

SCHOOL OF ALLIED HEALTH PROFESSIONS

The School of Allied Health Professions offers Associate, Bachelor's and Master's degree programs that can lead to a wellness career. The healthcare industry is growing in size and complexity, and the demand for highly skilled nurses, diagnostic medical sonographers, medical and health services administrators, surgical technologists, and public health professionals has never been greater. The School of Allied Health Professions is renowned for its commitment to innovative and engaging instruction in and out of the classroom. The experienced faculty are informed of current trends and issues impacting health care. Their level of academic and real-world knowledge helps them get the most out of every student. Students are encouraged to learn by doing, taking part in clinical and non-clinical programs designed to empower medical, problem-solving and critical thinking skills. They develop a respect for the cultural and scientific foundations of allied health professions while discovering ways they can eventually improve medical care.

Programs

- Allied Health Science, AS (<https://catalog.monroe.edu/catalog/schools-academic-programs/allied-health-professions/allied-health-science-as/>)
- Biostatistics and Epidemiology, MPH (<https://catalog.monroe.edu/catalog/schools-academic-programs/allied-health-professions/biostatisticsandepidemiology-mp/>)
- Community Health and Wellness, BS (<https://catalog.monroe.edu/catalog/schools-academic-programs/allied-health-professions/public-health-bs/>)
- Diagnostic Medical Sonography, AAS (<https://catalog.monroe.edu/catalog/schools-academic-programs/allied-health-professions/diagnostic-medical-sonography-aas/>)
- Health Care Administration, MS (<https://catalog.monroe.edu/catalog/schools-academic-programs/allied-health-professions/health-care-administration-ms/>)
- Health Services Administration, BBA (<https://catalog.monroe.edu/catalog/schools-academic-programs/allied-health-professions/health-services-administration-bba/>)
- Medical Administration, AAS (<https://catalog.monroe.edu/catalog/schools-academic-programs/allied-health-professions/medical-administration-aas/>)
- Medical Assisting, AAS (<https://catalog.monroe.edu/catalog/schools-academic-programs/allied-health-professions/medical-assisting-aas/>)
- Public Health, MPH (<https://catalog.monroe.edu/catalog/schools-academic-programs/allied-health-professions/public-health-mp/>)
- Public Health Data Science, MPH (<https://catalog.monroe.edu/catalog/schools-academic-programs/allied-health-professions/publichealthdatascience-mp/>)
- Surgical Technology, AAS (<https://catalog.monroe.edu/catalog/schools-academic-programs/allied-health-professions/surgical-technology-aas/>)

Course Offerings

Undergraduate

CH - Community Health

CH-101 - Introduction to Community Health and Wellness (3 cr)

This course provides a comprehensive overview of issues in community health including a synopsis of the social determinants, health disparities, community and public health organizations, mental health, substance abuse, workplace safety, environment, and health care delivery. The course will examine prominent community and public health challenges confronting the United States and World. Students will design a health communication campaign to address a community health problem within an underserved community in the United States.

CH-200 - Communication and Technology in Community Health (3 cr)

Communications skills are essential for community assessment, program planning, implementation, evaluation, and advocacy. This course prepares students to understand factors that influence communication such as the lifestyle, attitudes, beliefs, social norms, barriers to change, and health information source used by the target audience. Communication theories and models will be used to develop an effective communication campaign targeted at addressing a community health need. Students will develop situation specific communication strategies and select appropriate channels to deliver message to the target audience. These channels include social media platforms (such as Facebook, X and Instagram), traditional print materials (including posters and bulletin boards), electronic communication methods (such as e-mails, conference calls and webinars), and face-to-face interactions (such as motivational interviewing and presentations). Students will develop an evidence-based health communication campaign designed to solve a complex community health problem at local, national, state, or global level.

Prerequisite: CH-101

CH-250 - Health and Aging (3 cr)

This course gives students a general knowledge and understanding of the demographics, psychosocial perspectives and biomedical components of the human aging process. Students examine the effect of aging on the individual, their families and communities, as well as society as a whole. Students explore family relationships, the role of the caregiver, housing requirements, health care services, public policies and the marketing of products and services. The course also addresses the various lifestyle changes, health changes, and physical changes affecting aging individuals.

Prerequisite: CH-101

CH-300 - Health Education and Promotion (3 cr)

This course will explore different practical applications to health education and promotion within community settings. These include historical, philosophical, theoretical, ethical and practical applications. Students will gain a solid foundational understanding of health necessary to enable individuals and communities to make informed choices that promote well-being and prevent disease. This course will delve into topics of health behavior, social theories, communication, health promotion planning, implementation, evaluation, assessment, cultural competence, social marketing, emerging trends, and technologies in the field. These issues will be analyzed by examining the historical perspective, current developments, and future innovations in the field.

Prerequisite: CH-200

CH-310 - Health and Social Policy (3 cr)

The purpose of this course is to explore the multifaceted dimensions of health policy and the regulations stemming from them, encompassing political, cultural, scientific, and social contexts within the healthcare system. This course encompasses various elements of the Community Health Worker program, integrating perspectives from economics, political science, management, communications, technology, and public health. It is important for health professionals to develop the roles and skills required for comprehending and contributing to the policymaking process within their local, state, and national communities.

Prerequisite: CH-200

CH-420 - Community Health Program Planning And Evaluation (3 cr)

This course is an overview of the design strategies and interventions used to meet the health care needs of individuals and communities. These strategies encompass preliminary needs assessments, stepwise sequences of development, problem identification and problem-solving, data collection, and analysis to determine outcomes.

Prerequisite: CH-300 and CH-310

CH-450 - Field Experience in Community Health (3 cr)

This course combines required seminar participation and supervised internship hours. The internship allows students to apply theories learned in classroom in various health settings. Students are required to submit internship logs highlighting learning activities and to participate in assigned field-based activities. Specialization areas may include reproductive health, substance abuse, and community health education, among others. Senior Standing.

Prerequisite: CH-300 CH-310

Designation: Field Experience

CH-490 - Community Health Capstone (3 cr)

The Capstone course is a community focused, group-based, mentored service-learning course explicitly based on promoting community health, human rights, health equity and social justice. The Community or Public Health issue can be addressed through the lens of management, quality improvement, community assessment, program planning (including needs assessment, implementation, or evaluation), policy, or practice. Students will apply the knowledge acquired in the community health program to develop a community-designed project in collaboration with a host organization. The class sessions will allow students to convene, reflect and collaborate on their capstone project.

Prerequisite: CH-300 and CH-310

DS - Diagnostic Medical Sonography**DS-101 - Introduction to Patient Care and Sonography (2 cr)**

This course offers a general overview and introduction to the profession of sonography and the role of the sonographer. Emphasis on Medical Terminology, ethical/legal aspects, written and verbal communication and professional issues relating to registry, accreditation, professional organization and the history of the profession are discussed.

DS-101S - Introduction to Patient Care and Sonography-Supplement (1 cr)

This course offers a general overview and introduction to the profession of sonography and the role of the sonographer. Emphasis on Medical Terminology, ethical/legal aspects, written and verbal communication and professional issues relating to registry, accreditation, professional organization and the history of the profession are discussed.

DS-102 - Introduction to Patient Care and Sonography (3 cr)

This course offers a general overview and introduction to the profession of sonography and the role of the sonographer. Emphasis on medical terminology, ethical/legal aspects, written and verbal communication, and professional issues relating to registry, accreditation, professional organization and the history of the profession are discussed. This course includes CPR, First Aid training, infection control, and sonography equipment maintenance.

DS-105 - Principles of Imaging (3 cr)

This course introduces students to basic principles of medical imaging and equipment design and function. This course focuses on the physics, theories, application and instrumentation of imaging equipment. Imaging of body areas are discussed in relation to their anatomical composition, pathology, and physiology. Students identify imaging artifacts and determine the adjustment required for correction. Special Imaging Modalities are introduced.

