

**Logan University, College of Health Sciences**  
**General Education Course Descriptions**  
**2019-2020 Catalog**

**APAS03101 Introduction to Adapted Activity and Sports** **3 credit hours**

This online course is a basic introduction to adapted activity and sport. The course will focus on the basic rules, guidelines and techniques of various adapted games and sport. The course will also provide a brief introduction to current trends in adapted activity and sport as well as community resources for individuals interested in participated in adapted activity and sport.

**Pre-requisites: N/A**

**APAS03102 Adapted Physical Activity Programming** **3 credit hours**

The course will cover current principles of inclusive physical activity, program planning, program implementation, and application of common inclusive practices. The course will also incorporate current exercise testing, and prescription practices in an inclusive setting.

**Pre-requisites: N/A**

**BIOL01111 General Biology I** **3 credit hours**

This course introduces the principles and concepts of biology. Emphasis is on scientific inquiry, basic biological chemistry, cell structure and function, metabolism and energy transformation, cell division, genetics, molecular genetics and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels.

**Prerequisites: N/A**

**BIOL0L111 General Biology I Lab** **1 credit hours**

The laboratory reinforces and provides supplemental information related to the lecture topics related to the principles and concepts of biology.

**Prerequisites: N/A**

**BIOL01112 General Biology II** **3 credit hours**

This course reinforces concepts introduced in General Biology I. Emphasis is placed on evolution, classification of organisms, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels.

**Prerequisites: General Biology I (or equivalent)**

**BIOL0L112 General Biology II Lab** **1 credit hours**

The laboratory reinforces and provides supplemental information related to the lecture topics related to the principles and concepts of biology.

**Prerequisites: General Biology I Lab (or equivalent)**

**BIOL03101 Environmental Biology** **3 credit hours**

This course introduces environmental processes and the influence of human activities upon them. Topics include environmental sustainability, ecology and evolution, population growth, natural resources, and a focus on current environmental problems from scientific, social, political, and economic perspectives.

**Pre-requisites: N/A**

**BIOL03103 Histology****3 credit hours**

This course provides an in-depth look at the microscopic structure of the vertebrate body. Study of cells, tissues and organs will provide an understanding of the complex nature of the relationship between form and function in vertebrates.

**Pre-requisites: General Biology I (or equivalent)**

**BMEC02102 Biomechanics of the Human Body****3 credit hours**

This course provides extensive information and application of physical laws and human movement analysis. Topics discussed will include Newton's Law, ground and fluid forces, power, energy, torque, levers and gravity. Projects of analyzing sport skills will be performed.

**Prerequisite: N/A**

**CHEM01111 College Chemistry I (15wk)****3 credit hours**

College Chemistry I course provides knowledge of fundamental concepts in inorganic and physical chemistry. Topics include chemical matter and measurement, stoichiometry, aqueous reactions, thermochemistry, electronic structure, chemical bonding, and molecular geometry.

**Prerequisite: N/A**

**CHEM0L111 College Chemistry I Lab (15wks)****1 credit hours**

This laboratory course accompanies the College Chemistry I course and includes exercises demonstrating lecture topics. Topics include laboratory safety, observation of physical properties, identification of unknown ionic compounds, reaction stoichiometry, determination of an empirical formula, proper execution of sequential reactions, and use of titration to determine the molarity of a solution.

**Prerequisites: N/A**

**CHEM01112 College Chemistry II (15wks)****3 credit hours**

College Chemistry II course provides knowledge of fundamental concepts in inorganic and physical chemistry. Topics include gases, intermolecular forces, reaction kinetics, equilibrium, acid/base chemistry, and buffers.

**Prerequisite: College Chemistry I**

**CHEM0L112 College Chemistry II Lab (15wks)****1 credit hours**

This laboratory course accompanies the College Chemistry II lecture course and includes exercises demonstrating lecture topics. Topics include laboratory safety, determination of the gas constant, molar mass of a volatile compound, reaction rate, chemical equilibrium, measurement of pH, and preparation of buffers.

