CGS BIOLGY (CGS BIO)

CGS BIO 101 Concepts of Biology
5 cr.
An introduction to the fundamental principles of living organisms. Includes cell and tissue structure, growth, basic physiological processes, reproduction and inheritance, classification, evolution and ecology. Lecture, lab, and may also include demonstrations, discussion and field trips.
Prerequisites: none.
General Education Requirements: NS+
Current Offerings: https://catalog.uwm.edu/course-search/

CGS BIO 104 Survey of Botany
3 cr.
Structure, functions, life histories, taxonomy and evolution of representative plants throughout the plant kingdom. Lecture, lab, and may also include demonstrations, discussion and field trips.
Prerequisites: none.
Course Rules: Previously BOT 100.
General Education Requirements: NS+, NS+
Current Offerings: https://catalog.uwm.edu/course-search/

CGS BIO 105 Greek and Latin Origins of Medical and Scientific Terminology
2-3 cr.
UW COLLEGES COURSES ONLINE ONLY. The course is designed to acquaint students pursuing science and other majors with the origins of technical terms they are likely to encounter.
Prerequisites: none.
Current Offerings: https://catalog.uwm.edu/course-search/

CGS BIO 121 Foundations of Biological Sciences I
5 cr.
First semester of a two semester course designed for majors in biological sciences. Cell structure/function, cellular metabolism enzymes, respiration, photosynthesis, information flow DNA, RNA, protein, principles of genetics, and speciation and evolutionary theory.
Prerequisites: 1 year of high school Chemistry with a grade of B or better; or CGS CHE 112; or consent of instructor.
General Education Requirements: NS+, NS+
Current Offerings: https://catalog.uwm.edu/course-search/

CGS BIO 122 Foundations of Biological Sciences II
5 cr.
Second semester of a two semester course designed for majors in biological sciences. Continuation of CGS BIO 121. Topics include: a survey of the three domains of life, selected topics in plant and animal physiology, and ecology at multiple levels of the biological hierarchy. Prereq: CGS BIO 121(P).
General Education Requirements: NS+, NS+
Current Offerings: https://catalog.uwm.edu/course-search/

CGS BIO 141 Heredity
3 cr.
Principles of heredity with applications to plant, animal and human inheritance; current advances in genetics and their bearing on the life sciences. Lecture and may also include demonstrations, discussion and field trips.
Prerequisites: none.
Course Rules: Previously CGS BIO 160.
General Education Requirements: NS
Current Offerings: https://catalog.uwm.edu/course-search/

CGS BIO 150 Foundations of Biological Sciences I
5 cr.
First semester of a two semester course designed for majors in biological sciences. Cell structure/function, cellular metabolism enzymes, respiration, photosynthesis, information flow DNA, RNA, protein, principles of genetics, and speciation and evolutionary theory.
Prerequisites: 1 year of high school Chemistry with a grade of B or better; or CGS CHE 112; or consent of instructor.
General Education Requirements: NS+, NS+
Current Offerings: https://catalog.uwm.edu/course-search/

CGS BIO 152 Foundations of Biological Sciences II
5 cr.
Second semester of a two semester course designed for majors in biological sciences. Continuation of CGS BIO 121. Topics include: a survey of the three domains of life, selected topics in plant and animal physiology, and ecology at multiple levels of the biological hierarchy. Prereq: CGS BIO 121(P).
General Education Requirements: NS+, NS+
Current Offerings: https://catalog.uwm.edu/course-search/

CGS BIO 161 Survey of Botany
3 cr.
Structure, functions, life histories, taxonomy and evolution of representative plants throughout the plant kingdom. Lecture, lab, and may also include demonstrations, discussion and field trips.
Prerequisites: none.
Course Rules: Previously BOT 100.
General Education Requirements: NS+, NS+
Current Offerings: https://catalog.uwm.edu/course-search/

CGS BIO 162 General Botany
5 cr.
Introduction to plant sciences including the structure, development, physiology and genetics of plants. Relation of the major plant groups and the principles of Biology. Lecture, lab, and may also include demonstrations, discussion and field trips.
Prerequisites: none.
Course Rules: Previously BOT 130.
General Education Requirements: NS+
Current Offerings: https://catalog.uwm.edu/course-search/

CGS BIO 164 Plants and Civilization
2 cr. Undergraduate.
Previous BOT 240 The study of plants from an historical and geographical perspective, and how plants are used in the modern world as a source of food, drugs, and other materials. Lecture and may also include demonstrations, discussion and field trips. NS
Current Offerings: https://catalog.uwm.edu/course-search/
CGS BIO 180 Introduction to Human Biology
3 cr.
Introduction to the development, nature, and processes of human adaptability. Lecture and may also include demonstrations, discussion and field trips.
**Prerequisites:** none.
**Course Rules:** Previously ZOO 105.
**General Education Requirements:** NS
**Current Offerings:** https://catalog.uwm.edu/course-search/