Prerequisite: MA-115

Corequisite: MA-115

DS-125 - Sonography Physics & Instrumentation (4 cr)

This course offers an overview of ultrasound physics as applicable to the medical field. Emphasis is placed on ultrasound transmission in soft tissues, attenuation of sound energy, parameters affecting sound transmission, and resolution of sound beams. Topics include ultrasound wave generation and propagation, transducers, pulse echo imaging, Doppler, bioeffects, and safety. Lecture and Lab.

Prerequisite: DS-102 and SC-104 and MA-115

Designation: Natural Science

DS-160 - Vascular Imaging I (3 cr)

This course is designed as an introduction to the field of vascular sonography. Students are required to perform venous examinations of the lower extremity, arterial studies of the neck, and some Doppler studies within the abdomen. Emphasis is on the functional workings and settings associated with Doppler signals and waveforms. Topics include: machine/image settings for Doppler imaging; venous imaging of the lower extremities; arterial imaging of the neck; and vascular imaging of the abdomen, including aorta and its primary branches, vena cava, portal and hepatic veins, and renal arteries and veins.

Prerequisite: DS-125 and SC-114 and SC-114L

DS-161 - Vascular Imaging II (3 cr)

This course focuses on the peripheral arterial-venous system. Students study the normal anatomy and physiology as well as the pathology of the arteries and veins of the upper and lower extremities. The course reviews various diagnostic and therapeutic options used in the treatment of peripheral arterial disease (PAD) while continuing scanning in the ultrasound-training laboratory. Students learn the scanning protocol for the upper and lower arterial system and the diagnostic criteria for assessing vascular diseases. This course includes duplex ultrasound, plethysmography (PVR), segmental blood pressures (SBP) and Direct Doppler waveform analysis. Lecture and lab.

Prerequisite: DS-160

DS-170 - Abdominal Sonography I (3 cr)

This course combines the classroom laboratory experience. It introduces advanced abdominal anatomy, sonographic appearance and procedures, pathology, and pathophysiology for diagnostic medical sonography. Topics include: embryology; anatomy; protocols for all organs and organ systems of the abdomen and non-cardiac chest; variants of normal and congenital anomalies; function of organ and organ systems; patient history and indications for examination; scanning techniques; normal sonographic appearance; pathology and pathophysiology; related imaging and functional testing results; normal and abnormal Doppler and color flow characteristics. Lecture and lab.

Prerequisite: DS-102 and SC-114 and SC-114L

Corequisite: DS-125

DS-171 - Abdominal Sonography II (3 cr)

This course comprises an advanced study of human anatomy in the transverse, longitudinal, and coronal planes with emphasis on the organs in the abdomen and pelvic cavity to include technical information and scanning techniques. Included is an extensive study of the disease process and physiological alterations, sonographic methods to visualize adult and pediatric abdomens, normal variants, congenital anomalies, physiology, and related laboratory tests. Lecture and lab.

Prerequisite: DS-125 and DS-170

DS-180 - OB/GYN Sonography I (3 cr)

This course introduces the student to the female reproductive and urogenital systems as they pertain to ultrasound examination. Starting with the basic female reproductive system, the course expands into early pregnancy sonographic evaluation. Normal and abnormal anatomy and physiology, instrumentation set-up, patient preparation, proper scanning technique, and normal and abnormal findings are presented. Lecture and lab.

Prerequisite: DS-105 or DS-102 and SC-114 and SC-114L

Corequisite: DS-125

DS-181 - OB/GYN Sonography II (3 cr)

This course is a continuation of DS-180 with emphasis on second trimester, third trimester, maternal and fetal complications involved in Obstetrical Sonography. This course include specific indications for obstetrical ultrasound examinations, interpretation of lab values, pathophysiology, image analysis, and differential diagnosis. Lecture and Lab.

Prerequisite: DS-125 and DS-180

DS-190 - Echocardiography I (3 cr)

This course is a basic study of two-dimensional, M-mode, Doppler echocardiography and left ventricular systolic function. There will be discussion of various pathologies which include congestive heart failure, pericardial diseases, cardiomyopathies, and cardiac masses. This course emphasizes the understanding of echocardiographic findings and treatment. The lab includes an introduction to basic scanning protocol, proper patient positioning, and correct ergonomics. In addition basic M-mode and Doppler echocardiography are presented. Imaging planes and windows are explained and demonstrated. Lecture and lab.

Prerequisite: DS-125 and SC-116 and SC-116L

DS-191 - Echocardiography II (3 cr)

This course utilizes fundamentals to evaluate cardiac function and acquired disease states. Incorporates all forms of noninvasive cardiovascular evaluation with emphasis on performance and interpretation of M-mode, 2-dimensional, and Doppler echocardiography. Emphasis is placed on obtaining quality echocardiograms, and laboratory experience will demonstrate the application of theoretical principles and concepts. Topics include: valvular heart disease, cardiomyopathies, systemic and pulmonary hypertensive heart disease, pericardial diseases, systemic disease, cardiac transplantation, cardiac tumors/masses, diseases of the aorta, pericardial diseases, and miscellaneous topics. Lecture and lab.

Prerequisite: DS-190

DS-240 - Clinical Internship I (2 cr)

The clinical Internship supplements the student's experience in the classroom and allows them to utilize their skills and techniques at an approved medical facility. This course permits the student to apply theory while acquiring real world knowledge of the medical sonography field. The intern is assigned to a clinical education center to practice and perfect sonography skills at the discretion of the Director of the program. Students are supervised by qualified sonographers and directed in specific experiences designed to meet the objectives for the semester. This course incorporates instruction for work ethics traits with clinical competence. Students are evaluated by the Clinical Coordinator from the College and the supervisor of the facility where they are placed. A total of 200 hours is required.

Prerequisite: SC-145 or DS-125 and DS-170, DS-180, SC-116, SC-116L

Designation: Field Experience

DS-241 - Clinical Internship II (3 cr)

The clinical Internship supplements the student's experience in the classroom and allows them to utilize their skills and techniques at an approved medical facility. This course permits students to apply theory while acquiring real world knowledge of the medical sonography field. The intern is assigned to a clinical education center to practice and perfect sonography skills at the discretion of the Director of the program. Students are supervised by qualified sonographers and directed in specific experiences designed to meet the objectives for the semester. This course incorporates instruction for work ethics traits with clinical competence. Students are evaluated by the Clinical Coordinator from the College and the supervisor of the facility where they are placed. A total of 200 hours is required.

Prerequisite: DS-240

Designation: Field Experience

DS-242 - Clinical Internship III (3 cr)

The clinical Internship supplements the student's experience in the classroom and allows them to utilize their skills and techniques at an approved medical facility. This course permits the student to apply theory while acquiring real world knowledge of the medical sonography field. The intern is assigned to a clinical education center to practice and perfect sonography skills at the discretion of the Director of the program. Students are supervised by qualified sonographers and directed in specific experiences designed to meet the objectives for the semester. This course incorporates instruction for work ethics traits with clinical competence. Students are evaluated by the Clinical Coordinator from the College and the supervisor of the facility where they are placed. A total of 200 hours is required.

Prerequisite: DS-241

Designation: Field Experience

DS-250 - Clinical Externship I (7 cr)

The clinical Internship supplements the student's experience in the classroom and allows them to utilize their skills and techniques at an approved medical facility. This is the first clinical course that permits the student to apply theory while acquiring real world knowledge of the medical sonography field. The extern is assigned to practice and perfect sonography skills at the discretion of the Director of the program. Students are supervised by qualified specialty credentialed sonographer-instructor and directed in specific experiences designed to meet the objectives for the semester. This course incorporates instruction for work ethics traits with meeting mandatory sonography proficiency requirements. Students are evaluated by the Clinical Coordinator from the College and specialty clinical instructor. A total of 320 hours is required.

