NUBIAN AMERICAN ADVANCED COLLEGE
Knowledge is key...

Address: 11 Awolowo road, ground floor, Ikoyi, Lagos
Tel: 08139483927
E-mail: naacollege@nubiangroup.org

SCHOOL OF NURSINGAND HEALTH SCIENCES

The School of Nursing and Health Science is benchmarked to advancing and sustaining the Nursing profession and its contribution to peoples' health and public policy. It will advance humane and quality health care for a global society, as it is the strategic choice for nursing education. The School will provide Students with the knowledge and professional skills necessary to assist patients and clients toward an optimal level of health.

The programs are focused on educating nurses that will have the capacity to influence the design and implementation of policy in health and other related areas to achieve better health outcomes, and through the Associate of Science programs, the School will integrate critical thinking, decision-making, leadership and management techniques with moral, ethical and legal principles associated with providing outstanding care, not only in a clinical setting but in both acute and long term care facilities as well as in community settings.

The Nursing graduates will not only become key distributors and essential partners in formulating and implementing public policy, systems design, and services delivery. The School will prepare the Public health pioneers with the acumen and entrepreneurial approaches to reinvent the public health paradigm. It delivers truly interdisciplinary public health education at the preparatory level. Our graduates will be positioned to bring solidarity and cooperation across the profession in collaboration with other stakeholders and provide strategic leadership to empower nurses and nursing organizations to advance nursing worldwide through coherent, efficient, effective, and judicious advocacy by and for nurses, nursing, and health.

DEPARTMENT OF NURSING

PRE-NURSING, AS

This 90-credit transfer degree is part of the Pre-Nursing Direct Transfer Agreement/Major Related Program and is intended as preparation for a major in nursing at a Baccalaureate College/University. Nursing is also an excellent major for Associate graduate studies in Nursing, Physician Assistant, and some Health Science programs. Students are encouraged to check exact pre-requisites and application procedures for each nursing program. These programs are highly competitive and cannot admit all qualified applicants. The AA-DTA requires 90 quarter credits in college-level courses numbered 100 or above with a cumulative GPA of 2.0 or higher. Each individual course must have a minimum grade of 1.0. The Pre-Nursing MRP also requires specific courses to take within the degree to help students prepare for entrance into baccalaureate majors in Nursing.

1st Semester (Freshman)		
Course Code	Course Title	Credit Unit/ Hours
ENG 101	English Composition I	3
MAT 146 or	Introduction to Statistics.	3
MAT 251	Statistics for Science	4
BIO 160	General Biology w/Lab	4
MAT 116 or	Applications of Math to Management, Life and Social Sciences	4
MAT 150	Calculus I	4
PSY 101	General Psychology	3
	Total Semester Credit Units	17

2nd Semester (Freshman)		
Course Code	Course Title	Credit Unit/ Hours
BIO 241	Human Anatomy & Physiology I	4
CMT 220	Public Speaking	3
ENG 102	English Composition II	3
SOC 101	Intro to Sociology	3
CHM 121	Intro to Chemistry	4
	Total Semester Credit Units	17

3rd Semester Sophomore		
Course Code	Course Title	Credit Unit/ Hours
BIO 242	Human Anatomy & Physiology II	4
NUT 101	Nutrition	3
CMT 205	Multicultural Communication	3
BIO 260	Microbiology.	4
	Total Semester Credit Units	14

4th Semester Sophomore		
Course Code	Course Title	Credit Unit/ Hours
CHM 131	Intro to Organic Chemistry and Biochemistry	4
PSY 220	Abnormal Psychology	3
ART 210	Digital and Graphic Art	4
PHL 111	Critical Thinking	3
	Total Semester Credit Units	17

SOC 101 Introduction to Sociology 5 Credits

Introduces the major perspectives and methods in sociology to explain the principles of society, culture and sociocultural relationships. Topics include socialization, social interaction and structure, groups, organizations, deviance, stratification, inequality, institutions and social change. Mandatory decimal grading.

PHL 111 - Critical Thinking 3 Credits

Principles of thinking and problem solving, deductive and inductive logic and fallacies. Includes the analysis of formal and informal arguments.

MAT 125 Quantitative Reasoning 3 Credits

This course covers a diverse range of mathematical topics including statistics, combinatorics and probability, voting and apportionment methods, and graph theory.

MAT 150. Calculus I 4 Credits

Algebraic and transcendental functions. Continuity and limits. The derivative and its applications. The integral and the fundamental theorem of calculus.

CHM 131 Introduction to Organic/Biochemistry 4Credits

Presents organic chemistry and biochemistry, with emphasis on functional groups, reaction synthesis, and biochemical applications. Format includes lecture, discussion, and laboratory.

PSY 101 Introduction to Psychology 3 Credits

An introduction into the empirical study of human behavior and mental processes. Topics to be treated include biological bases of behavior, sensation and perception, states of consciousness, learning, memory, motivation and emotion, language, lifespan development, intelligence, stress and health, social behavior, personality, and abnormal behavior and treatment; applications of psychology in a culturally diverse world.

MAT 116: Applications of Math to Management, Life and Social Sciences 3Credits

This course is an introduction to the mathematics of change and explores concepts of differential calculus with an emphasis on applications to business, social sciences and life sciences using a technology-based modeling approach. Topics include limits, continuity, the derivative, rules of differentiation, implicit differentiation and applications of differentiation.

ENG 101 - English Composition I 3Credts

A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

ENG 102 - English Composition II 3 Credits

A composition course in argumentative writing, including invention, organization, style, and revision. Critical reading and thinking will be addressed though students' writing. Research skills and documentation will be introduced.

Pre-requisites: Successful completion of ENG 101 with a grade of C or better**.**

MCS 105 Introduction to Multicultural Studies 3 Credits
Students will develop a personal and historical understanding of issues related to race, social class, gender, sexual orientation, disabilities & culture; and how these issues are used in the distribution of power and privilege in the U.S.

MAT 146 Introduction to Stats 3Credits
Analysis of data through graphical and numerical methods, linear regression, the Normal distribution, data collection, elementary probability, confidence intervals and hypothesis testing. Emphasis on applications.

FRE 121 French I 3Credits
Fast-paced interactive approach to learning French: listening, speaking, reading and writing. Topics: pronunciation, basic sentence patterns, present tense, agreement. Vocabulary themes: identification, greetings, likes and dislikes, family..

CHM 121 Introduction to Chemistry 4Credits
Basic chemistry to supplement/replace high school chemistry for non-science majors. Introduces simplified atomic/molecular theory & the quantitative/qualitative relationships in the chemistry of solutions, gases, liquids, solids & their reactions.

CHM 131 Intro to Organic/Biochemistry 4Credits
Emphasis on chemical systems/processes as they influence living systems. Study of organic compounds: properties/reactions of functional groups, lipids, proteins & carbohydrates. Intro to enzymes & neurotransmitters. Weekly lab explores reactions of hydrocarbons, alcohols, acids, & amines.
Pre-requisite :Successful completion of CHM 121 with a minimum grade of 2.0 and placement into ENG 101.

BIO 160 General Biology w/Lab • 4Credits
Introduces major concepts of cell biology, including cell physiology and structure, molecular biology, genetics, and evolution. Course is a prerequisite for professional health-science programs. Format includes laboratory work.

NUT 101 Nutrition 3 Credits
A general study of nutrients in food, its digestion, absorption and metabolism. Course also deals with energy balance, weight control, nutritional assessment and improvement of general well-being.

MAT 251 - Statistics for Science 4 Credits
Algebra-based statistics for science. Statistical topics include descriptive measures, graphical methods, discrete and continuous probability distributions, estimation, one- and two-tailed hypothesis testing and categorical data.
Pre-requisite: Successful completion of MAT 150 with a grade of "C" or better

CMT 220 Public Speaking **3 Credits**

Build confidence when speaking with others. Learn to influence others by critically listening to and crafting organized, informative and persuasive speeches. Conduct responsible research on topics appropriate for your audience. Use sound reasoning and strong delivery to achieve effective presentation skills.

Pre-requisite: Successful completion of ENG 101with a grade of "C" or better

ART 212. Digital Photography **3 Credits**

Students develop visual and technical skills of digital photography as a language and medium. Composition, quality of light, exposure, camera operation, and the fundamentals of photographic concepts are emphasized. Artistic interpretation and technique will be examined through the study of image capture, processing, and printing. Note: Students provide their own fully manually controllable camera. A few cameras are available at Media Services for students who do not have their own camera on a first come first serve basis.

PSC 200 Lifespan Psychology **3 Credits**

A survey of human development from conception through death. Physical, emotional,

PSY220: Abnormal Psychology **3Credits**

This course is designed to provide an overview of the field of abnormal psychology and will focus on the etiology, symptoms, presumed theoretical causes, and treatments of the major psychological disorders. Topics covered include schizophrenia, mood disorders, anxiety disorders, personality disorders, psychosomatic disorders, sexual deviation, and the process of adjustment to stress. Attention is given to biosocial, cognitive, and cultural factors and their role in mental health.

BIO 241 Human Anatomy and Physiology I **4 Credits**

The course covers histology and the structure and function of the integumentary, skeletal, muscular, and nervous systems and the special senses. Laboratory includes dissection of animal specimens. The first of a two-quarter sequence of human anatomy and physiology intended for students pursuing careers in allied health fields.

Pre-requisite: Successful completion of BIO 211 with a grade of "C" or better.

BIO 242 Human Anatomy and Physiology II **4 Credits**

The course covers structure and function of the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. Laboratory includes dissection of animal specimens. The second of a two-quarter sequence of human anatomy and physiology intended for students pursuing careers in allied health fields.

Pre-requisite: Successful completion of BIO 241 with a grade of "C" or better.

BIO 260 Microbiology **4 Credits**

Survey of microorganisms with focus on healthcare applications. Structure, classification, metabolism and genetics of bacteria and viruses are main themes. Emphasis on disease process,

microbial control and immunology. Laboratory techniques include isolation and identification of bacteria.
Pre-requisite: Successful completion of BIO 211 with a grade of "C" or better.

ASSOCIATE DEGREE IN NURSING, ADN

The Associate's degree in Nursing, or ADN is a 2-year degree with a minimum amount of credit hour programs required to become licensed as a registered nurse, or RN. Once the student graduates, he or she is eligible to take the NCLEX-RN examination which must be passed to become licensed by the State. ARN must be licensed to be able to work. The Program combines College-level general education courses, nursing theory courses, and clinical experiences for the laboratory, simulation and patient care settings required for job preparation. This degree is also designed for preparation for the Juinor year in United State American baccalaureate degree program.

1st Semester (Freshman)		
Course Code	Course Title	Credit Unit/ Hours
ENG 101	English Composition I	3
CHM 121	Intro to Chemistry	4
BIO 160	General Biology w/Lab	4
BIO 100	Medical Terminology	1
MAT 102	Biostatistics	3
PSY 101	Introduction to Psychology	3
	Total Semester Credit Units	18

2nd Semester(Freshman)		
Course Code	Course Title	Credit Unit/ Hours
BIO 210	Human Anatomy & Physiology I	4
PSY 200	Lifespan Psychology	3
NSG 101	Introduction to Professional Nursing	1
CHM 121	Intro to Chemistry	4
COM 101	Technology and Computer Science	3
NSG 202	Nutrition and Diet Therapy	2
	Total Semester Credit Units	17

1st Summer Semester		
Course Code	Course Title	Credit Unit/ Hours
NSG 111	Foundations in Nursing-Health Promotion	7
NSG 121	Foundations in Nursing – Chronic Conditions	7
		14

3rd Semester (Sophomore)		
Course Code	Course Title	Credit Unit/ Hours
BIO 220	Human Anatomy & Physiology II	4
BIO 260	Principles Microbiology and Parasitology	4
NSG 212	Foundations in Nursing – Family Health	8
NSG 203	Application of Pharmacology in Nursing	2
	Total Semester Credit Units	18

4th Semester (Sophomore)		
Course Code	Course Title	Credit Unit/ Hours
FRE 101	French	3
NSG 231	Transition to Professional Practice	2
NSG 241	Foundations in Nursing – Acute Illness	9
COM 250	Communication in a Diverse Workplace	3
	Total Semester Credit Units	17

2nd Summer Semester		
Course Code	Course Title	Credit Unit/ Hours
NSG 131	Foundations in Nursing – Mental Health	6
PSY 150	Human Growth & Development	3
	Total Semester Credit Units	9

ENG 101 - English Composition I **3Credits**

A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

FRE 121 - French I **3Credits**

Introduces basic speaking, reading, and writing skills. Students learn by listening and speaking as well as reading and writing with the help of a variety of web based materials**.**

CHE 121 - Introduction to Chemistry 3 Credits

Introduces simplified atomic and molecular theory. Students investigate the chemistry of solutions, gases, liquids, and solids and examine quantitative relationships in chemical processes. Format includes lecture, discussion, and laboratory.

