

BIOL - BIOLOGY

BIOL 1106 Biology for Science Majors I Lab 1 Credit Hour (3 Lab)

This laboratory-based course accompanies BIOL 1306, Biology for Science Majors I. Laboratory activities will reinforce the fundamental principles of living organisms, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Study and examination of the concepts of cytology, reproduction, genetics, and scientific reasoning are included. Prerequisite: College ready in Reading, English and Mathematics. Concurrent enrollment in CHEM 1311 and CHEM 1111, or CHEM 1411 is strongly recommended. Concurrent enrollment or credit for MATH 1314 is strongly recommended.

BIOL 1107 Biology for Science Majors II Lab 1 Credit Hour (3 Lab)

This laboratory-based course accompanies BIOL 1307, Biology for Science Majors II. Laboratory activities will reinforce study of the diversity and classification of life, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. Prerequisite: A grade of "C" or better in BIOL 1306 and BIOL 1106, or BIOL 1406.

BIOL 1108 Biology for Non Science Majors I Laboratory 1 Credit Hour (2 Lab)

This laboratory-based course accompanies BIOL 1308, Biology for Non-Science Majors I. Laboratory activities will reinforce a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction. Prerequisite: College ready in Reading and English. TSI Math score of 336 or higher or a grade of "C" or better in MATH 0374 or MATH 0372 or TSI A2 of 936.

BIOL 1109 Biology for Non Science Major II Lab 1 Credit Hour (2 Lab)

This laboratory-based course accompanies BIOL 1309, Biology for Non-Science Majors II. Laboratory activities will reinforce a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology. Prerequisite: College ready in Reading and English. TSI Math score of 336 or higher or a grade of "C" or better in MATH 0374 or MATH 0372 or TSI 2A with 936.

BIOL 1111 General Botany Laboratory 1 Credit Hour (3 Lab)

This laboratory-based course accompanies BIOL 1311, General Botany. Laboratory activities will reinforce fundamental biological concepts relevant to plant physiology, life cycle, growth and development, structure and function, and cellular and molecular metabolism. The role of plants in the environment, evolution, and phylogeny of major plant groups, algae, and fungi. (This course is intended for science majors.) Prerequisite: College ready in Reading, English and Mathematics. Concurrent enrollment or credit for MATH 1314 is strongly recommended.

BIOL 1113 General Zoology Laboratory 1 Credit Hour (3 Lab)

This laboratory-based course accompanies BIOL 1313, General Zoology. Laboratory activities will reinforce fundamental biological concepts relevant to animals, including systematics, evolution, structure and function, cellular and molecular metabolism, reproduction, development, diversity, phylogeny, and ecology. (This course is intended for science majors.) Prerequisite: College ready in Reading, English and Mathematics. Concurrent enrollment or credit for MATH 1314 is strongly recommended.

BIOL 1306 Biology for Science Majors I CORE 3 Credit Hours (3 Lec)

Biology for Sciences Majors I is the first part of a two-course sequence. Fundamental principles of living organisms will be studied, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of cytology, reproduction, genetics, and scientific reasoning are included. Prerequisite: College ready in Reading, English and Mathematics. Concurrent enrollment in CHEM 1311 and CHEM 1111, or CHEM 1411 is strongly recommended. Concurrent enrollment or credit for MATH 1314 is strongly recommended.

Course Type: Life Physical Sci - A CAPP

BIOL 1307 Biology for Science Majors II CORE 3 Credit Hours (3 Lec)

Biology for Sciences Majors II is the second part of a two-course sequence. The diversity and classification of life will be studied including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. Prerequisite: A grade of "C" or better in BIOL 1306 and BIOL 1106, or BIOL 1406.

Course Type: Life Physical Sci - A CAPP

BIOL 1308 Biology for Non Science Majors I CORE 3 Credit Hours (3 Lec)

Biology for Non-Science Majors I is part of a two-course sequence. Provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction. Prerequisite: College ready in Reading and English. TSI Math score of 336 or higher or a grade of "C" or better in MATH 0374 or MATH 0372 or TSI 2A with 936.

Course Type: Life Physical Sci - A CAPP

BIOL 1309 Biology for Non Science Majors II 3 Credit Hours (3 Lec)

Biology for Non-Science Majors II is part of a two-course sequence. This course will provide a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology. Prerequisite: College ready in Reading and English. TSI Math score of 336 or higher or a grade of "C" or better in MATH 0374 or MATH 0372 or TSI 2A with 936.

Course Type: Life Physical Sci - A CAPP

BIOL 1311 General Botany 3 Credit Hours (3 Lec)

Fundamental biological concepts relevant to plant physiology, life cycle, growth and development, structure and function, and cellular and molecular metabolism. The role of plants in the environment, evolution, and phylogeny of major plant groups, algae, and fungi. (This course is intended for science majors.) Prerequisite: College ready in Reading, English and Mathematics. Concurrent enrollment or credit for MATH 1314 is strongly recommended.

Course Type: Life Physical Sci - A CAPP

BIOL 1313 General Zoology 3 Credit Hours (3 Lec)

Fundamental biological concepts relevant to animals, including systematics, evolution, structure and function, cellular and molecular metabolism, reproduction, development, diversity, phylogeny, and ecology. (This course is intended for science majors.) Prerequisite: College ready in Reading, English and Mathematics. Concurrent enrollment or credit for MATH 1314 is strongly recommended.

Course Type: Life Physical Sci - A CAPP

BIOL 1322 Nutrition and Diet Therapy 3 Credit Hours (3 Lec)

The course introduces general nutritional concepts in health and disease and includes practical applications of that knowledge. Special emphasis is given to nutrients and nutritional processes including functions, food sources, digestion, absorption, and metabolism. Food safety, availability, and nutritional information including food labels, advertising, and nationally established guidelines are addressed. Prerequisite: College ready in Reading, English and Mathematics.