Prerequisite: SC-116, SC-116L, DS-125, DS-170 and DS-180

Designation: Field Experience

DS-251 - Clinical Externship II (7 cr)

The clinical Internship supplements the student's experience in the classroom and allows them to utilize their skills and techniques at an approved medical facility. This course permits students to apply theory while acquiring real world knowledge of the medical sonography field. The extern is assigned to a clinical education center to practice and perfect sonography skills at the discretion of the Director of the program. Students are supervised by qualified credentialed site facilitators-sonographers and directed in specific experiences designed to meet the objectives for the semester. This course incorporates instruction for work ethics traits with completion of the required mandatory and elective DMS clinical competencies. Students are evaluated by the specialty Clinical Coordinator from the College and the clinical site preceptors or supervisor of the facility, credentialed in the designated DMS specialty areas, where the students are placed. A total of 320 clock hours of the field experience and completion of the mandatory and elective practicum scanning competencies are required.

Prerequisite: DS-250

Designation: Field Experience

DS-252 - Clinical Externship III (7 cr)

The clinical Internship supplements the student's experience in the classroom and allows them to utilize their skills and techniques at an approved medical facility. In this course students are continuing to apply theory while acquiring real world knowledge of the medical sonography field. The extern is assigned to a clinical education center to practice and perfect sonography skills at the discretion of the Director of the program. Students are supervised by qualified credentialed site facilitators-sonographers and directed in specific experiences designed to meet the objectives for the semester. This course incorporates instruction for work ethics traits with completion of the required mandatory and elective DMS clinical competencies. Students are evaluated by the specialty Clinical Coordinator from the College and the clinical site preceptors or supervisor of the facility, credentialed in the designated DMS specialty areas, where the students are placed. A total of 320 clock hours of the field-experience and completion of the mandatory and elective practicum scanning competencies are required.

Prerequisite: DS-251

Designation: Field Experience

HA - Medical Administration and Health Services Administration**HA-101 - Introduction to Health Care (3 cr)**

The health industry involves a battery of practitioners, with an elaborate network of specialized knowledge, rapidly advancing technologies, techniques, therapies, and management diverse in their organization and modes of delivery. This course provides a general overview of the United States health care industry its policy makers, values and priorities. Major influences in the continuing growth and change of the American health care delivery system are examined, along with the important legislative, political, economic factors. The effects of medical education, scientific advances, rising costs, changing population demographics, and American values and assumptions regarding health care are also addressed.

HA-103 - Introduction to Clinical Professions (3 cr)

This course is designed to familiarize the student with various clinical careers in the health care professions, including, but not limited to nursing, diagnostic medical sonography, surgical technology, and medical assisting. The goal of this course is to lay the foundation to provide the student with the basic skills to become educated, competent, caring, and compassionate clinical professionals who communicate and collaborate effectively with patients and colleagues. Exercises will be focused on the development of problem solving and clinical reasoning skills and the development of lifetime learning habits. This course will include interactive lectures, case based instruction, and simulations designed to expose the student to practical applications. Guest presenters with expertise in the respective areas will share their knowledge and experiences, as well as trends and future innovations in their field. This course will include Healthcare Provider/AED CPR training. Upon successful completion and passing of the American Heart Association written CPR exam and skill section, the student will receive a CPR certification card.

HA-106 - Introduction to Contemporary Health Issues (3 cr)

This introductory study of health issues facing communities in the United States increases student knowledge and awareness of basic health information, the wellness concept, healthy lifestyle choices, and accepting personal responsibility for achieving optimal health. The course emphasizes issues such as stress-management, mental and nutritional health and wellness, substance use and abuse, infectious and noninfectious diseases, as well as environmental and consumer health.

HA-135 - Introduction to Health Informatics (3 cr)

This course introduces students to information technology, computers, computer networks, and their application in the health care industry. Students gain a sound but basic understanding of information technology in health care, how computers and information systems are incorporated into health care facilities, how communications systems can help boost productivity, and how the internet can influence the workplace. The course offers health care and technology professionals an understanding of the rapidly evolving field of Health Informatics and its integral role in the health care industry.

HA-140 - Introduction to Medical Coding (3 cr)

This course will provide students with an overview of the historical development of medical nomenclature and classification systems including ICD-9-CM and CPT coding. This course concentrates on the coding of diseases, operative procedures, and abstracting clinical diagnostic data from medical information.

Prerequisite: HC-126

HA-185 - Introduction to Medical Spanish (3 cr)

This course provides students with the ability to engage in basic Spanish conversation with patients and their family members in a variety of health care settings. The course offers the essential tools, enabling health care providers to communicate medical terminology, phrases, and questions to conduct patient interviews, physical exams, and record medical histories. Students also learn important cultural aspects of the various Spanish-speaking communities to understand the diversity of views on health care.

Prerequisite: HC-126

HA-240 - Medical Office Insurance and Billing Procedures (3 cr)

This course introduces students to health insurance claims processes and billing procedures. Students learn to: abstract patient records; accurately code all diagnoses, procedures, and services using ICD10 for diagnoses and CPT codes; apply knowledge of insurance rules and regulations for major insurance programs; operate the bookkeeping software; accurately post charges, payments and adjustments to patient accounts; and review insurance payments and explanation-of-benefits forms.

Prerequisite: HA-140

HA-245 - Electronic Health Records (3 cr)

This course equips health care and technology professionals with practical, comprehensive knowledge of electronic health records, including their adoption, implementation, function and use in various health care settings.

Prerequisite: HA-101 or HA-106 or DS-101

HA-280 - Intermediate Medical Coding (3 cr)

This course focuses on more advanced level of coding of the diseases and operative procedures, abstracting clinical diagnostic data from medical information, and coding of procedures and services rendered in both inpatient and outpatient settings to the highest level of specificity.

Prerequisite: HA-140 or HC-180

HA-290 - Medical Administration Internship I (3 cr)

This internship provides undergraduate students with the opportunity to work in a supervised, administrative setting in a health care facility. Students gain experience in an approved health care delivery setting under the direct supervision of medical office personnel. Students observe the daily routines and procedures of the medical setting and apply knowledge and skills acquired in the classroom by participating in basic administrative functions and procedures. Approved internship settings may include acute care hospitals, managed care organizations, long-term care facilities, and community health centers. *Prerequisite:* Sophomore standing.

HA-291 - Medical Administration Internship II (3 cr)

This internship course provides undergraduate students with the opportunity to work in a supervised, administrative setting in a health care facility. Students gain experience in an approved health care delivery setting under the direct supervision of medical office personnel. Students observe the daily routines and procedures of the medical setting and apply knowledge and skills acquired in the classroom by participating in administrative functions and procedures. Examples of approved internship settings include acute care hospitals, managed care organizations, long-term care facilities, and community health centers.

Prerequisite: HA-290

HA-295 - Concepts of Managed Care (3 cr)

This course offers an in-depth analysis of the nature and operations of managed care systems in the United States. Students discuss the purpose and implementation of various plans and how they function. Students also analyze provider, manager, and consumer perspectives, as well as the integration of health care delivery systems and the resulting financial implications.

Prerequisite: HA-101 or HA-106; and HC-126

HA-301 - Management in Healthcare I (3 cr)

This course explores the fundamental concepts of management theory and examines the organizational structure of the health care delivery system and administrative processes such as planning, problem-solving, decision-making, and quality productivity improvement. The course focuses on major issues and problem areas confronting health service administrators. This course also surveys topics covered in higher level courses and describes the broader environment in which individual services are grounded.

