**ANATOMY (ANATOMY)**

1 Introduction to Human Anatomy (4) UC/CSU/IGETC Area 5B
(UC Credit Limit: Anatomy 1 + Physiology 1 combined is equivalent to Biology 20, maximum credit 8 units).
Advisory: English 101.

Lecture, 3 hours; Laboratory, 3 hours.

This course includes a study of the gross structure and function of the human body. Dissection of the cat is made in the laboratory and comparison is made with human structures. The sheep’s heart and brain and the cow’s eye are used for dissection in the laboratory to supplement the study of cat tissues. The interrelationship of anatomy with other biological and other science disciplines is emphasized.

**BIOLOGY (BIOLOGY)**

3 Introduction to Biology (4) UC/CSU/IGETC Area 5B
(UC Credit Limit: No credit for Biology 3 or 25 if taken after Biology 6).
Lecture, 3 hours; Laboratory, 4 hours.

Introductory organismal plant and animal biology for non-majors with an emphasis on scientific methodology and basic biological principles. Topics include basic inorganic, organic and biochemical principles, structure and function of bacteria, plant and animal cells and tissues, energy systems of photosynthesis and respiration, cellular division, genetics and inheritance including Mendelian Punnett square problem solving, its application to normal and abnormal human genetic conditions, evolution and classification of monera, viruses, protista, fungi, plants and animals, diversity, behavior, and ecology of communities. The anatomy and physiology of plant and animal systems, development, growth and reproduction, transport systems, nutrition, and immunity are emphasized. One hour per week is used as a to-be-arranged (TBA) lab supplemental hour using the biology PLATO software and/or biology videos and field trips. This course is designed to meet the content and pedagogy standard in science for the multiple-subject teaching credential.

6 General Biology I (5) UC/CSU/IGETC Area 5B
(UC Credit Limit: No credit for Biology 3 if taken after Biology 6).
Prerequisite: Chemistry 51 or higher.
Lecture, 3 hours; Laboratory, 7 hours.

This course is the first semester of general introduction to biological principles designed for biology majors. Lecture focuses on concepts which are common to all biological organisms. Biological molecules, cell structure and function, bio-energetics, molecular and organismal genetics, evolution and biostatistics are discussed. Laboratory includes exercises illustrating lecture principles and procedures used in modern biotechnology. An additional hour is required which covers some of the tools necessary to becoming a professional biologist. Included is the writing of a curriculum vitae, writing of scientific papers, and readings in the history of biology.

7 General Biology II (5) UC/CSU/IGETC Area 5B
Prerequisite: Biology 6.
Advisory: English 101.
Lecture, 3 hours; Laboratory, 7 hours.

This majors course is a continuation of Biology 6. It presents topics such as: introductions to viruses, bacteria, protists, plants and animals; phylogenetic relationship between plant structure and function; reproduction and development of plants (with emphasis on angiosperms); structure and function of animal systems (with emphasis on the human); behavior; and physical and biological factors important in ecology.

20 Human Anatomy and Physiology (8) UC/CSU/IGETC Area 5B
(UC Credit Limit: Biology 20 is equivalent to Anatomy 1 and Physiology 1 combined, maximum credit 8 units).
Prerequisite: Chemistry 51 or 65.
Advisory: A college life science course such as Biology 3 is recommended.
Lecture, 6 hours; Laboratory, 6 hours.

This course systematically integrates the fundamentals of human anatomy with the fundamentals of cellular as well as organ system physiology. The course is designed for majors in the paramedical, pre-professional programs such as nursing, respiratory therapy, medical records, physical therapy, as well as other programs of instruction and training requiring a solid foundation in the principles of anatomy and physiology. The relationship of anatomical concepts and principles to human physiological functions is emphasized.

**ELECTRON MICROSCOPY (ETN MCR)**

2 Principles of Histochemistry (4)
Prerequisites: Biology 3 or higher and Chemistry 51 or higher.
Lecture, 3 hours; Laboratory, 5 hours.

