routes of administration, and modes of actions. The implications of drugs on health care and current controversies surrounding drugs will be explored.

~~This course offers the student an introduction to metric conversions, apothecary notations, reading drug labels and the calculation of dosages. An introduction to pharmacology, accurate measurement and administration of medication, federal drug legislation, and laws governing the distribution and use of narcotics is included. Drug classifications are discussed.~~

Theory 3 Credits

BIO201 Pathophysiology**3 Credits**

This course serves as an introduction to the study of the pathological changes in body systems due to disease. Topics include the etiology, manifestation, diagnostic procedure, treatment (traditional and complementary), and prognosis for major human disorders. The proper coding for reimbursement based on the International Classification of Diseases, 10th revision will be included.

~~This course encompasses the etiology, pathogenesis, manifestations, basic treatment and laboratory findings of select diseases of the human body. Attention is given to organic and infectious diseases, as well as immune dysfunction and neoplasia. A holistic approach to wellness and disease prevention is included.~~

Theory 3 Credits

BIO203 Principles of Microbiology**4 Credits**

This course will encompass an introduction to the biology of pathogenic and non-pathogenic microbes, including bacteria, viruses, fungi, protozoans, helminths, and prions. A basic understanding of the mechanisms by which microbes cause human disease and the mechanisms of host defense against infectious microbes will be emphasized. Laboratory exercises will include aseptic technique, microscopy, staining, biochemical testing, differential/selective media, and antibiotic sensitivity. Identification of unknown bacteria will be included.

~~The basic principles of microbiology, including the study of bacteria, algae, protozoa and viruses, are presented. Topics will include the structure, physiology, classification, cultivation and control of microorganisms, and their role in producing disease. The interaction of these organisms with humans and the environment is covered, including their presence in food, water and industry.~~

Theory 3 Credits - Lab 2 hours

BIO204 Ecology**4 Credits**

This course is intended for anyone who is interested in the world around them. Ecology should be a part of liberal education for it is essential that students who major in such diverse fields as economics, sociology, engineering, political sciences, history, and English have some basic understanding of ecology for the simple reason that it impacts their lives. The student will learn to appreciate or arrive at informed opinions on such highly politicized environmental issues as clean air and water, wetland preservation, endangered species, logging, ozone depletion, global warming, flood control, after obtaining a firm grounding in ecological concepts.

Theory 3 Credits - Lab 2 hours

Prerequisite: Biology transfer majors must have completed BIO114 and BIO115 before admission to this class

to complete their transfer sequence, or by permission of the instructor.

BIO205 Genetics**4 Credits**

This course will focus on fundamentals of genetics including Mendelian Genetics, gene mapping, and non-Mendelian inheritance; DNA structure, replication and gene expression; DNA cloning and manipulation, applications of recombinant DNA technology, and the analysis of genomes, control of gene transcription and the genetics of cancer, DNA mutation and repair, chromosomal mutations; and population genetics, quantitative genetics and molecular evolution.

Theory 3 Credits - Lab 2 hours

Prerequisite: Students will be required to complete BIO114 and BIO115 to fulfill the Ohio Transfer 36 (OT36), or by permission of instructor

BIO207 Zoology**4 Credits**

Zoology surveys comparative physiology, anatomy, morphology, behavior and ecology of animal taxa to provide an

Introduction to the principles, skills, and applications of biology for majors in biology, environmental science, and science education. The course emphasizes the diversity and evolutionary adaptations of animal groups. Lab assignments will include a research project, including data analysis and report writing, lab experiments, examinations of animal anatomy, morphology, and field work.

Theory 3 Credits - Lab 2 hours

BIO209 Critical Thinking and Analysis in the Sciences**3 Credits**

This course will focus on development of proficient skills in critical thinking and analysis pertaining to scientific research and communication. Strong emphasis will be placed on application and practice of learned skills through completion of assignments involving research of scientific topics, critical reading and analysis, information organization, scientific writing and information presentation. Development and presentation of substantial research papers will be required.

Theory 3 Credits

BIO210 Research Ethics in Science**3 Credits**

This course will focus on issues of ethics in scientific research. Topics covered include: ethical decisions with respect to appropriate and legitimate exploration pathways of scientific research; ethical standards for research publication and peer review procedure; research misconduct such as inaccuracy, misrepresentation, data fabrication, data omission, negligence, and fraudulent enterprise; fair, unbiased objectivity in scientific research; obligation to human research subjects regarding rights and welfare; resulting in consequences for individuals influenced by scientific research.

Theory 3 Credits