Prerequisite: (Writing-College Ready with a minimum score of 1300, ENGL 373 with a grade of C_DV or higher, TCOMP-Writing Sample (Essay) with a minimum score of 6, THEA-Writing (Objective) with a minimum score of 220, TASP-Writing (Objective) with a minimum score of 220, TCOMP-Reading with a minimum score of 81, (TAKS-ELA (Exit Level) with a minimum score of 2200 and TAKS-Essay (Exit Level) with a minimum score of 3), ENGL 373 with a grade of P_DV or higher, ENGL 376 with a grade of C_DV or higher, or ENGL 376 with a grade of P_DV or higher); ((Writing-College Ready with a minimum score of 1300, Reading-College Ready with a minimum score of 1300, and Math-College Ready with a minimum score of 1300), (ENGL 376 with a grade of C_DV or higher, READ 376 with a grade of C_DV or higher, and MATH 376 with a grade of C_DV or higher), (ENGL 376 with a grade of P_DV or higher, READ 376 with a grade of P_DV or higher, and MATH 376 with a grade of P_DV or higher), (MATH 314 with a grade of C_DV or higher and INRW 376 with a grade of C_DV or higher), (MATH 324 with a grade of C_DV or higher and INRW 376 with a grade of C_DV or higher), (TSIA2 Math CRC with a minimum score of 950, TSIA2 ELAR CRC with a minimum score of 945, and TSIA2 Essay with a minimum score of 5), (TSIA2 Math CRC with a minimum score of 950, TSIA2 Essay with a minimum score of 5, and TSIA2 ELAR Diagnostic with a minimum score of 5), (TSIA2 Math Diagnostic with a minimum score of 6, TSIA2 ELAR CRC with a minimum score of 945, and TSIA2 Essay with a minimum score of 5), (TSIA2 Math Diagnostic with a minimum score of 6, TSIA2 Essay with a minimum score of 5, and TSIA2 ELAR Diagnostic with a minimum score of 5), (MATH 314 with a grade of P_DV or higher and INRW 376 with a grade of P_DV or higher), or (MATH 324 with a grade of P_DV or higher and INRW 376 with a grade of P_DV or higher)); (Reading-College Ready with a minimum score of 1300, READ 375 with a grade of C_DV or higher, TCOMP-Reading with a minimum score of 81, TASP-Reading with a minimum score of 230, (TAKS-ELA (Exit Level) with a minimum score of 2200 and TAKS-Essay (Exit Level) with a minimum score of 3), READ 375 with a grade of P_DV or higher, READ 376 with a grade of C_DV or higher, or READ 376 with a grade of P_DV or higher); (Math-College Ready with a minimum score of 1300, MATH 376 with a grade of C_DV or higher, TCOMP-Math (Algebra) with a minimum score of 39, THEA-Math with a minimum score of 230, TASP-Math with a minimum score of 230, TAKS-Math (Exit Level) with a minimum score of 2200, or MATH 376 with a grade of P_DV or higher)

BIOL 1406 Biology for Science Majors I 4 Credit Hours (3 Lec, 3 Lab)

This is a course in General Biology for science majors, including the consideration of chemistry and physics as applied to biology. Topics included are cytology, bio-chemistry, genetics, photosynthesis, cellular respiration, and a survey of the Earth's organisms. Fall and Spring. Prerequisites: 12th grade reading level and eligibility for ENGL 1301 and MATH 1314. Concurrent enrollment in CHEM 1411 is strongly recommended.

Prerequisite: (CHEM 1405 or CHEM 1405^{*}); ((Writing-College Ready with a minimum score of 1300 and Writing-College Ready with a minimum score of 1300), (ENGL 373 with a grade of C_DV or higher and ENGL 373 with a grade of C_DV or higher), (TCOMP-Writing Sample (Essay) with a minimum score of 6 and TCOMP-Writing Sample (Essay) with a minimum score of 6), (THEA-Writing (Objective) with a minimum score of 220 and THEA-Writing (Objective) with a minimum score of 220), (TASP-Writing (Objective) with a minimum score of 220 and TASP-Writing (Objective) with a minimum score of 220), (TCOMP-Reading with a minimum score of 81 and TCOMP-Reading with a minimum score of 81), (TAKS-ELA (Exit Level) with a minimum score of 2200, TAKS-Essay (Exit Level) with a minimum score of 3, TAKS-ELA (Exit Level) with a minimum score of 2200, and TAKS-Essay (Exit Level) with a minimum score of 3), (ENGL 373 with a grade of P_DV or higher and ENGL 373 with a grade of P_DV or higher), (ENGL 376 with a grade of C_DV or higher and ENGL 376 with a grade of C_DV or higher), or (ENGL 376 with a grade of P_DV or higher and ENGL 376 with a grade of P_DV or higher)); ((Writing-College Ready with a minimum score of 1300, Reading-College Ready with a minimum score of 1300, and Math-College Ready with a minimum score of 1300), (ENGL 376 with a grade of C_DV or higher, READ 376 with a grade of C_DV or higher, and MATH 376 with a grade of C_DV or higher), (ENGL 376 with a grade of P_DV or higher, READ 376 with a grade of P_DV or higher, and MATH 376 with a grade of P_DV or higher), (MATH 314 with a grade of C_DV or higher and INRW 376 with a grade of C_DV or higher), (MATH 324 with a grade of C_DV or higher and INRW 376 with a grade of C_DV or higher), (TSIA2 Math CRC with a minimum score of 950, TSIA2 ELAR CRC with a minimum score of 945, and TSIA2 Essay with a minimum score of 5), (TSIA2 Math CRC with a minimum score of 950, TSIA2 Essay with a minimum score of 5, and TSIA2 ELAR Diagnostic with a minimum score of 5), (TSIA2 Math Diagnostic with a minimum score of 6, TSIA2 ELAR CRC with a minimum score of 945, and TSIA2 Essay with a minimum score of 5), (TSIA2 Math Diagnostic with a minimum score of 6, TSIA2 Essay with a minimum score of 5, and TSIA2 ELAR Diagnostic with a minimum score of 5), (MATH 314 with a grade of P_DV or higher and INRW 376 with a grade of P_DV or higher), or (MATH 324 with a grade of P_DV or higher and INRW 376 with a grade of P_DV or higher)); ((Math-College Ready with a minimum score of 1300 and Math-College Ready with a minimum score of 1300), (MATH 376 with a grade of C_DV or higher and MATH 376 with a grade of C_DV or higher), (TCOMP-Math (Algebra) with a minimum score of 39 and TCOMP-Math (Algebra) with a minimum score of 39), (THEA-Math with a minimum score of 230 and THEA-Math with a minimum score of 230), (TASP-Math with a minimum score of 230 and TASP-Math with a minimum score of 230), (TAKS-Math (Exit Level) with a minimum score of 2200 and TAKS-Math (Exit Level) with a minimum score of 2200), or (MATH 376 with a grade of P_DV or higher and MATH 376 with a grade of P_DV or higher)); (Reading-College Ready with a minimum score of 1300, READ 375 with a grade of C_DV or higher, TCOMP-Reading with a minimum score of 81, TASP-Reading with a minimum score of 230, (TAKS-ELA (Exit Level) with a minimum score of 2200 and TAKS-Essay (Exit Level) with a minimum score of 3), READ 375 with a grade of P_DV or higher, READ 376 with a grade of C_DV or higher, or READ 376 with a grade of P_DV or higher)