**Prerequisites: College Chemistry I Lab**

**CHRO01101 History of Chiropractic****3 credit hours**

This course traces the evolution of chiropractic from its beginning to its current worldwide presence. Emphasis is given to the intellectual and institutional growth, as well as the individuals responsible for the initial development and later acceptance of chiropractic. In the second half of the course, the history of Logan College of chiropractic is discussed.

**Prerequisites: N/A**

**COMM01101 Introduction to Public Speaking****3 credit hours**

This course is a basic introduction to speech communication, emphasizing the practical skill of public speaking and critical listening. Civility and ethical speech-making are the foundations of this course. Students will practice techniques in researching, organizing, and delivering speeches in various contexts. Cultural conventions of speech, perceptions of others, verbal and nonverbal messages, and techniques of oral presentation and persuasion will be evaluated and practiced to enhance student success in typical public speaking situations.

**Prerequisites: N/A****ENGL01101 Business Writing for a Social Media World****3 credit hours**

This course is a basic writing course that focuses on communication and business writing in a social media world. Students will learn how the world sees them “online” and how to improve their ability to create strong, pertinent communication.

**Prerequisites: N/A****ENGL01201 College Composition I****3 credit hours**

In this course, students will learn each phase of the writing process through a variety of writing topics, activities, and written assignments. Students will also review composition basics by completing exercises in the textbook. A comprehensive research paper project, in APA documentation format, will also be completed.

**Prerequisites: N/A****ENGL01202 College Composition II****3 credit hours**

This course allows students to write about more complex underlying themes, including a narrative essay, a descriptive essay, a comparison/contrast essay and a persuasive argumentative essay. Students will also learn the rules associated with APA style. In addition, students will learn how to study and analyze various readings. The textbook required for this course will assist students in the grammar and writing requirements.

**Prerequisites: College Composition I or equivalent****ENGL02101 Introduction to Literature****3 credit hours**

Students will examine written works in three major genres (fiction, poetry, and drama), specifically how a written work qualifies as a specific genre and focusing on the work for its technical aspects. Students will assess literary works searching for a continuity of ideas amongst writers. When studied together, the three major genres serve as an avenue for understanding the self, comparing and contrasting human values, and drawing conclusions about the world in an historical context.

**Prerequisites: College Composition II or equivalent****HLTS02101 Future Trends in Healthcare****3 credit hours**

This course is designed to address contemporary forces shaping healthcare design and delivery in the United States. Students will explore a wide range of topics, examine current best practices and investigate forecasted future trends in healthcare.

**Prerequisites: N/A**

**HLTS02102 Cultural Awareness in Healthcare****3 credit hours**

Extraordinary demographic trends in the United States are creating a demand for culturally competent healthcare providers as a means to reduce health disparities. This course is designed to increase students' level of awareness and acceptance of the role of culture on health perceptions, access, and utilization of health services. Students explore issues facing healthcare providers and methods of integrating cultural factors into patient care as a means to practice effectively in a diverse society.

**Prerequisites: N/A****HIST01101 U.S. History I****3 credit hours**

This course will cover the political, economic, social, and cultural themes from the colonial period to the end of Reconstruction. Topics discussed will include initial contact with Native Americans, colonialism, the Revolution, creation of the U.S. Constitution, western expansion, the Civil War, and Reconstruction. The course will also include a discussion on the creation and content of the Missouri Constitution

**Prerequisites: N/A****HUMS01101 Styles of Jazz****3 credit hours**

The style of music called jazz is one of the gifts from the United States to the world. This music is the basis for much of the 20<sup>th</sup> century's popular music, film scores, Broadway show scores, and to some ears formal (classical) music. The origins and development of the styles of jazz will be explored.

