Course Descriptions

Accounting

ACCT 112 (0504) Financial Accounting KRSN ACC1010**
Prerequisite: None
Credit Hours: 3
An introduction to financial accounting concepts with emphasis on financial statements, their components, and their inter-relationships. Emphasis is on how individual transactions affect the financial statements.

ACCT 114 (0503) Managerial Accounting KRSN ACC2010**
Prerequisite: ACCT 112 Financial Accounting
Credit Hours: 3
An introduction to the concepts and tools associated with providing accounting information to management. Major topics include: cost behavior, cost estimation, cost accumulation and assignment, budgeting, and the uses of accounting information for making decisions.

ACCT 121 (0516) Computer Accounting
Prerequisite: ACCT112 Financial Accounting or OTEC 113 Business Accounting
Credit Hours: 3
Provides students the opportunity to learn to work with accounting software and to interpret financial information in the form of computer output.

Art

ART 102 (831) Art Education KRSN ART2020**
Prerequisite: None
Credit Hours: 3
This course is designed to help art education and elementary education concentrations build an understanding of children's art and develop an art curriculum for their classroom that provides quality art experiences for every child. Emphasis will be placed on lab work and experimentation of various art materials suitable for the classroom. Instruction is based on lecture, class discussion, and lab work.

ART 103 (1034) Drawing I KRSN ART1040**
Prerequisite: None
Credit Hours: 3
Students will explore various drawing materials, techniques, and subject matter. Emphasis will be placed on development of basic drawing fundamentals and stylistic preferences. Instruction will be based on class discussion and lab work.

ART 104 (1035) Drawing II
Prerequisite: ART 103 Drawing I
Credit Hours: 3
A continuation of material covered in Drawing I. Emphasis will be placed on individual special problems in drawing and use of col- or. Student will work on independent projects. Instruction will be based on class discussion, individual conference, and lab work.

ART 107 (1024) Two Dimensional Design KRSN ART1050**
Prerequisite: None
Credit Hours: 3
Elements and principles of two-Dimensional design. Emphasis on solutions to practical and aesthetic composition problems of visual communication. Lecture, critique, supervised studio practice with a variety of media.

*Refer to the Placement Testing Procedure 3.22, page 22 **Refer to Course Transfer, page 17

ART 108 Three Dimensional Design
Prerequisite: None
Credit Hours: 3
Introduction to studio practice in the principles and elements of design as it pertains to 3-D space. Emphasis is placed on the perceptions and use of spatial properties as related to components of 3-D art and design. Students will develop design vocabulary, methodology and judgment skills that will implement further study in the visual arts.

ART 111 (1029) Ceramics I
Prerequisite: None
Credit Hours: 3
An introduction to basic clay manipulation techniques including hand-building, clay additives, decoration, kiln loading, firing, and beginning wheel throwing techniques. Emphasis will be placed on three-dimensional design of clay works. Instruction will be based on class discussion, lecture, and lab work.

ART 112 (1010) Ceramics II
Prerequisite: ART 111 Ceramics I
Credit Hours: 3
An introduction to wheel throwing techniques and advanced hand-building. Emphasis will be placed on traditional and sculptural applications of clay. This course is intended to be a continuation of Ceramics I. Instruction will be based on class discussion, lecture, and lab work.

ART 113 (1030) Sculpture
Prerequisite: None
Credit Hours: 3
An introduction to the special problems and techniques of three-dimensional sculptural form and design including clay modeling, molding, and casting. Emphasis will be placed on additive and subtractive processes. Instruction will be based on lecture, class discussion, and lab work.

ART 115 (1021) Painting I
Prerequisite: None
Credit Hours: 3
An introduction and exploration of various painting materials, techniques, and subject matter. The use of oils, color theory, value, and stylistic techniques will be emphasized. Instruction will be based on class discussion and lab work.

ART 116 (1022) Painting II
Prerequisite: ART 115 Painting I
Credit Hours: 3
A continuation of material covered in Painting I. Emphasis will be placed on individual special problems in painting. Students will work on independent projects. Instruction will be based on class discussion, individual conference, and lab work.

ART 130 (1011) Art Appreciation KRSN ART1010**
Prerequisite: None
Credit Hours: 3
This course is designed to give students a broad background in art history and an appreciation of art. The primary focus will be on the principles and philosophies of the visual arts. In addition, we will look at how art relates to and enriches our society. Instruction will be based on video and slide presentations, lecture, selected readings, class discussion, and hands-on projects.

Biology

All 5 Credit Hour Biology courses include a Lab

BIOL 120 (0431) General Biology KRSN BIO1010**
Prerequisite: None
Credit Hours: 5
This course is organized around concepts and themes fundamental to an understanding of the nature of living organisms, their diversity, and their interactions with the environment and each other. To understand the complex nature of living organisms, topics of basic chemistry, biochemistry, cell structure, metabolism, Mendelian genetics, molecular genetics, and evolution, are discussed. Laboratory exercises are designed to emphasize and support the course concepts and stress the scientific methods of investigation.

BIOL 122 (0404) Environmental Life Science KRSN BIO1040**
Prerequisite: None
Credit Hours: 5
The natural science course provides an overview of life science with emphasis placed on basic principles and unifying concepts of environmental science. This course includes general biology concepts in relation to human interaction with the world around them. Students will gain the scientific foundation and tools needed to apply critical thought to contemporary environmental issues.

BIOL 128 Principles of Biology I KRSN BIO1020**
Prerequisite: None
Credit Hours: 5
A course organized around concepts fundamental to the better understanding of living organisms for the biology majors who will take advanced biology courses, and for those entering the medical and related fields. Content covered will include nature of science, basic chemistry, biochemistry, cellular structure and function, metabolism, energy transfer, cell division, Mendelian and molecular genetics, and gene expression. Laboratory experiments are selected to complement the material covered in lecture to enhance student understanding.

BIOL 129 Principles of Biology II KRSN BIO1030**
Prerequisite: BIOL 128 Principles of Biology I, or permission of instructor.
Credit Hours: 5
A course specifically designed for the biology majors. The course is organized around concepts fundamental to an understanding of the principles of organism biology. Topics of Classification, taxonomy, evolution, evolutionary relationships, kingdoms, phyla, life cycles, plant anatomy and physiology, animal anatomy and physiology, biological basis of behavior, and ecological interactions are discussed in the course. Laboratory studies include the culture and growth of bacteria and examine their ubiquity, different protists, fungi, plant structures, and animal dissection.

BIOL 130 (0412) Anatomy and Physiology KRSN BIO2020**
Recommended Prerequisite: None
Credit Hours: 5
This course is designed for one semester and is a comprehensive discipline of Biology. Anatomy and Physiology (A&P) involves both lecture and laboratory study of the human body. The course covers the competencies for anatomy and physiology at the college level as set forth by the State of Kansas Core Competency Committee. The course will integrate the structure and function of the human body. This course meets the requirements for those interested in nursing, respiratory care radiography, physical education, biology majors, minors, and for other health sciences. Lectures and labs are presented in a logical sequence by body systems

*Refer to the Placement Testing Procedure 3.22, page 22 **Refer to Course Transfer, page 17

BIOL 201 (0411) Microbiology KRSN BIO2040**
Prerequisite: BIOL 120 General Biology with Lab or BIOL 130 Anatomy and Physiology with lab
Credit Hours: 5
This course presents a study of microorganisms along with their morphological, physiological, and biochemical characteristics. It offers a comprehensive study of prokaryotic cell structure, microbial metabolism, microbial growth, methods of disinfection and sterilization, microbial genetics, classification, principles of disease and epidemiology, microbial mechanisms of pathogenicity, innate and adaptive immunity, and antimicrobial drugs. Though the main emphasis is on bacteria and virus, but protozoans, fungi and algae are also discussed.
Fundamental theories and laboratory techniques related to bacterial cell morphology, bacterial growth in different culture media, isolation, pure culture techniques, staining, and identification are illustrated throughout the semester.

Business Administration

BUAD 101 (0501) Introduction to Business KRSN BUS1020**
Prerequisite: None
Credit Hours: 3
A study of different aspects of the business world such as marketing, production, finance, and human resource management.

BUAD 104 (0505) Business Law I KRSN BUS2030**
Prerequisite: None
Credit Hours: 3
An introduction to laws covering administrative law, tort law, and contracts. Sophomore standing is recommended.

BUAD 105 (0506) Business Law II
Prerequisite: BUAD 104 Business Law I
Credit Hours: 3
A study of laws covering sales, partnerships, corporations, real property, negotiable paper, insurance, security devices, bankruptcy, wills, and estates. Sophomore standing is recommended.

BUAD 106 Principles of Leadership KRSN BUS2010**
Prerequisite: None
Credit Hours: 3
Principles of Leadership is designed to provide students with an introduction to leadership styles, theories, and principles. By exploring these areas, students will have the opportunity to develop and improve their leadership skills.

BUAD 110 (0545) Business Communications KRSN BUS 2040**
Prerequisite: None
Credit Hours: 3
This course is designed to develop skills and knowledge necessary for effective business communications – both oral and written, and to provide experience in the application of these skills and knowledge in solving business communication problems.

BUAD 205 Personal Finance KRSN BUS 1010**
Prerequisite: None
Credit Hours: 3
Personal Finance introduces students to the importance of consumer financial issues. Students will gain knowledge of the principles of money management, consumer credit, insurance, investments and retirement planning.

*Refer to the Placement Testing Procedure 3.22, page 22 **Refer to Course Transfer, page 17

BUAD 215 Principles of Management KRSN BUS2020**
Prerequisite: None
Credit Hours: 3
Principles of Management introduces the student to the functions of management: planning, organizing, leading and controlling. This includes concepts such as organizational cultures, ethics, decision making, dynamics of teams and leadership.

Chemistry

All 5 Credit Hour Chemistry courses include a Lab.

CHEM 120 (1951) Introduction to Chemistry KRSN CHM1030**
Prerequisite: None
Credit Hours: 5
This course provides a basic foundation in general chemistry. Course content includes nomenclature, acids and bases, nuclear chemistry, bonding, molecular structures, biological molecules, unit conversions, and solution chemistry. This course is recommended for students in health and science fields, for students preparing for CHEM 124 College Chemistry II, and students fulfilling general education requirements. The overall objectives to the course are as follows: To provide a body of knowledge concerning transformations and processes in chemistry. To provide insights into the nature of matter. To develop problem solving skills. To understand how the microscopic (atoms and molecules) effects the macroscopic (the visible world). To develop a sense of chemistry's societal importance, especially its impact on the environment, industry, and technology.

CHEM 124 (1961) College Chemistry I KRSN CHM1010**
Prerequisite: MATH 100 Intermediate Algebra or higher
Recommended: CHEM 120 Introduction to Chemistry **or** 1 year High School Chemistry.
Credit Hours: 5
First course of a two-semester study of general chemistry. Course content includes nomenclature, stoichiometry, acids and bases, oxidation-reduction reactions, gas laws, thermo-chemistry, atomic structure, periodicity, bonding, molecular structures, and bonding theory. (Fall Semester)

CHEM 126 (1962) College Chemistry II KRSN CHM1020**
Prerequisites: CHEM 124 College Chemistry I and MATH 115 College Algebra
Credit Hours: 5
A continuation of College Chemistry I with course content including kinetics, equilibrium thermodynamics, acid-base theories, electro-chemistry, and nuclear chemistry. (Spring Semester)

CHEM 204 (1972) Organic Chemistry I
Prerequisite: CHEM 124 College Chemistry I
Recommended Prerequisite: CHEM 126 College Chemistry II
Credit Hours: 5
First course of a two-semester study of the principles of organic chemistry. Course content includes organic nomenclature, reaction mechanisms elimination and substitution, and stereo-chemistry. Classes of compounds include alkanes, alkenes, ethers, alcohols and thiols. (Fall Semester)

CHEM 207 (1995) Organic Chemistry II
Prerequisite: Organic Chemistry I
Credit Hours: 5
Continuation of CHEM 204 Organic Chemistry I with course content extending into aldehydes, ketones, carboxylic acids and derivatives, aromatics, amines, and other classes of compounds, reaction mechanisms, and spectroscopy.\

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Communication

COMM 101 (1560) Public Speaking KRSN COM1010**
Prerequisite: None
Credit Hours: 3
A basic study of communication theory and its practical application at all levels: intra-personal (understanding the self), interpersonal (one-to-one relationships and small group interaction), and public speaking. Students examine factors that influence the development of the self-concept and interpersonal relationships, participate in problem-solving panel discussions, deliver informative and persuasive speeches, and improve their critical listening and thinking skills.

COMM 102 Interpersonal Communication KRSN COM1020**
Prerequisite: None
Credit Hours: 3
This course is a study of dyadic communication within interpersonal relationships between friends, family, fellow students, romantic partners, supervisors, and colleagues in the workplace. Emphasis is placed on the role of healthy and meaningful communication in establishing, building, maintaining, and sometimes refashioning personal and /or professional interpersonal relationships. Course content stresses how to become a more effective and competent communicator by exploring personal communication goals, analyzing communication barriers, identifying relational breakdowns in communication, and addressing conflict scenarios in order to deepen a student's understanding of the communication process and improve communication skills.

COMM 103 (0635) Introduction to Advertising
Prerequisite: None
Credit Hours: 3
This course examines strategies, techniques, and principles behind effective advertising including planning, targeting, media selection and buying, strategy and design.

COMM 105 (0637) Introduction to Public Relations
Prerequisite: None
Credit Hours: 3
This course introduces students to the public relations industry from management and practitioner standpoints. It focuses on developing skills and knowledge required to be a successful public relations practitioner.