BIOL 1407 Biology for Science Majors II 4 Credit Hours (3 Lec, 3 Lab)

This course is the continuation of BIOL 1406. Emphasis is on evolution, comparative survey of plant and animal organ systems, and ecological principles. Spring. Prerequisite: BIOL 1406.

Prerequisite: (BIOL 1406 with a grade of C or higher or (BIOL 1106^{*} with a grade of C or higher and BIOL 1306^{*} with a grade of C or higher))

BIOL 1408 Biology for Non Science Majors 4 Credit Hours (3 Lec, 2 Lab)

This course is an introductory general biology course recommended for students not majoring in the sciences. Topics include cells and cell chemistry, genetics, and a survey of the diversity of living organisms. Fall and Spring. Prerequisites: 12th grade reading level and eligibility for ENGL 1301 and MATH 1314.

Prerequisite: (Writing-College Ready with a minimum score of 1300, ENGL 373 with a grade of C_DV or higher, TCOMP--Writing Sample (Essay) with a minimum score of 6, THEA--Writing (Objective) with a minimum score of 220, TASP--Writing (Objective) with a minimum score of 220, TCOMP--Reading with a minimum score of 81, (TAKS--ELA (Exit Level) with a minimum score of 2200 and TAKS--Essay (Exit Level) with a minimum score of 3), ENGL 373 with a grade of P_DV or higher, ENGL 376 with a grade of C_DV or higher, or ENGL 376 with a grade of P_DV or higher); ((Writing-College Ready with a minimum score of 1300, Reading-College Ready with a minimum score of 1300, and Math-College Ready with a minimum score of 1300), (ENGL 376 with a grade of C_DV or higher, READ 376 with a grade of C_DV or higher, and MATH 376 with a grade of C_DV or higher), (ENGL 376 with a grade of P_DV or higher, READ 376 with a grade of P_DV or higher, and MATH 376 with a grade of P_DV or higher), (MATH 314 with a grade of C_DV or higher and INRW 376 with a grade of C_DV or higher), (MATH 324 with a grade of C_DV or higher and INRW 376 with a grade of C_DV or higher), (TSIA2 Math CRC with a minimum score of 950, TSIA2 ELAR CRC with a minimum score of 945, and TSIA2 Essay with a minimum score of 5), (TSIA2 Math CRC with a minimum score of 950, TSIA2 Essay with a minimum score of 5, and TSIA2 ELAR Diagnostic with a minimum score of 5), (TSIA2 Math Diagnostic with a minimum score of 6, TSIA2 ELAR CRC with a minimum score of 945, and TSIA2 Essay with a minimum score of 5), (TSIA2 Math Diagnostic with a minimum score of 6, TSIA2 Essay with a minimum score of 5, and TSIA2 ELAR Diagnostic with a minimum score of 5), (MATH 314 with a grade of P_DV or higher and INRW 376 with a grade of P_DV or higher), or (MATH 324 with a grade of P_DV or higher and INRW 376 with a grade of P_DV or higher)); (Math-College Ready with a minimum score of 1300, MATH 376 with a grade of C_DV or higher, TCOMP--Math (Algebra) with a minimum score of 39, THEA--Math with a minimum score of 230, TASP--Math with a minimum score of 230, TAKS--Math (Exit Level) with a minimum score of 2200, or MATH 376 with a grade of P_DV or higher); (Reading-College Ready with a minimum score of 1300, READ 375 with a grade of C_DV or higher, TCOMP--Reading with a minimum score of 81, TASP--Reading with a minimum score of 230, (TAKS--ELA (Exit Level) with a minimum score of 2200 and TAKS--Essay (Exit Level) with a minimum score of 3), READ 375 with a grade of P_DV or higher, READ 376 with a grade of C_DV or higher, or READ 376 with a grade of P_DV or higher)

BIOL 1409 Biology for Non Science Majors II 4 Credit Hours (3 Lec, 2 Lab)

This course is a continuation of BIOL 1408. It is recommended for students not majoring in the sciences. Topics include structure and function of plant systems; structure and function of animal systems, including humans; evolution; ecology and behavior. Spring. Prerequisite: BIOL 1408.