CGS BIO 182 Human Anatomy and Physiology
3 cr.
Introduces the non-Biology majors to the study of how the human body is organized. Major organ systems of the human body and how its structure relates to function. Lecture, lab, and may also include demonstration, discussion and field trips.
**Prerequisites:** none.
**Course Rules:** Previously PHS 170.
**General Education Requirements:** NS+, NS+
**Current Offerings:** https://catalog.uwm.edu/course-search/

CGS BIO 184 Biology of Human Sexuality and Reproduction
3 cr.
Biological aspects of human sexuality and reproduction, including topics from a biological perspective: birth control, sexually transmitted diseases, birth defects, abortion, differences between the sexes, and the manipulation of the human reproductive process by science. Lecture and may also include demonstrations, discussion and field trips.
**Prerequisites:** none.
**Course Rules:** Previously ZOO 155.
**General Education Requirements:** NS
**Current Offerings:** https://catalog.uwm.edu/course-search/

CGS BIO 190 Introduction to Environmental Science
3 cr.
Principles underlying the proper management of our resources: water, soils, minerals, forests, wildlife and human. This meets the statutory requirement for Conservation of Natural Resources required for State certification for teachers of science and social sciences.
**Prerequisites:** Previously BIO 107. Lecture and may also include demonstrations, discussion and field trips. A student may not earn credit for both CGS BIO 190 and CGS BIO 191.
**General Education Requirements:** NS
**Current Offerings:** https://catalog.uwm.edu/course-search/

CGS BIO 191 Environmental Science
3-4 cr.
Contemporary study of the natural world through the human perspective, including humans as a modifying force in the biophysical environment. Selected topics: ecological principles, pollution, population biology, and environmental management. This course meets the statutory requirement for Conservation of Natural Resources required for State certification for teachers of science and social sciences. Lecture, lab, and may include demonstrations, discussions, and field trips.
**Prerequisites:** none.
**Course Rules:** Previously CGS BIO 108. A student may not earn credit for both CGS BIO 190 and CGS BIO 191.
**General Education Requirements:** NS+
**Current Offerings:** https://catalog.uwm.edu/course-search/

CGS BIO 201 Human Anatomy and Physiology
3 cr.
Introduces the non-Biology majors to the study of how the human body is organized. Major organ systems of the human body and how its structure relates to function. Lecture, lab, and may also include demonstration, discussion and field trips.
**Prerequisites:** none.
**Course Rules:** Previously PHS 170.
**General Education Requirements:** NS+, NS+
**Current Offerings:** https://catalog.uwm.edu/course-search/

CGS BIO 202 Anatomy and Physiology 1
4 cr.
An examination of the structure and function of the human body at the molecular, cellular, tissue, organ, and system levels of organization. The integration of these levels of organization within the human organism is emphasized.
**Prerequisites:** CGS BIO 101, CGS BIO 109, CGS BIO 121, CGS BIO 162, CGS BIO 171, CGS BOT 130, CGS BIO 201, or cons. instr.
**Course Rules:** Previously PHS 202. Students with credit in CGS BIO 285 and CGS BIO 286 old courses: PHS 202 and PHS 203 may not receive Associate degree credit for CGS BIO 281 and CGS BIO 280 old courses: PHS 235 and ZOO 234. Lecture, lab, and may also include demonstrations, discussion and field trips.
**General Education Requirements:** NS+, NS+
**Current Offerings:** https://catalog.uwm.edu/course-search/

CGS BIO 203 Anatomy and Physiology 2
4 cr.
Examination of the structure/function of the human body at the molecular, cellular, tissue, organ, and system levels. Integration of these levels of organization within the human organism. Second semester of a two-semester class.
**Prerequisites:** CGS BIO 202 or CGS BIO 285.
**Course Rules:** Previously CGS BIO 286. Lecture, lab, and may also include demonstrations, discussion and field trips.
**General Education Requirements:** NS+, NS+
**Current Offerings:** https://catalog.uwm.edu/course-search/

CGS BIO 211 Genetics
3-4 cr.
Laws of variation and heredity and their modification by environment, genetic engineering, and chromosome behavior with emphasis on human genetics. Lecture, lab, and may also include demonstrations, discussion and field trips.
**Prerequisites:** introductory CGS BIO course.
**Course Rules:** Previously BIO 260.
**General Education Requirements:** NS+
**Current Offerings:** https://catalog.uwm.edu/course-search/
CGS BIO 251 General Survey of Microbiology
4-5 cr.
Survey of micro-organisms and their activities; emphasis on structure, taxonomy, function, ecology, nutrition, physiology, pathology and genetics. Survey of applied microbiology: agricultural, medical, industrial, environmental and food. The laboratory is an introduction to standard techniques and procedures in general microbiology. Lecture, lab, and may also include demonstrations, discussion and field trips.
Prerequisites: CGS BIO 101, CGS BIO 121, CGS BIO 162, or CGS BIO 171 required, or cons. instr.
Course Rules: Previously BAC 201. CGS CHE 125 recommended.
General Education Requirements: NS+
Current Offerings: https://catalog.uwm.edu/course-search/