Prerequisite: HC-126 ; and HA-101 or HA-106 or DS-101

HA-310 - The Continuum of Care (3 cr)

This course provides a comprehensive overview of alternative health care delivery with a focus on long-term care. Students learn the operating characteristics of health care systems designed for seniors, children, mental health patients, veterans, and rehabilitation patients. This encompasses the provision of care via nursing facilities, home health agencies, hospices, and assisted living facilities.

Prerequisite: Take HA-101 or HA-106

HA-311 - Occupational Health and Safety (3 cr)

This course covers the major concepts and issues in occupational health and safety with special emphasis on the strategies for identifying and removing barriers that affect health and work performance. This class will cover the basics of a company safety and health program and the minimum requirements under Federal OSHA and State OSHA. The course will also focus on the techniques, administrative practices and costs that are required to initiate and maintain programs and procedures that are aimed at reducing work related injuries, illnesses and discomforts. This course also covers Occupational Safety and Health Administration (OSHA) safety guidelines including electrical, chemical, and hazardous material safety. Ergonomic considerations to include repetitive motion, plant layout, and machine design. Industrial safety awareness, accident cost and prevention, and workman's compensation issues will also be discussed.

Prerequisite: HA-301

HA-315 - Cultural Competency in Health Care (3 cr)

This course focuses on how to effectively provide cross-cultural services and develop an awareness of the biases and prejudices that can hamper communication, compliance, and outcomes in the health care industry. Students explore some of the critical issues in working with culturally diverse populations, and are trained to develop a higher level of cultural competency.

Prerequisite: HA-101 or HA-106

HA-320 - Advanced Medical Coding (3 cr)

This course is a continuation of the Intermediate Medical Coding course. It offers further examination of the ICD-10 and CPT coding conventions, along with their applications pertaining to the coding of diseases, operative and other procedures are presented. Students explore principles of inpatient and outpatient settings to obtain the highest level of coding accuracy, speed, and specificity.

Prerequisite: HA-280

HA-330 - Ethical and Legal Issues in Health Care (3 cr)

This course focuses on the legal, moral, ethical, and social behaviors of those who participate in the provision of health care. Students gain a working and applicable knowledge of issues such as confidentiality, scope of practice, informed consent, defamation, reproductive issues, end-of-life care, and allocation of health care resources. Students are expected to engage in the active exchange of ideas and critical thinking processes.

Prerequisite: HA-301

HA-390 - Health Services Administration Internship I (3 cr)

This internship provides undergraduate students with the opportunity to work in a supervised, administrative setting in a health care facility. Students gain experience in an approved health care delivery setting under the direct supervision of a site supervisor. Students observe and participate in basic administrative and clinical office procedures, as well as perform tasks and apply skills learned in the classroom. Internships sites include acute care hospitals, managed care organizations, long-term care facilities, and community health centers. Prerequisite: Senior standing.

Designation: Field Experience

HA-391 - Health Services Administration Internship II (3 cr)

This internship provides undergraduate students with the opportunity to work in a supervised, administrative setting in a health care facility. Students gain experience in an approved health care delivery setting under the direct supervision of a site supervisor. Students observe and participate in basic administrative and clinical office procedures, as well as perform tasks and apply skills learned in the classroom. Internships sites include acute care hospitals, managed care organizations, long-term care facilities, and community health centers.

Prerequisite: HA-390

HA-395 - Corporate Internship in Health Services Administration (6 cr)

This internship provides students with the opportunity to apply skills learned in the classroom within their discipline to a corporate experience. The experience allows students to prepare for their chosen profession by gaining practical experience while being immersed in a corporate setting. Students are required to complete 320 hours at the corporate internship setting. Junior standing.

HA-435 - Performance Improvement in Health Care (3 cr)

This course focuses on the management of quality indicators in various health care disciplines. It is an interdisciplinary course that provides health professionals with the tools they need to implement quality measures and assess outcomes in their health care institution. This course provides the theoretical framework and evolution of modern quality and performance improvement methods.

Prerequisite: HA-301

HA-440 - Health Care Finance (3 cr)

This course examines the major financial issues related to health care services, such as budgeting, cost containment, reimbursement policies, and financial strategies.

Prerequisite: HA-301 and AC-161

HA-470 - Research Methodologies in Health Care (3 cr)

This course provides students of Health Services Administration and Public Health with an introduction to scientific research methodologies in health care. Students learn the basics of defining research problems, designing and testing hypotheses, conducting literature reviews, developing procedures, designing surveys, and analyzing data. The course emphasizes applied health care research to help serve the local community. Senior Standing.

Prerequisite: MA-135

HC - Medical Assisting**HC-101 - Introduction to Medical Assisting** (3 cr)

This course is designed to familiarize students with medical assisting. The goal of this course is to lay the foundation and to provide the student with the basic skills to become educated, competent, caring, and compassionate medical assistants. Skills reviewed will include communication, professionalism, attire, and collaboration. Students will learn the role and responsibilities of medical assistants and how the performance of routine clinical and administrative duties ensures the smooth operation of the healthcare facility. Students will learn the types and interrelationships of healthcare facilities, services, and personnel. Exercises will be focused on the development of problem solving, clinical reasoning skills and the development of lifetime learning habits.

HC-105 - Medical Assisting I (4 cr)

This course introduces students to the basic competencies and skills necessary for entry-level medical assisting and provides students with the foundation for assisting physicians in providing optimal patient care. Students learn the role and responsibilities of the medical assistant and how the performance of routine clinical and administrative duties ensures the smooth operation of the health care facility. Topics include the medical assistant profession, the health care team, an overview of the history of medicine, communications, coping skills, and legal and ethical considerations. Additionally, preparation for credentialing and employment strategies are also emphasized. Lecture and lab.

Prerequisite: HC-126

HC-108 - Anatomy and Physiology (3 cr)

This course introduces the student to important concepts related to human diseases. A comprehensive, in-depth study of the human body encompassing basic concepts of cell structure and function. An anatomical and physiological approach to each of the following systems is pursued with medical ramifications where applicable. Cells and tissues, skin, skeletal system, muscular system, central nervous system, nervous system, the sense organs, endocrine system, circulatory system, blood and lymph, respiratory system, digestive system, urinary system. The principles and concepts pertinent to the understanding of pathophysiology are also emphasized. Recommend completing EN-111.

Designation: Natural Science

HC-110 - Medical Assisting II (4 cr)

Medical Assisting II is a continuation of Medical Assisting I with clinical and administrative skills at a more complex level. This course provides students with the clinical skills and competencies necessary for entry-level medical assisting. Topics include medical asepsis, medical history, vital signs and measurements, physical examinations, obstetrics and gynecology, male reproductive system, examinations of body systems, assisting with minor surgery, rehabilitation, nutrition, pharmacology, introduction to HIPPA, emergency and first aid procedures, patient teaching, medication and nutrition. Lecture and lab.

Prerequisite: HC-105 and HC-108

HC-126 - Medical Terminology (3 cr)

This course provides students with an understanding of the terminology used in the health care industry. By examining and identifying prefixes, suffixes and word roots, students practice formation, analysis and reconstruction of diagnostic, surgical, therapeutic, symptomatic, and pathological terms. Emphasis is placed on spelling, definition, pronunciation, and proper usage and enunciation. Student involvement is expected, encouraged, and required. Recommend completing EN-111. DMS students must complete SC-114 and SC-114L as prerequisites and SC-116 and SC-116L as co-requisites.

HC-160 - Emergency Medical Applications (3 cr)

This course introduces students to the basic principles of emergency first aid and cardiopulmonary resuscitation (CPR). The course examines all of the major body systems and the common emergency illnesses and injuries associated with each system. Students learn to identify symptoms and apply the appropriate emergency treatments and stabilization techniques. Topics include patient assessment, airway management, CPR, shock, bleeding, wounds, body area injuries, poisoning, burns, cold and heat emergencies, bone injuries, medical emergencies, emergency childbirth, and first aid skills. The course emphasizes practical application of the skills learned, and leads to CPR certification upon successful and timely completion of requirements.