Prerequisite: BIOL 1408 with a grade of C or higher; BIOL 1306 with a grade of C or higher and BIOL 1106 with a grade of C or higher

BIOL 1411 General Botany 4 Credit Hours (3 Lec, 3 Lab)

This course is a survey of plants with emphasis on organization, life cycles, evolution, and ecology. It provides a foundation for advanced studies in the biological and agricultural sciences. Prerequisites: 12th grade reading level and eligibility for ENGL 1301 and MATH 1314.

Prerequisite: (Writing-College Ready with a minimum score of 1300, ENGL 373 with a grade of C_DV or higher, TCOMP--Writing Sample (Essay) with a minimum score of 6, THEA--Writing (Objective) with a minimum score of 220, TASP--Writing (Objective) with a minimum score of 220, TCOMP--Reading with a minimum score of 81, (TAKS--ELA (Exit Level) with a minimum score of 2200 and TAKS--Essay (Exit Level) with a minimum score of 3), ENGL 373 with a grade of P_DV or higher, ENGL 376 with a grade of C_DV or higher, or ENGL 376 with a grade of P_DV or higher); ((Writing-College Ready with a minimum score of 1300, Reading-College Ready with a minimum score of 1300, and Math-College Ready with a minimum score of 1300), (ENGL 376 with a grade of C_DV or higher, READ 376 with a grade of C_DV or higher, and MATH 376 with a grade of C_DV or higher), (ENGL 376 with a grade of P_DV or higher, READ 376 with a grade of P_DV or higher, and MATH 376 with a grade of P_DV or higher), (MATH 314 with a grade of C_DV or higher and INRW 376 with a grade of C_DV or higher), (MATH 324 with a grade of C_DV or higher and INRW 376 with a grade of C_DV or higher), (TSIA2 Math CRC with a minimum score of 950, TSIA2 ELAR CRC with a minimum score of 945, and TSIA2 Essay with a minimum score of 5), (TSIA2 Math CRC with a minimum score of 950, TSIA2 Essay with a minimum score of 5, and TSIA2 ELAR Diagnostic with a minimum score of 5), (TSIA2 Math Diagnostic with a minimum score of 6, TSIA2 ELAR CRC with a minimum score of 945, and TSIA2 Essay with a minimum score of 5), (TSIA2 Math Diagnostic with a minimum score of 6, TSIA2 Essay with a minimum score of 5, and TSIA2 ELAR Diagnostic with a minimum score of 5), (MATH 314 with a grade of P_DV or higher and INRW 376 with a grade of P_DV or higher), or (MATH 324 with a grade of P_DV or higher and INRW 376 with a grade of P_DV or higher)); (Math-College Ready with a minimum score of 1300, MATH 376 with a grade of C_DV or higher, TCOMP--Math (Algebra) with a minimum score of 39, THEA--Math with a minimum score of 230, TASP--Math with a minimum score of 230, TAKS--Math (Exit Level) with a minimum score of 2200, or MATH 376 with a grade of P_DV or higher); (Reading-College Ready with a minimum score of 1300, READ 375 with a grade of C_DV or higher, TCOMP--Reading with a minimum score of 81, TASP--Reading with a minimum score of 230, (TAKS--ELA (Exit Level) with a minimum score of 2200 and TAKS--Essay (Exit Level) with a minimum score of 3), READ 375 with a grade of P_DV or higher, READ 376 with a grade of C_DV or higher, or READ 376 with a grade of P_DV or higher)

BIOL 1413 General Zoology 4 Credit Hours (3 Lec, 3 Lab)

This course is a comprehensive treatment of the invertebrate and chordate animals with emphasis on their morphology, physiology, evolution, and natural history. It provides a foundation for advanced studies in the biological sciences. Prerequisites: 12th grade reading level and eligibility for ENGL 1301 and MATH 1314.

Prerequisite: (Writing-College Ready with a minimum score of 1300, ENGL 373 with a grade of C_DV or higher, TCOMP-Writing Sample (Essay) with a minimum score of 6, THEA-Writing (Objective) with a minimum score of 220, TASP-Writing (Objective) with a minimum score of 220, TCOMP-Reading with a minimum score of 81, (TAKS-ELA (Exit Level) with a minimum score of 2200 and TAKS-Essay (Exit Level) with a minimum score of 3), ENGL 373 with a grade of P_DV or higher, ENGL 376 with a grade of C_DV or higher, or ENGL 376 with a grade of P_DV or higher); ((Writing-College Ready with a minimum score of 1300, Reading-College Ready with a minimum score of 1300, and Math-College Ready with a minimum score of 1300), (ENGL 376 with a grade of C_DV or higher, READ 376 with a grade of C_DV or higher, and MATH 376 with a grade of C_DV or higher), (ENGL 376 with a grade of P_DV or higher, READ 376 with a grade of P_DV or higher, and MATH 376 with a grade of P_DV or higher), (MATH 314 with a grade of C_DV or higher and INRW 376 with a grade of C_DV or higher), (MATH 324 with a grade of C_DV or higher and INRW 376 with a grade of C_DV or higher), (TSIA2 Math CRC with a minimum score of 950, TSIA2 ELAR CRC with a minimum score of 945, and TSIA2 Essay with a minimum score of 5), (TSIA2 Math CRC with a minimum score of 950, TSIA2 Essay with a minimum score of 5, and TSIA2 ELAR Diagnostic with a minimum score of 5), (TSIA2 Math Diagnostic with a minimum score of 6, TSIA2 ELAR CRC with a minimum score of 945, and TSIA2 Essay with a minimum score of 5), (TSIA2 Math Diagnostic with a minimum score of 6, TSIA2 Essay with a minimum score of 5, and TSIA2 ELAR Diagnostic with a minimum score of 5), (MATH 314 with a grade of P_DV or higher and INRW 376 with a grade of P_DV or higher), or (MATH 324 with a grade of P_DV or higher and INRW 376 with a grade of P_DV or higher)); (Reading-College Ready with a minimum score of 1300, READ 375 with a grade of C_DV or higher, TCOMP-Reading with a minimum score of 81, TASP-Reading with a minimum score of 230, (TAKS-ELA (Exit Level) with a minimum score of 2200 and TAKS-Essay (Exit Level) with a minimum score of 3), READ 375 with a grade of P_DV or higher, READ 376 with a grade of C_DV or higher, or READ 376 with a grade of P_DV or higher); (Math-College Ready with a minimum score of 1300, MATH 376 with a grade of C_DV or higher, TCOMP-Math (Algebra) with a minimum score of 39, THEA-Math with a minimum score of 230, TASP-Math with a minimum score of 230, TAKS-Math (Exit Level) with a minimum score of 2200, or MATH 376 with a grade of P_DV or higher)