The primary objective of histochemistry is to microscopically study the structural relationships of tissues in organisms including protozoa, fungi, plants, and animals to gain an insight into how these organisms function. The microscopic examination of living cells/tissues is limited by the transparency of the cellular components, and not normally differentiated and contrasted from each other. This course includes the general principles for the recessing of cells and tissues for microscopic histological study. These techniques include basic cell and tissue chemistry, selecting and obtaining tissue samples, chemical and physical fixation, dehydration, infiltration, embedding, sectioning or microtomy, staining to add contrast to tissues, and observation of prepared microscopic slides. This training involves manual and
automated processing techniques. Special staining methods of cellular components, such as the cell nucleus, cytoplasm and cellular matrices are also discussed. Students of histochemistry will be sufficiently trained to enter a competitive job market of histotechnology.

3 Biological Applications of Electron Microscopy (4)
Prerequisites: Biology 3 or higher and Chemistry 51 or higher.
Lecture, 2 hours; Laboratory, 6 hours.
This course emphasizes the techniques of specimen sampling, chemistry of fixation, dehydration, embedding, ultrathin sectioning, staining, and electron microscope specimen examination. The molecular and ultrastructural aspects of cells and tissues relating to the concepts of structure and function in life events are presented. In addition, the optical principles of light microscopy and electron microscopy are discussed. The use and processing of photography for electron microscopy is also incorporated.

7 Principles of Histology (4) CSU
Prerequisites: Biology 6 or Anatomy 1 or Physiology 1, and Chemistry 65 or Chemistry 101.
Lecture, 3 hours; Laboratory, 3 hours.
This course surveys human cells, tissues and organ systems. Basic histochmistry and specific stains for each cell, tissue and organ will be discussed in detail. Biochemical principles as pertaining to the structure and function of cells, tissues and organs are presented. Developmental biology and embryology are discussed whenever appropriate, as they pertain to adult structures. Cell, tissue and organ changes and development, in the dimension of time and differentiation are covered.

10 Principles and Techniques of Scanning Electron Microscopy (3)
Prerequisites: Biology 3 or Biology 111 and Chemistry 65 or Chemistry 101.
Lecture 1 hour; Laboratory 3 hours.
Note: Mathematics 115 may be taken concurrently.
Theory, operational principles, and general maintenance of the scanning electron microscopy are presented. Emphasis is given to the techniques of biological and non-biological specimen preparation currently employed in modern metallurgy, integrated circuit analysis, biomedical research, clinical diagnosis, and in other industrial applications.

13 Biological Applications of Electron Microscopy (4)
Prerequisites: Biology 3 or 6 and Chemistry 101.
Lecture, 2 hours; Laboratory, 6 hours.
This course emphasizes the principles and techniques of scanning and transmission electron microscopy, specimen preparation, fixation, dehydration, embedding, sectioning and microscopic examination. Photographic application is also incorporated. The molecular and ultra structure aspects of cells and tissues relating to the concepts of structure and function are emphasized.

15 Special Techniques of Electron Microscopy (4)
Prerequisite: Electron Microscopy 13.
Note: Qualifying examination is required.
Lecture, 2 hours; Laboratory, 6 hours.
This course covers special techniques for scanning electron microscopy and transmission electron microscopy currently employed in biomedical research and diagnostic pathology. Immunocytochemical techniques are also included. In addition, routine service and maintenance of the scanning and transmission electron microscopes are emphasized.

16 Histotechnology (4)
Prerequisite: Biology 3 or 6 and Chemistry 101.
Lecture, 2 hours; Laboratory, 6 hours.
This course provides detailed studies of immunochemical stainings for cells and tissues. Biochemical and functional correlations will be emphasized.