COMM 106 (0620) Introduction to Mass Media KRSN COM1030**
Prerequisite: None
Credit Hours: 3
This course is an introduction to different forms of mass media – newspaper, magazines, books, radio, recordings, television, motion pictures and others. It is designed to give students an understanding of the media's role in society today. The course will explore the histories of the different forms of media, the evolution of the media's role in society, problems with media today, possible solutions to those problems, current media practices, mass media theory, ethics, and the media and social problems. Students will be asked to keep abreast of the media and current events through reading newspapers, watching television, listening to the radio, surfing the web, and more.

Computer Science

COMP 110 (0715) Computer Concepts and Applications KSRN CSC1010**
Prerequisite: None
Credit Hours: 3
An introduction to the study of computer hardware and use of software including operating systems, Internet browser, word processing, spreadsheet, database, and presentation programs. Students need basic keyboarding skills to enroll in this course.

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COMP 115 (0733) Spreadsheets (Microsoft Excel)
Prerequisite: None
Credit Hours: 3
This course is a comprehensive hands-on course that provides users with fundamentals, both conceptual and applied, they need to use spreadsheet software. Students learn basic and advanced features of spreadsheet use and develop the tools needed to apply this technology to business application.

COMP 120 (0717) Computer Information Systems
Prerequisite: None
Credit Hours: 3
An introduction to the use of computer-based information systems and communications technology in a business environment. Includes an introduction to information technology terminology, hardware, software, and data communications as well as a survey of programming languages and emerging computer technologies.

Criminal Justice

CRIM 101 (5551) Introduction to Administration of Justice KRSN CRJ1010**
Prerequisite: None
Credit Hours: 3
A study of the overall system of criminal justice from its early historical development to its evolution within the United States; identification of various subsystems and components – law enforcement courts, corrections, and private agencies; their role expectations and interrelationships; basic premises and crime, punishment, and rehabilitation; education and training elements; and ethics for professionalism within the system.

CRIM 111 (5567) Patrol Procedure
Prerequisite: None
Credit Hours: 3
The fundamentals of proper patrol procedures and techniques, with particular emphasis on safety, public relations, crime prevention, and the handling of routine complaints. Identifying and the handling of police problems that are most frequently encountered.

CRIM 112 Ethics in Criminal Justice
Prerequisite: None
Credit Hours: 3
This course is an examination of the ethical considerations facing the criminal justice practitioners. Some topics to be discussed include moral behavior, maintaining moral and ethical behavior under the powers of law enforcement authority, ethics and law enforcement, ethics and the courts, punishment for ethical violations, policy and management issues, professionalism, pride and ethics for practitioners. By the end of the course, students will have a better understanding of ethical and moral issues within the criminal justice system.

CRIM 118 Drugs in Society
Prerequisite: None
Credit Hours: 3
Why do people take drugs? What is the impact of drugs and addiction to society? How does society attempt to control drug use and distribution? What are the relationships between drugs and crime? Exploring questions such as these will be the central focus on this class. We will look at the nature of the drug crisis. We will first look at statistical evidence of drug use, how we measure this, and the question of "Why do people get high?" We will also look deep into the history of drugs, prohibition, and current trends. Once we have covered these critical areas, we will look into the distribution and illicit drug trades, both domestic and foreign. We'll continue on and discuss other topics such as gangs, organized crime, and crime related offenses. The class will be wrapped up discussing debates such as legalizing drugs, understanding drug policies, and treatment methods for drug users. Throughout the semester, you will be asked to think critically about the material presented in class and evaluate it. To enhance critical thinking skills, you will have numerous opportunities to discuss topics in class.

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CRIM 119 (5550) Interview and Report Writing
Prerequisite: Placement in English Composition I
Credit Hours: 3
An examination of report writing as a process, with emphasis on the chronological sequence of events, form, and written expression to present a clear, concise, and accurate account of the incident, development of the field notebook in investigations, recording details of the search, recovery of evidence, conducting interviews and interrogations, and recording relevant facts and details for the purpose of reference, accountability, and presentation in court.

CRIM 131 (5553) Community Policing
Prerequisite: None
Credit Hours: 3
Examines the philosophical concept of community policing, as it involves collaboration among police agencies, the public, other governmental agencies and organizations. It explores the historical evolution of community policing, rationale for existence, implementation strategies, pilot projects, focus of responsibility, ideas to be implemented, and ways to evaluate success of community policing concepts.

CRIM 135 (5565) Criminal Procedures
Prerequisite: None
Credit Hours: 3
Provides a background of operational procedures in Kansas law. Sets forth those procedures necessary for the understanding of legal proceedings pertaining to laws of arrest, search, and seizure and the admissibility of evidence. Introduces basic courts system procedures and the jurisdiction of the courts.

CRIM 137 (5557) Criminal Law KSRN CRJ2010**
Prerequisite: CRIM 101 (5551) Introduction to Administration of Justice
Credit Hours: 3
Reviews the Kansas Criminal Codes and defines the various statutory offenses, with special emphasis upon the Bill of Rights and laws of arrest. Also examines the recent trends in Supreme Court decisions, the rights of individuals in a free society, and limitations on the police by the Constitution.

CRIM 138 (5563) Juveniles in the Criminal Justice System
Prerequisite: None
Credit Hours: 3
A study of Kansas laws pertaining to juveniles. Reviews the historical reasons for the establishment of juvenile courts in the U.S., examines the juvenile justice process, and introduces the functions of the various components of the system, sociological concepts, theory of the adolescent subculture, and delinquency prevention aspects.

CRIM 204 Police Supervision and Management
Prerequisite: None
Credit Hours: 3
A study of the overall system of administration and management in criminal justice from evolving strategies, human behaviors, and organizational behavior. The course will look into areas of motivation, attitude, values, etc. to provide the student with the knowledge in managing organizations and people. The student will be exposed to leadership styles, communication methods and decision processes.

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Diagnostic Medical Sonography

DMS 200 Sonography Virtual Lab
Prerequisite: Acceptance into Sonography Program
Credit Hours: 6
This course will focus on laboratory techniques. The course will show a hands-on approach to the machine and examinations seen in the clinical setting. Probe positioning, angles, and body planes will be covered. Infectious control, bioeffects, medical terminology, knobology of the machine, and virtual videos to prepare the student for a clinical rotation.

DMS 201 Introduction to Sonography
Prerequisite: DMS 200 Sonography Virtual Lab
Credit Hours: 3
This is an online course designed to introduce the student to the basic responsibilities of a diagnostic medical sonographer. The course will include medical terminology and abbreviations, ergonomics, bioeffects, patient care, departmental procedures, etiquette in the medical facility, and knobology used in diagnostic ultrasound. Introduction to Sonography will build upon the ethics and law curriculum from your previous education and apply it to the ultrasound setting. Team development, conflict resolution, interprofessional communication and education. Patient confidentiality and patient rights will be explained along with the professional codes of conduct for a diagnostic medical sonographer.

DMS 205 Sonography Sectional Anatomy & Abdominal Physiology
Prerequisite: DMS 200 Sonography Virtual Lab
Credit Hours: 2
This course will serve as an introduction to the study of the abdomen as related to the normal appearance on a sonogram. This will include understanding of the physiology of the abdominal structures, including but not limited to thyroid, breast, prostate, scrotum, urinary tract, small parts, IV, pharmacology, contrast enhancement, non-cardiac chest, and MSK maging. Doppler applications will be applied to all structures covered in this course. The normal vs. abnormal laboratory values will be demonstrated.

DMS 206 OB/GYN for Sonography I
Prerequisite: DMS 200 Sonography Virtual Lab
Credit Hours: 3
This course will begin with the normal anatomy of the female abdominopelvic wall/floor (MSK), cavities, and organs. A description of the physiology of the female pelvic organs will also be included as well as an in-depth study of the female menstrual/ovarian cycle. Uterine and Ovarian pathology is included and the student will not only learn about the pathology process, but be able to identify the pathology on ultrasound images. This course will also include the normal anatomy of the first, second, and third trimester fetus, as well as normal measurements. Infertility methods and how they are utilized will be covered, as well as how they affect the female pelvic system. Doppler application will be applied to all areas covered in this course. The normal vs. abnormal laboratory values will be demonstrated. IV insertion, pharmacology and effect on imaging, 3-D imaging, and post-partum. The normal placenta and Amniotic Fluid values will also be a course of study. Study on Transabdominal as well as Transvaginal scanning and application will be covered. Lastly, this course will discuss the pitfalls, artifacts, and normal variants that occur with pelvic/obstetrical ultrasound.

DMS 207 OB/GYN for Sonography II
Prerequisite: DMS 206 OB/GYN for Sonography I
Credit Hours: 3
This course is a continuation of the OB/GYN for Sonography I course. In this course we will build further upon the foundation we have already created. Included will be neoplastic, infectious, congenital, heart to include anatomy, three vessels tracheal to include views, research statistics and design, and metabolic immunologic pathology/anomalies of the first, second, and third trimesters, placenta and umbilical cord. This course will also include discussion about normal vs. abnormal amniotic fluid levels and the correlation with pathology/anomalies. Also discussed in this course is fetal therapy for anomalies. Doppler application will be applied to all areas. Protocol and procedures of OB scanning will be covered in depth.

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DMS 208 Sonography Pathology of Abdomen and Small Parts
Prerequisite: DMS 205 Sonography Sectional Anatomy & Abdominal Physiology
Credit Hours: 2
This course will study diseases of the abdomen and small parts as related to the normal and abnormal appearance on a sonogram. This will include understanding of the physiology and how pathology effects it. Pathology and pathophysiology of the abdominal structures, including but not limited to thyroid, breast, prostate, scrotum, urinary tract, gastrointestinal tract, lymphatic system, contrast enhancement, small parts, noncardiac chest, and MSK imaging will be discussed and evaluated. Research statistics and design, Abnormal Doppler of all structures is covered in this course as well as the effect of pathology on laboratory values

DMS 211 Sonography Physics & Instrumentation
Prerequisite: DMS 200 Sonography Virtual Lab
Credit Hours: 3
This course will provide a detailed study of the principles of the production and propagation of sound waves as applied to diagnostic medical Sonography. Included will be acoustic physics and Doppler ultrasound principles. Ultrasound instrumentation and image optimization will be foundational objectives. This course will prepare competent entry-level general sonographers.

DMS 214 Introduction to Echocardiography
Prerequisite: DMS 230 Sonography Virtual Lab
Credit Hours: 4
This course will serve as an introduction to the study of basic heart anatomy and physiology. The course will include different types of pathology, valve disease, transthoracic, parasternal, Apical, Subcostal, Transesophogeal Suprasternal windows, stress testing, basic embryology and fetal circulation, congenital anomalies, and 3D/4D echocardiography. This course will include video links, forums, quizzes, and testing.

DMS 220 General Sonography Clinical I
Prerequisite: DMS 200 Sonography Virtual Lab
Credit Hours: 5
This course is an introductive course to Sonography scanning, procedures, and protocols. The student will begin with observation and progress to assisting with and performing procedures. This course will cover general Sonography procedures of the abdomen, thyroid, scrotum, breast, MSK, non-cardiac chest, ultrasound guided procedures, GI system, Lymphatic system, and major structures of the abdomen, and small parts. Hours and days are subject to change.

DMS 221 General Sonography Clinical II
Prerequisite: DMS 220 General Sonography Clinical I
Credit Hours: 5
This course is a continuation to DMS 220 General Sonography Clinical I. The student will continue observing some procedures and progress to assisting with and performing procedures. This course will cover general sonography procedures of the abdomen, thyroid, scrotum, breast, MSK, non-cardiac chest, ultrasound guided procedures, GI tract, lymphatic system, and major vasculature structures of the abdomen, and small parts. Hours and days are subject to change.

DMS 222 General Sonography Clinical III
Prerequisite: DMS 221 General Sonography Clinical II
Credit Hours: 5
This course is a continuation of DMS 221 General Clinical II to Sonography scanning, procedures, and protocols.The student will begin with observation and progress to assisting with and performing procedures. This course will cover general Sonography procedures of the abdomen, thyroid, scrotum, breast, MSK, non-cardiac chest, ultrasound guided procedures, GI system, Lymphatic system, and major structures of the abdomen, and small parts. Hours and days are subject to change.

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DMS 230 Vascular Sonography I
Prerequisite: DMS 200 Sonography Virtual Lab
Credit Hours: 3
This course begins with the vasculature anatomy, location, and different waveforms. The student will learn different approaches and techniques to vascular ultrasonography. This course will introduce the student to Doppler imaging of the abdomen, extremities, intracranial vessels, and ankle brachial indexes, and Plethysmography.

DMS 231 Vascular Sonography II
Prerequisite: DMS 230 Vascular Sonography I
Credit Hours: 3
This course will increase your knowledge and Doppler skills of the cerebrovascular, extremities, abdominal vasculature, transcranial, plethysmography, segmental, ABI's, aortic aneurysms, IVC imaging, venous Doppler evaluation with compression and augmentation, Allen test, Laser vein ablation, radio frequency, invasive vs. noninvasive testing, carotid imaging and evaluation, Raynaud's testing, and all vascular Sonography procedures. Lab scanning and exam competencies will be performed in the lab setting. We will begin registry review during the last couple weeks

DMS 234 Sonography, Physics & Instrumentation/Registry Review
Prerequisite: DMS 211 Sonography Physics & Instrumentation
Credit Hours 3
This course will continue the study of principles of the production and propagation of sound waves as applied to diagnostic medical Sonography. Included will be hemodynamics of blood flow, harmonics, Doppler, artifacts, quality assurance, and Bio-effects. Ultrasound instrumentation and image optimization will be foundational objective. This course will prepare competent entry-level general sonographers. The student will use the URR.com review to help prepare for SPI registry.