**Prerequisites: N/A****KINE02101 Kinesiology****3 credit hours**

This course will cover concepts and the study of muscles as they are involved in the science of human movement. As kinesiology is the study of movement, performance, and function, both skeletal and muscular structures will be covered. Information will also be presented on how to strengthen and stretch most of the muscles.

**Prerequisites: N/A****MATH01102 College Algebra****3 credit hours**

This course presents algebraic concepts, techniques, and applications including polynomial and rational expressions, linear and quadratic equations, inequalities, absolute value, functions and graphs, exponential and logarithmic functions, and systems of equations and inequalities.

**Prerequisites: N/A****MATH2103 Statistics****3 credit hours**

This course presents a survey of basic statistical methods, including descriptive statistics, introductory probability theory, correlation and regression analysis, and introductory inferential statistical methods of estimation and hypothesis testing.

**Pre-requisites: College Algebra (or equivalent)**

**MEDT01101 Medical Terminology****3 credit hours**

This is a programmed approach to the learning of scientific/medical terminology. It is designed to acquaint students with scientific vocabulary encountered in the various division courses and to enable the learner to interpret and understand complex medical terms.

**Prerequisites: N/A****NUTR04101 Human Nutrition****3 credit hours**

This course is an advanced view of nutrition in human systems that include nutrients and nourishment, the influence of diet on health as well as disease outcomes, and the roles of food in lifestyle. Basic knowledge of clinical human nutrition fundamentals are covered.

**Pre-requisites: N/A****NUTR04201 Sport and Exercise Nutrition****3 credit hours**

Students will understand the scientific basis for the role of nutrition in physical performance. Students will be able to describe and contrast how macronutrients contribute to body composition, energy, and performance. They will also be able to explain the role of micronutrients in metabolism during physical activity and recovery. Supplements, ergogenic aids and nutritional strategies for improving sport performance will be compared.

**Pre-requisites: N/A****PATH04101 Pathology I****3 credit hours**

This course represents the study of basic pathology processes that underlie all disease such as cellular pathology, inflammation and repair, fluid and hemodynamic derangements, neoplasia, and the study of genetic immunologic, metabolic and deficiency, infections, environmental, pediatric and geriatric diseases.

**Pre-requisites: Anatomy & Physiology II (or equivalent)****PATH04201 Pathology II****3 credit hours**

This course represents the study of diseases affecting specific organs and their systems such as cardiovascular; respiratory; ear, nose, throat; ophthalmic; alimentary tract including oral cavity; lymphoid and hemopoietic tissues; liver; pancreas and biliary tract; endocrine; urinary; male and female genital; nervous system; musculoskeletal; and integument.

**Pre-requisites: Pathology I (or equivalent)****PHIL01101 Medical Ethics****3 credit hours**

This course addresses moral problems confronting health care practitioners, patients, and the public concern with medical treatment, research, and public health policy. Topics include abortion, living wills, euthanasia, genetic engineering, patient rights, human experimentation, and allocation of medical resources.

**Prerequisites: N/A****PHYS01111 College Physics I (15 wks)****3 credit hours**

This course is offered the first half of a term and presents an introduction to physics concepts, kinetics, mechanics, dynamics, circular motion, work, energy, linear momentum, rotational motion, static equilibrium, vibration, waves, and sound.

**Prerequisites: College Algebra**

**PHYS0L111 College Physics I Lab (15 wks)** **1 credit hours**  
This laboratory course accompanies the Physics I course and includes exercises demonstrating lecture topics.

**Prerequisites: College Algebra**

**PHYS01112 College Physics II (15 wks)** **3 credit hours**  
This course is offered the second half of a term and presents an introduction to fluids, electric charge and potential, electric fields, electric currents, magnetism, electromagnetic induction and waves, light, nuclear physics and radioactivity.

**Prerequisites: Physics I or equivalent**

**PHYS0L112 College Physics II Lab (15 wks)** **1 credit hours**  
This laboratory course accompanies the Physics II course and includes exercises demonstrating lecture topics.