17 Immunochemistry (4) CSU
Prerequisites: Biology 3 or Biology 6 and Chemistry 51.
Lecture 2 hours; Laboratory 6 hours.
This course emphasizes immunology, histochemistry, and immunochemistry. Current concepts and application of specific immune responses, antibody production, and antibody functions are discussed. Monoclonal antibody production and cell cloning are also presented.

18 Photomicroscopy (2) CSU
Lecture, 1 hour; Laboratory 3 hours.
This course is designed for industrial, medical, and scientific illustrations of photomicroscopy. Attention is given to the techniques of visual aid production for Lecture materials; public demonstration and publications.

185 Directed Study - Electron Microscopy (1) RPT2
285 Directed Study - Electron Microscopy (2)
385 Directed Study - Electron Microscopy (3)
Prerequisites: Electron Microscopy 3 and 5.
Conference 1 hour per week per unit.
The above courses allow students to pursue Directed Study in Electron Microscopy on a contract basis under the direction of a supervising instructor.

This above courses are designed to provide a review of electron microscopy technical concepts and procedures. Preparation of required examination quality materials for the Electron Microscopy Society of America (EMSA) certification also is considered.

CREDIT LIMIT: A MAXIMUM OF 6 UNITS IN DIRECTED STUDY MAY BE TAKEN.

EMERGENCY DEPARTMENT ASSISTANT (EDA)

9 Emergency Department Assistant/First Responder (4)
Lecture, 3 hours; Laboratory, 3 hours.
This course provides a basic foundation in emergency medical life-saving procedures. The major portion of this course is directed towards the standardization of the training of emergency service personnel/first responders and those individuals requiring knowledge of effective life-saving principles and procedures. An Emergency Department Assistant course Certificate is granted only to individuals who satisfactorily complete all aspects of physical skills proficiency and written test requirements. Individuals who successfully complete the course are eligible to take the National Registry First Responder examination.

HEALTH INFORMATION TECHNOLOGY (HTHTEK)

100 Introduction to Health Information Technology (3) CSU
Lecture, 2 hours; Laboratory, 2 hours.
This is an introduction to the Health Information Management (HIM) profession and the record keeping practices in alternative healthcare delivery systems. Emphasis is placed on the development, maintenance, and content of patient health records, including format and documentation requirements, filing and number system, medical staff organization, regulatory and accrediting agencies.
103 Introduction to ICD-9-CM Coding
Prerequisites: Health Information Technology 100, 133, 134 and Physiology 6.
Lecture, 2 hours; Laboratory, 2 hours.
This course introduces the use of the International Classification of Diseases 9th Revision Clinical Modification (ICD-9-CM) and Tenth Revision (ICD-10) classification system. Topics include coding conventions and principles, and Center for Medicare and Medicaid Services (CMS) official coding guidelines (inpatient and outpatient). Student assigns ICD-9-CM codes and ICD-10 to diagnosis/procedure statements and patient records using current coding manuals and computerized encoder.

106 Hospital Ethics and Law
Prerequisite: Health Information Technology 100.
Lecture, 2 hours.
This course introduces students to the concepts of confidentiality, ethics, healthcare legislation at various levels, and regulations relating to maintenance, release and use of health information. Topics covering medico-legal issues and court systems, liability, Health Information Portability and Accountability Act (HIPPA/AS), and guidelines relevant to electronic health records are discussed.

108 Introduction to Pharmacology
Prerequisite: Health Information Technology 100.
Lecture, 1 hour.
This course is an introduction to basic pharmacology for healthcare professionals and how drugs relate to body systems, disease, and conditions. Topics covered include the history of drug laws, routes of drug administration, drug usage, drug interactions, and drug categories. Other topics include contraindications, precautions, side effects, use of drug references and other terminology related to the study of drugs.

110 Ambulatory Care Coding
Prerequisites: Health Information Technology 134 and Physiology 6.
Lecture, 2 hours; Laboratory, 2 hours.
This course introduces the practice and principles of classification systems utilized in alternate healthcare facilities. Classification systems studied include Diagnostic and Statistical Manual of Mental Disorders (DSM), Systematized Nomenclature of Medicine (SNOMED), Ambulatory Payment Classification (APC), and Healthcare Common Procedural Coding System (HCPCS Level II) used for reimbursement of outpatient services rendered.