DMS 237 Vascular Sonography Registry Review
Prerequisite: DMS 230 Vascular Sonography I, DMS 231 Vascular Sonography II
Credit Hours 2
This course will review your knowledge and Doppler skills of the cerebrovascular extremities, abdominal vasculature, transcranial, plethysmography, segmental, ABI's, aortic aneurysms, IVC imaging, venous Doppler evaluation with compression and augmentation, Allen test, Laser vein ablation, radio frequency, invasive vs. noninvasive testing, carotid imaging and evaluating, Raynaud's testing, and all vascular Sonography procedures. Ultrasound Registry Review online software will be used during this course.

DMS 250 General Sonography Registry Review
Prerequisite: DMS 205 Sonography Sectional Anatomy &Abdominal Physiology, DMS 206 OB/GYN for Sonography I, DMS 207 OB/GYN for Sonography II, DMS 208 Pathology of Abdomen and Small Parts
Credit Hours: 4
This course is divided into two areas that will review all necessary subject matter of normal vs. diseased anatomy, functions, pathology, physiology, sectional abdominal anatomy, OB/GYN, and small parts to better prepare students to sit for registry exam. URR.com online registry review will be used for this course.

DMS 251 Vascular Sonography Clinical I
Prerequisite: DMS 200 Sonography Virtual Lab
Credit Hours: 5
This course is an introduction to Vascular Sonography Clinical I. The student will still be observing some procedures and progress to assisting with and performing procedures. This course will cover vascular sonography procedures of the abdomen, thyroid, scrotum, carotids, upper and lower extremities, breast, MSK, noncardiac chest, palmar arch, lower extremity exercise testing, vessel mapping, and visceral vasculature and major vasculature structures of the abdomen, extremities, and small parts. Hours and days are subject to change.

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DMS 252 Vascular Sonography Clinical II
Prerequisite: DMS 251 Vascular Sonography Clinical I
Credit Hours: 5
This course is a continuation of Vascular Sonography Clinical I. The student will still be observing some procedures and progress to assisting with and performing procedures. This course will cover vascular sonography procedures of the abdomen, thyroid, scrotum, carotids, upper and lower extremities, breast, MSK, non-cardiac chest, palmar arch, lower extremity exercise testing, vessel mapping, and visceral vasculature and major vasculature structures of the abdomen, extremities, and small parts. Hours and days are subject to change.

DMS 253 Vascular Sonography Clinical III
Prerequisite: DMS 252 Vascular Sonography Clinical II
Credit Hours: 5
This course is a continuation of the Vascular Sonography Clinical I, II. The student is more confident with vascular, abdominal and small parts procedures at this point in their clinical rotation. This course will cover the vasculature procedures of the abdomen, carotids, arterial, vein of the upper and lower extremities, SMA, Aorta, IVC, renal arteries, TCD, Plethysmography thyroid, scrotum, breast, MSK, noncardiac chest, major vasculature structures of the abdomen, small parts, palmar arch; lower extremity exercise testing; vessel mapping; and visceral vasculature OB/Gynecology. Hours and days are subject to change.

Economics

ECON 101 (2249) Issues in Today's Economy
Prerequisite: None
Credit Hours: 3
Issues in Today's Economy is designed to be a practical guide to the economy for non-majors. The course emphasizes important current issues in both the macro and micro economy such as inflation, unemployment, taxes, healthcare, energy policy, crime, terrorism and the global economy.

ECON 203 (2241) Macroeconomics KRSN ECO1020**
Prerequisite: None
Credit Hours: 3
Introduces the student to the principles of macroeconomics. The course will cover the economic theories involved in explaining the behavior of the entire economy. Topics will include supply and demand, the relationship between economic activity with the money and banking system, unemployment, inflation, productivity, economic growth, economic fluctuations and international trade.

ECON 204 (2242) Microeconomics KRSN ECO1010**
Prerequisite: None
Credit Hours: 3
Introduces the student to the principles of microeconomics. The course will cover such topics as consumer choice, supply and demand relationships in markets, the theory of the firm within perfect competition, monopoly, monopolistic competition, and oligopoly market structures, the labor market, income inequality and government intervention in markets.

Education

EDUC 107 (0823) Administration & Organization of a Child Care Program
Prerequisite: None
Credit Hours: 3
This course will provide the student with an understanding of the organization and administration of a child care program. They will gain and understanding of how to administer a variety of high quality child care programs according to the state rules and regulations.

*Refer to the Placement Testing Procedure 3.22, page 22 **Refer to Course Transfer, page 17

EDUC 110 (5275) Child Development KRSN PSY2030**
Prerequisite: None
Credit Hours: 3
This course is designed for teachers in training and teachers in service whose major interest is the pre-kindergarten, kindergarten, and primary child. It would also be a valuable tool for social service workers, special educators, parents, home visitors, and others who require a practical understanding of the young child. This course introduces the uniqueness of the young child in comparison to the older child and illustrates how to work with young children in ways that relates to their development level.
EDUC 112 Early Education Curriculum KRSN ECE1010**
Prerequisite: None
Credit Hours: 3
This course is designed for teachers, pre-teachers, child care providers, parents and other adults working with young children in an education setting. Participants will learn ways to create an active curriculum for young children.

EDUC 126 Childhood Program Planning 0-5
Prerequisite: None
Credit Hours: 5
This course is designed for teachers, child care professionals, and adults working with young children. Students will gain an understanding of how early childhood theories are applied to developmentally appropriate practices and guidance techniques in early childhood classrooms. There will be a focus on the physical, cognitive, social, emotional and creative development of children ages 0-5. Students will participate in observations for children in the child's natural environments. Identifying developmental milestones and developmentally appropriate behaviors, will be recoded in a portfolio as tools for assessment and documentation of the child's development.

EDUC 135 (0819) Explorations in Education KRSN EDU1010**
Prerequisite: None
Credit Hours: 3
This course is designed as a "gateway" course into the Teacher Education program for students considering teaching as a profession. The course includes a survey of the historical, philosophical, and sociological foundations of education with an introductory emphasis given to common effective teaching methodologies. Incorporated into this course is a supervised clinical experience to be conducted in area schools.

EDUC 142 Early Childhood Education
Prerequisite: None
Credit Hours: 3
This course will provide students with an overview of issues involved in the early care and education of young children. Students will develop multiple ways to reflect on the knowledge, skills, and developmentally appropriate practices for early childhood education. This course also incorporates the standards and objectives that are set forth by the NAYEC and is intended for anyone interested in education, early childhood, preschool or day care providers.

EDUC 151 (0820) Children's Literature KRSN EDU2010**
Prerequisite: None
Credit Hours: 3
This course is designed to familiarize students with the heritage, concentration genres, and criteria for evaluating children's literature; suggested selections of books for the elementary and middle school program, and methods of teaching literature among children in any setting.

EDUC 201 Technology for Teaching and Learning
Prerequisite: EDUC 135 Explorations in Education with a C or better
Credit Hours: 3
This course is designed to introduce students to educational technology, current research on critical issues and trends within the field, and how effectively integrate educational technology into the P-12 classroom and curriculum. Students will explore and demonstrate how educational technology can enhance person and professional productivity and support teaching and learning in a 21st Century learning environment.

*Refer to the Placement Testing Procedure 3.22, page 22 **Refer to Course Transfer, page 17

EDUC 205 Educating Exceptional Students KRSN EDU2020**
Prerequisite: EDUC 135 Explorations in Education with a C or better
Credit Hours: 3
This course addresses the historical and philosophical foundations of general, special and inclusive education along with the development and characteristics of all learners including those with disabilities. Legal trends and Individuals with Disabilities Education Act (IDEA) will be discussed. Using different resources, the course will use best practices, challenges and current research to discuss items such as Individualized Education Plans (IEPs), Least Restrictive Environment (LRE), and Universal Design.

English

ENGL 101 (1513) English Composition I KRSN ENG1010**
Prerequisite: Placement Test Recommendation
Credit Hours: 3
This course develops students' abilities in basic, written communication skills. Persons who plan to receive any type of degree must be able to communicate effectively, through both the spoken and written word; this class provides guidance in the areas of traditional grammar and communication logic and gives students practice in applying principles of exposition. In general, the class helps students master language and provides them with critical thinking skills which are necessary in higher education.

ENGL 102 (1514) English Composition II KRSN ENG1020**
Prerequisite: ENGL 101 English Composition I or ENGL 103 English Composition I with Review with a "C" or higher
Credit Hours: 3
This course continues to develop students' abilities in basic communication skills covered in English Composition I and introduces students to the techniques of research. Persons who plan to receive any type of degree must be able to communicate effectively, both through the spoken and written word; this class provides guidance in the areas of traditional grammar and communication logic and gives students practice in applying the principles of exposition taught in English Composition I. In general, the class helps students master language and provides critical thinking skills which are necessary in higher education.

ENGL 103 English Composition I with Review
Prerequisite: Placement Test Recommendation
Credit Hours: 5
This course develops students' abilities in basic written communication skills. Persons who plan to receive any type of degree must be able to communicate effectively through both the spoken and written word; this class provides guidance in the areas of traditional grammar and communication logic and gives students practice in applying principles of exposition. In general, the class helps students master language and provides them with critical thinking skills which are necessary in higher education.

ENGL 118 Theatre Appreciation KRSN THT1010**
Prerequisite: None
Credit Hours: 3
Theatre Appreciation is a study of the history and development of theatre from the ancient Greeks to the present time. The course includes a survey of the literature, plays, and social customs and conventions, as they apply to theatre development. Emphasis is placed on an educated theatre audience. Representative plays will be studied and related to their place in theatre history.

*Refer to the Placement Testing Procedure 3.22, page 22 **Refer to Course Transfer, page 17

ENGL 200 (1570) Creative Writing KRSN ENG2030**
Prerequisite: None
Credit Hours: 3
This course gives students practice in creative writing. Instruction centers on the elements of style, techniques of structure, and the importance of observation. Students act as an audience for one another and practice editing skills. In addition, students learn some of the steps involved in selling their work and in the publishing process. Research and observation skills that support creative writing will be practiced. In addition, students will strive to become better writers by becoming better readers.

ENGL 206 General Literature KRSN ENG1030**
Prerequisite: None
Credit Hours: 3
This introduction to literature course is organized around three major literary genres—short fiction, poetry, and drama. The focus is on the elements of literature that these genres have in common—plot and structure, character, setting, style, symbolism and myth, and theme. Although these common elements are considered individually in the study of each genre, the emphasis remains on the interrelationship of the elements in the literary text; they function together to produce a whole that is greater than the sum of its parts. The course also places a strong emphasis on writing about literature as an act of discovery and as a way for students to enhance their composition and critical thinking skills. Some writing activities are personal responses; some are analytical and interpretive essays.

ENGL 207 British Literature I
Prerequisite: None
English Placement Test and TOEFL score of 520 (Non-native Speakers of English) Reading for Academic Success or appropriate reading score
Credit Hours: 3
This course is a survey of British Literature from Early Anglo-Saxon writing up through the 18th century. Students will study representative poetry, fiction, and drama.

ENGL 208 (1520) World Literature
Prerequisite: None
English Placement Test and TOEFL score of 520 (Non-native Speakers of English) Reading for Academic Success or appropriate reading score
Credit Hours: 3
This course is designed to provide students with opportunities to examine World Literature selections from the Ancient World to the Present. Students will study three genres: fiction, poetry, and drama. Students will examine and identify the formal features of each selection, analyze and interpret the material for meaning, and document their explorations in discussion, papers, and journals.

ENGL 209 American Literature I KRSN ENG2010**
Prerequisite: None
English Placement Test and TOEFL score of 520 (Non-native Speakers of English) Reading for Academic Success or appropriate reading score
Credit Hours: 3
This course is a survey of American Literature to1865 covering fiction, poetry and drama in historical, cultural and thematic context.

ENGL 215 (1539) Science Fiction
Prerequisite: None
Credit Hours: 3
The development of the science fiction genre in relationship to changing technology is surveyed, emphasizing trends in literature, art, and film.

*Refer to the Placement Testing Procedure 3.22, page 22 **Refer to Course Transfer, page 17

ENGL 219 (1541) Film Appreciation
Prerequisite: None
Credit Hours: 3
This course introduces students to the language of film, to its cultural dimensions, and to its history. Students study individual films as genre pieces, learn to judge visual images, and become aware of the aesthetic aspects of film.

Foreign Language

LANG 104 (1121) French I (IO) KRSN FRN1010**
Reading Placement Test Level: None
Prerequisite: None
Credit Hours: 5
An introduction to French with emphasis on the study of grammar and creation of sentence structure. The course is designed to build vocabulary to 600 words and to enable students to use the language in proper grammar and pronunciation.

LANG 127 (1152) Spanish I (IO) KRSN SPA1010**
Prerequisite: None
Credit Hours: 5
Spanish I is a five credit hour transfer course. Upon completion of the course, students will be able to pronounce, read, write, and understand basic Spanish phrases. Comprehension, oral, and written, will focus on "survival skills" in the target culture. Students will be able to ask directions, greetings, know dates, days of the week and months, tell time, and order food, etc.

