

School	School of Arts & Science
Major	LIU & Kaunas Medicine Joint Program

Core Requirements			
Code	Title	Credits	Description
BIOL200	General Biology I	3	An introductory level course to energy transfer through living organisms, cell biology, membrane transportations, genetics, human physiology, evolution, and morphology and physiology of organ systems, understanding diversity with emphasis on the animal kingdom and evolution. Protozoans are also studied. Prerequisites: ENGL 150; BIOL 150, or S grade on the Biology Placement Test
BIOL200L	General Biology I Lab	1	This lab course introduces principles of microscopy with emphasis on viewing different animal tissues and cells. A detailed study of the animal kingdom including evolution, classification, and anatomical morphology. Co-requisites: BIOL 200
CHEM200	General Chemistry	3	Basic principles of chemistry, electronic structure of the atom, chemical periodicity, molecular structure and bonding, acids and bases and the states of matter, rates of chemical reactions, and chemical equilibrium are covered in this course. Prerequisites: ENGL 150; CHEM, or S grade on the Chemistry Placement Test Prerequisites: CHEM160, ENGL101. Co-requisites: CHEM200L.
CHEM200L	General Chemistry Lab	1	The laboratory work involves hands-on experience with chemical systems. Experiments include basic calorimetry, a limited qualitative and quantitative analysis scheme, properties of gases, acid-base and redox titrations. Co-requisites: CHEM 200
BMED205	Biophysics	3	Introduction to the physical sciences, principles and properties, as applied to biology and medicine. The course has a special emphasis on elasticity of the biological system, biomechanics, bioelectricity, physics of heat, lights, blood circulation, hearing and vision, and topics in biomedical imaging and analysis: echography, magnetic resonance, and nuclear radiation. Prerequisite(s): ENGL 150
BIOL275	Cell and Molecular Biology	3	The course discusses the basic concepts of cell and molecular biology: macromolecular assembly, biomembrane structure and function, storage and expression of genetic information, biogenesis, traffic, reception and transduction, cytoskeleton and extracellular matrix, and the cell cycle. Basic laboratory methods in Cell & Molecular Biology are also introduced. Prerequisites: BIOL 200
CHEM255	Basic Organic Chemistry	3	This course is designed for non-majors. It provide an introduction to the structure, isomerism and chemistry of alkanes, alkenes and some representative functional groups such as alcohols, ethers, aldehydes, ketones, carboxylic acids, amines and amides. Prerequisite: CHEM 200.

BIOL365	Genetics	3	Basic concepts of prokaryotic genomics, Mendelian inheritance, pylogenic inheritance, linkage and mapping, population genetics, evolution, DNA replication, gene expression, mutation, gene regulation, extranuclear inheritance, bacterial and viral genetics, and recombinant DNA technology are covered. Prerequisites: BIOL 275
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Major Requirements			
Code	Title	Credits	Description
KMHA400	Human Anatomy	6	The target of anatomy studies is to acquire the necessary knowledge of the human body, developing deeper insight in the structure of organs. In the first semester the students study gross anatomy of the locomotive apparatus (bones, joints and muscles) and the organs of digestion. In the second semester the study is done of the organs of the respiratory, urogenital, reproductive and nervous system (spinal cord and the cerebrum), including the sensory organs (eyes and ears). In third semester the study is done of the anatomy of cardiovascular and peripheral nervous systems.
KHAE400	Histology and Embryology	3	The aim of the subject is not only to study the microscopic structure of the body, but also to comprehend the relation of these structures with functions in order to be better prepared for studies of physiology and pathology. Genetic, hormonal, neural aspects of the control of vital processes and the possibilities of transplantation of tissues and organs are discussed as well.

General Education Requirements			
Code	Title	Credits	Description
CSCI200	Introduction to Computers	3	The course aims at making students competent in computer-related skills. It is supposed to develop basic computer knowledge by providing an overview of the computer hardware and basic components as well as hands-on practice on common software applications such as Word, Excel, Power Point, Internet and Email. The student will learn how to use the new features of Microsoft Office 2010 mainly Word documents, Excel spreadsheets and PowerPoint presentations. On the surface, MS Office 2010 looks a lot different than previous versions (no more menus or toolbars!), but by learning to understand the dramatically changed, Ribbon-based interface, you'll quickly get back on the road to productivity.
ENGL201	Composition and Research Skills	3	This course focuses on the development of writing skills appropriate to specific academic and professional purposes; the analysis and practice of various methods of organization and rhetorical patterns used in formal expository and persuasive writing; the refinement of critical reading strategies and library research techniques; and the completion of an academically acceptable library research paper. Prerequisites: ENGL150, ENGL151.
FMED200	First Medical Aid	3	The objective of this course is to teach students how to face and manage acute medical, surgical and pediatric illness. It deals with wound care, Trauma Fixation, bleeding management, cardio pulmonary resuscitation (CPR), transport of patient and evaluation of urgency of different illness and patients. conditions. During this course the student will learn vital signs monitoring, wound dressing, management of burn and some basic interventional skills.
BIOL410	Medical Human Physiology	3	Studies the structure and function of the following body systems: blood, lymphatic, cardiovascular, respiratory, digestive, urinary, and reproductive.