BIOL 2101 Anatomy and Physiology I Laboratory 1 Credit Hour (4 Lab)

This laboratory-based course accompanies BIOL 2301, Anatomy and Physiology I. The lab provides a hand-on learning experience for exploration of human system components and basic physiology. Systems to be studied include integumentary, skeletal, muscular, nervous, and special senses. Prerequisite: College ready in Reading, English and Mathematics. A strong background in concepts of cell and molecular biology is recommended.

BIOL 2102 Anatomy and Physiology II Lab 1 Credit Hour (4 Lab)

This laboratory-based course accompanies BIOL 2302, Anatomy and Physiology II. The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics). Prerequisite: A grade of "C" or better in BIOL 2301 and BIOL 2101, or BIOL 2401.

BIOL 2106 Environmental Biology Laboratory 1 Credit Hour (0 Lec, 3 Lab)

This laboratory-based course accompanies BIOL 2306, Environmental Biology. Laboratory activities will reinforce principles of environmental systems and ecology, including biogeochemical cycles, energy transformations, abiotic interactions, symbiotic relationships, natural resources and their management, lifestyle analysis, evolutionary trends, hazards and risks, and approaches to ecological research. Prerequisite: College ready in Reading, English and Mathematics. Concurrent enrollment or credit for MATH 1314 is strongly recommended.

BIOL 2116 Genetics Laboratory 1 Credit Hour (1 Lab)

This laboratory-based course accompanies BIOL 2316, Genetics. Laboratory activities will reinforce study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering.

BIOL 2120 Microbiology for Non Science Majors Laboratory 1 Credit Hour (4 Lab)

This laboratory-based course accompanies BIOL 2320, Microbiology for Non-Science Majors. This course covers basics of culture and identification of bacteria and microbial ecology. This course is primarily directed at pre-nursing and other pre-allied health majors and covers basics of microbiology. Emphasis is on medical microbiology, infectious diseases, and public health. Prerequisite: A grade of "C" or better in BIOL 2301, BIOL 2101, BIOL 2302, and BIOL 2102; or BIOL 2401 and BIOL 2402.

BIOL 2121 Microbiology for Science Majors Lab 1 Credit Hour (4 Lab)

This laboratory-based course accompanies BIOL 2321, Microbiology for Science Majors. Laboratory activities will reinforce principles of microbiology including metabolism, structure, function, genetics, and phylogeny of microbes. The course will also examine the interactions of microbes with each other, hosts, and the environment. Prerequisite: A grade of "C" or better in CHEM 1311, CHEM 1111, and one of the following conditions must be met for entrance into this course: 1. Credit in BIOL 1306, BIOL 1106, BIOL 1307, and BIOL 1107, or BIOL 1406 and BIOL 1407 with a grade of "C" or better. 2. Credit in BIOL 1311, BIOL 1111, BIOL 1313, and BIOL 1113, or BIOL 1411 and BIOL 1413 with a grade of "C" or better.

Prerequisite: ((BIOL 1306 with a grade of C or higher, BIOL 1307 with a grade of C or higher, CHEM 1311 with a grade of C or higher, BIOL 1106 with a grade of C or higher, BIOL 1107 with a grade of C or higher, CHEM 1111 with a grade of C or higher, BIOL 1306 with a grade of C or higher, BIOL 1307 with a grade of C or higher, CHEM 1311 with a grade of C or higher, BIOL 1106 with a grade of C or higher, BIOL 1107 with a grade of C or higher, and CHEM 1111 with a grade of C or higher), (BIOL 1406 with a grade of C or higher, BIOL 1407 with a grade of C or higher, CHEM 1411 with a grade of C or higher, BIOL 1406 with a grade of C or higher, BIOL 1407 with a grade of C or higher, and CHEM 1411 with a grade of C or higher), (BIOL 1311 with a grade of C or higher, BIOL 1111 with a grade of C or higher, BIOL 1313 with a grade of C or higher, BIOL 1113 with a grade of C or higher, CHEM 1311 with a grade of C or higher, CHEM 1111 with a grade of C or higher, BIOL 1311 with a grade of C or higher, BIOL 1111 with a grade of C or higher, BIOL 1313 with a grade of C or higher, BIOL 1113 with a grade of C or higher, CHEM 1311 with a grade of C or higher, and CHEM 1111 with a grade of C or higher), or (BIOL 1411 with a grade of C or higher, BIOL 1413 with a grade of C or higher, CHEM 1411 with a grade of C or higher, BIOL 1413 with a grade of C or higher, and CHEM 1411 with a grade of C or higher)); BIOL 2401 with a grade of C or higher and BIOL 2402 with a grade of C or higher; BIOL 1306 with a grade of C or higher, BIOL 1106 with a grade of C or higher, BIOL 1307 with a grade of C or higher, BIOL 1107 with a grade of C or higher, CHEM 1311 with a grade of C or higher, and CHEM 1111 with a grade of C or higher; BIOL 1406 with a grade of C or higher, CHEM 1311 with a grade of C or higher, BIOL 1407 with a grade of C or higher, and CHEM 1111 with a grade of C or higher; BIOL 1311 with a grade of C or higher, BIOL 1111 with a grade of C or higher, BIOL 1313 with a grade of C or higher, BIOL 1113 with a grade of C or higher, CHEM 1311 with a grade of C or higher, and CHEM 1111 with a grade of C or higher; BIOL 1411 with a grade of C or higher, BIOL 1413 with a grade of C or higher, CHEM 1311 with a grade of C or higher, and CHEM 1111 with a grade of C or higher

BIOL 2301 Anatomy and Physiology I 3 Credit Hours (3 Lec)

Anatomy and Physiology I is the first part of a two-course sequence. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: integumentary, skeletal, muscular, nervous and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. Prerequisite: College ready in Reading, English and Mathematics. A strong background in concepts of cell and molecular biology is recommended.