111 Patient Care Insurance Billing
Prerequisites: Health Information Technology 82, Health Information Technology 100 and Mathematics 125.
Lecture 2 hours; Laboratory 4 hours.
This course is designed to introduce medical billing techniques, and how to follow-up and collect billed claims. The internship/practicum component provides opportunities to learn how to complete and itemize statements for various types of insurance plans. Review of insurance cards, hands-on computer applications, and HCFA 1500 and UB92 forms with exposure to software and superbills also are considered.

133 Medical Terminology
Lecture, 3 hours.
This course emphasizes etymology of disease terms, nomenclature of word roots, prefixes, and suffixes related to body systems. Surgical procedures, laboratory tests, abbreviations and other terms related to the human body are discussed.

134 Introduction to Pathology
Prerequisites: Computer Applications and Office Technologies 82, Health Information Technology 133, and Physiology 6.
Lecture, 3 hours.
This course focuses on disease processes affecting human body systems including major signs and symptoms. Emphasis is placed on pathogenic causes and effects on normal physiologic functions in relation to degenerative, genetic, and pathogenic causes. Other topics covered include treatment modalities, pharmacology, and various clinical, Laboratory, and diagnostic assessments.

202 Directed Practice for Coding Specialists
Prerequisites: Health Information Technology 103 and 106.
Laboratory, 4 hours.
This is a supervised professional practical experience (PPE) in coding and abstracting of current inpatient and outpatient medical records in a healthcare facility. The PPE is designed to enable students to obtain actual non-paid work experience for 72 hours, which can be scheduled on full-time or part-time basis during the semester.

207 Introduction to Health Statistics
Prerequisites: Health Information Technology 100 and Mathematics 125.
Lecture, 3 hours.
This course is an introduction to basic concepts of health statistics using both manual and computer compilations. A review of vital statistics include preparation of data from births, deaths, autopsies, post-operative surgeries, daily census, discharges and bed occupancy. An overview of research methodology and terminology will be included.

215 Advanced Inpatient Coding and Abstracting
Prerequisites: Health Information Technology 103 and 110, and Physiology 6.
Lecture, 2 hours; Laboratory, 2 hours.
This is a Lecture and lab-based course that includes intermediate and advanced study of the International Classification of Diseases 9th Revision (ICD-9-CM) and 10th Revision (ICD-10-CM/PCS) and Diagnostic Related Group (DRGs) classification systems. Students demonstrate mastery of coding using conventions, coding principles, and official inpatient and outpatient coding guidelines using case studies and patient records.

221 Quality Management and Leadership
Prerequisite: Health Information Technology 106.
Corequisite: Health Information Technology 222.
Lecture, 3 hours.
This course covers concepts on effective communication, supervision and employment relations, development of policies and procedures, job descriptions, organizational and leadership skills, quality control and planning in a Health Information Management department.

222 Health Information Services Organization and Management
Prerequisite: Health Information Technology 106.
Corequisite: Health Information Technology 221.
Lecture, 3 hours.
This course covers organizational management concepts as applied to supervision of health information services. Topics include roles functions of teams/committees, leadership, communication and interpersonal skills, designing and implementing orientation/training programs, monitoring workflow, performance standards, revenue cycles, and organizational resources.
230 Electronic Health Records in the Healthcare System (3)  
Prerequisites: Health Information Technology 106 and CAOT 82.  
Corequisite: Physiology 222.  
Lecture, 3 hours.  
This course is designed to provide health information students with the basic knowledge and skills necessary to use electronic health record (EHR) systems in the healthcare setting. The importance of national, regional, and state initiatives will be discussed in addition to practical experience using software.