LANG 128 (1153) Spanish II (IO) KRSN SPA1020**
Prerequisite: LANG 127 Spanish I
Credit Hours: 5
Spanish II is a five credit hour transfer course. Spanish II is a performance-oriented program designed to make the study of Spanish a flexible and personal experience. Upon completion of the course, students will be able to pronounce, read, write, and understand Spanish phrases and maintain a full conversation. Comprehension, oral and written, will focus on "survival skills" as well as exposure to Spanish literature such as poems and short stories. The student will be fully involved in the study of all tenses in Spanish (present, preterite, imperfect, future, conditional, and subjunctive) as well as the use of command forms both familiar and formal.

Geography

GEOG 101 (911) World Regional Geography KRSN GEO1010**
Prerequisite: None
Credit Hours: 3
The first part of the course surveys the basic concepts of physical and human geography. In the remainder of the course these concepts are applied to a study of the major regions of the world. Emphasis is placed on the themes of development, conflict, and globalization, with the goal of providing students the tools to develop informed perspectives on current global events.

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Graphic Design Technology

GRAP 102 Digital Photography
Prerequisite: None
Credit Hours: 3
Digital Photography is a study of current electronic imaging processes related to photography. Digital cameras will be used to capture images. Adobe Photoshop software and computers will serve as the digital darkroom.

GRAP 103 Intro to Graphic Communications
Prerequisite: None
Credit Hours: 3
An introduction to fundamental design principles and theories of graphic communication. Emphasis will be placed on the graphic design process and the development of skills to solve graphic design problems. Graphic design careers, trends, and technology will be explored.

GRAP 107 (1099) Graphic Design Fundamentals
Prerequisite: None
Credit Hours: 3
Introduces students to industry standard page layout, illustration, and image editing software. Fundamental principles of graphic design including composition, layout, color theory, and typography will be applied to print and digital media.

GRAP 118 (1117) Typography
Prerequisite: GRAP 107 Graphic Design Fundamentals
Credit Hours: 3
An in-depth exploration the theory and practice of typographic design. Students will study the history and evolution of type, as well as the technical principles of typography used in modern design. Through hands-on print and digital projects, students will develop a comprehensive understanding of typefaces, letterforms, spacing, hierarchy, layout, and alignment, learning how to use typography to communicate messages effectively and creatively.

GRAP 121 (1143) Page Layout Software
Prerequisite: None
Credit Hours: 3
Fundamental principles and techniques of page layout using Adobe InDesign, covering topics such as typography, grid systems, visual hierarchy, color theory, and image placement. Students will learn to create layouts, integrating design theory with technical skills, for a wide range of print and digital media.

GRAP 125 (1137) Illustration Software
Prerequisite: None
Credit Hours: 3
Fundamental principles and techniques of digital illustration using Adobe Illustrator. Students will learn to create vector-based illustrations, from simple shapes and lines to complex, multi-layered artwork, for print and digital output.

GRAP 126 (1140) Photo Editing Software
Prerequisite: None
Credit Hours: 3
Fundamental principles and techniques of photo editing using Adobe Photoshop to enhance and manipulate digital images. Students will learn a wide range of tools and techniques including color correction, retouching, compositing, creative manipulation, and optimizing images for print and digital output.

GRAP 200 (1116) Portfolio Development
Prerequisite: GRAP 103 Intro to Graphic Communications, GRAP 107 Graphic Design Fundamentals, GRAP 118 Typography, GRAP 122 Page Layout Software, GRAP 124 Illustration Software, and GRAP 126 Photo Editing Software
Credit Hours: 3
Students will develop and maintain a portfolio of work demonstrating the conceptual abilities and technical skills necessary for employment in the field of graphic design. Creative marketing and self-promotion techniques will be discussed to assist

the student in developing and designing an identity package including a personal logo, style guide, resume, and business card. Interviewing techniques, business practices, professional associations, and job seeking skills will be discussed.

GRAP 205 (1097) Digital Animation
Prerequisite: GRAP 107 Graphic Design Fundamentals or GRAP 124 Illustration Software
Credit Hours: 3
Introduces students to the foundational principles and techniques of 2D animation. Through hands-on projects, students will learn the basics of animation theory, including keyframes, timing, and motion using animation software.

GRAP 207 (1114) Advanced Graphic Design
Prerequisite: GRAP 103 Intro to Graphic Communications, GRAP 107 Graphic Design Fundamentals, GRAP 118 Typography, GRAP 122 Page Layout Software, GRAP 124 Illustration Software, and GRAP 126 Photo Editing Software
Credit Hours: 3
An advanced course focusing on execution of the design process from concept to production. Students will work on complex design projects, where they will apply design theory, creative problem-solving, and technical proficiency to deliver solutions that align with client expectations and industry standards. Emphasis will be placed on research, defining project goals, understanding target audience, project management, and producing final designs that meet technical specifications across a range of media.

GRAP 208 (1139) Web Design
Prerequisite: GRAP 103 Intro to Graphic Communications and GRAP 107 Graphic Design Fundamentals
Credit Hours: 3
Principles and practices of web design and development with a focus on creating user-friendly responsive websites using HTML & CSS. Students will learn how to apply the basics of web design theory to develop functional and accessible websites.

GRAP 213 (1136) Intro to Packaging Graphics
Prerequisite: GRAP 103 Intro to Graphic Communications, GRAP 107 Graphic Design Fundamentals or GRAP 124 Illustration Software
Credit Hours: 3
Introduces the principles and techniques of designing packaging design for a wide range of products, from food and beverage to cosmetics and consumer goods. Students will explore the role of branding, marketing, and consumer experience in packaging design, while gaining hands-on experience with industry-standard software in creating effective, appealing, and functional packaging designs.

GRAP 216 (1138) Graphic Design Print Media
Prerequisite: GRAP 103 Intro to Graphic Communications, GRAP 107 Graphic Design Fundamentals, GRAP 118 Typography, GRAP 122 Page Layout Software, GRAP 124 Illustration Software, and GRAP 126 Photo Editing Software
Credit Hours: 3
This advanced technical course will focus on the prepress workflow with emphasis placed on preflighting and file preparation for commercial printing.

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Healthcare

HEAL 101 (5280) Cardiopulmonary Resuscitation
Prerequisite: None
Credit Hours: .5
Students will review didactic material concerning: CPR theory, when to initiate/discontinue CPR, proper compression and ventilation techniques, Heimlich maneuver (FBAO relief), hazards of CPR, assessment skills. Students will demonstrate: proper compression and ventilation techniques (on mannequins), Heimlich maneuver for clearing an obstructed airway, to include pregnant and obese patients, and reasonable assessment skills. Students will pass the 50-question written examination with a minimum score of 80%.

HEAL 106 (5231) Medical Terminology KRSN HSC1030**
Prerequisite: None
Credit Hours: 3
Presents basic concepts and elements of medical terms pertaining to the study of the human body, and assists in the development of the ability to read and understand the language of medicine. This course will introduce the basic elements of medical terminology such as prefixes, suffixes, word roots, and combining forms. Commonly used abbreviations will also be addressed

HEAL 109 General Physics for Health Science
Prerequisite: None
Credit Hours: 4
This course will enable the student to approach physics with practical applications in healthcare. The course explores soundwaves, motion, force, work, rate, fluid dynamics, momentum, and resistance. The student will learn the concepts to energies systems- mechanical, fluid, electrical, and thermal within the circulatory system. Students perform laboratory experiments that relate each concept to the four energy systems.

HEAL 121 (5211) Nurse Aide: Geriatric
Prerequisite: Two-Step TB Skin Test and Accuplacer Reading Test
Credit Hours: 6
State-approved course which prepares the student to take the Kansas examination for nurse aide certification. Identify and apply in the clinical setting the basic concepts and principles of resident welfare, safety, psychosocial needs of residents, resident rights, rehabilitation, and legal and ethical responsibilities. Apply the knowledge of basic disease process, aging process, and nursing procedures to the care of residents encountered in a long-term care facility. Students should be able to lift 100-150 pounds.

HEAL 131 (5212) Medication Aide
Prerequisite: Kansas Certified Nurse Aide License, Two-Step TB Skin Test, Accuplacer Reading Test, and Pre-Algebra Test
Credit Hours: 5
This course is intended to prepare participants to safely perform the standard duties of a medication aide within Kansas licensed adult care homes. Material will be presented through online forums, quizzes, and critical thinking activities with instructor support.
A 25 hour clinical rotation will be completed by the student with the instructor. The state test will be administered at the LCC campus after the completion of online instruction and clinical rotation.

HEAL 132 (5221) Medication Aide Recertification
Prerequisite: Must be Medication Aide
Credit Hours: 1
State approved course. A review of skills essential for the administration, care, and handling of medications. Required every two years by state regulations.
It consists of an overview of current medications and their effects on the elderly, including over medication and drug abuse, drug and drug food interactions, drug classification update and regulations, and other legal considerations.

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HEAL 135 Principles of Phlebotomy
Prerequisite: None
Credit Hours: 4
This is a course designed to teach phlebotomy skills for specimen collection using a vacutainer system as well as equipment for difficult draws. Participants will obtain phlebotomy skills to proficiently obtain blood specimens by venipuncture and dermal techniques. The course will consist of lecture and laboratory sessions. The course will also include preparation for a national certification exam. For each unit of credit, a minimum of three hours per week with one of the hours for class and two hours for studying/ preparation outside of class is expected.

HEAL 142 (5213) Emergency Medical Technician – EMT
Prerequisite: High school diploma or GED or be a current high School senior enrolling with the consent of your school. Must be 17 years of age by the end of the course. Valid Driver's License.
Reading Placement Test Level: Accuplacer Reading Score of 75 or higher, or ACT Reading Test scoring of 17 or higher or successful completion of Pre-College Reading & Writing.
Proof of immunizations including a current Td 2 Step TB Test.
Criminal Background Check (paid by student). Complete a program orientation at LCC.
Credit Hours: 12
This course will develop student skills in recognizing symptoms of illness and injuries and proper procedures of emergency care. This course prepares the student to take the Kansas State Board of Emergency Medical Services examination for Emergency Medical Technician certification. This course is designed for individuals interested in providing medical care to patients in the prehospital setting. It will provide the participant with opportunity to gain information, skills and attitudes necessary for certification and practice as an EMT in the State of Kansas. This course is approved by the Kansas Board of Emergency Medical Services. It addresses information and techniques currently considered to be the responsibilities of the Emergency Medical Technician according to the United States Department of Transportation National Standard Curriculum and the Kansas Authorized Activities for the EMT.

HEAL 151 (5819) Advanced Cardiac Life Support (ACLS)
Prerequisite: None
Credit Hours: 1
This course is designed to provide the participant with the skills to respond to acute cardiovascular situations in and out of the hospital setting.

History

HIST 101 (2251) American History To 1877 KRSN HIS1010**
Prerequisite: None
Credit Hours: 3
A survey of the social, political, cultural, diplomatic, and economic development of North America, the British colonies, and the United States from before the arrival of Europeans to 1877.

HIST 102 (2252) American History Since 1877 KRSN HIS1020**
Prerequisite: None
Credit Hours: 3
A survey of the social, political, cultural, diplomatic, and economic development of the United States from 1877 to the present.

HIST 103 (2253) World History to 1500 KRSN HIS1030**
Prerequisite: None
Credit Hours: 3
A survey of world history from prehistory to about 1500 C.E. The histories of the Ancient Near East, India, China, Greece, Rome, Ancient America, the Muslim world, and Medieval Europe will be compared through their politics, religions, philosophies, societies, economics, and cultures.

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HIST 104 (2254) World History Since 1500 KRSN HIS1040**
Prerequisite: None
Credit Hours: 3
A survey of world history from 1500 C.E. to the present, with emphasis on the causes and effects of the hegemony of Western Civilization, the emergence of globalization, and the historical roots of today's global issues.

HIST 108 (2210) Current World Affairs
Prerequisite: None
Credit Hours: 3
This course is an in-depth study of current events, trends and developments that affect daily life. In this course, we explore broad forces at play in the world: international economics, national interests, military power, nationalism, ethnicity, the environment and human rights. We will discuss world events as they unfold before our eyes and seek to understand them in light of their historical context. Students will leave this class with both a vision of the world's vast political landscape and the ability to better understand the multitude of events that comprise that landscape.

HIST 201 (2260) Kansas History
Prerequisite: None
Credit Hours: 3
A political, social, cultural, and economic survey of Kansas history from before the arrival of Europeans to the present day, emphasizing how the history of Kansas fits in to the larger scope of American history.

Industrial Technology

INDU 123 Electronic Devices
Prerequisite: INDU 125 Fundamentals of Electronics I w/Lab or Instructor's permission, INDU 167 Fundamentals of Electronics II w/Lab or Instructor's permission
Credit Hours: 3
This course will provide a fundamental knowledge of DC Power Supplies, Diodes, Transistors, Amplifiers and Troubleshooting. Operational Amplifiers, Oscillators, Integrated Circuits, Thyristors, Switch Mode Regulators, and AM/FM Radio Circuits

INDU 125 Fundamentals of Electronics DC/AC
Prerequisite: None
Credit Hours: 3
This course provides a fundamental knowledge of analysis techniques used to solve for current, voltage, wattage, and resistance in various DC/AC circuits.

INDU 127 Digital Logic Circuits
Prerequisite: INDU 125 Fundamentals of Electronics I-DC w/Lab or Instructor's Permission
Credit Hours: 3
This course provides knowledge in theory with building block circuits in logic systems and computers. Small scale ICs are used to learn the basic fundamentals of these systems and subsystems. Analysis techniques are taught to build the student's ability to troubleshoot. Binary mathematics and Boolean concepts are introduced and explained as needed.