BIO 160 - General Biology w/Lab 4Credits

Introduces major concepts of cell biology, including cell physiology and structure, molecular biology, genetics, and evolution. Course is a prerequisite for professional health-science programs. Format includes laboratory work. Note: Fulfills laboratory science course requirement at BC.

BIO 100 Medical Terminology 1Credit

The Introduction to Medical Terminology course is designed to introduce students to a new language of medical terminology. Upon successful completion of the course, students will be able to comprehend a medical record report, communicate among medical professionals and have a high level overview of medical terms. Intended learners for this course will be adults 18 and older, have completed high school, and are interested in pursuing a career in the medical field. This course will serve as a prerequisite to medical programs such as nursing, medical assisting, radiology, health information management, respiratory therapy, physical therapy, occupational therapy, etc.

COM 101 - Technology and Computer Science 3 Credits

Introduces concepts of computer science through development of fluency in modern technology, while offering students an opportunity to increase skills in a variety of information systems. Computer lab work includes operation of computers on networks, programming fundamentals, logical reasoning, web searching, multimedia applications, basic spreadsheets, and database manipulation.

NSG 101 Introduction to Professional Nursing 1Credit

This course must be taken prior to entering the nursing program. This course is designed as a transitional course for the LPN, Paramedic or transfer student who is becoming a professional nurse. This course encompasses the area of role definition; providing/managing care of individuals and groups utilizing goal attainment to reach an optimum state of health and wellness.

NSG 111 Foundations in Nursing-Health Promotion 7Credits

The emphasis on health promotion across the life span includes learning about self-health as well as client health practices. To support self and client health practices, students learn to access research evidence about healthy lifestyle patterns and risk factors for disease/illness, apply growth and development theory, interview clients in a culturally sensitive manner, work as members of a multidisciplinary team giving and receiving feedback about performance, and use reflective thinking about their practice as nursing students. Populations studied in the course include children, adults, older adults and the family experiencing a normal pregnancy. This includes classroom and clinical learning experiences.

PSY 101 Introduction to Psychology 3 Credits

An introduction into the empirical study of human behavior and mental processes. Topics to be treated include biological bases of behavior, sensation and perception, states of consciousness, learning, memory, motivation and emotion, language, lifespan development, intelligence, stress and health, social behavior, personality, and abnormal behavior and treatment; applications of psychology in a culturally diverse world.

MAT 102 Biostatistics 3 Credits

This course is designed to meet the introductory statistical needs of students in the health related disciplines. The study includes topics on collection and presentation of the different statistical data used in health administration, frequency, distribution, measures of central tendencies, measures of variability, normal distribution and hypothesis testing.

NSG 121 Foundations in Nursing – Chronic Conditions 7Credits

This course introduces the student to the use of the nursing process in the care of adults with chronic or non-complex illness. A systems approach is used to discuss the effects of illness on the individual and the family, and to examine the disruption of growth and development patterns across the lifespan from young adult to senior years. The course includes clinical experience to allow the student the opportunity to apply theoretical concepts to clinical practice in diverse adult populations

NSG 131 Foundations in Nursing – Mental Health 6Credits

This course focuses on the principles and concepts of mental health, psychopathology, and treatment modalities related to the nursing care of patients and their families. It also addresses the continued development of the professional nurse as a provider of care, patient safety advocate, member of the health care team, and member of the profession in caring for individuals with mental health needs. Emphasis is on complex knowledge, judgments, skills, and professional values within a legal/ethical framework.

PSY 150 Human Growth & Development 3Credits

This course provides an introductory coverage of growth and development throughout the entire lifespan from birth to death. It features a strong health promotion theme structured around healthy individuals that will help students integrate concepts related to normal changes in each stage of the life cycle.

BIO 210 Human Anatomy and Physiology I 4 Credits

The course covers histology and the structure and function of the integumentary, skeletal, muscular, and nervous systems and the special senses. Laboratory includes dissection of animal specimens. The first of a two-quarter sequence of human anatomy and physiology intended for students pursuing careers in allied health fields.

Pre-requisite: Successful completion of BIO 211 with a grade of "C" or better.

BIO 220 Human Anatomy and Physiology II 4 Credits

The course covers structure and function of the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. Laboratory includes dissection of animal specimens. The second of a two-quarter sequence of human anatomy and physiology intended for students pursuing careers in allied health fields.

Pre-requisite: Successful completion of BIO 241 with a grade of "C" or better.

COM 250 - Communication in a Diverse Workplace 3Credits

Applies communication concepts and theory to the culturally diverse workplace. Covers interpersonal communication, teamwork and meeting effectiveness, electronic communication, conflict management, managerial effectiveness and organizational culture.

Pre-requisite Successful completion of ENG 101 with a grade of "C" or better..

PSY 200 - Lifespan Psychology 3 Credits

Presents research and theories regarding human growth and change across the life span. Students explore factors that affect psychosocial, cognitive, and physical development from psychological and socio-cultural perspectives. May require participation in projects**.**

Pre-requisite: Successful completion of PSY 101with a grade of "C" or better**..**

BIO 260 Principles Microbiology and Parasitology 4Credits

This course is designed to assist students in the study of important microorganisms and parasites. It explains the physiology and pathogenic properties of bacteria, fungi and viruses as an introduction to disease causation, their biology, the infections they cause, host response to these infections and their mode of transmission, prevention, treatment and nursing responsibilities. The laboratory experiences provide specimen collection, handling and processing of specimens for isolation and identification of microorganisms and parasites involved in the infectious processes.

NUT 202 Nutrition and Diet Therapy 2 Credits

This course deals with the study of food in relation to health. It covers nutrients and other substances and their action, and interaction and balance in relation to health and diseases and the process by which organism ingests, digests, absorbs, transports, utilizes and excretes food substances. It will also focus in the therapeutic and food service aspects of the delivery of nutritional services in hospitals and other healthcare institutions.

NSG 203 Application of Pharmacology in Nursing 2Credits

This course focuses on the basic drug classification, concepts and principles of pharmacology with special consideration for the nursing role in developing a comprehensive approach to the clinical application of drug therapy through the use of the nursing process. Nursing implications relative to the utilization of drug therapy are examined. Dosage calculations are evaluated for competency.

NSG 212 Foundations in Nursing – Family Health 8Credits

This course focuses on introducing basic and foundational concepts related to community health nursing. Students will explore public health and the barriers and faciliators associated with managing chronic disease/illness in a complex and evolving healthcare system. Topics such as health and wellness, culture, community needs assessment, health promotion, communication and transition into community healthcare systems will be covered. Humans are dynamic and enigmatic, armed with a lifetime of experiences, family and cultural ties and spiritual souls that harvest fears of mortality. The clinical experience component of this course will provide students an opportunity to focus on primary prevention techniques within the community.

Pre-requisites: Successful completion of NUR 101, NUR 205, PSY 130with a grade of "C" or better.

NSG 231 Transition to Professional Practice 2 Credits

Transition to professional nursing competencies in the care of patients throughout the lifespan. Validates proficiency in psychomotor skills and clinical reasoning in the performance of nursing procedures related to the concepts of: clinical judgment, comfort, elimination, fluid and electrolytes, nutrition, gas exchange, safety, functional ability, immunity, metabolism, mobility, and tissue integrity. Includes health assessment and medication administration.

NSG 241 Foundations in Nursing – Acute Illness 9Credits

This course is designed to introduce the student to care for critically ill patients. Emphasis is on rapid assessment, setting priorities, rapid decision-making and appropriate nursing interventions. The course may include cases with cardiovascular, pulmonary, renal, neurologic, and multisystem alterations.

PRACTICAL NURSING, AAS

This program is designed for students wanting to complete a five semester AAS Degree in Nursing and enter the workforce. Students explore procedures to provide and manage care in various health care facilities. Students acquire skills and techniques to perform in acute care hospitals, long term care, clinics, home health and health maintenance organizations. This program prepares students for a career as an entry-level registered nurse (RN) in a variety of health care settings.

A graduate receives an Associate of Applied Science degree and is eligible to apply to take the National Council Licensure Examination for licensure as a register prepare students to become Licensed Practical Nurses (LPN) or registered nurse.

The program consists of both classroom instruction and supervised clinical activities in accredited hospitals, nursing homes and other healthcare agencies. The nursing process incorporates the concepts of holistic nursing, hierarchy of needs, stress and adaptation, creative problem-solving and psychosocial development.

Upon completing this program, graduates will be able to:

• Provide holistic care that promotes and enhances human flourishing across the life cycle.
• Identify and utilize tools to assist in the development of professional identity.
• Utilize evidence-based practice to demonstrate sound nursing judgment based on clinical reasoning.
• Identify and collaborate with interdisciplinary members of the healthcare team in a spirit of inquiry.

	1st Semester (Freshman)	
Course Code	Course Title	Credit Unit/ Hours
ENG 101	College Composition I	3
NUR 121	Practical Nursing I	3
PSY 101	Introduction to Psychology	3
MTH 100	Intermediate College Algebra	3
NUR 224	Professional Role Development	2
NUT 101	Nutrition	3
	Total Semester Credit Units	17

	2nd Semester (Freshman)	
Course Code	Course Title	Credit Unit/ Hours
COM 110	Fundamentals of Public Speaking	3
NUR 122	Clinical Practice I	3
NUR 227	Clinical Application I	4
BIO 220	Anatomy and Physiology I	3
BIO 220L	Anatomy and Physiology I Lab	1
MAT 146	Introduction to Statistics	3
	Total Semester Credit Units	17

	3rd Semester (Sophomore)	
Course Code	Course Title	Credit Unit/ Hours
NUR 124	Clinical Practice II	3
NUR 229	Health Promotion and Psychosocial Nursing	2
NUR 237	Clinical Application II	5
NUR 259	Role Transitions 1	1
BIOL 221	Anatomy and Physiology II	3
BIOL 221L	Anatomy and Physiology II Lab	1
PHL 206	Ethics and Society	3
	Total Semester Credit Hour	18

	4th Semester (Sophomore)	
Course Code	Course Title	Credit Unit/ Hours
NUR 120	Foundations of Nursing	3
NUR 121	Practical Nursing I	3
NUR 228	Alterations in Health II	4
NUR 126	Clinical Practice III	3
PSY 250 or	Developmental Psychology	3
PSY 200	Lifespan Psychology	3
	Total Semester Credit Units	16

ENG 101 - English Composition I 3Credts

A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

ENG 102 - English Composition II 3 Credits

A composition course in argumentative writing, including invention, organization, style, and revision. Critical reading and thinking will be addressed though students' writing. Research skills and documentation will be introduced.

Pre-requisites: Successful completion of ENG 101 with a grade of C or better**.**

PSY 101 Introduction to Psychology 3 Credits

An introduction into the empirical study of human behavior and mental processes. Topics to be treated include biological bases of behavior, sensation and perception, states of consciousness, learning, memory, motivation and emotion, language, lifespan development, intelligence, stress and health, social behavior, personality, and abnormal behavior and treatment; applications of psychology in a culturally diverse world.

MTH 100 - Intermediate College Algebra 3 credits

This course provides a study of algebraic concepts such as laws of exponents, polynomial operations, factoring polynomials, radical and rational expressions and equations and quadratic equations. Functions and relations are introduced and graphed. This course does not apply toward the general core requirement for mathematics.

MAT 146 - Introduction to Statistics 3 Credits

Introduction to the analysis of statistical studies, descriptive statistics, basic probability, sampling distributions, hypothesis testing, confidence intervals, and correlation**.**

NUT 101 – Nutrition **3 Credits**

Introduction to the role of nutrition in human health. Topics include human metabolism, utilization of nutrients, nutritive value of foods, factors that affect eating habits, food advertising, nutrition and disease, and establishing a healthy lifestyle. This course is particularly suitable for health occupations students.

CHM 101 Introduction to Chemistry **3 Credits**

Introductory Chemistry is intended for a one-semester introductory or preparatory chemistry course. Topics to be covered are: The Structure of the Atom, The Organization of the Elements, Describing Compounds, Problem Solving and the Mole, Mixtures and Their Properties, Chemical Reactions, Acids and Bases, Energy of Chemical Changes and Nuclear Changes.