HC-180 - Medical Coding & Billing for Medical Assisting (4 cr)

This comprehensive, three-part course provides an overview of the historical development of medical nomenclature and classification systems. It introduces the coding of the diseases, medical conditions, and operative procedures, both in the inpatient and outpatient setting to the highest level of specificity. Students learn to research and apply knowledge of insurance rules and regulations, manage bookkeeping and patient accounts, as well as analyze the legal issues impacting the profession.

Prerequisite: HC-126

HC-208 - Pathophysiology (3 cr)

The course, which examines the study of human disease, will enable students to demonstrate an understanding of the etiologies, risk factors, diagnostic criteria, treatment modalities, and potential complications most commonly associated with particular pathophysiological states. Additionally, epidemiological and societal factors which influence disease processes will be presented.

Prerequisite: HC-108 or SC-114

Designation: Natural Science

HC-210 - Clinical Laboratory Procedures (4 cr)

This course covers the basic medical laboratory techniques and introduces students to the concepts and competencies required for conducting hematology, immunology, serology, clinical chemistry, microbiology, and parasitology lab tests. To successfully conduct waived test analyses of body specimens, students learn the use of standard laboratory equipment and processing methods. Additionally, students learn how to perform safely and effectively in a medical laboratory environment. Lecture and lab.

Prerequisite: HC-105 and HC-108

HC-214 - Medical Office Procedures (4 cr)

This course covers the basic administrative competencies and skills necessary for employment in the medical field and provide students with the foundation for assisting the physician in providing patient care. Topics include creating the facility environment, computer use, telephone techniques, patient scheduling, medical records management, written communications, transcription, and managing facility finances. Recommend completing EN-111.

Prerequisite: HC-110 or HA-140

HC-220 - Pharmacology (3 cr)

This first part of a two-part course serves as a foundation for relevant studies in pharmacology to effectively equip the pharmacy technician and medical assistant with the necessary information to function efficiently in a pharmacy and other medical setting. Students gain an understanding of essential concepts, mechanisms of action, and clinical applications in pharmacology to provide excellent patient care and properly dispense drugs. Students learn common forms and types of drugs, parts of a prescription, enteral and parenteral routes of drug administration, administration techniques, drug dosages, classes of drugs, side effects, drug interactions, units of measure, and metric system nomenclature.

Prerequisite: HC-108 and HC-126

HC-230 - Phlebotomy and Electrocardiography (4 cr)

Students enrolled in this course study the theory and practice of the techniques for obtaining correct blood specimens through venipuncture and performing electrocardiography (EKG). Students develop an understanding of the basic anatomy and physiology of the cardiovascular system, proper collection of specimens for laboratory examination, specimen processing and handling, quality assurance, safety procedures, medico-legal aspects of phlebotomy and effective communication skills. Students also study and perform the proper techniques involved in performing 12-Lead EKG. Lecture and lab.

Prerequisite: HC-105 and HC-108

HC-292 - Medical Assisting Practicum (4 cr)

All Medical Assisting students are required to perform internship duties prior to graduation and upon completion of the in-school portion of their training. Students perform as interns in the capacity of a Medical Assistant for a period of fourteen weeks at the rate of fourteen hours per week. Students have the opportunity to hone the competencies learned in all the required courses. Students are assigned to various clinical specialties within the respective facility and training activities in the particular clinical competency are supervised and evaluated accordingly. They achieve the expected level of clinical competency and administrative proficiency, which enables them to secure employment. Students are evaluated on specific dimensions of work ethic and clinical competency.

Prerequisite: HC-110 and HC-210 and HC-230

LA- Liberal Arts**LA-212 - Drugs and Behavior (3 cr)**

This course is an introduction various types of drugs and their impact on behavior. Special attention is paid to the physiological, psychological, and societal effects of psychoactive drugs; patterns and causes of their use and abuse in individuals and societies; and methods of education, prevention and treatment.

Prerequisite: LA-101 or LA-102

Designation: Social Science

LA-254 - HIV/Aids in Society (3 cr)

This course examines the nature and causes of HIV Disease and AIDS from a variety of perspectives. The course investigates the scientific and humanistic approaches to understanding the current epidemic. Emphasis is placed on the impact of community and worldwide response, civil rights, legal aspects, harassment, prevention measures, education, counseling, confidentiality, testing, and other vital issues as it relates to HIV/AIDS. Students are expected to communicate among themselves and the instructor in a manner that encourages open and respectful dialogue, appreciates diversity, and tolerates disagreement.

Prerequisite: LA-101 or LA-102

LA-345 - Group Dynamics (3 cr)

This course provides an orientation to group dynamics and group leadership. Various kinds of groups, group leadership styles, and basic skills for group leaders are studied, with special attention given to group intervention strategies for the beginning stage, the middle stage, and the closing stage of a group. Emphasis is placed on helpful skills and strategies for dealing with problem group situations and group work with specific populations.

Prerequisite: LA-245

PH - Public Health**PH-101 - Introduction to the Health Professions** (3 cr)

This course presents an overview of roles, responsibilities, educational requirements, and licensure/certification requirements of various health care professionals. Students are introduced to the U.S. health care systems, interprofessional health care teams, and basic regulations governing healthcare facilities and professionals.

PH-111 - Public Health I (3 cr)

This course offers students a perspective on the meaning of public health, its value to the general public, and the ability to interpret and analyze the global implications of significant health concerns. Students learn aspects of public health policy, health statistics, infectious, genetic, and chronic disease, and contributing health behaviors.

Prerequisite: HA-101 or HA-106 or DS-101

PH-115 - Women's Health (3 cr)

This course provides an introduction to key issues affecting women's health in the United States with special emphasis on cultural values, health care in minority populations, disease prevention, and consumer health concerns. In addition, the course addresses important ethical and policy issues concerning health care access, reproductive status, the valuation of caretakers, and medical social control. The course gives students a greater appreciation and understanding of the overall health and ill-health that women face in general and how to better educate themselves and others to deal with these issues.

Designation: Social Science

PH-116 - Race, Ethnicity, and Health (3 cr)

This course provides students with knowledge about racial and ethnic disparities in health and health care. Students examine the ways in which local and community factors and inequalities in socioeconomic status influence health behaviors, access to health care services, and health status outcomes. Additionally, characteristics such as acculturation, patient preferences, provider congruence and cultural competence are explored.

PH-205 - Introduction to Global Health Issues (3 cr)

This course exposes students to the health disparities existing between developed and developing countries. Major areas of concern include infant mortality rates and HIV/AIDS as evidence of these disparities. In this course students study the impact of globalization on the spread of diseases, the effects of socioeconomics and cultural factors on health risks, and international delivery of health services to help address these issues.

Prerequisite: HA-101 or HA-106

PH-206 - Community Health Services (3 cr)

This course offers a study of the field of Community Health that addresses the health issues facing communities in the United States. The course explores the meanings of health, disease and illness, the concept of community, and the ways in which health problems are considered. Additionally, students examine health behaviors, health promotion and disease prevention, environmental influences, and health care financing.

Prerequisite: HA-101 or HA-106

PH-208 - Maternal and Child Health (3 cr)

This course introduces students to the specific regional, national, and international public health programs established to respond to the needs of children and their families. Students are introduced to the history, causes, and systems that serve to promote the health and development of this demographic. The health and reproductive health status of women and the resulting political and societal implications are investigated. The course also covers factors that affect mother and child and resulting conditions that affect these two groups.