INDU 131 Engineering Graphics
Prerequisite: None
Credit Hours: 3
This course is an introduction to the fundamental principles of graphic communication. It is also an introduction in the use of computer aided design software to produce 3-D geometry, assemblies, and dimensioned 2-D orthographic views. Traditional drawing techniques including manual drafting tools and equipment will be utilized as well. Orthographic projection, dimensioning techniques, tolerance methods, fits and allowances, and sectioning methods are covered.

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INDU 155 OSHA Safety 10
Reading Placement Test Level: None
Prerequisite: None
Credit Hours: 1
This course will include OSHA standards assuring proper safety techniques for all types of circuits and components.

INDU 167 Fundamentals of Electronics DC/AC Lab
Prerequisite: Enrolled in INDU 125 Fundamentals of Electronics I w/Lab
Credit Hours: 3
Provides a fundamental knowledge of analysis techniques used to solve for current, voltage, wattage, resistance, and impedance invarious AC Circuits.

INDU 168 Electronic Devices Lab
Prerequisite: INDU 125 Fundamentals of Electronics DC/AC or Instructor's permission, INDU 167 Fundamentals of Electronics DC/ AC Lab or Instructor's permission, Co-enrolled in, or successful completion of INDU 123 Electronic Devices
Credit Hours: 3
The course will include DC Power Supplies, Diodes, Transistors, Amplifiers, Troubleshooting, Operational Amplifiers, Oscillators, Integrated Circuits, Thyristors, Switch Mode Regulators, and AM/FM Radio Circuits.

INDU 169 Digital Logic Circuits Lab
Prerequisite: INDU 125 Fundamentals of Electronics I-DC w/Lab or Instructor's Permission, INDU 167 Fundamentals of Electronics DC/AC Lab or Instructor's Permission, and Co-enrolled in, or successful completion of INDU 127 Digital Logic Circuits, Co-enrolled in, or successful completion of INDU 155 OSHA Safety 10
Credit Hours: 2
This course will provide lab practices of course INDU 127 with building block circuits in logic systems and computers in a hands-on environment. Small scale IC' are used to learn the basic fundamentals of these systems and subsystems. Analysis techniques are taught to build the student's ability to troubleshoot. Students will also successfully obtain an OSHA 10 certificate from an online source during the course.

INDU 210 Computer Aided Drafting & Design
Prerequisite: INDU 131 Engineering Graphics
Credit Hours: 3
This course will include the use of computer aided design software to generate complex 3-D geometry for the purpose of communicating the following: manufacturing information, detail design information, dimensioning and tolerance data, and surface finish. This course will teach the student more advanced drafting skills. It will take the skills developed in Engineering Graphics I and further develop those skills in the art of drafting. The student will be expected to develop acceptable skills in the art of drafting. Additionally, the following areas will be covered: geometric tolerances, auxiliary views, threads and fasteners, assembly and working drawings, the design process, and pictorial drafting techniques.

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Mathematics

MATH 111 (1713) Mathematics for Education
Prerequisite: Placement Test Recommendation
Credit Hours: 3
This course is designed to provide a foundation of theory for many of the concepts found in the current elementary and middle school mathematics classroom. This course will examine topics related to the Real Number system, such as set theory, logic, probability theory, and statistics, all from a problem solving approach. The use of technology (e.g. calculator, the Internet, etc.) as tools for problem solving and research will be an integral part of the course.

MATH 114 College Algebra with Review KRSN MAT1010**
Prerequisite: None
Credit Hours: 3
This course covers the same material as MATH 115 College Algebra with additional instruction. The course covers the properties of functions and their inverses, properties and graphs of the exponential and logarithmic functions, graphing techniques for general higher order polynomials and rational functions, and various solution techniques for solving higher order linear systems of equations. Topics on sequences and series will be presented as time permits. Use of technology such as the graphing calculator and some computer packages will be incorporated into the course.

MATH 115 (1719) College Algebra KRSN MAT1010**
Prerequisite: Placement Test Recommendation
Credit Hours: 3
This course continues from MATH 100 Intermediate Algebra to cover and extend the properties of functions and their inverses, properties and graphs of the exponential and logarithmic functions, graphing techniques for general higher order polynomials and rational functions, and various solution techniques for solving higher order linear systems of equations. Topics on sequences and series will be presented as time permits. Use of technology such as the graphing calculator and some computer packages will be incorporated into the course.

MATH 119 Elementary Statistics with Review KRSN MAT1020**
Prerequisite: None
Credit Hours: 4
This course covers the same material as MATH 120 Elementary Statistics with additional instruction. This course is an introduction to fundamental statistical concepts and techniques with computer capability for applying these techniques to data. Includes descriptive statistics, nonparametric statistics, sampling techniques, hypothesis testing and other statistical inference.

MATH 120 (1720) Elementary Statistics KRSN MAT1020**
Prerequisite: Placement Test Recommendation
Credit Hours: 3
This course is an introduction to fundamental statistical concepts and techniques with computer capability for applying these techniques to data. Includes descriptive statistics, nonparametric statistics, sampling techniques, hypothesis testing and other statistical inference.

MATH 121 Matrix Algebra
Prerequisite: Placement Test Recommendation or MATH 115 College Algebra (C or better)
Credit Hours: 3
This is an introductory course covering basic linear algebra, matrices, and their applications to the sciences, math, business, and economics. The course will cover matrices and matrix algebra, solution of linear systems of equations, the determinant of a matrix and its properties, eigenvalues and eigenvectors of matrices, and vector and inner product spaces.

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MATH 125 (1730) Trigonometry KRSN MAT1030**
Prerequisite: Placement Test Recommendation or MATH 115 College Algebra
Credit Hours: 3
This course will cover the basic trigonometric functions on the right triangle and extend to rules for solving non-right triangles. Trigonometric identities will be derived and proven. Complex numbers and applications to the sciences will be presented. This course should be taken by any student needing to take Calculus I who has not yet had any exposure to the trigonometric functions. This course is recommended for any student needing to take physics and is required for most pre-engineering and engineering programs.

MATH 126 Quantitative Reasoning with Reiview KRSN MAT1040**
Prerequisite: None
Credit Hours: 4
This course covers the same material as MATH 129 Quantitative Reasoning with additional instruction. This course will prepare students for mathematics encountered in other college courses that use quantitative reasoning. There will be an emphasis on critical thinking skills needed to understand major issues in society. This course is designed for students NOT planning to major in a field that requires advanced mathematical skills.

MATH 129 Quantitative Reasoning KRSN MAT1040**
Prerequisite: Placement Test Recommendation
Credit Hours: 3
This course will prepare students for mathematics encountered in other college courses that use quantitative reasoning. There will be an emphasis on critical thinking skills needed to understand major issues in society. This course is designed for students NOT planning to major in a field that requires advanced mathematical skills.

MATH 130 (1751) Calculus I KRSN MAT2010**
Prerequisite: Placement Test Recommendation or MATH 125 Trigonometry
Credit Hours: 5
The first course in the calculus sequence will cover the concepts of limits and continuity of polynomial, rational, trigonometric, and exponential functions. The concept of rates of change and the derivative will be applied to these functions. The course will come to a close with the concepts of the anti-derivative and properties and definition of the definite integral. This course is required of any student seeking a degree in physics, mathematics, engineering, chemistry, and other related fields at a four-year institution.

MATH 131 (1752) Calculus II
Prerequisite: MATH 130 Calculus I
Credit Hours: 5
This second course in the calculus sequence will cover the concepts of limits as applied to transcendental functions. Various substitution techniques for evaluating integrals will be presented. Problems involving areas, volumes of surfaces, and moments will be developed and solved. The course will cover sequences and series and look at properties of convergence and divergence. There will be an introductory look at differential equations and coverage of polar coordinates and parameterized curves. This course is required of any student seeking a degree in physics, mathematics, engineering, chemistry, and other related fields at a four-year institution.

MATH 201 (1753) Calculus III
Prerequisite: MATH 131 Calculus II
Credit Hours: 5
This third course will complete the calculus sequence. The course will cover infinite sequences and series and test of convergence and divergence. The calculus of multivariable functions, partial derivatives, and optimization of higher dimensional surfaces will be covered. The theory and use of vector-valued functions to calculus will be presented. Problems of areas, volumes, and moments will be extended to three-dimensional space and solved using multiple integration techniques (including the line integral, Stoke's Theorem, and Green's Theorem in vector fields). This course is required of any student seeking a degree in physics, mathematics, engineering, chemistry, and other related fields at a four-year institution.

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MATH 202 (1740) Differential Equations
Prerequisite: MATH 201 Calculus III (C or better)
Credit Hours: 3
This course will include solution techniques for the standard ordinary differential equations of the first and second order (with some generalization to higher order equations). Power series solution techniques for linear equations with constant coefficients will be presented. Solution of differential equations using the Laplace Transform will be presented. Applications to geometry and the physical science will be presented and covered. This course is required of any student seeking a degree in physics, mathematics, engineering, chemistry, and other related fields at a four-year institution.

Music

MUSI 101 (1051) Music Appreciation KRSN MUS1010**
Prerequisite: None
Credit Hours: 3
This is a survey course in basic fundamentals of music, and from this foundation moving into a better understanding of styles and music from different periods in history. The main purpose is for students to gain a broader understanding of and appreciation for many types and styles of music. We will also see how music is influenced by social, religious, political, and scientific advancements happening in the world at any given time.

MUSI 102 (0822) Children's Music KRSN MUS2010**
Prerequisite: None
Credit Hours: 3
This course is directed toward students in the elementary education program. It is designed to show how music can be taught and integrated into other areas of the elementary classroom curriculum. Traditional areas of music instruction will be covered including fundamentals of music, singing, playing instruments, listening, moving to music, and creative experiences with music. In addition, we will study multicultural approaches to teaching and practice writing lesson plans focusing on the needs and interests of young children.

MUSI 104 (1092) History of Jazz and Rock
Prerequisite: None
Credit Hours: 3
This is a survey course that shows the logical musical derivatives and developments of jazz and rock music. At the same time the course will identify and listen to the important elements that compose the individual styles of jazz and rock music as they evolved from era to era.

Nursing

NURS 116 (8041) Pharmacology for Healthcare Providers
Prerequisite: None
Credit Hours: 3
This course introduces the principles of pharmacology, drug classifications, and the effects of selected medications on the human body. The nursing process is used as the framework for ensuring safe and effective nursing care for clients across the lifespan.

NURS 118 (5490) Intravenous (IV) Therapy for LPNs and RNs
Prerequisite: Must have current LPN licensure and evidence of professional student liability insurance available through Labette Community College. Compliance with current immunization and tuberculin test requirements, per Nursing Department Policy will be required prior to enrollment in course
Credit Hours: 3
This elective course is designed to teach knowledge, skills, and competencies in administration of intravenous fluid therapy. Certification in IV Therapy for the State of Kansas will be received after successful completion of the State Exam. LPNs and RNs will both be rewarded with continuing education hours.

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NURS 120 (5291) Fundamentals of Nursing
Prerequisite: Valid Nurse Aid Certification & Admission to the LCC Nursing Program
Credit Hours: 10
Introduces fundamental skills, concepts, and principles of biopsychosocial needs of individuals. The nursing process provides a foundation for holistic nursing care. Presents basic concepts of drug calculation, administration, and classification of drugs, and nursing implications. Drug calculation must be passed with 94% before clinical administration of medication. Identifies important aspects of the nursing profession, such as historical, ethical, and legal issues. This class will introduce the role of the nurse as a member of the health care team and provides a foundation for nursing education and care using Maslow's Hierarchy of Needs. Nursing care of the older adult is introduced. Simulated skills are practiced in the nursing laboratory. Students will attend supervised clinical in the hospital and long-term care where they will participate in patient care.

NURS 122 (5295) Medical-Surgical Nursing
Prerequisite: Successful completion of NURS 120 Fundamentals of Nursing
Credit Hours: 9
Presents holistic nursing care of medical-surgical clients with common health needs. As a member of the healthcare team, the student will practice beginning management and leadership skills, and will differentiate delegation and clinical skills required of practical versus registered nurses.

NURS 124 (5294) Family Nursing I
Prerequisite: Successful completion of NURS 120 Fundamentals of Nursing
Credit Hours: 3
Uses a family-centered approach to focus on the holistic nursing care of the childbearing/rearing family. Experiences in Family Nursing I are designed to promote student understanding of the nursing care required of childbearing and pediatric clients and their families within the community. The student will utilize understanding of the nursing process to prioritize, plan and provide nursing care based upon Maslow's Hierarchy of Needs and the ANA Nursing Standards of Practice. Clinical experiences in acute care and community agencies afford the student experience in direct patient care of low-risk childbearing/rearing and pediatric individuals and their families.

NURS 126 (5287) Bridge Course for LPN's
Prerequisite: Valid Kansas recognized LPN license, completion of all Level I general education courses, and acceptance into Level II of the LCC Nursing Program
Credit Hours: 1
This course is required for all LPN advanced placement in LCC's Nursing Program. Course and clinical experience validates current knowledge and skills, plus provides new theory necessary to practice holistic nursing care as a registered nurse student. It is also required for any LCC PN graduate who has not been enrolled in an LCC nursing course in the previous two semesters.

NURS 201 (5296) Mental Health Nursing
Prerequisite: Successful completion of all Level I courses
Credit Hours: 4
A study of mental health nursing concepts, and an introduction to therapies used in providing safe holistic nursing care for the mentally ill.