NUR 120. Foundations of Nursing **3 Credits**

Develop an understanding of the multidimensional base of nursing knowledge, including basic human needs, nursing process, nursing judgment, informatics, ethical and professional, health promotion and disease prevention concepts. Gain an understanding of the role of the practical nurse within the interdisciplinary team, the vital importance of communication while providing safe and quality client care, and how nurses use evidence-based information in their practice

NUR 121. Practical Nursing I **3 Credits**

Explore three core concepts of health assessment, nutrition and mental health as they relate to client care. Learn how the nurse incorporates this knowledge in caring for the diverse client from the moment they begin care for an individual to any point along the health-illness continuum.

NUR 122. Clinical Practice I **3 Credits**

Apply the social, biological, behavioral and nursing science principles to simulated and actual client care in the nursing lab and during clinical in health care facilities. Students will see, practice and perform demonstrations of basic nursing skills and procedures in a supervised setting. Includes the study of math and medical terminology and use of the nursing process and critical thinking skills to organize and provide safe and effective client care.

NUR 124. Clinical Practice II **3 Credits**

Gain additional nursing skills in the laboratory and apply those advanced skills in the clinical setting. Utilize the tools of informatics, nursing process, clinical reasoning, therapeutic communication, evidence-based practice, and management concepts to provide safe and culturally sensitive client care for individuals across the lifespan in a variety of medical facilities

Prerequisites: NUR 120, NUR 121, and NUR 122with a grade of "C" or better.
Corequisites: NUR 145 and NUR 127.

NUR 126. Clinical Practice III 3 Credits

Refine nursing knowledge, skills and ethical comportment in the role of a practical nursing student to provide safe and effective care for clients across the lifespan with stable or predictable health problems and assisting with those whose conditions are critical or unpredictable. Critical thinking, effective and therapeutic communication, nursing process, management of nursing care, and delegation of unlicensed assistant persons are incorporated into the clinical experience.

Prerequisites: NUR 124, NUR 127 and NUR 145with a grade of "C" or better. **Corequisite:** NUR 129.

NUR 127. Practical Nursing II: Introduction to Medical/Surgical Nursing 2 Credits

Examine safe and effective client care of the bio-psychosocial individual along the health illness continuum. Students will be involved in the teaching and learning activities that enhance critical thinking skills, examine aspects of self-determination, health promotion, disease prevention and evidence based practice. Students will increase their understanding of nursing process and prioritization in the care of culturally unique clients across the lifespan in an ethical and legal manner.

Pre-requisites: Successful completion of NURS 120, NURS 121 and NURS 122 with a grade of "C" or better. **Co requisites:** NURS 124 and NURS 145.

NUR 129. Practical Nursing III 3 Credits

This course will continue to examine evidence based nursing interventions, nursing process, nutrition and drug therapy for health promotion and disease prevention in the culturally diverse client across the lifespan along the health illness continuum. Students will have access to additional knowledge in the areas of quality improvement, informatics, accountability, ethical, legal and professional issues of the practical nurse.

Pre-requisites: Successful completion of NUR 124, NUR 127 and NUR 145 with a grade of "C" or better. **Corequisite:** NUR 129.

PHM 215. Introduction to Pharmacology 3 Credits

A fundamental discussion of the scope of pharmacology, including terminology used. Drug laws, dosage forms, and patient variabilities that affect drug usage will be covered. Important drugs used in practice will be studied, including basic principles, therapeutic uses, and adverse effects.

Pre-requisites: Successful completion of BIO 220 and BIO 220Lwith a grade of "C" or better.

NUR 145. Introduction to Maternal/Child Nursing 2 Credits

Focus on the nursing care of the woman, newborn, child and families. Examine health maintenance and study the diseases and disorders affecting women, newborns, and children. Gain an understanding of pediatric growth and development and common illnesses. Use knowledge of family centered care, teaching and learning principles, and therapeutic communication while working within the interdisciplinary team to assist clients to use self-determination in decisions affecting their health.

Pre-requisites: NUR 120, NUR 121 and NUR 122with a grade of "C" or better.**Corequisite:** NUR 124 and NUR 127.

MCB 202. Introductory Microbiology 3 Credits

This course will include the study of cell structure and physiology of microorganisms, methods of microbial control, specific and nonspecific host defenses and epidemiology.

MCB 202L. Introductory Microbiology Lab 1 Credit

Students will learn basic microbiology techniques and principles as they study the characteristics of representative bacteria and fungi.

NUR 224. Professional Role Development 2 Credits

This course is designed to investigate the role of the RN. Students will learn about historical trends, increase their knowledge of the background and current application of safety goals and competencies, and use previous skills in management to now refine leadership skills. Students will start the process of analyzing individual performance and system effectiveness.

NUR 225. Alterations in Health I 3 Credits

This course explores the pathophysiology and nursing interventions used in caring for individuals experiencing acute and chronic alterations in health that build on concepts, knowledge and skills introduced in practical nursing courses and the supporting sciences. Utilize evidence-based practice, nursing judgement, therapeutic communication, and the nursing process as a framework for providing and managing nursing care to diverse individuals along the health illness continuum.

Corequisite: NUR 224 with a grade of "C" or better.

NUR 226. Maternal Child Nursing 3 Credits:

This course integrates prior learning while expanding knowledge of the neonate, developing child, women's health, and childbearing family. Health maintenance and study of diseases and disorders affecting diverse neonates, children, women, and families along the health illness continuum and during the end stages of life are examined. Emphasis is placed on therapeutic communication, the role of the registered nurse, ethical/ legal issues and health promotion and maintenance during life stages of growth and development for the neonates, children, and women.

Corequisites: NURS 224, NURS 225.with a grade of "C" or better.

NUR 227. Clinical Application I 4 Credits

Participate collaboratively with members of the interdisciplinary healthcare team to provide safe and culturally sensitive client centered care in the lab, clinical area and simulation lab. Practice parenteral medication therapies and demonstrate professional and leadership competencies while incorporating evidence based practices and sound nursing judgment.
Corequisites: NUR 224, NUR 225, and NUR 226with a grade of "C" or better.

NUR 228. Alterations in Health II **4 Credits**

This course continues the study of acute and chronic alterations in health across a variety of healthcare environments. Discusses the principles of clinical judgment, leadership and delegation while prioritizing and providing safe, effective and culturally sensitive client care for individuals experiencing complex alterations in health. Analyzes ethical health care, quality improvement processes and effective work practices within the healthcare system.
Pre-requisites: Successful completion of NUR 224, NUR 225, NUR 226, and NUR 227with a grade of "C" or better. **Corequisites:** NUR 229, NUR 237 and NUR 259.

NUR 229. Health Promotion and Psychosocial Nursing 2 Credits

This course examines safe and effective client care in the areas of health promotion for individuals and groups in communities and in care of the client experiencing psychosocial issues. Expand skills in promoting a client's self-determination, advocating for clients, and working within the interdisciplinary healthcare team while making evidence based decisions to improve the safety and quality of client care.
Pre-requisites: Successful completion of NUR 224, NUR 225, NUR 226, and NUR 227with a grade of "C" or better.. **Corequisites**: NUR 228, NUR 237 and NUR 259

NUR 237. Clinical Application II **5 Credits**

Prioritize safe, effective, and culturally competent client care in acute and community settings during this clinical and simulation lab course. Clients with complex alterations in health and psychosocial issues are managed with a spirit of inquiry and collaboration to make evidence based clinical judgements. Quality improvement practices related to national safety goals are examined. Students will be challenged with a precept activity during the latter part of this course.
Pre-requisites: Successful completion ofNUR 224, NUR 225, NUR 226, and NUR 227with a grade of "C" or better.. **Corequisites**: NUR 228, NUR 229 and NUR 259.

NUR 259. Role Transitions **1 Credit.**

Examine the process of identifying and obtaining a position as a registered nurse. Explore nursing organizations, the legislative process, and lifelong learning. Investigate what it takes to prepare for and be successful in passing the NCLEX RN examination. Be part of developing an evidence based research question, use technology to prepare a portfolio, and reflect on what it means to be accountable and responsible in the role of the RN.
Pre-requisites: Successful completion of NURS 224, NUR 225, NUR 226 and NUR 227with a grade of "C" or better.. **Corequisites**: NUR 228, NUR 229, and NUR 237

BIO 221. Anatomy and Physiology II 3 Credits

This is the second of two courses in which discussions of anatomy and physiology are interwoven in an attempt to present a unified picture of the structure and function of the organs and systems of the human body. The following systems are examined: endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, urinary, and reproductive. Both gross and microscopic structures are studied.

Pre-requisite: Successful completion of BIO 220 and BIO 220Lwith a grade of "C" or better.

BIO 221L. Anatomy and Physiology II Lab 1 Credit

Anatomical structures will be studied at both gross and microscopic levels. Experiments are performed demonstrating fundamental physiological principles.

PSY 250. Developmental Psychology 3 Credits

A study of human development through the life-span with an emphasis on physical, cognitive, social, emotional and personality development.

Pre-requisite: Successful completion of PSY 111 with a grade of "C" or better.

PSY 200 - Lifespan Psychology 5Credits

Covers theories and supporting research that explain psychological development from conception through old age. Topics may include physiological development, emotional development, personality and social development, cognitive development, and aging and death**.**

Prerequisite: PSYC& 100 and eligible for ENGL& 101; or instructor's permission**.**

BIO 220. Anatomy and Physiology I 3 Credits

This is the first of two courses in which anatomy and physiology are leveraged to present a unified picture of the structure and function of the organs and systems of the human body. The courses include biochemistry, cells, tissues, and the following systems: integumentary, skeletal, muscular, nervous, and special senses. Both gross and microscopic structures are studied.

BIO 220. Anatomy and Physiology, I Lab 1 Credit

Anatomical structures will be studied at both gross and microscopic levels. Experiments are performed demonstrating fundamental physiological principles.

PHL 206 - Ethics and Society 3 credits

This course involves the study of ethical issues which confront individuals daily. The focus is on the fundamental questions of right and wrong, human rights, and personal conflicting obligations. Students should be able to understand and be prepared to make decisions in life regarding ethical issues.

DEPARTMENT OF HEALTH SCIENCES HEALTH SCIENCE, AS

The Health Science Associate of Science degree is designed for students seeking admission into professional programs such as surgical technology, nursing, and respiratory therapy, and/or transferring into a to a four-year program in medicine, dentistry, clinical laboratory science, physical therapy, or a career in a health-related field.

Completion of the program is designed to result in an Associate of Science degree and meets the general-education requirements at all Idaho public universities. Course selection should be coordinated to meet requirements for your intended transfer institution (if known)

	1st Semester (Freshman)	
Course Code	Course Title	Credit Unit/ Hours
COM 101	Fundamentals of Speech Communication	2
ENG 101	English Composition I	3
SOC 101	Introduction to Sociology	3
MAT 143	College Algebra	3
PHT 120	Introduction to Public Health and Health Science	3
	Total Semester Credit Units	14

	2nd Semester (Freshman)	
Course Code	Course Title	Credit Unit/ Hours
BIO 111	Biology I	3
BIO 111L	Biology I Lab	1
BIO 227	Human Anatomy and Physiology I	3
BIO 227L	Human Anatomy and Physiology I L	1
ENG 102	English Composition II	3
HLT 101	Medical Terminology	3
HLT 280	Global Health	3
HIM 225	Computers in Health Care	4
	Total Semester Credit Units	17

	3RD Semester (Sophomore)	
Course Code	Course Title	Credit Unit/ Hours
BIO 112	Biology II	3
BIO 112L	Biology II Lab	1
BIO 228	Human Anatomy and Physiology II	3
BIO 228L	Human Anatomy and Physiology II Lab	1
CHM 111	General Chemistry I	3
CHM 111L	General Chemistry I Lab	1
PHT 230	Introduction to Environmental Health	3
FRE 101	Elementary French I	3
	Total Semester Credit Units	14

	4^{TH} Semester (Sophomore)	
Course Code	Course Title	Credit Unit/ Hours
HLT 202	Introduction to Health Systems	3
HLT 290	Exercise and Health Science Capstone	2
PSY 101	Introduction to Psychology	3
FRE 102	Elementary French II	3
PHY 111	General Physics I	3
PHY 111L	General Physics I Lab	1
	Total Semester Credit Units	15

ENG 101 - English Composition I 3Credts

A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

ENG 102 - English Composition II 3 Credits

A composition course in argumentative writing, including invention, organization, style, and revision. Critical reading and thinking will be addressed though students' writing. Research skills and documentation will be introduced.