241 Directed Practice in Health Information Procedures II (4)  
Prerequisite: Health Information Technology 215.  
Laboratory, 8 hours.  
This is a supervised professional practical experience (PPE) in the health information management department of a hospital designed to enable students to obtain actual work experience in theoretical and application-based procedures previously studied. Students complete non-paid work experience for 144 hours, which can be scheduled on a full-time or part-time basis.

MICROBIOLOGY (MICRO)  
1 Introductory Microbiology (5) UC/CSU/IGETC Area 5B  
(UC Credit Limit: Maximum credit 1 course from Microbiology 1 and 20).  
Prerequisites: Chemistry 51 and Biology 3.  
Lecture, 3 hours; Laboratory, 6 hours.  
This is an introductory microbiology course developed to prepare students for careers in the biological sciences, medicine, dentistry, and allied health professions. This course explores the early history of microbiology, microbial classification, morphology, physiology and genetics. Emphasis is given to the interactions of microorganisms, immunology, virology, and the effects of physical and chemical agents on microorganisms. Attention is also given to the microbiology of the air, water, soil, milk and dairy products. The laboratory emphasizes fundamental microbiological techniques, concepts, and applications as well as current molecular diagnostic methods in microbial genetics and immunology.

10 Environmental Microbiology (4) UC/CSU/IGETC Area 5B  
Advisory: Biology 3  
Lecture, 3 hours; Laboratory, 3 hours.  
The purpose of this course is to introduce the student to environmental microbiology. The course emphasizes microbial interactions, the role of microorganisms in biogeochemical cycling, the distributions, functions, and effects of microorganisms in marine, freshwater, and terrestrial environments. The course presents physical and chemical methods used to control bacterial growth for medical, sanitary, industrial, and environmental (bioremediation) purposes. The laboratory component introduces the student to routine techniques used in the isolation, analysis, and study of soil, freshwater, and marine microorganisms. Molecular techniques are employed for analyzing freshwater contaminants. In addition, the laboratory explores applications of microbiology in the food, water, and dairy industries. This course is designed to meet the content standards in environmental microbiology for public and healthcare professionals, microbiologists, environmental engineers, environmental technicians, environmental scientists and biodefense specialists.

20 General Microbiology (4) UC/CSU/IGETC Area 5B  
(UC Credit Limit: Maximum credit 1 course from Microbiology 1 and 20).  
Advisory: Chemistry 51.  
Lecture, 3 hours; Laboratory, 3 hours.  
This course deals with the major fundamentals, principles and techniques of microbiology and its scope in today’s world. Attention is also given to the scientific method, the nature of microorganisms and selected aspects of molecular biology, microbial metabolism and genetics. Common infectious diseases, the nature of disease processes, immunology and the control of communicable diseases are covered. Procedures for disinfections and sterilization techniques are emphasized. The industrial uses of microorganisms and current topics in genetic engineering, microbial interferon and hormone production are discussed. Microorganisms are compared to the processes of other forms of life throughout the course.

PHYSIOLOGY (PHYSIOL)  
1 Introduction to Human Physiology (4) IGETC Area 5B  
(UC Credit Limit: Physiology 1 and Anatomy 1 combined is equivalent to Biology 20, maximum credit 8 units).  
Prerequisites: Anatomy 1 and Chemistry 51 or higher.  
Lecture, 3 hours; Laboratory, 3 hours.  
Human physiology is the study of the functions of the body. It covers all major systems of the body including the nervous, musculo-skeletal, circulatory, respiratory, digestive, urinary, endocrine, and reproductive systems. Emphasis is given to the interactions and integration of multi-systems which are required to maintain homeostasis which is essential for life. Microscopic examination of selected organs and tissues, as well as laboratory measurements of physiological functions, are covered during the laboratory sessions.