CGS BIO 280 Human Anatomy
3 cr.
Study of the fundamental structure and organization of the organs and systems of the human body. Lecture, lab, and may also include demonstrations, discussion and field trips.
Prerequisites: one CGS BIO course or cons. instr.
Course Rules: Previously ZOO 234. Students with credit in CGS BIO 280 and CGS BIO 281 may not receive associate degree credit for CGS BIO 285 and CGS BIO 286.
General Education Requirements: NS+
Current Offerings: https://catalog.uwm.edu/course-search/

CGS BIO 281 Human Physiology
5 cr.
Examination of the physiological processes of the human body. Lecture, discussion, and lab.
Prerequisites: introductory courses in CGS CHE and CGS BIO or cons. instr.
Course Rules: Previously PHS 235. Students with credit in CGS BIO 280 and CGS BIO 281 may not receive associate degree credit for CGS BIO 285 and CGS BIO 286.
General Education Requirements: NS+
Current Offerings: https://catalog.uwm.edu/course-search/

CGS BIO 285 Anatomy and Physiology 1
4 cr.
An examination of the structure and function of the human body at the molecular, cellular, tissue, organ, and system levels of organization. The integration of these levels of organization within the human organism is emphasized.
Prerequisites: CGS BIO 101, CGS BIO 109, CGS BIO 121, CGS BIO 162, CGS BIO 171, CGS BOT 130, CGS ZOO 101, or cons. instr.
Course Rules: Previously PHS 202. Students with credit in CGS BIO 285 and CGS BIO 286 old courses: PHS 202 and PHS 203 may not receive Associate degree credit for CGS BIO 281 and CGS BIO 280 old courses: PHS 235 and ZOO 234. Lecture, lab, and may also include demonstrations, discussion and field trips.
General Education Requirements: NS+, NS+
Current Offerings: https://catalog.uwm.edu/course-search/

CGS BIO 286 Anatomy and Physiology 2
4 cr.
Examination of the structure/function of the human body at the molecular, cellular, tissue, organ, and system levels. Integration of these levels of organization within the human organism. Second semester of a two-semester class.
Prerequisites: CGS BIO 202 or CGS BIO 285.
Course Rules: Previously CGS BIO 286. Lecture, lab, and may also include demonstrations, discussion and field trips.
General Education Requirements: NS+, NS+
Current Offerings: https://catalog.uwm.edu/course-search/

CGS BIO 298 Special Topics in Biology
1-3 cr.
Designed to cover topics in biology not ordinarily covered in other classes.
Prerequisites: none.
Course Rules: Previously CGS BOT 291/CGS ZOO 291.
Current Offerings: https://catalog.uwm.edu/course-search/

CGS BIO 310 Principles of Ecology
4 cr.
Interrelationships between living organisms and their environment, ecosystems concepts, population dynamics, community organization and distribution, and application of ecological principles to humans and their environment. Lecture, lab, and may also include demonstrations, discussion and field trips.
Prerequisites: introductory CGS BIO course.
Course Rules: Previously CGS BIO 250.
General Education Requirements: NS+, NS+
Current Offerings: https://catalog.uwm.edu/course-search/

CGS BIO 373 Animal Behavior-Ethology
3 cr. Undergraduate.
A general introduction to the field of animal behavior. Evolution and natural selection, social behavior, communication, reproduction, orientation and navigation, and hormonal mechanisms of behavior.
Prerequisites: CGS BIO 310(P).
Course Rules: Previously CGS BIO 373. Lecture, lab, and may also include demonstrations, discussions, and field trips.
General Education Requirements: NS+, NS+
Current Offerings: https://catalog.uwm.edu/course-search/
CGS BIO 398 Special Topics: The Ecology of Food Production
3 cr.
Focused exploration of the environmental impact of industrialized agricultural systems; history and practice of food production and global distribution; current industrialized agricultural practices on the environment; food systems, food security, sustainable agricultural practices and alternative food sources; social, political, ethical, and economic forces that relate to farming practices, global food distribution, and consumption.
**Prerequisites:** Junior standing or consent of instructor.
**Current Offerings:** https://catalog.uwm.edu/course-search/

CGS BIO 430 Animal Behavior-Ethology
3 cr. Undergraduate.
A general introduction to the field of animal behavior. Evolution and natural selection, social behavior, communication, reproduction, orientation and navigation, and hormonal mechanisms of behavior.
**Prerequisites:** CGS BIO 310(P).
**Course Rules:** Previously CGS BIO 373. Lecture, lab, and may also include demonstrations, discussions, and field trips.
**General Education Requirements:** NS+, NS+
**Current Offerings:** https://catalog.uwm.edu/course-search/