Course Type: Life Physical Sci - A CAPP

BIOL 2302 Anatomy and Physiology II 3 Credit Hours (3 Lec)

Anatomy and Physiology II is the second part of a two-course sequence. It is a study of the structure and function of the human body including the following systems: endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproduction (including human development and genetics). Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. Prerequisite: A grade of "C" or better in BIOL 2301 and BIOL 2101, or BIOL 2401.

Course Type: Life Physical Sci - A CAPP

BIOL 2306 Environmental Biology 3 Credit Hours (3 Lec)

Principles of environmental systems and ecology, including biogeochemical cycles, energy transformations, abiotic interactions, symbiotic relationships, natural resources and their management, lifestyle analysis, evolutionary trends, hazards and risks, and approaches to ecological research. Prerequisite: College ready in Reading, English and Mathematics. Concurrent enrollment or credit for MATH 1314 is strongly recommended.

BIOL 2316 Genetics 3 Credit Hours (3 Lec)

Study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering.

BIOL 2320 Microbiology for Non Science Majors 3 Credit Hours (3 Lec)

This course covers basic microbiology and immunology and is primarily directed at pre-nursing, pre-allied health, and non-science majors. It provides an introduction to historical concepts of the nature of microorganisms, microbial diversity, the importance of microorganisms of acellular agents in the biosphere, and their roles in human and animal diseases. Major topics include bacterial structure as well as growth, physiology, genetics, and biochemistry of microorganisms. Emphasis is on medical microbiology, infectious diseases, and public health. Prerequisite: A grade of "C" or better in BIOL 2301, BIOL 2101, BIOL 2302, and BIOL 2102; or BIOL 2401 and BIOL 2402.

BIOL 2321 Microbiology for Science Majors 3 Credit Hours (3 Lec)

Principles of microbiology including metabolism, structure, function, genetics, and phylogeny of microbes. The course will also examine the interactions of microbes with each other, hosts, and the environment.

Prerequisite: A grade of "C" or better in CHEM 1311, CHEM 1111, and one of the following conditions must be met for entrance into this course: 1. Credit in BIOL 1306, BIOL 1106, BIOL 1307, and BIOL 1107; or BIOL 1406 and BIOL 1407 with a grade of "C" or better. 2. Credit in BIOL 1311, BIOL 1111, BIOL 1313, and BIOL 1113; or BIOL 1411 and BIOL 1413 with a grade of "C" or better.

Prerequisite: ((BIOL 1306 with a grade of C or higher, BIOL 1307 with a grade of C or higher, CHEM 1311 with a grade of C or higher, BIOL 1106 with a grade of C or higher, BIOL 1107 with a grade of C or higher, CHEM 1111 with a grade of C or higher, BIOL 1306 with a grade of C or higher, BIOL 1307 with a grade of C or higher, CHEM 1311 with a grade of C or higher, BIOL 1106 with a grade of C or higher, BIOL 1107 with a grade of C or higher, and CHEM 1111 with a grade of C or higher), (BIOL 1406 with a grade of C or higher, BIOL 1407 with a grade of C or higher, CHEM 1411 with a grade of C or higher, BIOL 1406 with a grade of C or higher, BIOL 1407 with a grade of C or higher, and CHEM 1411 with a grade of C or higher), (BIOL 1311 with a grade of C or higher, BIOL 1111 with a grade of C or higher, BIOL 1313 with a grade of C or higher, BIOL 1113 with a grade of C or higher, CHEM 1311 with a grade of C or higher, CHEM 1111 with a grade of C or higher, BIOL 1311 with a grade of C or higher, BIOL 1111 with a grade of C or higher, BIOL 1313 with a grade of C or higher, BIOL 1113 with a grade of C or higher, CHEM 1311 with a grade of C or higher, and CHEM 1111 with a grade of C or higher), or (BIOL 1411 with a grade of C or higher, BIOL 1413 with a grade of C or higher, CHEM 1411 with a grade of C or higher, BIOL 1411 with a grade of C or higher, BIOL 1413 with a grade of C or higher, and CHEM 1411 with a grade of C or higher)); BIOL 1306 with a grade of C or higher, BIOL 1106 with a grade of C or higher, BIOL 1307 with a grade of C or higher, BIOL 1107 with a grade of C or higher, CHEM 1311 with a grade of C or higher, and CHEM 1111 with a grade of C or higher; BIOL 1406 with a grade of C or higher, CHEM 1311 with a grade of C or higher, BIOL 1407 with a grade of C or higher, and CHEM 1111 with a grade of C or higher; BIOL 2401 with a grade of C or higher and BIOL 2402 with a grade of C or higher; BIOL 1311 with a grade of C or higher, BIOL 1111 with a grade of C or higher, BIOL 1313 with a grade of C or higher, BIOL 1113 with a grade of C or higher, CHEM 1311 with a grade of C or higher, and CHEM 1111 with a grade of C or higher; BIOL 1411 with a grade of C or higher, BIOL 1413 with a grade of C or higher, CHEM 1311 with a grade of C or higher, and CHEM 1111 with a grade of C or higher

BIOL 2389 Academic Cooperative in the Biological Sciences / Life Sciences 3 Credit Hours (2 Lec, 3 Lab)

An instructional program designed to integrate on-campus study with practical hands-on work experience in the biological sciences/life sciences. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of living organisms and their systems. Prerequisite: College ready in Reading, English and Mathematics.