NURS 203 Family Nursing II
Prerequisite: Successful completion of all Level I courses
Credit Hours: 4
Builds on the family-centered approach to provide holistic nursing care to the high-risk child bearing/rearing family. Experiences in Family Nursing II are designed to promote student understanding of nursing care required of high-risk maternity, newborn, and pediatric clients. The student is expected to bring to this course knowledge of nursing care for low-risk childbearing, newborn, and pediatric clients and their families, learned in NURS 124 Family Nursing I. The student will utilize understanding of the nursing process to prioritize, plan and provide holistic nursing care based upon Maslow's Hierarchy of Needs and the ANA Nursing Standards.

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NURS 204 NCLEX-RN Review/Preparation (IO)
Prerequisite: None
Credit Hours: 2
This course will provide a comprehensive review for the National Council Licensure Examination for Registered Nurses (NCLEX-RN). It will explore expected nursing skills for each developmental stage of the life cycle. The class will also explore computerized adaptive testing, both in preparing for the NCLEX-RN exam and the test framework.

NURS 205 Advanced Medical-Surgical Nursing
Prerequisite: Successful completion of all Level I courses, NURS 201 Mental Health Nursing, and NURS 203 Family Nursing II
Credit Hours: 8
Presents the holistic nursing care of clients with acute health needs with focus on the role of the registered nurse. Identifies opportunities for career and professional growth. Presents the role of the registered nurse in the care of clients with more complex acute healthcare needs. Clinical leadership experience will be required for preparation in management of human and equipment resources in the acute care setting. Trends and issues concerning career management, medical-economic forces in healthcare, leadership, and management will be explored.

NURS 206 Health Assessment for Nursing Practice
Prerequisite: Nursing program students or healthcare majors
Credit Hours: 3
This course is designed to educate the nurse of the skills needed for health assessment of their patients. They will learn history taking, psychosocial assessment, and physical assessment techniques and skills necessary to obtain data. They will learn that this data collection is significant to understanding the patient as a whole, and individualizing their care. A base of health assessment knowledge prepares the nurse for exceptional understanding of the patient situation and gives them a baseline so that they can recognize any changes in patient condition. This course will focus on skills and techniques to be applied to patients of all ages. The course includes lecture and discussion of the various systems of the body. There will also be skills demonstration by the instructor and time set aside in each class for lab skills practice.

NURS 207 (5484) Pathophysiology
Prerequisite: Completion of BIOL130 Anatomy and Physiology with grade of "C" or better
Credit Hours: 3
This course is designed to better prepare students in the transition between learning content covered in basic anatomy and physiology courses and the study of disease processes studied in nursing, respiratory, and radiography courses.

Philosophy

PHIL 101 (1591) Philosophy I KRSN PHL1010**
Prerequisite: None
Credit Hours: 3
Introduces the nature and scope of philosophic thought and terminology, stressing the influence of philosophy on the individual and the world. Many names, topics, and writings from various periods are studied with an emphasis on the Greeks and their sub- sequent influence.

PHIL 104 (1593) Introduction to Logic KRSN PHL1030**
Prerequisite: None
Credit Hours: 3
This course is a study of how we can (and do) reason about all aspects of our lives. Students learn how to both create logically consistent arguments and also to break down arguments presented by others so as to judge their logical validity. Special subjects in the course include inductive fallacies, generalization, induction, analogies, and cause/effect, as well as a study of formal (or propositionally deductive) logic.

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PHIL 106 (1957) Ethics KRSN PHL1020**
Prerequisite: None
Credit Hours: 3
This course provides a systematic and critical study of values related to human conduct. It focuses on both traditional standards of ethical conduct and qualities of personal character. What we hold to be right or wrong, the basis for believing so, and what we con- sider to be virtues or vices are examined with an eye to understand our current ethical situation.

Physical Education

PED 101 (0833) Introduction to Physical Education
Prerequisite: None
Credit Hours: 3
Study of history, philosophy, and social significance of physical education. Includes equipment design, calls visitation, and construction of a physical education program.

PED 103 (0771) Care and Prevention of Athletic Injuries KRSN HSC2010**
Prerequisite: None
Credit Hours: 3
The study and application of the methods used in athletic training to prevent and to care for injuries specific to athletic participation.

PED 105 (0837) Personal and Community Health KRSN HSC1020**
Prerequisite: None
Credit Hours: 3
Acquaints students with modern health problems and solutions. Topics are communicable diseases, social health, mental health, and consumer health with a concentration emphasis on lifestyle problems. Course meets requirements for all students interested in teaching, physical education, or nursing.

PED 107 (0814) Community Recreation
Prerequisite: None
Credit Hours: 3
An introductory course in recreation. It provides each student with the basic understanding of leisure time impact upon society and makes each student aware of the importance of off-work activity. Explains how government, state, and local programs function.

PED 109 (0832) Recreational Activities
Prerequisite: None
Credit Hours: 3
This course is designed to meet the need of those students who plan to teach in the junior or senior high school or enter the recreation field. The emphasis is weighed more heavily toward individual participation rather than team, however, both are included. Stress is on understanding leisure-time activities as relating to age and sex of individuals with an emphasis on safety.

PED 110 Introduction to Exercise Science KRSN HSC1050**
Prerequisite: None
Credit Hours: 3
This course is designed to introduce students to the history of exercise science, philosophies, potential careers, and terminology used in exercise science fields. Students will also be introduced to exercise physiology concepts, measures and testing, facility sites and issues, and basic medical precautions.

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PED 111 (0772) Athletic Training Practicum I
Prerequisite: PED 103 Care and Prevention of Athletic Injuries
Credit Hours: 2
Students will receive practical athletic training experience as an apprentice with varsity sports programs during practices and games.

PED 114 (1365) Basic Nutrition KRSN HSC1010**
Prerequisite: None
Credit Hours: 3
Principles of normal nutrition. Food values and adequate nutrient allowances for growth and maintenance will be discussed.

PED 115 Personal Training and Fitness Management
Prerequisite: PED 110 Introduction to Exercise Science
Credit Hours: 3
This course will introduce students to the career options of a personal trainer and prepare them for success in that field. Students will learn biometrics, measurements and testing, and exercise planning. Facility design, funding, legal issues, and safety will also be covered in the course.

PED 116 (0773) Lifetime Fitness Concepts
Prerequisite: None
Credit Hours: 1
Lifetime Fitness Concepts is a one hour course offered by the Department of Recreation and Health. It is the objective of this course to present a series of physical fitness related concepts to the general student population with the expectation that the information will enlighten and motivate the students to improve their personal fitness status. The concepts presented will allow the students to become familiar with, and to actually begin to participate in activities and programs which may alter their lifestyles and which could make them healthier more productive people.

PED 117 Training and Conditioning Lab I
Prerequisite: PED 115 Personal Training and Fitness Management
Credit Hours: 1
Students will learn to safely demonstrate and teach proper weight lifting and conditioning exercises. Students will learn basic biomechanical movements and terminology. Movements in a single plane and multiple planes will be covered. Students will work with scenarios to modify exercise plans to meet participant requirements to develop progress in exercise. Group exercise planning, plyometrics, and individualized exercised planning will all be demonstrated.

PED 118 (0892) First Aid and CPR KRSN HSC1040**
Prerequisite: None
Credit Hours: 2
The purpose of this course is to provide the citizen responder with the knowledge and skills necessary in an emergency to help sustain life, reduce pain, and minimize the consequences of injury or sudden illness until professional medical help arrives. An emphasis is also on prevention of injury and illness.

PED 189 Rules and Officiating
Prerequisite: None
Credit Hours: 3
This course covers the rules of football, basketball, tennis, and wrestling. Students are exposed to the proper mechanics of officiating these sports.

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Physical Science

All 5 Credit Hour Physical Science courses include a Lab.

PHSC 101 (0901) Physical Geology KRSN PSI1030
Prerequisite: None
Credit Hours: 5
Physical Geology studies planet Earth and its physical, chemical and biological attributes. Emphasis will be on the mid-continent geographic region and Kansas in particular. Locally minerals, rocks and hydrological systems will be investigated.

PHSC 103 (1910) Introduction to Astronomy KRSN PHY1020**
Prerequisite: None
Credit Hours: 5
A study via instruction and laboratory experiences of the historical developments in astronomy from ancient times; the theoretical and empirical foundations of astronomy; the composition and mechanics of the solar system, stellar systems, and galactic systems; and introduction to observational astronomy and cosmology.

PHSC 105 (1911) Physical Science KRSN PSI1010**
Prerequisite: None
Credit Hours: 5
A survey course that emphasizes physics, chemistry, earth science, and astronomy. Designed for the student whose concentration is not in a science or engineering field, but who needs to fulfill a laboratory science requirement.

Physics or Engineering

All 5 Credit Hour Physics courses include a Lab.

PHYS 201 (1931) College Physics I KRSN PHY1010**
Prerequisite: MATH 115 College Algebra (C or better)
Credit Hours: 5
Physics I is the study of translational and rotational motion, force, work, mechanical and thermal energy, linear and angular momentum, and fluid mechanics using the tools of algebra and trigonometry.

PHYS 203 (0901) Engineering Physics I KRSN PHY1030**
Prerequisite: Concurrent enrollment in or completion of MATH 130 Calculus I
Credit Hours: 5
Physics I is the study of translational and rotational motion, force, work, mechanical and thermal energy, linear and angular momentum, and fluid mechanics using the tools of algebra, trigonometry, and calculus.

PHYS 205 (1932) College Physics II KRSN PHY2020**
Prerequisite: MATH 125 Trigonometry and PHYS 201 College Physics I
Credit Hours: 5
Physics II is the continuation of Physics 201 using the tools of algebra and trigonometry. Topics covered in this course will include electricity and magnetism, waves, optics, and an introduction to modern physics.

PHYS 208 (0902) Engineering Physics II KRSN PHY2030**
Prerequisite: Concurrent enrollment in or completion of MATH 131 Calculus II.
Credit Hours: 5
Physics 208 is the continuation of Physics 203 using the tools of algebra, trigonometry, and calculus. Topics covered in this course will include electricity and magnetism, waves, optics, and an introduction to modern physics.

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Political Science

POLS 105 (2270) American Government KRSN POL1020**
Prerequisite: None
Credit Hours: 3
A general, systematic study of the development and structure of the American national government, with emphasis on the actual workings. Serves as a foundation for other political science courses.

POLS 106 International Relations KRSN POL1030**
Prerequisite: None
Credit Hours: 3
Study of significant events, forces and trends in national and international affairs, with an emphasis on interpretation of those current events.
The course will look at International Relations as a discipline and look at the conflicts and cooperation between different nation states, their leaders and how they relate to one another.
Students will study history, geography, military power, terrorism, military and political conflicts and various nations positions on international topics.
This course is designed to help students understand the world around them by having a better understanding of geography different political philosophies, and alliances between nations. By having such an understanding, students will have a better idea of their role in the world as citizens of the United States. In addition to these topics, students will examine daily stories in international events as ongoing course topics to emphasize course material. Students will be asked to participate in daily discussion on those current events.

Psychology

PSYC 101 (2010) General Psychology KRSN PSY1010**
Prerequisite: None
Credit Hours: 3
This course surveys the field of human psychology. It is the first course offered in psychology and, as such, it introduces the student to the fundamental methods and points of view in the scientific study of human behavior.

PSYC 201 (2090) Developmental Psychology KRSN PSY2020**
Prerequisite: PSYC 101 General Psychology or instructor's permission
Credit Hours: 3
The subject matter of Developmental Psychology is the human life cycle, the prenatal and newborn periods, infancy, childhood (early and late), adolescence, and adulthood. This branch of psychology explores the ways in which human physical growth and intellectual and social behavior change over time.

PSYC 202 (2091) Psychology of Adjustment
Prerequisite: PSYC 101 General Psychology
Credit Hours: 3
Psychology of Adjustment is designed to provide a basic understanding and practical application of the psychological principles and concepts that are most relevant to the student as an individual, and as an individual in society. The student will be encouraged to apply these concepts to their life and to develop a fuller understanding of themselves, and their personal and social relationships. Students will look at the theory of adjustment, personal learning style, lifespan influences, managing stress and wellness, social relationships, work and leisure including aspects of solitude. This is an interactive, writing intensive course which requires written assignments as well as personal and group interaction as a major strategy of learning. The objective of this course is to promote psychological adjustment and mental health by personally relating to the psychological principles and studies presented. Please be aware that personal discussions and open sharing is expected from each student during this class. You will be provided with an ethical contract to maintain confidentiality and professionalism in this course. Each student is viewed as a Learner/Peer/Teacher. Your contributions are valued and are expected as a standard in this class.

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Radiography

RADI 101 (5233) Introduction to Radiography, Ethics and Law
Prerequisite: Acceptance into Radiography Program
Credit Hours: 2
Introduction to health care with emphasis on radiologic technology. Principles of radiography, radiation protection, ethics, health records and information, and law will be presented. A two week orientation is also incorporated into this course.

RADI 103 (5234) Radiographic Procedures I
Prerequisite: Acceptance into Radiography Program
Credit Hours: 1
Content is designed to provide the knowledge base necessary to perform standard imaging procedures, including special studies. Consideration is given to the evaluation of optimal diagnostic images. In this course the radiographic positioning and anatomy of the chest and abdomen will be covered.

RADI 104 (5235) Radiographic Procedures II
Prerequisite: RADI 103 Radiographic Procedures I
Credit Hours: 3
Content is designed to provide the knowledge base necessary to perform standard imaging procedures, including special studies. Consideration is given to the evaluation of optimal diagnostic images. In this course the anatomy & positioning of the following body parts will be covered the upper extremity, shoulder girdle, lower extremity, pelvic girdle, and bony thorax.