**Prerequisites: Physics I Lab or equivalent**

**PSYH01101 General Psychology** **3 credit hours**  
Introduction to the field of psychology and the major sub areas including the biological basis of behavior, sensation, perception, consciousness, learning, memory, language, motivation, emotion, personality, stress, development, abnormal psychology, therapeutic treatment, and social psychology.

**Prerequisites: N/A**

**PSYH04104 Psychology of Aging** **3 credit hours**  
The psychological, sociological, and biological contexts of aging will be explored including social myths and fears, ageism health versus sickness, and social roles. Students will examine how aging is frequently portrayed in popular U.S. culture and how our societal perceptions can shift to create a more positive view of what it means to age successfully.

**Pre-requisites: N/A**

**SOCI01101 Introduction to Sociology** **3 credit hours**  
Students explore sociological methods, theories, and concepts using the Social World Model (SWM) in order to foster a broad and global perspective. The SWM demonstrates the relationships among individuals (micro level), organizations, institutions, and subcultures (meso level), and societies and global structures (macro levels of analysis). Some of the course topics include socialization, social groups and interactions, culture, race, gender, sexuality, crime and deviance, war, and social justice as a conduit for social change.

**Pre-requisites: N/A**

### **Flexible Accelerated Science Track courses (FAST) (7 weeks)**

**CHEM01101 General Chemistry I (FAST)** **3 credit hours**  
General Chemistry I course provides knowledge of fundamental concepts in inorganic and physical chemistry. Topics include chemical matter and measurement, stoichiometry, aqueous reactions, thermochemistry, electronic structure, chemical bonding, and molecular geometry.

**Prerequisites: N/A**

**CHEM0L101 General Chemistry I Lab (FAST) 1 credit hours**

This laboratory course accompanies the General Chemistry I course and includes exercises demonstrating lecture topics. Topics include laboratory safety, observation of physical properties, identification of unknown ionic compounds, reaction stoichiometry, determination of an empirical formula, proper execution of sequential reactions, and use of titration to determine the molarity of a solution.

**Prerequisites: N/A**

**CHEM01102 General Chemistry II (FAST) 3 credit hours**

General Chemistry II course provides knowledge of fundamental concepts in inorganic and physical chemistry. Topics include gases, intermolecular forces, reaction kinetics, equilibrium, acid/base chemistry, and buffers.

**Prerequisites: General Chemistry I or equivalent**

**CHEM0L102 General Chemistry II Lab (FAST) 1 credit hours**

This laboratory course accompanies the General Chemistry II lecture course and includes exercises demonstrating lecture topics. Topics include laboratory safety, determination of the gas constant, molar mass of a volatile compound, reaction rate, chemical equilibrium, measurement of pH, and preparation of buffers.

**Prerequisites: General Chemistry I Lab or equivalent**

**CHEM02201 Organic Chemistry I (FAST) 3 credit hours**

In this course, which is offered the first half of a term, students will learn and understand molecular structure and bonding, nomenclature of alkanes, alkenes, alkynes, and alcohols, stereochemistry, reactivity of acids and bases, and nucleophilic substitution and elimination of alkyl halides.

**Prerequisites: General Chemistry II or equivalent**

**CHEM0L201 Organic Chemistry I Lab (FAST) 1 credit hour**

This laboratory course accompanies the Organic Chemistry I lecture course and includes exercises demonstrating lecture topics. Topics include laboratory safety, melting point determination, chromatography, extraction, distillation and halogenation of alkenes.

**Prerequisites: General Chemistry II Laboratory or equivalent**

**CHEM02202 Organic Chemistry II (FAST) 3 credit hours**

In this course, which is offered the second half of a term, students will learn and understand the chemistry and preparation of alkenes, alkynes, alcohols, aldehydes, ketones, carboxylic acids, and amines.