Pre-requisites: Successful completion of ENG 101 with a grade of C or better**.**

SOC 101 Introduction to Sociology 3 Credits

This course provides an introduction to the basic concepts, principles, and processes relevant to the study of society and everyday life. The course will examine a diverse range of topics pertaining to human behavior and social structure. A primary focus will be developing a sociological perspective through theory and research. Additionally, discussions of culture, development of the self, micro and macro group processes, deviance, social inequality, social institutions, and social change will be explored.

HLT 155 Health and Wellness 3 Credits

This course provides an overview of the domains of wellness and the impact of lifestyle choices on all aspects of personal health. The course will explore topics related to nutrition, physical fitness, stress management, substance abuse, healthy relationships, and disease as it relates to morbidity, mortality and prevention. Students will be challenged to critically analyze individual and societal issues and problems that influence psychological, social, and physical well-being, based on relevant natural and social science skills and knowledge.

MAT 153 Statistical Reasoning 3 Credits

This algebra-based probability and statistics course covers descriptive statistics, binomial and normal distribution, confidence intervals, and hypothesis testing using z, t, chi square, and f distributions. Correlation and regression are also introduced.

PHT 120 Introduction to Public Health and Health Science 3 Credits
This course offers an introduction to the art and science of public health and health science. The course describes the systems of public health and healthcare in the United States, identifies disciplines of public health and health science, and explores the interrelationship between environmental factors, human behavior, and health policy in determining health outcomes.

BIO 111 Biology I 3 Credits
This is an introductory biology course for science majors. It will emphasize biological principles important in understanding living organisms to include evolution, general biochemistry, cytology, Mendelian and molecular genetics.

BIO 111L Biology I Lab 1 Credit
This course fulfills the laboratory component of the GEM Scientific Ways of Knowing requirement. Students will engage with the process of science via making observations, developing questions, designing experiments, using scientific apparatus to collect and analyze data, and communicating the results of scientific work. Additional fee required for lab.
Corequisite BIO 111

PSY 101 Introduction to Psychology 3 Credits
An introduction into the empirical study of human behavior and mental processes. Topics to be treated include biological bases of behavior, sensation and perception, states of consciousness, learning, memory, motivation and emotion, language, lifespan development, intelligence, stress and health, social behavior, personality, and abnormal behavior and treatment; applications of psychology in a culturally diverse world.

FRE 101 Elementary French I 4 Credits
This course is an introduction to French, emphasizing oral communication, listening, and writing skills. Students learn basic structures in a structured environment; they practice idioms and situational vocabulary used in conversations. The course is also an introduction to French culture.

FRE 102 Elementary French II 4 Credits
This course continues its emphasis on oral, listening, reading, and writing skills in order to complete acquisition of the basic structures of the language. In addition, students study idioms and vocabulary used in ordinary situations. Students will gain increased knowledge and understanding of French culture.
Pre-requisite: Successful completion of FRE 101with a grade of C or better or PERM/INST

PHY 111 General Physics I 3 Credits
This course includes a general study of kinematics, Newton's Laws of Motion, universal gravitation, work, mechanical energy, motion in a plane, momentum, hydrostatics, SHM, wave motion, sound, introductory thermodynamics, and heat transfer with applications to life sciences.
Corequisite: PHY 111L

PHY 111L General Physics I Lab 1 Credit

This required lab accompanies PHY 111, which includes a general study of kinematics, Newton's Laws of Motion, universal gravitation, work, mechanical energy, motion in a plane, momentum, hydrostatics, SHM, wave motion, sound, introductory thermodynamics, and heat transfer with applications to life sciences. **Corequisite:** PHY 111.

HLT 101 Medical Terminology 3 Credits

This course is designed to introduce the student to the fundamentals of medical terminology. It includes word structure and general physiology of basic medical/surgical terms and procedures, body parts and organs, selected medical specialties, and commonly used medical abbreviations.

BIO 227 Human Anatomy and Physiology I 3 Credits

This course is an introduction to the study of structure (anatomy) and function (physiology) of the human body. The following systems are studied: integumentary skeletal, muscular, nervous, and endocrine. Unifying themes of homeostasis and whole body functioning are emphasized. This course conforms to guidelines established by the Human Anatomy and Physiology Society.

Pre-requisite: Successful completion ofBIO 111 and BIO 111L or MCB 111 and MCB 111Lwith a grade of C or better. Corequisite BIO 227L

BIO 227L Human Anatomy and Physiology I Lab 1 Credit

This course is an introduction to the study of structure (anatomy) and function (physiology) of the human body and fulfills the laboratory component of the GEM Scientific Ways of Knowing requirement. Students will engage with the process of science via making observations, developing questions, using scientific apparatus to collect and analyze data, and communicating the results of scientific work. This course conforms to guidelines established by the Human Anatomy and Physiology Society. Additional fee required for lab.

Pre-requisite: Successful completion of BIO 111 and BIO 111L or MCB111 and MCB 111Lwith a grade of C or better Corequisite BIO 227.

ENG 202 Technical Communication 3 Credits

This course is an overview and practice of the principles and applications of technical communication. Topics include audience analysis, the writing process, rhetorical analysis, and the ethics of technical communication. Students will produce letters, memos, instructions, reports, proposals, and other technical documents.

Pre-requisite: Successful completion of ENG 101with a grade of C or better.

HLT 280 Global Health 3 Credits

This course will provide students with an overview of the most important health challenges facing the world today. Students will develop an understanding of key concepts, tools, and frameworks essential for continued study in global health. The course will focus on global disease burden, health determinants and disparities, health policy, and challenges of global health interventions. Explore the importance of understanding and addressing global health

through multidisciplinary frameworks of the natural sciences, social-behavioral sciences, humanities, and policy.
Pre-requisite: Successful completion of ENG 101with a grade of C or better.

COM 101 Fundamentals of Speech Communication 2 Credits
Theory and practice of oral communication; development of poise and confidence, delivery, and speech organization; public speaking practice; small group discussion, and development of standards of criticism. Writing assignments, as appropriate to the discipline, are part of the course.

PHT 230 Introduction to Environmental Health 3 Credits
Students will evaluate the impact of chemical, physical, and biological agents on the public's health and the environment. Students will also examine how worldwide political, economic, and demographic diversity affects the public's health and the natural environment.
Pre-requisite: Successful completion of PHT 120with a grade of C or better

BIO 112 Biology II 3 Credits
This course is designed for science majors and provides an overview of evolution, the diversity of life, ecology, and the fundamentals of organismal structure and function. All domains and kingdoms of life are included, with the primary focus on plants and animals. Students will complete a taxonomic and comparative study of organismal anatomy, physiology, and evolutionary relationships.
Pre-requisite: Successful completion of BIO 111 and BIO 111Lwith a grade of C or better.
Corequisite BIO 112L

BIO 112L Biology II Lab 1 Credit
This course is designed for science majors and provides an overview of the diversity of life with a primary emphasis on the skill-sets that scientists use to ask and answer questions. Students will design investigations, collect and analyze data, and present their findings regarding a taxonomic and/or comparative study of organismal anatomy, physiology, and/or evolutionary relationships..
Pre-requisite: Successful completion of BIO 111 and BIO 111Lwith a grade of C or better .**Corequisite** BIO 112

BIO 228 Human Anatomy and Physiology II 3 Credits
This course is an introduction to the study of structure (anatomy) and function (physiology) of the human body. The following systems are studied: cardiovascular, immunity, respiratory, digestion, renal, and reproduction. Unifying themes of homeostasis and whole body functioning are emphasized.
Pre-requisite: BIO 227 and BIO 227Lwith a grade of C or better.
Corequisite BIO 228L

BIO 228L Human Anatomy and Physiology II Lab 1 Credit

This course is an introduction to the study of structure (anatomy) and function (physiology) of the human body. Students will develop skill-sets that scientists use to identify, ask and answer questions regarding human body. The following human body systems are studied: cardiovascular, immunity, respiratory, digestion, renal and reproduction. Unifying themes of homeostasis and whole body functioning are emphasized.

Pre-requisite: Successful completion of BIO 227 and BIO 227L with a grade of C or better. Corequisite BIO 228

CHM 111 General Chemistry I 3 Credits

A thorough study of the fundamentals and principles of chemistry. This course is designed for students majoring in chemistry, pre-medicine, pre-dentistry, engineering, or science. The lecture and laboratory will cover inorganic reactions, atomic structure, stoichiometry, thermochemistry, solutions, chemical bonding, and the states of matter.

CHM 111L General Chemistry I Lab 1 Credit

This is the required lab to accompany CHM 111, which is a thorough study of the fundamentals and principles of chemistry. This course is designed for students majoring in chemistry, pre-medicine, pre-dentistry, engineering, or science. The lecture and laboratory will cover inorganic reactions, atomic structure, stoichiometry, thermochemistry, solutions, chemical bonding, and the states of matter.

Pre-requisite: Successful completion of CHM 101with a grade of C or better

PHL 230 Introduction to Environmental Health 3 Credits

Students will evaluate the impact of chemical, physical, and biological agents on the public's health and the environment. Students will also examine how worldwide political, economic, and demographic diversity affects the public's health and the natural environment.

Pre-requisite: Successful completion of PHT 120 with a grade of C or better.

HLT 202 Introduction to Health Systems 3 Credits

This course introduces students to the historical development, structure, and trends within the major components of the American healthcare delivery system. Students will examine the ways in which healthcare services are organized and delivered, the influences that impact healthcare public policy decisions, factors that determine the allocation of healthcare resources and the establishment of priorities, and the relationship of healthcare costs to measurable benefits.

HLT 290 Exercise and Health Science Capstone 2 Credits

The capstone course is designed for majors graduating with a degree in Public Health, Health Science, or Exercise Science. Students will develop a professional portfolio and organize their materials for transfer to a four-year university, professional program, or career. Students who enroll in this course should be in their last two semesters of the program.

HIM 225 Computers in Health Care **4 Credits**

This course provides an overview of health care industry computer applications and technology; systems interoperability; health care facility databases/repositories; patient electronic health records; computer security; legal aspects of electronic records; networking; Internet issues in health care.

VETERINARY TECHNOLOGY, AAS

This program is designed to provide students the opportunity to acquire knowledge, skills and attitudes necessary to enter the Veterinary Technology services occupation as employees of veterinary offices and clinics. Upon completion of the program, students are eligible to sit for the licensure exam as administered by the American Association of Veterinary State Boards.

ADMISSION REQUIREMENTS: This program is offered online; however, students must come to campus at designated dates and attend weekly clinicals at approved veterinary facilities in In Lagos state Nigeria Those wishing to do their clinicals same outside the state must be ready to meet additional requirements. Students must have access to a computer with high speed internet connection and video capabilities/web cam and provide own transportation to clinical sites. It is highly recommended that students shadow in a veterinary office prior to enrollment. All VET courses must be completed with a grade of C or higher for satisfactory progression and graduation. The Veterinary Technology Program at NAAC is accredited by the American Veterinary Medical Association (AVMA) Committee on Veterinary Technician Education and Activities (CVTEA).

1st Semester (Freshman)		
Course Code	Course Title	Credit Unit/ Hours
ENG 101	English Composition I	3
BIO 103	Principles of Biology I	4
MAT 150	College Algebra with Trigonometry	3
CIS 146	Microcomputer Applications	3
COM 106	Fundamentals of Oral Communication	3
	Total Semester Credit Hour	16

2nd Semester (Freshman)		
Course Code	Course Title	Credit Unit/ Hours
ECO 141	Macroeconomics	3
VET 110	Vet Tech Clinics I	2
VET 112	Introduction to Vet Technology	5
VET 114	Clinical Anatomy & Physiology of Animals	5
	Total Semester Credit Hour	15

2nd Semester (SUMMER)		
Course Code	Course Title	Credit Unit/ Hours
VET 120	Vet Tech Clinics II	3
VET 124	Clinical Procedures & Pathology	4
VET 236	Vet Microbiology & Parasitology	3
VET 242	Animal Nutrition and Laboratory Animals	3
	Total Semester Credit Hour	13

3rd Semester (Sophomore)		
Course Code	Course Title	Credit Unit/ Hours
VET 230	Vet Tech Clinics III	3
VET 232	Anesthesia and Diagnostic Imaging	4
VET 234	Animal Pharmacology & Toxicology	3
VET 126	Animal Diseases & Immunology	3
ART 100	Art Appreciation	3
	Total Semester Credit Hour	16

4th Semester (Sophomore)		
Course Code	Course Title	Credit Unit/ Hours
VET 240	Vet Tech Clinics IV	3
VET 122	Vet Tech Emergencies & First Aid	5
VET 244	Seminar in Veterinary Technology	3
VET 246	Vet Tech Large Animal Clinics	3
VET 250	Vet Tech Preceptorship	3
	Total Semester Credit Hour	17

Total credits: 74

ENG 101 - English Composition I **3Credts**

A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

BIO 103 : Principles of Biology I **4Credits**

This is an introductory course for both science and non-science majors. It covers physical, chemical, and biological principles common to all organisms. These principles are explained through the study of cell structure and function, cellular reproduction, basic biochemistry, cell energetics, the process of photosynthesis, and Mendelian and molecular genetics. Also included are the scientific method, basic principles of evolution, and an overview of the

diversity of life with a survey of viruses, prokaryotes, and protists. A 120-minute laboratory is required.