RADI 105 (5236) Radiographic Procedures III
Prerequisite: RADI 104 Radiographic Procedures II
Credit Hours: 3
Content is designed to provide the knowledge base necessary to perform standard imaging procedures, including special studies. Consideration is given to the evaluation of optimal diagnostic images. In this course radiographic positioning of the skull, spine and special radiographic procedures will be included. Surgical, Mobile, Trauma, and Pediatric Radiographic techniques will also be covered.

RADI 107 (5237) Radiographic Imaging I
Prerequisite: Acceptance into Radiography Program
Credit Hours: 1
Introduction to clinical radiography including radiographic equipment design and use, radiation protection, image acquisition, and image processing.

RADI 109 (5237) Patient Care in Radiography I
Prerequisite: Acceptance into Radiography Program
Credit Hours: 2
Introduction to the care of patients while in the radiology department. Topics include: Body mechanics, patient transfer, patient assessment, and infection control.

RADI 113 (5240) Simulations in Radiography I
Prerequisite: RADI 103 Radiographic Procedures I
Credit Hours: 1
Laboratory study of the radiographic procedures used to visualize the anatomical structures of upper and lower xtremities, shoulder girdle, chest, abdomen, pelvic girdle, and contrast studies (Barium Swallow, UGI, and IVU)

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RADI 115 (5472) Patient Care in Radiography II
Prerequisite: RADI 109 Patient Care in Radiography I
Credit Hours: 3
This course is designed to give the student a basic knowledge of vital signs and how they apply to the patient. It will introduce contrast media as well as the studies in which they could be used, which includes the digestive and urinary systems. It will also provide the basic concept of pharmacology and drug administration as they apply to the field of radiology.

RADI 117 (5239) Radiographic Imaging II
Prerequisite: RADI 107 Radiographic Imaging I
Credit Hours: 3
Content is designed to establish a knowledge base in factors that govern the image production process. Image quality and technical factors will be discussed in detail.

RADI 119 (5286) Clinical Training I
Prerequisite: RADI 103 Radiographic Procedures I
Credit Hours: 3
This portion of clinical training is used to acquaint the learner with the organization and function of healthcare facilities. In addition, the learner will observe and assist a practicing radiographer to appreciate both the ethical and technical responsibilities associated with radiologic technology. 20 hours a week for 15 weeks, for a total of 300 hours of clinical training.

RADI 120 (5370) Clinical Training II
Prerequisite: RADI 119 Clinical Training I
Credit Hours: 3
This portion of clinical training encompasses major radiographic equipment, room maintenance and preparation, order requisition evaluation, principles of record keeping, proper patient handling. The learner should be making the transition from the passive mode of observation to a more active mode of assisting the radiographer perform examinations of the chest, abdomen, extremities, and contrast studies. 20 hours per week for 15 weeks

RADI 125 (5103) Principles of Radiation Physics and Equipment Operation
Prerequisite: RADI 117 Radiographic Imaging I
Credit Hours: 3
A basic knowledge of atomic structure and terminology. Also presented are the nature and characteristics of radiation, x-ray production, and the fundamentals of photon interactions with matter.

RADI 127 (5268) Introduction to Computed Tomography & Cross Sectional Anatomy
Prerequisite: RADI 104 Radiographic Procedures II
Credit Hours: 2
This course explores the basic computed tomography concepts for the entry level radiographer.

RADI 201 (5248) Imaging Modalities
(Online)
Prerequisite: RADI 105 Radiographic Procedures III
Credit Hours: 3
This course encompasses the concepts and applications within advanced modality areas of radiology, including: Magnetic Resonance Imaging, Mammography, Bone Densitometry, Ultrasound, Nuclear Medicine, PET, Radiation Therapy, and Angiography and Students will learn and practice techniques for building an effective resume and cover letter.

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RADI 203 (5371) Clinical Training III
Prerequisite: RADI 120 Clinical Training II
Credit Hours: 3
During this portion of clinical training, the learner investigates fluoroscopic equipment and procedural duties. In addition, the learner will be introduced to the responsibilities and principles of scheduling patients for radiographic examinations. The learner should now be assisting with all radiographic examinations, and should be making the transition from a passive mode to a more active mode of performing skeletal and fluoroscopic examinations. 32 hours per week for 8 weeks (256 hours); 4 Weeks at Current Clinical Setting (128 hours) and 4 Weeks at New Clinical Setting (128 hours), Total Clinical Hours 256.

RADI 204 (5372) Clinical Training IV
Prerequisite: RADI 203 Clinical Training III
Credit Hours: 3
Emphasis is placed on skull radiography, trauma radiography, body section, mobile and surgical radiography, geriatric and pediatric radiography, and computed tomography procedures. Quality Assurance Management and Procedures will also be performed. 300 hours, 15 weeks.

RADI 205 (5373) Clinical Training V
Prerequisite: RADI 204 Clinical Training IV
Credit Hours: 3
Emphasis is placed on trauma emergency and special procedure radiography. In addition, the learner will be required to successfully complete the remaining category competency evaluations. 300 hours, 15 weeks.

RADI 207 (5104) Radiographic Imaging III
Prerequisite: RADI 117 Radiographic Imaging II
Credit Hours: 3
Content is designed to impart an understanding of the components, principles and operation of digital imaging systems found in diagnostic radiography. Factors that impact image acquisition, display, archiving and retrieval are discussed. Guidelines for selecting exposure factors and evaluating images within a digital system assist students to bridge between film-base and digital imaging systems. Principles of digital system quality assurance and maintenance are presented.

RADI 211 (5107) Computed Tomography Procedures
Prerequisite: RADI 127 Introduction to CT and Cross Sectional Anatomy
Credit Hours: 2
Studies the positional and functional relationships of body structures, with an emphasis on their appearances as seen with Computed Tomography (CT) scanning.

RADI 213 (5247) Radiographic Pathophysiology
Prerequisite: Entrance into sophomore year of Radiography Program
Credit Hours: 2
Study of pathologies and their effects on the anatomy, physiology, and radiography of the human body.

RADI 214 (5229) Simulations in Radiography II
Prerequisite: RADI 113 Simulations in Radiology I
Credit Hours: 1
Laboratory study of the radiographic procedures used to visualize the anatomical structures of the bony thorax, spine, head and barium enema contrast study.

RADI 217 (5241) Radiation Protection I
Prerequisite: RADI 125 Principles of Physics & Equipment Operation
Credit Hours: 2
This course introduces radiation protection concepts as they apply to the patient. It encompasses the types of radiation, how radiation interacts with matter, radiation quantities and units, and radiation monitoring. It will explore the major differences between early and late tissue reactions.

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RADI 218 Radiation Protection II
Prerequisite: RADI 217 Radiation Protection I
Credit Hours: 2
This course establishes a basic knowledge of radiation protection in the areas of dose limits, equipment design, management of radiation dose during diagnostic procedures, and the management of radiation dose to imaging personnel. Introduces an overview of cell biology and molecular and cellular radiation biology.

RADI 219 (5105) Image Analysis
Prerequisite: Entrance into Sophomore year of Radiography Program
Credit Hours: 2
Will provide a basis for analyzing radiographic images. Including the importance of imaging standards, discussion of a problem solving technique for image evaluation and factors that can affect image quality.

RADI 221 (5266) Radiography Comprehensive Review
Prerequisite: Completion of all Radiography courses to date
Credit Hours: 2
Group discussion on current topics in radiologic technology. Review of the principles of radiography and their application to the ARRT examination. Mock registry exams on the computer .

RADI 223 (5106) Critical Thinking and Analysis in Radiography
Prerequisite: Entrance into sophomore year of Radiography Program
Credit Hours: 3
Comprehensive review course with emphasis on critical thinking, problem analysis, and solution judgment skills. Includes group sessions for scenario development.

Religion

RELI 101 (1510) Comparative World Religions KRSN REL1010**
Prerequisite: None
Credit Hours: 3
This course examines different religions and their history, practices, and beliefs.

RELI 105 (1564) New Testament Survey KRSN REL1030**
Prerequisite: None
Credit Hours: 3
An introduction to the New Testament and other early Christian literature in their historical and cultural context.

Respiratory Care

RESP 101 Fundamentals of Respiratory Care I
Prerequisite: Acceptance into the Respiratory Care program
Credit Hours: 3
This course provides instruction in basic gas physics and basic Respiratory Care. Included is a section on microbiology, patient assessment and professionalism.

RESP 102 Fundamentals of Respiratory Care II
Prerequisite: RESP 101 Fundamentals of Respiratory Care I, RESP 105 Respiratory Care Pharmacology, RESP 107 Cardiopulmonary Anatomy and Physiology I, and RESP 158 Fundamentals of Respiratory Care I Lab
Credit Hours: 3
This course will continue from FRC I in presenting equipment and therapeutics. A diagnostics component will be added. The student will learn about specialized oxygen devices, arterial blood puncture analysis and interpretation, plus pulmonary function testing. In addition emergency care, artificial airways, and the electrical conduction system of the

heart will also be taught. There is a separate laboratory class that will include hands on competencies taught in this course..

RESP 105 Respiratory Care Pharmacology
Prerequisite: Acceptance into the Respiratory Care program
Credit Hours: 3
This course addresses general principles of pharmacology with emphasis on drugs affecting the cardiopulmonary system. An overview of antibiotics, narcotics, and sedatives is presented.

RESP 107 Cardiopulmonary Anatomy and Physiology I
Prerequisite: Acceptance into the Respiratory Care program
Credit Hours: 2
An in-depth study of cardiopulmonary anatomy and physiology will be presented. Units on renal physiology and acid-base balance are included.

RESP 109 Clinical Practice I
Prerequisite: RESP 101 Fundamentals of Respiratory Care I, RESP 105 Respiratory Care Pharmacology, RESP 107 Cardiopulmonary Anatomy and Physiology I, and RESP 158 Fundamentals of Respiratory Care I Lab
Credit Hours: 2
This clinical course allows the Respiratory Care student to apply skills learned in the classroom to the clinical setting. Emphasis is placed on basic therapeutic modalities, charting, and assessment skills.

RESP 110 Clinical Practice III
Prerequisite: RESP 119 Clinical Practice II, RESP 161 Advanced Mechanical Ventilation Lab, and RESP 203 Advanced Mechanical Ventilation
Credit Hours: 4
This clinical course allows the Respiratory Care student to apply skills learned in the classroom to the clinical setting. Emphasis is placed on cardiac and pulmonary monitoring and basic Respiratory Care therapeutics.

RESP 113 Neonatal and Pediatric Respiratory Care
Prerequisite: RESP 119 Clinical Practice II, RESP 161 Advanced Mechanical Ventilation Lab, and RESP 203 Advanced Mechanical Ventilation
Credit Hours: 3
This course will cover neonatal and pediatric Respiratory Care. The course includes units on fetal development, neonatal and pediatric respiratory diseases, pharmacological agents, and Respiratory Care modalities applied to the neonatal and pediatric patient.

RESP 115 Introduction to Mechanical Ventilation
Prerequisite: RESP 101 Fundamentals of Respiratory Care I, RESP 105 Respiratory Care Pharmacology, RESP 107 Cardiopulmonary Anatomy and Physiology I, and RESP 158 Fundamentals of Respiratory Care I Lab
Credit Hours: 3
This introductory course covers basic concepts important to understanding mechanical ventilation. The student will concentrate on modes of ventilation, ventilator set-up and trouble-shooting, and charting of mechanical ventilation.

RESP 119 Clinical Practice II
Prerequisite: RESP 102 Fundamentals of Respiratory Care II, RESP 109 Clinical Practice I, RESP 115 Introduction to Mechanical Ventilation, RESP 160 Fundamentals of Respiratory Care II Lab, and RESP 205 Respiratory Diseases
Credit Hours: 1
In this course students will apply skills learned in the classroom in the clinical setting. Emphasis will be placed on Mechanical Ventilation and Adult Critical Care.

RESP 148 Respiratory Comprehensive Review
Prerequisite: RESP 110 Clinical Practice III, RESP 213 Respiratory Care Topics and Procedures, RESP 153 CRT-Review, and RESP 113 Neonatal and Pediatric Respiratory Care
Credit Hours: 2
Students will practice on information gathering and decision making skills in a controlled classroom environment. Students will work on test taking skills specific to passing the NBRC RRT written and clinical simulation exams.

*Refer to the Placement Testing Procedure 3.22, page 22 **Refer to Course Transfer, page 17

RESP 153 CRT-Review
Prerequisite: RESP 119 Clinical Practice II, RESP 161 Advanced Mechanical Ventilation Lab, and RESP 203 Advanced Mechanical Ventilation
Credit Hours: 1
Students will practice on information gathering and decision making skills in a controlled classroom environment. Students will work on test taking skills specific to passing the NBRC entry level exam.

RESP 158 Fundamentals of Respiratory Care I Lab
Prerequisite: Acceptance into the Respiratory Care program
Credit Hours: 1
This course is designed to familiarize the student with Respiratory Care procedures and practices in the hospital setting. Patient care experience will include oxygen therapy, medical gas cylinder use, humidity and aerosol therapy, incentive spirometry, chest physiotherapy, bronchial hygiene, isolation techniques, cardiopulmonary resuscitation, and patient assessment.

RESP 160 Fundamentals of Respiratory Care II Lab
Prerequisite: RESP 101 Fundamentals of Respiratory Care I, RESP 105 Respiratory Care Pharmacology, RESP 107 Cardiopulmonary Anatomy and Physiology I, and RESP 158 Fundamentals of Respiratory Care I Lab
Credit Hours: 2
This course will continue from FRC I in presenting equipment and therapeutics. This course is designed to familiarize the student with Respiratory Care procedures and practices taught in FRC II. The student will learn about specialized oxygen devices, cardiopulmonary resuscitation, arterial blood gas puncture analysis and interpretation, bedside pulmonary function testing, artificial airway placement, and electrocardiography.