Prerequisite: (Writing-College Ready with a minimum score of 1300, ENGL 373 with a grade of C_DV or higher, TCOMP--Writing Sample (Essay) with a minimum score of 6, THEA--Writing (Objective) with a minimum score of 220, TASP--Writing (Objective) with a minimum score of 220, TCOMP--Reading with a minimum score of 81, (TAKS--ELA (Exit Level) with a minimum score of 2200 and TAKS--Essay (Exit Level) with a minimum score of 3), ENGL 373 with a grade of P_DV or higher, ENGL 376 with a grade of C_DV or higher, or ENGL 376 with a grade of P_DV or higher); ((Writing-College Ready with a minimum score of 1300, Reading-College Ready with a minimum score of 1300, and Math-College Ready with a minimum score of 1300), (ENGL 376 with a grade of C_DV or higher, READ 376 with a grade of C_DV or higher, and MATH 376 with a grade of C_DV or higher), (ENGL 376 with a grade of P_DV or higher, READ 376 with a grade of P_DV or higher, and MATH 376 with a grade of P_DV or higher), (MATH 314 with a grade of C_DV or higher and INRW 376 with a grade of C_DV or higher), (MATH 324 with a grade of C_DV or higher and INRW 376 with a grade of C_DV or higher), (TSIA2 Math CRC with a minimum score of 950, TSIA2 ELAR CRC with a minimum score of 945, and TSIA2 Essay with a minimum score of 5), (TSIA2 Math CRC with a minimum score of 950, TSIA2 Essay with a minimum score of 5, and TSIA2 ELAR Diagnostic with a minimum score of 5), (TSIA2 Math Diagnostic with a minimum score of 6, TSIA2 ELAR CRC with a minimum score of 945, and TSIA2 Essay with a minimum score of 5), (TSIA2 Math Diagnostic with a minimum score of 6, TSIA2 Essay with a minimum score of 5, and TSIA2 ELAR Diagnostic with a minimum score of 5), (MATH 314 with a grade of P_DV or higher and INRW 376 with a grade of P_DV or higher), or (MATH 324 with a grade of P_DV or higher and INRW 376 with a grade of P_DV or higher)); (Reading-College Ready with a minimum score of 1300, READ 375 with a grade of C_DV or higher, TCOMP--Reading with a minimum score of 81, TASP--Reading with a minimum score of 230, (TAKS--ELA (Exit Level) with a minimum score of 2200 and TAKS--Essay (Exit Level) with a minimum score of 3), READ 375 with a grade of P_DV or higher, READ 376 with a grade of C_DV or higher, or READ 376 with a grade of P_DV or higher); (Math-College Ready with a minimum score of 1300, MATH 376 with a grade of C_DV or higher, TCOMP--Math (Algebra) with a minimum score of 39, THEA--Math with a minimum score of 230, TASP--Math with a minimum score of 230, TAKS--Math (Exit Level) with a minimum score of 2200, or MATH 376 with a grade of P_DV or higher)

BIOL 2401 Anatomy and Physiology I 4 Credit Hours (3 Lec, 4 Lab)

This course is designed to present an integrated view of the structure and function of human systems. Emphasis is placed on student comprehension of the interaction of cells, tissues, organs, and systems in maintaining organism homeostasis. The systems covered include integumentary, skeletal, muscular, and nervous systems. Fall, Spring and Summer. Prerequisites: 12th grade reading level and eligibility for ENGL 1301 and MATH 1314. A strong background in concepts of cell and molecular biology is recommended.

Prerequisite: ((INRW 376 with a grade of C_DV or higher and 1 Course from MATH 301-376 with a grade of C_DV or higher), (Writing-College Ready with a minimum score of 1300, Reading-College Ready with a minimum score of 1300, and Math-College Ready with a minimum score of 1300), or (Writing-College Ready with a minimum score of 1300, Reading-College Ready with a minimum score of 1300, and Math-College Ready (NAI) with a minimum score of 1300)); (Writing-College Ready with a minimum score of 1300, ENGL 373 with a grade of C_DV or higher, TCOMP--Writing Sample (Essay) with a minimum score of 6, THEA--Writing (Objective) with a minimum score of 220, TASP--Writing (Objective) with a minimum score of 220, TCOMP--Reading with a minimum score of 81, (TAKS--ELA (Exit Level) with a minimum score of 2200 and TAKS--Essay (Exit Level) with a minimum score of 3), ENGL 373 with a grade of P_DV or higher, ENGL 376 with a grade of C_DV or higher, or ENGL 376 with a grade of P_DV or higher); ((Writing-College Ready with a minimum score of 1300, Reading-College Ready with a minimum score of 1300, and Math-College Ready with a minimum score of 1300), (ENGL 376 with a grade of C_DV or higher, READ 376 with a grade of C_DV or higher, and MATH 376 with a grade of C_DV or higher), (ENGL 376 with a grade of P_DV or higher, READ 376 with a grade of P_DV or higher, and MATH 376 with a grade of P_DV or higher), (MATH 314 with a grade of C_DV or higher and INRW 376 with a grade of C_DV or higher), (MATH 324 with a grade of C_DV or higher and INRW 376 with a grade of C_DV or higher), (TSIA2 Math CRC with a minimum score of 950, TSIA2 ELAR CRC with a minimum score of 945, and TSIA2 Essay with a minimum score of 5), (TSIA2 Math CRC with a minimum score of 950, TSIA2 Essay with a minimum score of 5, and TSIA2 ELAR Diagnostic with a minimum score of 5), (TSIA2 Math Diagnostic with a minimum score of 6, TSIA2 ELAR CRC with a minimum score of 945, and TSIA2 Essay with a minimum score of 5), (TSIA2 Math Diagnostic with a minimum score of 6, TSIA2 Essay with a minimum score of 5, and TSIA2 ELAR Diagnostic with a minimum score of 5), (MATH 314 with a grade of P_DV or higher and INRW 376 with a grade of P_DV or higher), or (MATH 324 with a grade of P_DV or higher and INRW 376 with a grade of P_DV or higher)); (Reading-College Ready with a minimum score of 1300, READ 375 with a grade of C_DV or higher, TCOMP--Reading with a minimum score of 81, TASP--Reading with a minimum score of 230, (TAKS--ELA (Exit Level) with a minimum score of 2200 and TAKS--Essay (Exit Level) with a minimum score of 3), READ 375 with a grade of P_DV or higher, READ 376 with a grade of C_DV or higher, or READ 376 with a grade of P_DV or higher); (Math-College Ready with a minimum score of 1300, MATH 376 with a grade of C_DV or higher, TCOMP--Math (Algebra) with a minimum score of 39, THEA--Math with a minimum score of 230, TASP--Math with a minimum score of 230, TAKS--Math (Exit Level) with a minimum score of 2200, or MATH 376 with a grade of P_DV or higher)