CIS 146 : Microcomputer Applications 3Credits

This course is an introduction to the most common microcomputer software applications. These software packages should include typical features of applications, such as word processing, spreadsheets, database management, and presentation software. Upon completion, students will be able to utilize selected features of these packages. This course will help prepare students for the MOS and IC 3 certification.

MAT 150 College Algebra with Trigonometry 3 Credits

The course includes a review of algebra and numerical trigonometry. Topics include factoring, rational expressions, solving linear and quadratic equations, solving simultaneous linear equations, functions, lines, exponentials, logarithms, numerical trigonometry and solving triangles. This course requires the use of a scientific calculator.

COM 106 : Fundamentals of Oral Communication 3 Credits

This is a performance course that includes the principles of human communication: intrapersonal, interpersonal, and public. The course surveys current communication theory and provides practical application for workforce readiness.

ECO 141 — Macroeconomics 3Credits

Introduction to basic principles and characteristics of economic systems. Primary emphasis is on macroeconomic issues, including national income determination, monetary and fiscal policy, and current economic problems.

VET 110 : Vet Tech Clinics I 3 Credits

This online course provides students with required clinical tasks to be completed in an approved clinical site in the areas of: surgery, restraint, instrumentation, equipment, surgical and medical care, and basic clinical procedures on various animal species. Upon course completion, the student should be able to understand the responsibilities of a veterinary technician and begin the development of fundamental skills.

VET 112 : Introduction to Vet Technology 3Credits

A series of online lectures and required clinical tasks are designed to introduce the student to hospital fundamentals. Topics include history and physical examination, breeds of animals, small animal parasitology, diagnostic and surgical procedures, equine and food animal nursing, exotic and avian nursing, sanitation, medical vocabulary, The Alabama Veterinary Practice Act, ethics, jurisprudence, and hospital management.

VET 114 : Clinical Anatomy & Physiology of Animals 5 Credits

This online course is designed specifically for students in the two-year veterinary technology program and covers the fundamentals of anatomy and physiology of mammals, avians, and reptiles. Topics include the skeletal system, muscular system, respiratory system, digestive system, circulatory system, urinary system, the eye, the ear, female reproductive system, pregnancy, parturition, lactation, male reproductive system, neurology, and the endocrine system; and online laboratory dissection.

VET 120 : Vet Tech Clinics II 3 Credits

This online course provides students with required clinical tasks to be completed in an approved clinical site in the areas of surgery, and clinical medicine of various animal species. Required tasks will include surgical and nursing care, and clinical medicine of various animal species. Upon course completion, those skills learned from the previous semester should be reinforced and the student should have learned some new technical procedures.

Pre-requisites: Student must have successfully completed VET 110, 112, and 114with a grade of C or better, unless special arrangements have been made with the Program. (Clinic 9 hrs)

VET 124 : Clinical Procedures & Pathology 5 Credits

This online course introduces students to common laboratory techniques and diagnostic methods. Students will begin developing laboratory skills with an emphasis in the areas of urology and hematology. Topics of study include the basic laboratory, hematology, bone marrow and blood cytology, urinalysis, clinical chemistry, function tests of the liver, kidney, pancreas, and thyroid, diagnostic cytology, and post mortem examinations; required clinical tasks will be completed in an approved clinical site. The study of medical vocabulary is continued.

Pre-requisites: Student must have successfully completed VET 110, 112, and 114 with a grade of C or better, unless special arrangement have been made with the Program.

VET 236 : Vet Microbiology & Parasitology 4 Credits

This online course is designed to provide students with practical knowledge of common pathogens in variouss animal species. Students will learn how to select and collect samples and data for laboratory processing or submission to another laboratory. Topics include identification of causative agents of diseases; classification and nomenclature of bacteria; morphology and physiology of bacteria; bacteria and disease; laboratory procedures in bacteriology; gram positive and gram negative bacteria; spiral and curved bacteria; actinomycetes organisms; fungi; virology; review of common small animal, exocticanimal and avian parasites, equine and food animal parasitology. Upon course completion, the student should be able to properly collect and handle bacteriological specimens, identify organisms by gram staining, and have a basic knowledge of large animal parasite life cycles, as well as methods of identification of the commonly encountered parasites.

Pre-requisites: Student must have successfully completed VET 110, 112, 114, 120, 122, 124 and 126 with a grade of C or better, unless special arrangements have been made with the Program.

VET 242: Animal Nutrition and Laboratory Animals 3Credits

This online course is designed to acquaint the student with the basic concepts of animal nutrition of various animal species and laboratory animal maintenance, husbandry, and handling. Topics include canine dietetics, feline dietetics, nutritional management of small animal disease, feeding the neonate, nutritional management of the convalescent animal, fundamentals of nutrition, principles of disease prevention, housing and equipment, job opportunities, biology of common lab animals, basic principles of research and necessity for use of lab animals, techniques, and zoonosis; required clinical tasks will be completed in an approved clinical site.

Pre-requisites: Student must have completed VET 110, 112, 114 with a grade of C or better, unless special arrangements have been made with the Program.

ART 100 : Art Appreciation 3Credits

This course is an introduction to the appreciation of art through an examination of the themes and purposes of art, the exploration of visual arts media and methods, and culturally significant works of art from the past and present. The course informs students about the language of art and its relevance in everyday life

VET 230 : Vet Tech Clinics III 3 Credits

This online course provides students with required clinical tasks to be completed in an approved clinical site in the areas of surgery, dentistry, and clinical medicine in various animal species. Topics include surgical and nursing care, dentistry, and clinical medicine in various animal species. Upon course completion, those skills learned from the previous semester should be reinforced and the student should have learned new technical procedures.

Pre-requisites: Student must have completed VET 110, 112, 114, 120, 122, 124 and 126 with a grade of C or better, unless special arrangements have been made with the Program.

VET 232 :Anesthesia and Diagnostic Imaging 4 Credits

This online course introduces the student to principles of anesthesia, diagnostic imaging, and safety in various animal species. Topics include an introduction to anesthesia, patient evaluation and preparation, pre-anesthetic considerations, local anesthesia, assessing the depth of general anesthesia, injectable anesthetic drugs, inhalation anesthesia, introduction to radiography, the radiograph machine, darkroom, radiographic films, general principles of positioning, radiographic protocol, safety measures, technique charts, quality control, introduction to ultrasonography, patient preparation, and equipment controls; required clinical tasks will be completed in an approved clinical site.

Pre-requisites: Student must have successfully completed VET 110, 112, 114, 120, 122, 124 and 126with a grade of C or better, unless special arrangements have been made with the Program.

VET 234 : Animal Pharmacology & Toxicology 3Credits

This online course is designed to give the student exposure to veterinary drugs and teach the importance of exact calculations, proper administration, and the danger and recognition of reactions and over dosage in various animal species. Topics include introduction and principles of pharmacology; antimicrobials; disinfectants; drugs affecting the nervous, respiratory, cardiovascular, and gastrointestinal systems; anti-inflammatories; antiparasitics; euthanasia solutions; and pharmacy and inventory control.

Pre-requisites: Student must have successfully completed VET 110, 112, 114, 120, 122, 124 and 126with a grade of C or better, unless special arrangements have been made with the Program. Corequisite: VET 232

VET 240 Vet Tech Clinics IV 3Credits

This course provides students with required clinical tasks to be completed in an approved clinical site in the areas of surgical and nursing care, anesthesia, and clinical pathology. Topics include surgical, medical care and laboratory procedures. Student must work a minimum of 20 hours per week in an approved Clinical Site to complete required clinical tasks.

Pre-requisites: Student must have successfully completed VET 110, 112, 114, 120, 122, 124, 126, 234, and 236with a grade of C or better, unless special arrangements have been made with the Program.(Clinical 9 hrs)

VET 126 : Animal Diseases & Immunology 3Credits

This online course is designed to acquaint the student with the importance and transmissibility of common animal diseases and with immunological principles involved in prophylaxis, treatment and recovery. Emphasis is placed on those aspects of the immune response that affect immunization and diagnosis and to familiarize the student with the common infectious diseases and immunization schedules of domestic animals.

VET 122 Vet Tech Emergencies & First Aid 5 Credits

This course is designed to teach the basic principles in emergency treatment of animals and incorporates actual management in a clinical environment. Topics include emergency information, equipment and drugs, initial examination, evaluation and treatment, shock, cardiac arrest, respiratory emergencies, fluid therapy, blood collection and transfusion, emergency treatment of specific conditions, poisonings, and large animal emergencies. Student must work a minimum of 20 hours per week in an approved Clinical Site to complete required clinical tasks.

Pre-requisites: Student must have successfully completed VET 110, 112, and 114with a grade of C or better, unless special arrangements have been made with the Program.

VET 244 Seminar in Veterinary Technology 3 Credits

This course is designed to review critical topics covered during the two years of the veterinary technology curriculum along with review questions and tests associated with these topics. Topics include anatomy and physiology, anesthesiology, animal care, dentistry, emergency and first aid, hospital management, laboratory animals, laboratory procedures, medical calculations, medical nursing, medical terminology, pharmacology, radiology and surgical nursing. Upon course completion, the student should be prepared for the Veterinary Technician National Exam.

Pre-requisites: Student must have completed VET 110, 112, 114, 120, 122, 124, 126, 230, 232, 234, 236, 240, and 246 with a grade of C or better, unless special arrangements have been made with the Program.

VET 246 Vet Tech Large Animal Clinics 3 Credits

This course provides students with required tasks to be completed in an approved clinical site in the areas of large animals. Topics include: restraint, bandaging, venipunctures, radiography, patient care, medication administration. Student must work a minimum of 20 hours per week in an approved Clinical Site to complete required clinical tasks.

Pre-requisites: Student must have successful completed VET 110, 112, 114, 120, 122, 124, and 126 with a grade of C or better, unless special arrangements have been made with the Program.(Clinical 6 hrs)

VET 250 Vet Tech Preceptorship. 3 Credits

The veterinary technology preceptorship consists of one academic semester of work experience in an approved clinical site. A student evaluation report from the clinical supervisor will be necessary for the course completion and also for meeting requirements for graduation. The clinical practice will include clinical instruction in all areas of a veterinary practice as deemed necessary by the clinical supervisor.

Pre-requisites: Student must have successful completed VET 110, 112, 114, 120, 122, 124, 126, 230, 232, 234, 236, 240 and 246with a grade of C or better, unless special arrangements have been made with the Program.

PUBLIC AND COMMUNITY HEALTH

PUBLIC HEALTH SCIENCE, AS

The Associate in Science in Public Health Science for Transfer focuses on disease and injury prevention strategies for community and individual wellness. The Associate in Science in Public Health Science for Transfer is designed to provide students a clear transfer pathway to Universities in United State of America that offer bachelor's or baccalaureate degrees in Health, Health Science and Public Health Sciences. To earn an AS-T in Public Health Science degree, a student must complete 60 semester units that are eligible for transfer to the. university

of a 4-year college. Students must have a minimum GPA of 2.0 in all the transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better.

Additionally, the Associate in Science in Public Health Science for Transfer focuses on providing job related and introduction to the various career pathways within this field. The public health field includes disciplines such as patient health navigator, health education outreach, epidemiology, biostatistics, health services, environmental health, behavioral health, and occupational health. Skill competencies include knowledge of public health models, health risk assessments, health screenings, health promotion programming, and surveillance of disease outbreaks in a community.