**Prerequisites: Organic Chemistry I or equivalent**

**CHEM0L202 Organic Chemistry II Lab (FAST) 1 credit hour**

This laboratory course accompanies the Organic Chemistry II lecture course and includes exercises demonstrating lecture topics. Topics include: dehydration reactions, nitration of an aromatic compound, isolation of organic compounds, preparation of esters, soap, and synthesis of aspirin.

**Prerequisites: Organic Chemistry I Laboratory or equivalent**

**PHYS01101 Physics I (FAST) 3 credit hours**

This course is offered the first half of a term and presents an introduction to physics concepts, kinetics, mechanics, dynamics, circular motion, work, energy, linear momentum, rotational motion, static equilibrium, vibration, waves, and sound.

**Prerequisites: College Algebra**

**PHYS0L101 Physics I Lab (FAST) 1 credit hour**

This laboratory course accompanies the Physics I course and includes exercises demonstrating lecture topics.

**Prerequisites: College Algebra**

**PHYS01102 Physics II (FAST) 3 credit hours**

This course is offered the second half of a term and presents an introduction to fluids, electric charge and potential, electric fields, electric currents, magnetism, electromagnetic induction and waves, light, nuclear physics and radioactivity.

**Prerequisites: Physics I or equivalent**

**PHYS0L102 Physics II Lab (FAST) 1 credit hour**

This laboratory course accompanies the Physics II course and includes exercises demonstrating lecture topics.

**Prerequisites: Physics I Lab or equivalent**

**Dual Enrollment Courses Advanced College Credit (ACC)**

**CHEM01111 College Chemistry I (ACC) 3 credit hours**

General Chemistry I course provides knowledge of fundamental concepts in inorganic and physical chemistry. Topics include chemical matter and measurement, stoichiometry, aqueous reactions, thermochemistry, electronic structure, chemical bonding, and molecular geometry.

**Prerequisite: N/A**

**CHEM0L111 College Chemistry I Lab (ACC) 1 credit hours**

This laboratory course accompanies the College Chemistry I course and includes exercises demonstrating lecture topics. Topics include laboratory safety, observation of physical properties, identification of unknown ionic compounds, reaction stoichiometry, determination of an empirical formula, proper execution of sequential reactions, and the use of titration to determine molarity of a solution.

**Prerequisites: N/A**

**CHEM01112 College Chemistry II (ACC) 3 credit hours**

College Chemistry II course provides knowledge of fundamental concepts in inorganic and physical chemistry. Topics include gases, intermolecular forces, reaction kinetics, equilibrium, acid/base chemistry, and buffers.

**Prerequisite: College Chemistry I**

**CHEM0L112 College Chemistry II Lab (ACC) 1 credit hours**

This laboratory course accompanies the College Chemistry II course and includes exercises demonstrating lecture topics. Topics include laboratory safety, determination of the gas



constant, molar mass of a volatile compound, reaction rate, chemical equilibrium, measurement of pH, and preparation of buffers.

**Prerequisites: College Chemistry I Lab**

**PHYS01111 College Physics I (ACC)**

**3 credit hours**

This course is an introduction to physics concepts, kinetics, mechanics, dynamics, circular motion, work, energy, linear momentum, rotational motion, static equilibrium, vibration, waves, and sound.

**Prerequisites: College Algebra**

**PHYS0L111 College Physics I Lab (ACC)**

**1 credit hours**

This laboratory course accompanies the Physics I course and includes exercises demonstrating lecture topics.

**Prerequisites: College Algebra**

**PHYS01112 College Physics II (ACC)**

**3 credit hours**

This course addresses fluids, electric charge and potential, electric fields, electric currents, magnetism, electromagnetic induction and waves, light, nuclear physics and radioactivity.

**Prerequisites: Physics I or equivalent**

**PHYS0L112 College Physics II Lab (ACC)**

**1 credit hours**

This laboratory course accompanies the Physics II course and includes exercises demonstrating lecture topics.

**Prerequisites: Physics I Lab or equivalent**