BIOL 2402 Anatomy and Physiology II 4 Credit Hours (3 Lec, 4 Lab)

This is a continuation of the study of human anatomy and physiology. This course includes a detailed study of the autonomic nervous system, the special senses, the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. Consideration is also given to immunity, metabolism, nutrition, fluids, electrolytes, acid-base dynamics, growth, development and inheritance. Fall, Spring and Summer. Prerequisite: A grade of "C" or better in BIOL 2401. Prerequisite: (BIOL 2401 with a grade of C or higher or (BIOL 2301 with a grade of C or higher and BIOL 2101 with a grade of C or higher))

BIOL 2404 Anatomy and Physiology for Kinesiology Majors 4 Credit Hours (3 Lec, 3 Lab)

This course is a survey of the basic anatomy and functioning of systems of the human body, including cells, tissues, musculoskeletal, reproductive, circulatory, respiratory, immune, nervous, endocrine, urinary, and digestive systems. This course is not for students majoring or minoring in biology. Prerequisites: 12th grade reading level and eligibility for ENGL 1301 and MATH 1314.

Prerequisite: (Writing-College Ready with a minimum score of 1300, ENGL 373 with a grade of C_DV or higher, TCOMP--Writing Sample (Essay) with a minimum score of 6, THEA--Writing (Objective) with a minimum score of 220, TASP--Writing (Objective) with a minimum score of 220, TCOMP--Reading with a minimum score of 81, (TAKS--ELA (Exit Level) with a minimum score of 2200 and TAKS--Essay (Exit Level) with a minimum score of 3), ENGL 373 with a grade of P_DV or higher, ENGL 376 with a grade of C_DV or higher, or ENGL 376 with a grade of P_DV or higher); ((Writing-College Ready with a minimum score of 1300, Reading-College Ready with a minimum score of 1300, and Math-College Ready with a minimum score of 1300), (ENGL 376 with a grade of C_DV or higher, READ 376 with a grade of C_DV or higher, and MATH 376 with a grade of C_DV or higher), (ENGL 376 with a grade of P_DV or higher, READ 376 with a grade of P_DV or higher, and MATH 376 with a grade of P_DV or higher), (MATH 314 with a grade of C_DV or higher and INRW 376 with a grade of C_DV or higher), (MATH 324 with a grade of C_DV or higher and INRW 376 with a grade of C_DV or higher), (TSIA2 Math CRC with a minimum score of 950, TSIA2 ELAR CRC with a minimum score of 945, and TSIA2 Essay with a minimum score of 5), (TSIA2 Math CRC with a minimum score of 950, TSIA2 Essay with a minimum score of 5, and TSIA2 ELAR Diagnostic with a minimum score of 5), (TSIA2 Math Diagnostic with a minimum score of 6, TSIA2 ELAR CRC with a minimum score of 945, and TSIA2 Essay with a minimum score of 5), (TSIA2 Math Diagnostic with a minimum score of 6, TSIA2 Essay with a minimum score of 5, and TSIA2 ELAR Diagnostic with a minimum score of 5), (MATH 314 with a grade of P_DV or higher and INRW 376 with a grade of P_DV or higher), or (MATH 324 with a grade of P_DV or higher and INRW 376 with a grade of P_DV or higher)); (Reading-College Ready with a minimum score of 1300, READ 375 with a grade of C_DV or higher, TCOMP--Reading with a minimum score of 81, TASP--Reading with a minimum score of 230, (TAKS--ELA (Exit Level) with a minimum score of 2200 and TAKS--Essay (Exit Level) with a minimum score of 3), READ 375 with a grade of P_DV or higher, READ 376 with a grade of C_DV or higher, or READ 376 with a grade of P_DV or higher); (Math-College Ready with a minimum score of 1300, MATH 376 with a grade of C_DV or higher, TCOMP--Math (Algebra) with a minimum score of 39, THEA--Math with a minimum score of 230, TASP--Math with a minimum score of 230, TAKS--Math (Exit Level) with a minimum score of 2200, or MATH 376 with a grade of P_DV or higher)

BIOL 2416 Genetics 4 Credit Hours (3 Lec, 4 Lab)

This course studies the principles of molecular and classical genetics, particularly the function and transmission of hereditary material. Topics may include population genetics and genetic engineering. Prerequisite: BIOL 1407.

Prerequisite: BIOL 1407 with a grade of C or higher

BIOL 2421 Microbiology for Science Majors 4 Credit Hours (3 Lec, 4 Lab)

This course studies the principles of molecular and classical genetics, particularly the function and transmission of hereditary material. Topics may include population genetics and genetic engineering. Prerequisite: BIOL 1407.

Prerequisite: BIOL 2401 with a grade of C or higher and BIOL 2402 with a grade of C or higher