RESP 161 Advanced Mechanical Ventilation Lab
Prerequisite: RESP 102 Fundamentals of Respiratory Care II, RESP 109 Clinical Practice I, RESP 115 Introduction to Mechanical Ventilation, RESP 160 Fundamentals of Respiratory Care II Lab, and RESP 205 Respiratory Diseases
Credit Hours: 2
This course will continue from FRC III in presenting equipment and therapeutics with mechanical ventilation. This course is designed to familiarize the student with Respiratory Care procedures and practices taught in FRC III.

RESP 203 Advanced Mechanical Ventilation
Prerequisite: RESP 102 Fundamentals of Respiratory Care II, RESP 109 Clinical Practice I, RESP 115 Introduction to Mechanical Ventilation, RESP 160 Fundamentals of Respiratory Care II Lab, and RESP 205 Respiratory Diseases
Credit Hours: 3
This course will include an in-depth study of mechanical ventilation along with weaning procedures and the care of the critically ill patient

RESP 205 Respiratory Diseases
Prerequisite: RESP 101 Fundamentals of Respiratory Care I, RESP 105 Respiratory Care Pharmacology, RESP 107 Cardiopulmonary Anatomy and Physiology I, and RESP 158 Fundamentals of Respiratory Care I Lab
Credit Hours: 3
This course provides the students with an in-depth study of diseases that affect the cardiopulmonary system. Patient evaluation, assessment, diagnosis and treatment of diseases will be addressed.

RESP 207 Critical Care Medicine
Prerequisite: RESP 110 Clinical Practice III, RESP 213 Respiratory Care Topics and Procedures, RESP 153 CRT-Review, and RESP 113 Neonatal and Pediatric Respiratory Care
Credit Hours: 3
This course will cover care of the acutely ill and critically ill patient. Emphasis is placed on application of data obtained during monitoring and assessment of patients. Therapeutic and diagnostic modalities will be addressed.

*Refer to the Placement Testing Procedure 3.22, page 22 **Refer to Course Transfer, page 17

RESP 211 Clinical Practice IV
Prerequisite: RESP 110 Clinical Practice III, RESP 213 Respiratory Care Topics and Procedures, RESP 153 CRT-Review, and RESP 113 Neonatal and Pediatric Respiratory Care
In this course students will apply skills learned in the classroom to the clinical setting. Emphasis will be placed on specialized areas of Respiratory Care such as neonatal and pediatric Respiratory Care, long-term ventilator care, home health, and sleep studies.

RESP 212 Respiratory Care Professional Forum
Prerequisite: RESP 110 Clinical Practice III, RESP 213 Respiratory Care Topics and Procedures, RESP 153 CRT-Review, and RESP 113 Neonatal and Pediatric Respiratory Care
Credit Hours: 2
The purpose for this course is to provide students with an opportunity to share significant clinical experiences, to present clinical problems and solutions, to practice communication skills, and the presentation of student in-services. The student will learn how to write an effective resume and practice job-seeking skills, including the interview process. The student will also learn how to write a Respiratory Therapy protocol. This course is concurrent with RESP 211, Clinical Practice III.

RESP 213 Respiratory Care Topics and Procedures
Prerequisite: RESP 119 Clinical Practice II, RESP 161 Advanced Mechanical Ventilation Lab, and RESP 203 Advanced Mechanical Ventilation
Credit Hours: 3
This is a course designed to prepare the student for specialized monitoring used by respiratory therapist and includes: invasive hemodynamic monitoring, intracranial pressure monitoring, bronchoscopes, thoracentesis, chest tubes, sleep studies, pulmonary rehabilitation, chest x-rays, and respiratory gas monitoring.

Social Work

SWK 101 (2282) Introduction to Social Work KRSN SOC1020**
Prerequisite: None
Credit Hours: 3
A survey of the human services fields, this course examines social welfare agencies and services, as well as career opportunities in social work.

SWK 102 Basic Helping Skills
Prerequisite: C or better in SWK 101 Introduction to Social Work
Co-requisite: SWK 103 Basic Helping Skills Experience
Credit Hours: 3
This course combines the theories of social work practice with the learning of social work practice skills using common models and theoretical frameworks. This course presents ecological models, the strength-based, problem-solving process, dominant brief therapies, and cultural competence as approaches to practice in social work. This course presents and provides structured practice of the fundamental interpersonal skills required for effective social work practice. The course teaches interviewing skills and critical thinking about interview processes, (from intake through termination and evaluation) and focuses primarily on using those skills with individuals. The models, theories, and processes learned in this course serve as the foundation for generalist practice with individuals, families, groups, and communities. This course will give students an opportunity to practice these skills in a laboratory setting on a weekly basis. This course also includes a 48-hour volunteer experience in a social agency. (SWK 103 Basic Helping Skills Experience)

SWK 103 Basic Helping Skills Experience
Prerequisite: C or better in SWK 101 Introduction to Social Work
Co-requisite: SWK 102 Basic Helping Skills
Credit Hours: 1
Students will be exposed to the social work clinical setting. Students will participate in 48 hours of supervised volunteer service at an approved location.

*Refer to the Placement Testing Procedure 3.22, page 22 **Refer to Course Transfer, page 17

Sociology

SOCI 101 (2280) Sociology KRSN SOC1010**
Prerequisite: None
Credit Hours: 3
This course examines human social interactions and relationships between groups. Within the context of classical and contemporary sociology, the course provides an overview of the study of society, the individual in society, social inequality, social institutions, social change, and social issues.

SOCI 201 (1350) Marriage and Family KRSN SOC2020**
Prerequisite: None
Credit Hours: 3
Marriage, family, and alternative lifestyles are closely examined from a sociological and theoretical perspective. Discussion will focus on how relationships and gender roles have changed, attitudes and decision-making in regard to sexuality, and changes in the marital relationship across time.

SOCI 202 Introduction to Women's Studies KRSN GCS1010**
Prerequisite: None
Credit Hours: 3
This course offers an introduction to Women's Studies, an interdisciplinary field that asks critical questions about the meanings of sex and gender in society. The primary goal of this course is to familiarize students with key issues, questions, and debates in Women's and Gender Studies. It includes an examination of women's historic and contemporary legal, political, and economic statuses, as well as women's struggles in identity expression, sexuality, and lifestyle. The course draws on multiple disciplines--such as literature, history, economics, psychology, sociology, philosophy, political science, anthropology, and media studies-- to explore cultural assumptions about sex, gender, and sexuality.
SOCI 203 (2283) Social Problems KRSN SOC2010**
Prerequisite: None
Credit Hours: 3
This course examines well-defined social problems in both theoretical and practical ways. The social problems studied will give the student a base for analyzing and understanding social problems prevalent in society today. A wide variety of topics are discussed including poverty, race and ethnic relations, gender and social inequality, crime, and sexual deviance.
SOCI 207 (2220) Anthropology KRSN ANT1010**
Prerequisite: None
Credit Hours: 3
An introductory study of diverse human cultures throughout the world, both past and present. The physical and cultural systems of various people will be examined through kinship ties, economics, religion, government, and the arts.

SOCI 208 Culture and Ethnicity KRSN SOC2030**
Prerequisite: SOCI 101 Introduction to Sociology with a C or better
Credit Hours: 3
This course provides an in-depth exploration of the multifaceted dimensions of culture, ethnicity, and their intersections. This course examines historical and contemporary experiences from the perspectives of both women and men of diverse races, ethnicities, social classes, religions, sexual orientations, ages, and abilities.

SOCI 211 Criminology
Prerequisite: SOCI 101 Introduction to Sociology
Credit Hours: 3
This is an introductory course to the study and examination of the field of criminology, including its theories, basic assumptions, and definitions. Criminology is primarily concerned with understanding the causes of crime, and as such, this course will examine crime and deviant behavior from the sociological perspective. We will examine some of the most influential explanations for criminal behavior such as culture, law, power and equity that also contributes to the maintenance of social order. We will consider how different explanations have emerged at different times and understand how the social context contributes to explanations of crime.

*Refer to the Placement Testing Procedure 3.22, page 22 **Refer to Course Transfer, page 17

Student Success Center

LEAR 101 (0828) College Success Skills
Prerequisite: None
Credit Hours: 1
An introduction to the College, its personnel, its support systems, and its extracurricular activity opportunities for new students.

LEAR 102 Research Skills
Prerequisite: None
Credit Hours: 1
This course is an introductory course to print and electronic research skills. The students will learn to access, evaluate, and use various research tools effectively.

LEAR 103 (1601) Information Literacy
Prerequisite: None
Credit Hours: 2
An introduction to information and its effect on society. The students will learn to access information in various formats, evaluate information for various uses, and effectively and ethically use information for research and in everyday situations.

Welding

WELD 120 Oxy Acetylene and Safety
None Prerequisite: INDU 155 OSHA 10 General Industry or concurrently enrolled
Credit Hours: 3
Skills to be obtained include, but are not limited to, oxyacetylene welding, cutting, and repair. Safety will be emphasized along with interpreting safety rules for using Oxy-Acetylene equipment. This class will include extensive studies in the technology of systems used in today's field of welding-manufacturing, construction, power/energy, transportation, fabrication, and piping processes. The format is lecture, demonstration, student application, and evaluation.

WELD 130 Gas Tungsten Arc Welding Reading
Prerequisite: INDU 155 OSHA 10 General Industry or concurrently enrolled
Credit Hours: 3
This course is a lab course designed to give students practical work experience in Gas tungsten Arc Welding (GTAW or TIG). Students will learn to properly set up and operate TIG welding equipment to weld in all positions on pipe.

WELD 140 Shielded Metal Arc Welding
Prerequisite: INDU 155 OSHA 10 General Industry or concurrently enrolled
Credit Hours: 3
Through classroom and/or lab/shop learning and assessment activities, students in this course will: describe the Shielded Metal Arc Welding process (SMAW); demonstrate the safe and correct set up of the SMAW workstation; associate SMAW electrode classifications with baset metals and joint criteria; demonstrate proper electrode selection and perform basic SMAW welds on selected weld joints; and perform visual inspection of welds.

WELD 160 Gas Metal Arc Welding
Prerequisite: INDU 155 OSHA 10 General Industry or concurrently enrolled
Credit Hours: 3
This course is a lab course designed to give students practical work experience in Gas Metal Arc Welding. Students will study the various components of this welding process, will learn to properly set up and operate MIG welding equipment to weld 1F, 1G, 2F, and 2G positions and produce quality pipe welds.

*Refer to the Placement Testing Procedure 3.22, page 22 **Refer to Course Transfer, page 17

WELD 180 Pipe Layout and Blueprint Reading
Prerequisite: INDU 155 OSHA 10 General Industry
Credit Hours: 3
This course is a study of industrial production and fabrication of piping formations and processes. Emphasis is placed on terminology, symbols, and industry standard welding processes. Students will demonstrate the ability to interpret plans and drawings used in industry and the application of fabrication and layout skills.

WELD 210 Advanced Gas Tungsten Arc Welding
Prerequisite: Level I Certification or instructor permission
Credit Hours: 4
Through classroom and/or lab/shop learning and assessment activities, students in this course will: explain the gas tungsten arc welding process (GTAW or TIG); demonstrate the safe and correct set up of the TIG workstation; relate TIG electrode and filler metal classifications with base metals and joint criteria; build proper electrode and filler metal selection and use based on metal types and thicknesses; build pads of weld beads with selected electrodes and filler material in the vertical position; build pads of weld beads with selected electrodes and filler material in the overhead position; perform basic TIG welds on selected weld joints; and perform visual inspection of TIG welds.

WELD 220 Advanced Gas Metal Arc Welding
Prerequisite: Level I Certification or instructor permission
Credit Hours: 4
Through classroom and/or shop/lab learning assessment activities, students in this course will: explain gas metal arc welding process (GMAW or MIG); demonstrate the safe and correct set up of the MIG workstation.; correlate MIG electrode classifications with base metals and joint criteria; demonstrate proper electrode selection and use based on metal types and thicknesses; build pads of weld beads with selected electrodes in the vertical position; build pads of weld beads with selected electrodes in the overhead position; produce basic MIG welds on selected weld joints; and conduct visual inspection of MIG welds.

WELD 240 Advanced Shielded and Metal Arc Welding
Prerequisite: Level I Certification or instructor permission
Credit Hours: 4
Through classroom and/or lab/shop learning and assessment activities, students in this course will: describe the Shielded Metal Arc Welding process (SMAW); demonstrate the safe and correct set up of the SMAW workstation; associate SMAW electrode classifications with base metals and joint criteria; demonstrate proper electrode selection and use based on metal types and thickness; build pads of weld beads with selected electrodes in the vertical position; build pads of weld beads with selected electrodes in the overhead position; perform basic SMAW welds on selected weld joints; and perform visual inspection of welds.

WELD 260 Specialized Welding
Prerequisite: WELD 210, WELD 220, and WELD 240, or instructor permission
Credit Hours: 4
Through classroom and/or lab/shop learning assessment activities, students in this course will: demonstrate skill learned in the previous beginning and advanced classes by demonstrating knowledge of GTAW, BMAW, SM<AW, oxy-accetylene, and weld symbols. Students will be able to take a blueprint and create a finished project using any or all welding processes and positions. The project will either be assigned by the instructor or proposed and permitted by the instructor.

*Refer to the Placement Testing Procedure 3.22, page 22 **Refer to Course Transfer, page 17