Prerequisite: HA-101 or HA-106

PH-211 - Public Health II (3 cr)

This course, the second part of a two-semester core course in the Public Health program, expands on the topics discussed in Public Health I. This course provides students with a perspective of the importance of public health, its value to the general public, and the ability to interpret and analyze the global implications of significant health concerns. Students discuss tobacco use as a public health threat, the effects of poor diet and physical inactivity, intentional and unintentional injuries, maternal and child health, agricultural and environmental hazards, consumer safety, population growth, the medical care system and healthcare reform, and goals of public health in the 21st Century.

Prerequisite: PH-111

PH-220 - Principles of Epidemiology (3 cr)

In this course, students learn and apply basic concepts of epidemiology to multiple domains of public health. We illustrate and practice using epidemiology to better understand, characterize, and promote health at a population level. The class engages students in active and collaborative learning through team activities, individual projects, case studies, group discussion, and individual projects.

Prerequisite: PH-111

PH-255 - Health and Human Behavior (3 cr)

This course is an introduction to the fundamental concepts of health attitudes and behavior within the contexts of sociological, psychological, and biological systems. Students explore the use of behavior change theories as a basis for the development of behavior change intervention programs. Consideration is given to social, interpersonal, and individual factors that influence health behavior and status.

Prerequisite: HA-101 or HA-106; and LA-101 or LA-102 or LA-111

PH-370 - Environmental Health Issues (3 cr)

This course provides a comprehensive overview of the public health function of environmental and occupational health. Students investigate various aspects of environmental health, including air, surface water, and ground water contamination, food safety, occupational health, radiation, chemical and physical hazards, vector control, drug use, and injuries. Students also discuss the health effects of global climate change and rapid industrialization, and developing nations' perspectives on potable water supply, water pollution, indoor and ambient air pollution, sanitation, and waste.

Prerequisite: HA-101 or HA-106

PH-396 - Field Experience in Public Health (3 cr)

This course combines required seminar participation and supervised internship hours. The internship allows students to apply theories learned in classroom in various health settings. Students are required to submit internship logs highlighting learning activities and to participate in assigned field-based activities. Specialization areas may include reproductive health, substance abuse, and community health education, among others. Senior Standing.

Designation: Field Experience

PH-420 - Community Health Program Planning (3 cr)

This course is an overview of the design strategies and interventions used to meet the health care needs of individuals and communities. These strategies encompass preliminary needs assessments, stepwise sequences of development, problem identification and problem-solving, data collection, and analysis to determine outcomes.

Prerequisite: PH-206 and PH-255

SC - Science**SC-102 - Introduction to Nutrition and Wellness (3 cr)**

This course introduces students to the science of nutrition, examination of nutrients, and the study of their digestion, absorption, transport, metabolism, storage and excretion. Students will study the roles of carbohydrates, fats, proteins and other essential nutrients on health and wellness. Students will align the basic nutritional needs with foods and sources satisfying those needs. The consequences of over-, under-, and mal-nutrition will be discussed. Emphasis is placed on the application of nutritional principles to develop healthy and age appropriate diets given various scenarios.

SC-104 - Introduction to Physics (3 cr)

This course is a conceptual physics course for non-science majors. It is the goal of conceptual physics to facilitate student understanding of the rules of nature by learning its foundations. This course covers forces and motion, conservation laws, heat, fluids, vibrations and waves, electricity and magnetism, and sound and light. Students will study the concepts of physics with a minimum of mathematics. The goal of this course is: to provide students an overview of the basic concepts of physics and of scientific principles in general; to make students aware of how physics relates to their everyday and professional lives; to help students understand the principles of physics in the context of how everyday objects work; to introduce the language of physics and the history of scientific discoveries in physics.

Corequisite: MA-115

Designation: Natural Science

SC-106 - Environmental Science (3 cr)

Environmental Science is the study of Earth as a dynamic system, including Earth's atmosphere, biosphere, hydrosphere, and lithosphere. This course is an interdisciplinary study of the effects of human use and misuse of Earth's resources. The course focuses on Earth's natural processes; the role of technology in society, its capacity to alter natural processes, and how it can be used to solve problems caused by human impact, and the complex cultural and social processes of human populations. Topics include Earth's structure and the constant interactions of Earth's spheres. Also studied are population explosion, decline in ecosystems, atmospheric pollution, water pollution, soil pollution, environmental toxicology, and decline in biodiversity.

Designation: Natural Science

SC-107 - Physical Conditioning and Nutrition for Athletes (3 cr)

In today's world of competitive sport, a wholistic approach must be explored and applied to ensure improved athletic performance. One approach that has been proven to have a positive impact on sport performance is the areas of nutrition combined with sound training practices. This course explores the principles and practices of physical conditioning and nutrition for athletes. Students will examine, analyze and discuss the principles of physical conditioning and nutrition and how these two concepts compliment and support each other for optimal athletic performance. Topics include the principles and methods of training, energy systems, macro and micronutrients, hydration and meal selection during training and competition. Students will develop a host of strategies designed to optimize athletic performance through effective training and nutritional practices. This course is important to anyone considering a career as a sports professional in roles such as a sports coach, strength and conditioning coach, or a personal trainer. This course is important as conditioning and nutrition for athletes play a major role in athletic performance. The information in this course will allow coaches and other sport professionals to utilize effective training principles, to counsel athletes on proper nutritional practices and to make adjustments in training and nutrition when necessary, to achieve maximal performance.

SC-112 - General Biology (3 cr)

This course is an introduction to the general principles of biology. It explores the fundamental characteristics of living matter from the molecular level to the ecological community with emphasis on general biological principles. The course provides an introduction to the diversity of living organisms, their structure, function, and evolution. It presents a study of human genetics, development, and anatomy and physiology that enables students to relate to the chemical activities of the cell to the overall function of the human being. The course presents information that will enable the student to understand and recognize the evolutionary and environmental relationships that exist among all organisms. Topics include organization of the human body, metabolism and energy, behavior, genetics, evolution, animal behavior, and ecology. This course is designed for non-science majors.

Designation: Natural Science

SC-114 - Human Anatomy and Physiology I (3 cr)

This is the first lecture course of the Human Anatomy and Physiology sequence. The course focuses on an in-depth study of major biological theories. Topics covered include body organization, chemistry of life and cell function. Gross and microscopic anatomy and physiology of the integumentary, skeletal, muscular, and nervous systems are discussed in detail. Each student is responsible for the dissection of various specimens as well as extensive laboratory exercises involving microscope work, experimental procedures, and mastery of models, charts, and computer programs in anatomy and physiology. Prerequisite: Must have met the requirements for credit Math and English.

Prerequisite: SC-114L

Corequisite: SC-114L

Designation: Natural Science

SC-114L - Human Anatomy and Physiology I Lab (1 cr)

This is the first laboratory course of the Human Anatomy and Physiology sequence. Topics covered include microscopy, laboratory safety, body organization, chemistry of life, and cellular and tissue functions for the integumentary, skeletal, muscular, and nervous systems. Laboratory activities will include extensive laboratory exercises involving microscopic examinations, experimental procedures, dissections, reviews of models and charts, and computer programs in anatomy and physiology. The course requires a mastery of factual materials, laboratory techniques, and problem-solving skills. Prerequisite: Must have met the requirements for credit Math and English.

Prerequisite: SC-114

Corequisite: SC-114

Designation: Natural Science

SC-116 - Human Anatomy and Physiology II (3 cr)

This course is the continuation of Human Anatomy and Physiology I. The course focuses on the gross and microscopic structure and function of the sense organs, endocrine system, blood and cardiovascular systems, lymphatic and immune systems, and the respiratory, urinary, digestive and reproductive systems. The laboratory portion of the course focuses on practical applications of the lecture material including a number of diagnostic and laboratory tests and procedures. Students are responsible for the dissection of numerous preserved specimens.