6 Anatomy and Physiology (8) CSU  
Lecture 4 hours; Laboratory 6 hours.  
This course is designed for majors in the paramedical, pre-professional programs such as nursing, respiratory therapy, medical records, physical therapy, as well as other programs of instruction and training requiring a solid foundation in the principles of anatomy and physiology. The relationship of anatomical concepts and principles to human activities is emphasized by systematically integrating the fundamentals of human anatomy with the fundamentals of cellular and organ system physiology.

385 Directed Study - Physiology (3) CSU  
Conference 1 hour per week per unit.  
This course allows students to pursue Directed Study in Physiology on a contract basis under the direction of a supervising instructor.  
Credit Limit: A maximum of 6 units in Directed Study may be taken.

RESPIRATORY THERAPY (RESP TH)  
1 Introduction to Respiratory Therapy (1)  
Lecture, 1 hour.  
This course provides an introduction to profession of respiratory therapy with emphasis on the duties, responsibilities, and qualifications of a respiratory therapist. Elementary lung disease processes and basic blood gas interpretation are also described.
2 Fundamentals of Respiratory Therapy (4)
Prerequisites: Anatomy 1 and Chemistry 51 or higher.
Lecture, 3 hours; Laboratory, 3 hours.
This is a course dealing with the structure and functions of respiratory therapy equipment. It also acquaints the student with the maintenance and minor repair of most of the equipment used in the profession of respiratory care. Students are expected to be able to select, assemble, and correct malfunctions on most equipment used to provide respiratory care.

3 Applications of Respiratory Therapy & Clinical Experience I (5)
Prerequisites: Satisfactory completion of Anatomy 1, Physiology 1 and Respiratory Therapy 15.
Corequisite: Respiratory Therapy 4.
Lecture, 3 hours; Laboratory, 12 hours.
Students receive instruction in the clinical application of gas therapy, aerosol and humidity therapy, and hyperinflation therapy and clinical experience. Clinical applications of respiratory drugs also are presented. Students interpret all data to determine the appropriateness of the prescribed respiratory care, and participate in the development of the respiratory care plan.

4 Applications of Respiratory Therapy & Clinical Experience II (5)
Prerequisites: Satisfactory completion of Anatomy 1, Physiology 1 and Respiratory Therapy 15.
Corequisite: Respiratory Therapy 3.
Lecture, 3 hours; Laboratory, 12 hours.
All aspects of mechanical ventilation and adult intensive respiratory care are presented. Clinical experience is acquired. Respiratory care students are expected to be able to initiate, conduct and modify prescribed therapeutic procedures. In addition, students maintain patient records and communicate relevant information to the healthcare team.

5 Applications of Respiratory Therapy & Clinical Experience III (5)
Prerequisites: Satisfactory completion of Respiratory Therapy 3, 4 and 15.
Corequisite: Respiratory Therapy 11.
Lecture, 3 hours; Laboratory, 12 hours.
Pulmonary function testing, blood gas analysis, and advanced ventilator care are presented. Students evaluate all data to determine the appropriateness of the prescribed respiratory care plan, and participate in the development of the respiratory care plan.

6 Respiratory Physiology (4)
Prerequisites: Anatomy 1 and Chemistry 51 or higher.
Lecture, 4 hours.
This course presents the physiology of the cardiopulmonary system from a clinical perspective including basic anatomy, pulmonary ventilation, diffusion of gases, pulmonary circulation, ventilation/perfusion balance, blood gas transport, mechanics of breathing and neural control of breathing. Emphasis is placed on bedside calculations that are used in the management of respiratory patients.

7 Applied Medicine and Pathology (3)
Prerequisites: Anatomy 1, Respiratory Therapy 6 and Chemistry 51 or higher.
Corequisite: Respiratory Therapy 23.
Lecture, 3 hours.
The pathology, diagnosis, and treatment of the common diseases and disorders of the cardiovascular, respiratory and neuromuscular systems are covered in detail. Techniques of laboratory evaluation and specific monitoring methods are discussed. The biochemistry of anti-asthmatic drugs are covered in detail.