1st Semester(Freshman)		
Course Code	Course Title	Credit Unit/ Hours
ENG 101	English Composition I	3
MAT 146 or	Introduction to Statistics.	3
HIM 219	Health Care Statistics	4
HSC 100	General Health Science	4
HSC 135	Introduction to Public Health	4
MAT 150	Calculus I	4
PSY 101	Introduction to Psychology	3
	Total Semester Credit Units	17

2nd Semester (Freshman)		
Course Code	Course Title	Credit Unit/ Hours
BIO 110	Principles of Biology	4
CMT 220	Public Speaking	3
ENG 102	English Composition II	3
SOC 101	Intro to Sociology	3
CHM 101	General Chemistry I	4
	Total Semester Credit Units	17

3rd Semester(Sophomore)		
Course Code	Course Title	Credit Unit/ Hours
NUT 101	Nutrition	3
BIO 241	Human Anatomy & Physiology I	4
CHM 112	General Chemistry II	4
CMT 205	Multicultural Communication	3
BIO 260	Microbiology.	4
	Total Semester Credit Units	18

4th Semester(Sophomore)		
Course Code	Course Title	Credit Unit/ Hours
BIO 242	Human Anatomy & Physiology II	4
KNE 101	Personal & Community Health	3
ART 210	Digital and Graphic Art	4
PHL 111	Critical Thinking	3
HIM 225	Computers in Health Care	4
	Total Semester Credit Units	17

PHL 111 - Critical Thinking 3 Credits
Principles of thinking and problem solving, deductive and inductive logic and fallacies. Includes the analysis of formal and informal arguments.

MAT 125 Quantitative Reasoning 3 Credits
This course covers a diverse range of mathematical topics including statistics, combinatorics and probability, voting and apportionment methods, and graph theory.

MAT 150. Calculus I 4Credits
Algebraic and transcendental functions. Continuity and limits. The derivative and its applications. The integral and the fundamental theorem of calculus.

ENG 101 - English Composition I 3Credts
A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

ENG 102 - English Composition II 3 Credits
A composition course in argumentative writing, including invention, organization, style, and revision. Critical reading and thinking will be addressed though students' writing. Research skills and documentation will be introduced.
Pre-requisites: Successful completion of ENG 101 *with* a grade of C or better**.**

MCS 105 Introduction to Multicultural Studies 3 Credits
Students will develop a personal and historical understanding of issues related to race, social class, gender, sexual orientation, disabilities & culture; and how these issues are used in the distribution of power and privilege in the U.S.
Pre-requisite: Successful completion of ENG 101with a grade of "C" or better.

FRE 121 French I **3 Credits**

Fast-paced interactive approach to learning French: listening, speaking, reading and writing. Topics: pronunciation, basic sentence patterns, present tense, agreement. Vocabulary themes: identification, greetings, likes and dislikes, family.

HSC 100 General Health Science **3 Credits**

A broad and comprehensive survey of factors that influence individual and community health. Examines the interaction between personal health choices & behaviors, social determinants of health and environmental influences in community and personal health. Topics include chronic diseases, health disparities, mental health, drugs & addiction, stress management, sexual health, nutrition, exercise, healthcare systems & services, alternative medicine, grief & loss, and environmental health.

BIO 110 Principles of Biology **4 Credits**

Using natural selection and physiological survival as a unifying theme, this course deals with the basic problems common to all living systems and compares the functional solution that various organisms have evolved, illuminating the unity in diversity that characterizes life on earth. Recommended for non-science majors to fulfill laboratory science transfer requirement.

CHM 101 General Chemistry I **4 Credits**

The first semester of a two-semester sequence with laboratory intended for science, engineering, and pre-professional majors. It includes a detailed study of atomic and molecular structures, stoichiometric calculations, solutions, thermochemistry, gas laws, physical states, atomic electron orbital theory, and chemical bonding. The course also includes laboratory study of these concepts, experimental chemistry techniques, and the analysis and interpretation of experimental findings.

CHM 112 General Chemistry II **5 Credits**

This is the second course of a two-semester sequence covering the basic principles and concepts of chemistry with emphasis on chemical calculations. Inorganic chemistry is stressed, and the material includes a discussion of thermodynamics, reaction kinetics, chemical equilibrium, acid-base equilibria in aqueous solutions, electrochemistry. There is a brief introduction to organic, biological and nuclear chemistry. The laboratory part of the course complements the lectures and also includes one experiment on qualitative analysis of cations and anions.

Pre-requisite: Successful completion ofCHM111with a grade of "C" or better.

PHL 101 Introduction to Philosophy **3 Credits**

This course surveys the traditional philosophical problems of knowledge, logic, ethics, aesthetics, religion and metaphysics. A special emphasis is placed upon the ancient Greek philosophers as the foundational thinkers of Western civilization. The historical and conceptual links between ancient Greece and ancient India are discussed. Some relevant developments in medieval and modern philosophy are highlighted.

PSY 101 Introduction to Psychology 3 Credits

An introduction into the empirical study of human behavior and mental processes. Topics to be treated include biological bases of behavior, sensation and perception, states of consciousness, learning, memory, motivation and emotion, language, lifespan development, intelligence, stress and health, social behavior, personality, and abnormal behavior and treatment; applications of psychology in a culturally diverse world.

SOC 100 Introduction to Sociology 3 Credits

An introduction to the scientific study of how people organize themselves and interact in social settings. It encourages students' curiosity about society and sociological analyses of current social issues. It fosters an appreciation of cross-cultural perspectives and allows people to distinguish between personal troubles and public issues.

NUT101 General Nutrition 3 Credits

This course is a study of the chemical composition of foods and their utilization by the body. Students study the roles, functions, and interactions of proteins, fats, carbohydrates, vitamins, minerals, and water. Practical problems of nutrition and relationship of adequate diet to physical and mental health are covered.

HSC 135 Introduction to Public Health 3 Credits

Provides an introduction to the discipline of Public Health. Students will gain an understanding of the basic concepts, movements, accomplishments and functions of public health. Topics include the epidemiology of infectious and chronic disease; prevention and control of diseases; social determinants of health; health equity and disparities; community organizing and health promotion; environmental health and safety; global health; and healthcare policy and management.

KNE 010 Personal& Community Health 4 Credits

This course focuses on the exploration of major health issues and behaviors in the various dimensions of health with implications for individuals and societies. Topics include nutrition, exercise, weight control, mental health, stress management, violence, substance abuse, reproductive health, disease prevention, aging, healthcare, and environmental hazards and safety.

HIM 219 Health Care Statistics 4 Credits

Review of basic mathematical functions, measures of central tendency and variability, principles of manual and computer graphic display. Census calculations/reports. Health facility patient averages and rates. Public health statistical data collection and reporting. Institutional Research Review Board processes. Mandatory decimal grading.

Pre-requisite Successful completion of HIM 125with a grade of "C" or better.

HIM 225 Computers in Health Care **4 Credits**

This course provides an overview of health care industry computer applications and technology; systems interoperability; health care facility databases/repositories; patient electronic health records; computer security; legal aspects of electronic records; networking; Internet issues in health care.

MST 220 Public Speaking **3 Credits**

Build confidence when speaking with others. Learn to influence others by critically listening to and crafting organized, informative and persuasive speeches. Conduct responsible research on topics appropriate for your audience. Use sound reasoning and strong delivery to achieve effective presentation skills.

BIO 260 Microbiology **4 Credits**

Survey of microorganisms with focus on healthcare applications. Structure, classification, metabolism and genetics of bacteria and viruses are main themes. Emphasis on disease process, microbial control and immunology. Laboratory techniques include isolation and identification of bacteria.

Pre-requisite: Successful completion of BIO 211 with a grade of "C" or better.

BIO241Human Anatomy and Physiology I **4 Credits**

This course involves an integrated study of human body organization and function. Topics include anatomical terminology, cells and tissues, the integumentary system, the skeletal system, articulations, the muscular system, the nervous system, and special senses. This is the first part of a two-course sequence that studies the fundamental concepts of anatomy and physiology and provides a foundation for advanced study of the human body.

BIO 242Human Anatomy and Physiology II **4 Credits**

This course involves an integrated study of human body organization and function. Topics include the endocrine, immune, cardiovascular, respiratory, digestive, urinary and reproductive systems. This is the second part of a two-course sequence that studies the fundamental concepts of anatomy and physiology and provides a foundation for advanced study of the human body.

Pre-requisite: Successful completion ofBIO241 with a grade of "C" or better.

HEALTH INFORMATION MANAGEMENT, AAS

The Health Information Management AAS degree prepares students for a challenging career path that integrates the disciplines of health, computer technology and business management. The graduate is prepared to perform a variety of technical health information management functions including organizing, analyzing and evaluating health information; generating health data for reimbursement, planning, quality assessment, and research; and coding diseases, surgeries, and other procedures as well as the revenue cycle (e.g. billing & reimbursement). Responsibilities also include maintaining and using a variety of health information indices,

special registries, and storage and retrieval systems; as well as controlling the release of health information in accordance with legal requirements.

The practicum courses in the program provide students a learning experience while being mentored at one or more healthcare-related facilities. In these courses' students have the opportunity to apply their classroom knowledge in a workplace environment. In order to be placed at a facility student are required to provide proof of immunization status, a completed health form, a criminal background check and drug screen at the students' expense.

Theory components of your program will be delivered virtually and students will have many opportunities to connect with faculty members and other students. They will participate in courses via their computer at a scheduled time of day, and/or pick up the lecture via a video link at their convenience. Assignments will involve students working at home as individuals or in teams.

The program is designed in a flexible format to allow students meet there professional and personal goals. They can enroll for a full-time schedule of classes and complete the program in two years or choose a path to complete their studies in three, or more years. Our team is there to guide you along your journey and to assist you with designing the course plan that works for you.

1st Semester (Freshman)		
Course Code	Course Title	Credit Unit/ Hours
ENG 101	English Composition I	3
BIO 104	Introduction to Human Anatomy and Physiology	3
BIO 104L	Introduction to Human Anatomy and Physiology Lab	1
HIM 110	Introduction to Health Information	3
HEA 110	Comprehensive Medical Terminology	3
MAT 115	Introduction to Statistics	3
	Total Semester Credit Units	16

2nd Semester (Freshman)		
Course Code	Course Title	Credit Unit/ Hours
BIO-280	Human Pathophysiology	3
HEA-144	Pharmacology for Healthcare Professionals	3
HIM-113	Introduction to Revenue Cycle Management	3
HIM-114	Diagnostic and Procedural Coding I	4
HIM-115	Diagnostic and Procedural Coding II	4
	Total Semester Credit Units	17

3rd Semester (Sophomore)		
Course Code	Course Title	Credit Unit/ Hours
COM-135	Intercultural Communication	3
SOC-201	Technology and Society	3
HIM-210	Revenue Cycle Management Application	4
HIM-220	Health Information Management Data Analytics	3
HIM-221	Legal and Ethical Aspects of Health Information Management	3
	Total Semester Credit Units	16

4th Semester (Sophomore)		
Course Code	Course Title	Credit Unit/ Hours
PHL-115	Cyber Ethics	3
HIM-222	Health Information Management Leadership Principles	3
HIM-223	Health Information Management Statistics & Research	3
HIM-224	Advanced Revenue Cycle Management	3
HIM-225	Health Information Management Professional Practice Experience	2
	Total Semester Credit Units	14

ENG 101 - English Composition I 3Credts

A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

BIO-104 - Introduction to Human Anatomy and Physiology. 3Credits

Students learn the structure and function of human systems. Topics include basic chemistry, cell structure and function, tissues, and the integumentary, skeletal, muscular, nervous, cardiovascular, respiratory, urinary digestive, endocrine, and reproductive systems.

BIO-104L - Introduction to Human Anatomy and Physiology Lab 1Credit

Students study the basic anatomy and functioning of human systems including musculoskeletal, cardiovascular, respiratory, digestive, nervous, and urogenital.

HIM-110 - Introduction to Health Information 3Credits

This course introduces the components of the content, use, and structure of health care data and data sets in clients' records. Students learn how these components relate to primary and secondary record systems. Students explore the role of the health information professional in a variety of health care settings, including acute care, ambulatory care, long-term care, home health care, and hospice. Students learn about confidentiality, health care legislation, licensure,

and how health care services are delivered in various setting. Topics such as legal and ethical issues pertaining to health information are introduced.