Prerequisite: SC-114 and SC-114L

Corequisite: SC-116L

Designation: Natural Science

SC-116L - Human Anatomy and Physiology II Lab (1 cr)

This is the second laboratory course of the Human Anatomy and Physiology sequence. Gross and microscopic anatomy and physiology of the autonomic nervous systems, sensory organs, circulatory system, respiratory system, digestive system, urinary system and reproductive system, along with human development are discussed. Laboratory activities include extensive laboratory exercises involving microscopic examinations, experimental procedures, dissections, reviews of models and charts, and computer programs in anatomy and physiology. The course requires a mastery of factual materials, laboratory techniques, and problem-solving skills.

Prerequisite: SC-114 and SC-114L

Corequisite: SC-116

Designation: Natural Science

SC-118 - Principles of Microbiology (3 cr)

This course explores the world of microorganisms, including bacteria, viruses, fungi, and other microbes. Immunology is also studied in this course. Emphasis is placed on the nature and behavior of these organisms and their interrelationship with the human body in health and disease. The principles of prevention and control of infectious diseases are presented. Laboratory exercises develop techniques in the preparation, handling, and identification of a variety of microbial cultures.

Prerequisite: SC-114 and SC-114L;SC-118L

Corequisite: SC-118L

Designation: Natural Science

SC-118L - Principles of Microbiology Lab (1 cr)

This laboratory course is designed to teach the fundamentals of microbiology through the use of microbial cultures, staining techniques, cell metabolism, disinfection, and sterilization. Isolation of a culture of some normal flora and a survey of bacteria are included. The laboratory experiments are designed to facilitate the student's understanding of the lecture material.

Prerequisite: SC-114 and SC-114L;SC-118

Corequisite: SC-118

Designation: Natural Science

SC-120 - Human Biology (3 cr)

Human Biology is an introductory course examining the fundamental concepts of human structure and function as the starting point for the exploration of principles common to all living systems and the interrelationships between humans and the rest of the biosphere. This course also introduces students to general scientific and biological principles through the study of humans as exemplary organisms. Lecture and laboratory exercises examine the structure and functions of the human body and other organisms in relation to health and disease, genetics, biotechnology, evolution, and current scientific issues. Aspects of health and disease are presented including basic elements of nutrition, exercise, cancer, and chemical addictions. Prerequisite: Must have met the requirements for credit Math and English.

Prerequisite: SC-120L

Corequisite: SC-120L

Designation: Natural Science

SC-120L - Human Biology- Lab (1 cr)

This laboratory course emphasizes basic concepts within the field of human biology, as well as important laboratory skills and techniques. The laboratory experiments are designed to facilitate the student's understanding of the lecture material. Prerequisite: Must have met the requirements for credit Math and English.

Prerequisite: SC-120

Corequisite: SC-120

Designation: Natural Science

SC-130 - General Chemistry (3 cr)

This course provides an introduction to important theories and concepts in the broad area of general chemistry. The course emphasizes those topics which are essential as preparation for further work in the natural sciences and health care professions. The curriculum focuses on chemical measurements, the architecture of the atom, molecular structure and bonding, chemical reactions and calculations, molecular and chemical formulas, thermochemistry, the mole concept and its applications, and the properties of solids, liquids and gases. Basic problem-solving skills and critical thinking are also emphasized. Prerequisite: Must have met the requirements for credit Math and English.

Designation: Natural Science

SC-130L - General Chemistry Lab (1 cr)

This laboratory course is designed to teach laboratory techniques, measurement, chemical reactions, qualitative analysis, and quantitative chemistry techniques. The laboratory experiments are designed to facilitate the student's understanding of the lecture material. Prerequisite: Must have met the requirements for credit Math and English.

Designation: Natural Science

ST - Surgical Technology

ST-101 - Introduction to Surgical Technology (3 cr)

This course offers a general overview and introduction to the profession of surgical technology and the role of the practitioner. Emphasis will be placed on the scope of practice, legal and ethical obligations, and responsibilities of the surgical technologist in the context of the organizational structure of health care facilities.

ST-151 - Orientation to Perioperative Services (4 cr)

This course provides an introduction to the perioperative skills required to function as a beginning Surgical Technologist in various health care environments. The course will focus on establishing, maintaining, and coordinating the methods required for quality patient care in the operating room according to established professional standards. Students will apply aseptic technique, surgical principles, and surgical conscience in the performance of the required skills.

Corequisite: ST-101

ST-154 - Surgical Procedures I (5 cr)

In the first of three procedure courses, students are introduced to the relationship between surgical pathology and surgical procedures. This course will primarily focus on the principles and skills required to assist in surgical procedures for the general surgery, OB/GYN, genitourinary, and orthopedic specialties.

Prerequisite: ST-151

ST-155 - Surgical Procedures II (5 cr)

In this second of three procedures courses, students will explore the relationship between surgical pathology and surgical procedures. This course will primarily focus on the principles and skills required to assist in surgical procedures for cardiothoracic, peripheral vascular, plastic and reconstructive, and neurologic specialties.

Prerequisite: ST-154

ST-186 - Surgical Procedures III (3 cr)

In this final of three procedures courses, students refine the relationship between surgical pathology and surgical procedures. This course will primarily focus on the principles and skills required to assist in surgical procedures for ophthalmologic, otorhinolaryngologic, and maxillofacial specialties.

Prerequisite: ST-155

ST-201 - Surgical Technology Practicum I (4 cr)

In this first of two clinical practicums, students will apply their classroom knowledge and laboratory competencies in perioperative areas at approved health care facilities. This course requires the student to apply theories, concepts, and skills in real world surgical environments. The student works under the supervision of the Program Director and designated facility supervisor to achieve the identified clinical competencies. This course will incorporate instruction for work ethics traits with clinical competence. Students will rotate through different surgical services, as necessary, to master the skills and achieve completion of the required 320 hours.

Prerequisite: SC-116, SC-116L and ST-154

ST-211 - Surgical Technology Practicum II (4 cr)

In this second of two clinical practicums, students will apply their classroom knowledge and laboratory competencies in perioperative areas at approved health care facilities. This course requires the student to apply theories, concepts, and skills in real world surgical environments. The student works under the supervision of the Program Director and designated facility supervisor to achieve the identified clinical competencies. This course will incorporate instruction for work ethics traits with clinical competence and requires completion of 320 hours. Students will rotate through different surgical services, as necessary, to master required skills.

Prerequisite: ST-201

ST-220 - Pharmacology and Anesthesia (3 cr)

This course provides an understanding of the fundamental concepts, mechanisms of action, and clinical applications of drugs in the operating field, in addition to drugs taken by patients, that may affect the delivery of optimal care to patients. Specific attention will be on administration techniques, drug dosages, classes of drugs, side effects and drug interactions, units of measure, and metric system nomenclature.

Prerequisite: SC-116 and SC-116L

Graduate

HA - Health Care Administration (Graduate)

HA-ELE - Health Administration Elective (3 cr)

Health Administration elective course(s)

HA-610 - Health Care Law and Regulations (3 cr)

This course examines the wide range of legal and regulatory issues encountered by health care administrators in diverse settings. Students apply these principles to a variety of compliance situations related to cost, quality, and access to health care. Topics include the right to treatment, health care contracts and claims, provider licensure, credentialing, peer review, and privileges, scope of practice, research compliance, institutional liability, informed consent, and advance directives.

Prerequisite: MG-616

HA-615 - Health Care Economics (3 cr)

This course explores the core microeconomic theories and their relationship to the structure and function of the United States health care system. Topics such as measurement and determinants of health, health disparities, unhealthy behaviors and health insurance are covered in detail. Furthermore, students examine the effect of the market on the provision of health services and how public policy can influence these markets.