11 Applications of Respiratory Therapy & Clinical Experience IV (5)
Prerequisites: Satisfactory completion of Respiratory Therapy 3, 4 and 15.
Laboratory, 15 hours.
The student receives instruction in IPPB Therapy, Chest Physical Therapy, and Airway Management. Respiratory care students are expected to initiate, conduct, and modify prescribed therapeutic procedures, and to assist the physician performing special procedures. Pulmonary rehabilitation and home care are also among the responsibilities expected of the student.

15 Introduction to Clinical Experience (4)
Prerequisites: Satisfactory completion of Respiratory Therapy 1 and 2, Chemistry 51 or higher, Anatomy 1, Physiology 1 and Microbiology 20.
Laboratory, 11 hours.
This course provides clinical insight in the duties of a respiratory therapist and an introduction to patient relationships. Sterilization methods, medical gas therapy and aerosol therapy are introduced. This course is offered only in the summer.

21 Physics for Respiratory Care (3)
Lecture, 3 hours.
This course presents an overview of the principles of physics that apply to respiratory care equipment, technology, and patient care including the behavior of gases, electricity and electrical safety. Internal heat, temperature scales, and measurement are covered in detail. Molecular phenomena such as osmosis and dialysis, and the mechanics of the cardiovascular and respiratory systems are applied to bedside patient care. Principles of electricity and hospital electrical safety from both a patient and practitioner perspective are emphasized.

23 Advanced Respiratory Pathophysiology (1) CSU
Prerequisites: Anatomy 1, Respiratory Therapy 6 and Chemistry 51 or higher.
Corequisite: Respiratory Therapy 7.
Lecture, 1 hour.
The pathology, diagnosis, and treatment of the common diseases and disorders of the cardiovascular and neuromuscular systems are covered in detail. Techniques of laboratory evaluation, and specific monitoring methods are discussed. Pharmacology of cardiac anti-arrhythmia drugs are covered in detail.

27 Physician Respiratory Care Clinical Rounds I (1) CSU
Prerequisites: Anatomy 1 and Chemistry 51 or higher.
Laboratory, 4 hours.
This course provides a hospital setting in which the Respiratory Care student accompanies a Physician on clinical rounds to determine the appropriateness of the prescribed respiratory care plan. The student also participates in the development of the respiratory care plan.
28 Physician Respiratory Care Clinical Rounds II (1)
Prerequisites: Anatomy 1 and Chemistry 51 or higher.
LABORATORY, 4 HOURS.
This course provides additional hospital settings in which the Respiratory Therapy student accompanies a Physician on clinical rounds to determine the appropriateness of the prescribed respiratory care plan for individual patients. The student also participates in the development and applications of the respiratory care plan.

29 Neonatal and Pediatric Respiratory Therapy (4) CSU
Prerequisites: Anatomy 1 and Chemistry 51 or higher.
LECTURE, 4 HOURS.
This course presents a detailed treatment of prenatal development, high risk pregnancy and normal labor and delivery. Neonatal and pediatric diseases and disorders are described with an emphasis on the respiratory care interventions, techniques and equipment used in neonatal and pediatric patient care.

30 Adult Critical Care Monitoring and Diagnostics (3)
Prerequisites: Anatomy 1 and Chemistry 51 or higher.
LECTURE, 3 HOURS.
This course presents current techniques of monitoring the critically ill patient, including electrocardiography, cardiac output, hemodynamic monitoring, nutritional assessment, oximetry, capnography and pulmonary function testing. Cardiovascular pharmacology is introduced together with advanced cardiac life support (ACLS) treatment algorithms.

31 Neonatal Resuscitation (1) CSU
Prerequisites: Respiratory Therapy 15, 16 and 29.
LECTURE, 1 HOUR.
This course covers neonatal resuscitation techniques. The topics presented include the knowledge and skills required to earn neonatal resuscitation program (NRP) certification by the American Academy of Pediatrics.