HEA-105 - Comprehensive Medical Terminology 3Credits

This course teaches the students to accurately spell and define common medical terms related to major disease processes, pharmacology categories, diagnostic procedures, laboratory tests, abbreviations, drugs, and treatment modalities for each body system. Case studies and medical reports are utilized to prepare students for using medical terms in context as they are encountered in medical transcription, coding, and other record processing activities.

MAT-105 - Introduction to Statistics 3Credits

In this introduction to descriptive and inferential statistics, students learn about presentation of data, measures of central tendency and dispersion, the binomial and normal probability distributions, sampling techniques, correlation and regression, and hypothesis testing (z-test, t-test, chi-squared). Examples are selected from education, business, and the social and natural sciences.

Pre-requisite: Successful completion of MAT101with a grade of "C" or better.

BIO-280 - Human Pathophysiology 3Credits

Students learn the physiology of various human diseases and disorders. Topics include diseases and disorders of the immune, nervous, reproductive, hematologic, cardiovascular, lymphatic, pulmonary, urologic, digestive, and musculoskeletal systems. Also discussed are various cancers.

Pre-requisite: Successful completion of BIO 104 or BIO 207 and BIO 208with a grade of "C" or better.

HEA-144 - Pharmacology for Healthcare Professionals. 3Credits

This course is a study of prescription drugs, PDR use, drug classifications, drug actions, and interactions, safe drug storage, methods of medication administration, dosage calculations and documentation. Pharmacy calls and patient medications instructions are included.

HIM-113 - Introduction to Revenue Cycle Management 3Credits

Students will learn about reimbursement and billing within the healthcare industry. Insurance processing for claims, denials and appeals of claims are addressed as well as the role of coding with respect to reimbursement. Examination of the various health plans and application of the rules and regulations that govern billing and reimbursement are addressed. Students will learn health insurance basics and the various public and private sectors of managed care and how providers and facilities receive reimbursement for services. Students will learn the foundations for the revenue life cycle.

Pre-requisite: Successful completion of HIM 103 with a grade of "C" or better.

HIM-114 - Diagnostic and Procedural Coding I 4Credits

Students will learn the guidelines and rules for the ICD diagnostic coding classification system for outpatient and inpatient settings. Students will have the opportunity to apply diagnosis codes through practice with coding exercises, cases studies, and online activities. Ethical coding standard for diagnosis coding will be applied in this course. Students will learn about reimbursement methodologies and current regulations, grouping, and Present on Admission indicators (POA).

Pre-requisite: Successful completion of BIO 104L with a grade of "C" or better.

HIM-115 Diagnostic and Procedural Coding II 4Credits

Students will continue to apply their knowledge of ICD diagnostic coding to outpatient coding. Students will learn the Current Procedural Terminology (CPT) coding nomenclature. These codes are used for reporting physician services and for services in outpatient settings. Students will learn to apply the CPT codes, rules and guidelines for CPT coding for ambulatory care settings and physician offices. Ethical standards for CPT coding will be applied in this course including the National Correct Coding Initiative.

Pre-requisite: Successful completion of HIM 114with a grade of "C" or better.

COM-135 - Intercultural Communication 3Credits

Students learn the theories of intercultural communication and the skills that allow for effective communication with diverse cultures. Units may include understanding diversity, perception, nonverbal communication, and intercultural communication in the workplace.

PHL-115 - Cyber Ethics 3Credits

Students consider the safe and ethical use of computer technology including the Internet. They study the role of technology in today's society, cyber protection issues and the moral challenges we face in using technology including cyber space. Topics to be included are privacy, intellectual property, cyber abuse/crime, codes of conduct, policy development as well as the digital divide. In addition, students consider how the global and anonymous nature of the Internet makes it difficult to transfer standard rules of conduct to this virtual environment.

HIM-210 - Revenue Cycle Management Application 3Credits

Students will integrate coding and billing knowledge to manage the revenue cycle process. Students will apply skills for auditing records for correct coding and reporting.

Pre-requisite: Successful completion of ENG 101 with a grade of "C" or better.

SOC-201 - Technology and Society 3Credits

This interdisciplinary course examines how modern technology has challenged ways of thinking in modern America about health, business and industry/agriculture, travel and communications, politics, philosophy/religion, and law. Basic language skills are presumed, used and evaluated.

HIM-220 - Health Information Management Data Analytics* 3Credits
Students focus on data integrity and health informatics as basis for developing skills in collecting and analyzing data. Topics include Clinical decision support, data reliability, validity and quality aspects of data. Students will also be introduced to database theory, analysis, and design.
Pre-requisites: Successful completion of HIM210 and MAT 101with a grade of "C" or better.

HIM-221 - Legal and Ethical Aspects of Health Information Management*3Credits
This course focuses on the legal and ethical aspects of health information management. Students apply the health information management code of ethics and an ethical decision-making model to health information management ethical issues. The course emphasizes the legal issues encountered in health information management. There is also a focus on principles of risk management.
Pre-requisite: Successful completion of HIM 210with a grade of "C" or better.

HIM-225 - Health Information Management Leadership Principles 3Credits
This course introduces leadership principles in the context of the health information management profession. The course focuses on team leadership, change management, and staff development in health care settings. Emphasis is placed on health information leadership roles, designing and implementing training programs, monitoring workflow and performance standards, data-driven decision making using organizational strategies and core measures to support company culture and diversity in the workplace.
Pre-requisites: Successful completion of HIM 220 and HIM 221 and COM 135with a grade of "C" or better.

HIM-223 - Health Information Management Statistics &Research 3Credits
Students learn to calculate, apply, and present health care statistics relevant to health information management. Students are introduced to research methodologies used in health care.
Pre-requisites: Successful completion of HIM 221 and HIM 220with a grade of "C" or better.

HIM-224 - Advanced Revenue Cycle Management 3Credits
Students will advance their knowledge of revenue cycle management through complex case analysis and synthesis. Students will focus on the principles of revenue cycle evaluation.
Co-requisites: Successful completion of HIM 222 and HIM 223with a grade of "C" or better.

HEALTH INFORMATICS AND INFORMATION TECHNOLOGY, AAS

Health informatics and information technology is the combination of informational science, health care, and computer technology. With the federal mandate to implement the electronic health record (EHR) and the paradigm shift in industry to health informatics, the field of health information management is rapidly evolving. The entire health care system is built upon information - patient data, medical data, insurance, and billing information. The data retrieved by the use of health informatics provides statistical information that can have a major effect on how medicine is distributed, surgeries that are performed, and how healing is tracked.

The Health Informatics and Information Technology A.A.S. degree is an administrative, applied technology degree for students interested in a non-clinical care profession in the health care industry.

Students who complete this degree will find employment in various health care settings, insurance companies, government agencies, technology companies, and consulting firms as health information technicians, clinical documentation specialists, compliance managers, quality assurance officers, medical informatics managers, charge description managers, case mix analysts, health data analysts, EHR system managers, IT training specialists, and workflow and data analysts.

1st Semester(Freshman)		
Course Code	Course Title	Credit Unit/ Hours
CST 101	Technology and Information Systems	3
ENG 101	College Composition I	3
HIT 101	Fundamentals of Health Data Management	3
MAT 153	Introduction to Statistical Methods	4
MDA 141	Medical Terminology: A Contextual Approach	3
	Total Semester Credit Units	16

2nd Semester(Freshman)		
Course Code	Course Title	Credit Unit/ Hours
BIO 160	Body Structure and Function	3
CMM 101	Fundamentals of Communication	3
HIT 102	Health Care Delivery Systems	3
HIT 140	Health Law and Information Governance	3
SOC 141	Racial and Cultural Minorities	3
	Total Semester Credit Units	15

3rd Semester (Sophomore)		
Course Code	Course Title	Credit Unit/ Hours
BIO 260	Disease and Diagnosis	4
CST 111	Logic and OO Design	
HIT 130	Computer Applications for Health Data Analysis	3
HIT 202	CPT Medical Coding	3
HIT 205	ICD-10 Medical Coding	3
	Total Semester Credit Units	13

4th Semester (Sophomore)		
Course Code	Course Title	Credit Unit/ Hours
CST 241	Applied Systems Analysis & Design	4
HIT 220	Health Data Research and Analysis	3
HIT 210	Advanced Clinical Coding	3
HIT 221	Medical Reimbursement Practices and Procedures	3
	Total Semester Credit Units	13

Summer		
Course Code	Course Title	Credit Unit/ Hours
HIT 171	Practicum I: Electronic Medical Records Applications	1
HIT 271	Practicum II: Quality Management and Performance Improvement	1
	Total Semester Credit Units	2

Total Number of Credits Required for Degree: 62*

CST 101 Technology and Information Systems 3 Credits

Explores emerging applied software applications and technologies for PC and mobile devices as tools to generate, present, collaborate and share information for education, employment and personal enrichment. Students apply information literacy skills to research and present course materials in a variety of digital formats.

ENG 101 - English Composition I 3Credts

A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

HIT 101 Fundamentals of Health Data Management 3 Credits

Introduces students to the field of health information management (HIM). Focuses broadly on health care delivery systems, legal and ethical issues in health care, compliance and regulatory requirements, health care data and its role in quality management, and information technology. This course presents documentation guidelines for health records and introduces compliance and regulatory requirements for the health care industry. Students learn how to compile a health record, how to abstract vital data, how to analyze health records to verify accuracy and completeness for reimbursement, and how to evaluate records for quality improvement.

MAT 153 Introduction to Statistical Methods 4 Credits

Examines statistical methodology and use of critical judgment in analyzing data sets. Topics include descriptive statistics, introduction to probability, normal and binomial distributions, hypothesis testing, confidence intervals, regression and correlation, chi-square distribution. A statistical computer package such as StatCrunch, Minitab, etc. is introduced as a computational tool and integrated throughout the course.

MDS 141 Medical Terminology: A Contextual Approach 3 Credits

Teaches students how to build medical terms using word parts, combining forms, prefixes, and suffixes. Students learn how to translate terms into their common meanings and common meanings into medical terms. Terminology is introduced by body system, system function, and organ structure and is applied by associating medical terms with basic physiologic and physiologic scenarios.

BIO 160 Body Structure and Function 3 Credits

Introduces students to structure and function of the human body through integration of all eleven systems of the body: integumentary, skeletal, muscular, nervous, endocrine, lymphatic, circulatory, respiratory, digestive, urinary and reproductive systems. Students will apply medical terminology during the study of each body system.

CMM 101 Fundamentals of Communication 3 Credits

Introduces the study of human communication. Students develop an understanding of the theoretical principles of verbal and non-verbal interaction by analyzing and applying these principles in a variety of communication contexts. Areas of study include intrapersonal, interpersonal, cross-cultural, small group, and public speaking.

HIT 102 Health Care Delivery Systems 3 Credits

Introduces students to a variety of health care settings, including acute care, ambulatory care, long-term care, home health care, and hospice and emphasizes the role of the health information manager in each setting. Historical aspects of American health care in the twentieth century are presented. Topics such as services, staffing, regulatory issues, confidentiality, health care legislation, licensure and certification, quality improvement, utilization management, and risk management are covered.

HIT 140 Health Law and Information Governance 3 Credits

Focuses on internal and external standards in the health information management field. Students examine legislative and regulatory processes that guide compliance, accreditation and licensure, quality management, information and data integrity, and privacy and security. Students also analyze a variety of ethical and bioethical scenarios based on issues that arise in health care settings.

Pre-requisite(s): Successful completion of HIT 101 and HIT 102with a grade of "C" or better.

SOC 141 Racial and Cultural Minorities-GL 3 Credits

Examines race and ethnic relations in America from a historical and sociological perspective; focuses on the response of the dominant society to minority groups; examines current controversial issues that affect racial and ethnic minorities.

BIO 260 Disease and Diagnosis 4 Credits

Introduces students to basic concepts of pathology, pathophysiology, and pharmacology, and to tools used in the diagnosis and treatment of diseases, disorders and injuries. The integumentary, skeletal, muscular, nervous, endocrine, lymphatic, circulatory, respiratory, digestive, urinary, and reproductive systems are covered. Students will apply medical terminology and anatomical and physiological concepts learned in previous courses.

Pre-requisite: Successful completion of BIO 160 with a grade of "C" or better.

CST 111 Logic and OO Design 3 Credits

Introduces logical methods used in the development of software applications and the organization of data. Students develop solutions to real-world problems by creating algorithms using various modern software development techniques including flow charting, pseudocode, and object-oriented development concepts. This course is offered in a combination of lecture and hands-on format.

HIT 130 Computer Applications for Health Data Analysis 3 Credits

Provides an overview of health informatics and the impact of information technology on the health care industry. This course provides hands-on spreadsheet and database health-context applications to enable students to organize, analyze, and manage data. Students learn to transform data into information for presentation and decision-making.

HIT 202 CPT Medical Coding 3 Credits

Prepares students to code medical records using the Current Procedural Terminology (CPT-4) procedural classification system and the Healthcare Procedural Coding System Level II (HCPS Level II). Students learn guidelines for coding evaluation and management, radiology, pathology and laboratory, anesthesia, medicine and surgical services. Students code a variety of sample medical records, including records for ambulatory surgery, emergency departments, clinics, and physician office settings.

Pre-requisite(s): Successful completion of HIIT 101 and MDAS 141with a grade of "C" or better. **Corequisite :** BIO 160

HIT 205 ICD-10 Medical Coding 3 Credits

Prepares students to code medical records using the International Classification of Diseases (ICD-10) classification system. Students learn ICD-10 Clinical Modification (ICD-10 CM) and ICD-10 PCS (Procedural Coding System) coding guidelines for coding diseases, conditions, injuries, complications and inpatient procedures. Students code a variety of sample medical records to include inpatient, outpatient, same day surgery, emergency room, clinic and physicians' office settings.

Pre-requisite(s): Successful completion of HIT 101 And MDA 141with a grade of "C" or better. **Corequisite:** BIO 160

CST 241 Applied System Analysis & Design 4 Credits

Discusses systems analysis and design that emphasizes the Systems Life Cycle Concept; includes contemporary theories of planning, organizations, communications, investigation, control and the skills and techniques necessary for design and implementation of a software system.

Pre-requisite: Successful completion of CST 111with a grade of "C" or better.

HIT 210 Advanced Clinical Coding 3 Credits

Introduces students to advanced healthcare concepts that influence code assignments for complex medical records. Students will code complex medical records and are assessed for accuracy and efficiency. Students learn advanced disease processes and associated treatments and medications, including drug classifications, trade names, generic names, and chemical names. Students also learn how prospective payment systems and value-based purchasing relate to reimbursement.

Pre-requisite(s): Successful completion of HIT 202 and HIT 205 and BIO 260with a grade of "C" or better.

HIT 220 Health Data Research and Analysis 3 Credits

Prepares students to collect, organize, analyze, and present data in areas such as facility usage, cost review, patient population, length of stay, and disease prevalence. Emphasis is placed on data collection and evaluation of data to assess and improve quality management, utilization management, and risk management in a healthcare facility.

Pre-requisite(s): Successful completion of HIT 130 and HIT 210with a grade of "C" or better.

HIT 221 Medical Reimbursement Practices and Procedures 3 Credits

Introduces reimbursement policies and procedures, payment methodologies, and the revenue cycle. Students apply medical coding skills to validate reimbursement and learn how to determine case mix index and reimbursement procedures for a variety of health insurance and healthcare settings.

Pre-requisite(s): Successful completion of HIT 102, HIT 130, HIT 140 and HIT 210with a grade of "C" or better.

HIT 171 Practicum I: Electronic Medical Records Applications 1 Credit
Provides students practice with coding health data records and analyzing those records utilizing health information software. Students complete a minimum of 40 hours of authentic medical coding in the areas of inpatient records, ambulatory surgery records, emergency department records and physician-based records using a variety of patient types and encounters. Students use a logic-based Encoder that applies ICD-10-CM code assignments in a blended format.
Pre-requisite: Successful completion of HIT 210 with a grade of "C" or better and approval of program coordinator.

HIT 271 Practicum II: Quality Management and Performance Improvement 1 Credit
Provides students with 30 hours' practice abstracting and retrieving health data, interpreting data, and presenting data through a supervised and outcomes-based work experience in a management setting of a healthcare facility. Students identify trends in data that affect quality management and participate in performance improvement planning initiatives.
Pre-requisite(s): Successful completion of HIT 171 , HIT 220 , HIT 221, CST 241 with a grade of "C" or better and approval of Program Director.

MEDICAL LABORATORY TECHNOLOGY, AS

The Medical Laboratory Technology major is designed to prepare students for certification and employment as Medical Laboratory Technicians. Upon satisfactory completion of the program, the student is eligible to apply for national certification examinations. With satisfactory completion of the national certification exam, students are eligible to pursue a Bachelor's degree in Clinical Laboratory Science with some Universities in United State of America

1st Semester (Freshman)		
Course Code	Course Title	Credit Unit/ Hours
ITE 1152	Introduction to Computer Applications and Concepts	3
ENG 101	College Composition I	3
BIO 145	Basic Human Anatomy and Physiology	4
MAT 161	Statistical Reasoning	3
CHM 111	General Chemistry I	4
PED 116	Lifetime Fitness and Wellness	1
	Total Semester Credit Units	18

2nd Semester (Freshman)		
Course Code	Course Title	Credit Unit/ Hours
ENG 102	College Composition II	3
MDL 100	Introduction to Medical Laboratory Technology	2
MDL 125	Clinical Hematology I	3
MDL 190	Coordinated Practice in Phlebotomy	2
MDL 210	Immunology and Serology	3
MDL 251	Clinical Microbiology I	3
	Total Semester Credit Units	16

3rd Semester (Sophomore)		
Course Code	Course Title	Credit Unit/ Hours
MDL 225	Clinical Hematology II	3
MDL 252	Clinical Microbiology II	3
MDL 216	Blood Banking	3
MDL 281	Clinical Correlations (on-line course)	1
MDL 110	Urinalysis and Body Fluids	3
CHM 112	General Chemistry II	4
	Total Semester Credit Units	17

4th Semester (Sophomore)		
Course Code	Course Title	Credit Unit/ Hours
MDL 290	Coordinated Practice in Blood Bank/Transfusion Medicine	2
MDL 291	Coordinated Practice in Clinical Chemistry	2
MDL 292	Coordinated Practice in Hematology	2
MDL 293	Coordinated Practice in Microbiology	2
PSY 101	Introduction to of Psychology	3
PHL 220	Ethics	3
	Total Semester Credit Units	14

ITE 115Introduction to Computer Applications and Concepts 3 Credits

Covers computer concepts and internet skills and uses a software suite which includes word processing spreadsheet database and presentation software to demonstrate skills. Introduces information literacy knowledge and skills. Recommended

ENG 101 - English Composition I 3Credts

A study of style, syntax, and basic organizational patterns. Topics include various rhetorical patterns, audience, purpose, diverse perspectives, writing, revising, and editing. Research paper required.

ENG 102 - English Composition II **3 Credits**

A composition course in argumentative writing, including invention, organization, style, and revision. Critical reading and thinking will be addressed though students' writing. Research skills and documentation will be introduced.

Pre-requisites:ENG 101 with a grade of C or better**.**

BIO 145 Basic Human Anatomy & Physiology **4 Credits.**

Introduces human anatomy and physiology. Covers basic chemical concepts cellular physiology anatomy and physiology of human organ systems.

MAT 155 Statistical Reasoning **3 Credits**

Presents elementary statistical methods and concepts including visual data presentation descriptive statistics probability estimation hypothesis testing correlation and linear regression. Emphasis is placed on the development of statistical thinking simulation and the use of statistical software.

CHM 111General Chemistry I **4 Credits**

Explores the fundamental laws theories and mathematical concepts of chemistry. Designed primarily for science and engineering majors.

Pre-requisite or **Co-requisite:** MAT 161 with a grade of C or better.

CHM 112General Chemistry II **4 Credits**

Explores the fundamental laws theories and mathematical concepts of chemistry. Designed primarily for science and engineering majors.

Pre-requisite: CHM 111 with a grade of C or better.

PED 116Lifetime Fitness and Wellness **2 Credits**

Provides a study of fitness and wellness and their relationship to a healthy lifestyle. Defines fitness and wellness evaluates the students level of fitness and wellness and motivates the student to incorporate physical fitness and wellness into daily living. A personal fitness/wellness plan is required for the.

MDL 100Introduction to Medical Laboratory Technology **2 Credits**

Introduces the basic principles techniques and vocabulary applicable to all phases of medical laboratory technology including design of the health care system ethics terminology and calculations.

MDL 110 Urinalysis and Body Fluids **3 Credits**

Studies the gross chemical and microscopic techniques used in the clinical laboratory. Emphasizes the study of clinical specimens which include the urine feces cerebrospinal fluid blood and body exudates. Introduces specimen collection and preparation.

Prerequisite or Co-requisite: MDL 101.

MDL 125Clinical Hematology I **3 Credits**

Teaches the cellular elements of blood including blood cell formation and routine hematological procedures.

Pre-requisite or Co-requisite: MDL 101.

MDL 190Coordinated Practice in Phlebotomy (MLT) **2 Credits**

Provides supervised on-the-job training in a designated specimen collection location. Includes skill development and evaluation of blood collection using venipuncture and capillary techniques specimen handling patient/staff interactions professional behavior and troubleshooting the collection process.

Pre-requisites: Successful completion of MDL 100 or MDL 105with a grade of C or better.

MDL 251Clinical Microbiology I **3 Credits**

Teaches handling isolation and identification of pathogenic microorganisms. Emphasizes clinical techniques of bacteriology and mycology. Part I of II.

Prerequisite or Co-requisite: MDL 101.

MDL 261Clinical Chemistry and Instrumentation I **4 Credits**

Introduces methods of performing biochemical analysis of clinical specimens. Teaches instrumentation involved in a clinical chemistry laboratory quality control and the ability to recognize technical problems. Part I of II.

Pre-requisites MDL 100 and CHM 111with a grade of C or better.

PHL 220Ethics **3 Credits**

Provides a systematic study of representative ethical systems.

PSY 101 Introduction to Psychology **3 Credits**

An introduction into the empirical study of human behavior and mental processes. Topics to be treated include biological bases of behavior, sensation and perception, states of consciousness, learning, memory, motivation and emotion, language, lifespan development, intelligence, stress and health, social behavior, personality, and abnormal behavior and treatment; applications of psychology in a culturally diverse world.

MDL 210Immunology and Serology **3 Credits**

Teaches principles of basic immunology physiology of the immune system diseases involving the immune system and serologic procedures.

Pre-requisite MDL 101with a grade of C or better.

MDL 252Clinical Microbiology II **3 Credits**

Teaches handling isolation and identification of pathogenic microorganisms. Emphasizes clinical techniques of bacteriology mycology parasitology and virology. Part II of II.

Pre-requisite: MDL 251 (or BIO 205)with a grade of C or better

MDL 216Blood Banking **4 Credits**

Teaches fundamentals of blood grouping and typing compatibility testing antibody screening component preparation donor selection and transfusion reactions and investigation.

Pre-requisite MDL 210with a grade of C or better.

MDL 281 Clinical Correlations **1 Credit.**

Teaches students to apply knowledge gained in courses offered in the MDL curriculum using primarily a case history form of presentation. Emphasizes critical-thinking skills in the practice of laboratory medicine. To be taken in final semester while students are in clinical rotations.

MDL 291Coordinated Practice in Blood Bank/Transfusion Medicine **2 Credits**

Provides supervised on-the-job training in a hospital blood bank. Includes skill development and evaluation of typing and cross-matching technique for transfusion analyzing data and formulating reports performing and analyzing quality control measures and troubleshooting test parameters.

Co-requisite: MDL 281

MDL 292Coordinated Practice in Hematology **2 Credits**

Provides supervised on-the-job training in a clinical hematology laboratory. Includes skill development and evaluation of techniques for automated cell counting manual differential counting assessing blood cells in health and disease analyzing data and formulating reports performing and analyzing quality control measures and troubleshooting test parameters.

Co-requisite: MDL 281.

MDL 293Coordinated Practice in Microbiology **2 Credits**

Provides supervised on-the-job training in a clinical microbiology laboratory. Includes skill development and evaluation of culture and sensitivity technique for various patient specimens identification of numerous pathogens analyzing data and formulating reports performing and analyzing quality control measures and troubleshooting test parameters.

Co-requisite: MDL 281

MDL 294Coordinated Practice in Clinical Chemistry **2 Credits**

Provides supervised on-the-job training in a clinical chemistry laboratory. Includes skill development and evaluation of chemical analysis technique for blood and other body fluids analyzing data and formulating reports performing and analyzing quality control measures and troubleshooting test parameters.

Co-requisite: MDL 281.