Prerequisite: MG-616

HA-620 - Research Methods in Health Care (3 cr)

This course examines the nature of the scientific method and basic techniques in social science research as applied to the collection, analysis, and interpretation of social and public data. It explores the use of quantitative, qualitative, and mixed methods as different approaches to research design, and covers the ethical issues in research involving human subjects. Students develop critical thinking skills through analysis of assigned readings and classroom discussions.

Prerequisite: MG-620

HA-625 - Health Care Information Systems (3 cr)

This course provides the student with the principles of information and technology management that are used to implement the strategic plan of the health care institution, improve the quality of services, and clinical care provided to the consumer. Emphasis is placed on data access, interpretation, and evaluation for decision-making.

HA-700 - Marketing and Strategic Planning in Health Care (3 cr)

This course focuses on the strategic planning and marketing processes of health care institutions. Students learn to apply a market-oriented perspective to the analysis of environmental factors and organizational resources, to formulate collective business goals, and design customer driven marketing that achieves a sustainable competitive advantage. The course emphasizes critical thinking skills by concentrating on the use of marketing case studies. Topics include health consumer behavior, clinical staff needs, environmental analysis, product pricing, advertising, and new product development.

HA-705 - Continuous Quality Improvement in Health Care (3 cr)

This course provides students with the tools they need to improve the quality of health care across the spectrum of institutions, by applying systematic measures to identify opportunities for improvement, implement change, and assess outcomes. This course provides the theoretical framework and the practical skills to understand the processes under the auspices of quality improvement and real-world examples.

HA-780 - Integrative Capstone Experience (3 cr)

This course, taken in the final semester, synthesizes information acquired from prior courses to design, execute, and present a scholarly project that presents a solution to an actual health care delivery issue. The course incorporates knowledge and competencies in project management, teamwork, research methods, and presentation approaches.

Prerequisite: HA-620

PH - Public Health (Graduate)**PH-601 - Public Health Systems and Practice (3 cr)**

This course provides an introduction to public health concepts and practice by examining the philosophy, purpose, history, organization, functions, tools, activities, and results of public health practice at the national, state, and local levels. The course also addresses important health issues facing the public health system. Case studies and a variety of practice-related activities serve as a basis for learner participation in real world public health problem-solving exercises. This course also fosters and enhances skills related to the use of technology for accessing information and communicating with various audiences.

PH-605 - Behavioral and Social Aspects of Public Health (3 cr)

The course examines the application of social and behavioral sciences knowledge to public health. The basic principles of psychology, sociology, anthropology, and other social sciences are used to underscore the social determinants and consequences of health and health-seeking behaviors, and to understand the contribution of socio-behavioral science to our understanding of the distribution, etiology, and solution of public health problems through planned interventions.

PH-620 - Health Promotion and Education in Diverse Communities (3 cr)

This course provides a foundation for planning health promotion programs for diverse populations. It facilitates discussion of contemporary issues and challenges of health promotion and program planning. Students are provided with the knowledge and skills necessary to collaborate with communities to develop effective, efficient, culturally appropriate health promotion programs.

PH-640 - Environmental and Occupational Health (3 cr)

This course examines environmental principles, methods, risk factors, prevention and control, and policies related to human health. It also examines the biological, physical and chemical factors in the environment at the local and global levels, and how they impact human health.

PH-650 - Health Policy and Management (3 cr)

This course provides an understanding of the structure and function of the U.S. Health Care System. The general principles of planning, management, evaluation, policy, and behavior of the public health system on the local, state and federal levels are addressed. Students learn how the public health system is organized and the roles of essential stakeholders. Students analyze critical management concepts through discussion, case analysis, and practical applications in a variety of health care settings.

PH-655 - Community Health Program Planning And Development (3 cr)

This course examines the models and processes to systematically plan and evaluate public health interventions. It presents students with methods for identifying population-based needs for public health programs, developing strategies to meet those needs, and evaluating the effectiveness of these public health interventions. The course integrates knowledge and skills from research methods, epidemiology, biostatistics, proposal writing, budget planning, project management, and program evaluation.

PH-660 - Principles of Biostatistics (3 cr)

This course introduces statistical concepts and analytical methods as applied to data encountered in public health research and biomedical sciences. It emphasizes the basic concepts of experimental design, quantitative analysis of data, and statistical inferences. The course provides students a foundation to evaluate information critically to support research objectives and product claims. Introduction to a statistical computer package such as SPSS is provided.

PH-661 - Biostatistics II (3 cr)

This course is a continuation of PH-660 and expands on the statistical concepts and analytical methods as applied to data encountered in public health research. Emphasis is placed on the choice of the appropriate method for specific problems, common aspects of model construction, the testing of model assumptions through influence and residual analyses, and the use of graphical and other methods to present results that are readily understood by clinicians.

Prerequisite: PH-660

PH-670 - Finance and Economics in Public Health (3 cr)

This course engages students in economic and financial issues related to the operation of organizations, personnel, providers, and patients in the health care system. Specifically, it explores the sources and uses of financing and the built-in incentives of the health care system. It also explores this ever-changing industry, and explicitly considers the determinants of national health spending and the role of government in private and public health.

PH-680 - Emergency Management in Public Health (3 cr)

This course provides information that enables students to deal effectively with emergency management issues. Students develop an understanding of disaster preparedness, emergency management procedures and responsibilities, management mitigation, and response and recovery actions for different disasters. It also explores public health's role in bio-terrorism and dealing with people with disabilities during and after a disaster.

PH-685 - Public Health Policy and Law (3 cr)

This course provides public health students with a foundation of American health policy and law. Students learn the legal framework governing health care systems and public health, including the evolution, application, and evaluation of regulatory requirements and health policies. For the interplay among governmental and nongovernmental organizations is examined, with a focus on process improvement.

PH-690 - Global Health (3 cr)

This course reviews the main contributors to the global burden of disease and discusses current interventions and possible future approaches.

Topics related to maternal and child health, nutrition, infectious disease, chronic illness, and environmental health are examined. Each section provides a historical and cultural overview and includes consideration of cultural competence and humility. Students engage in learning about country-specific health data and descriptive information about the health system.

PH-705 - Principles of Epidemiology (3 cr)

This course introduces epidemiological concepts and tools to study patterns of disease and injury, incidence, prevalence, and risk, with the goal of broadening the understanding of population health, health inequality, and the influence on public policy. Epidemiological methods as applied to environmental health, infectious disease, and the behavioral and social factors of disease are explored.

Prerequisite: PH-660

PH-710 - Public Health Nutrition (3 cr)

This course covers topics such as malnutrition, excess nutrition, complex eating disorders, maternal and child health, and chronic diseases that affect people globally. Students learn how to identify and address major nutrition-related public health problems.

PH-760 - Thesis Proposal (3 cr)

This course allows students to synthesize and apply the knowledge and skills acquired in all previous courses to develop a thesis proposal. Students prepare research question(s) and hypothesis, literature review, and a proposed methodology to answer the research question(s).

Students work closely with their thesis chairperson/advisor and committee member throughout the semester to write and defend a scientifically sound thesis proposal.

Prerequisite: PH-770

PH-765 - Thesis Data Analysis and Interpretation (3 cr)

This course is the second part of the thesis process. It focuses on students' ability to collect and analyze data, and interpret the findings. Students use the methodology presented in their proposal to conduct their research and develop their thesis. Students must complete their thesis independently, and are expected to work closely with their thesis chairperson/advisor and committee member throughout the semester. Students are expected to write and defend a scientifically sound thesis.

Prerequisite: PH-760

PH-770 - Research Methods in Public Health (3 cr)

This course examines the nature of the scientific method and basic techniques in social science research as applied to the collection, analysis, and interpretation of social and public data. It explores the use of quantitative, qualitative, and mixed methods as different approaches to research design, and covers the ethical issues in research involving human subjects.

PH-771 - Epidemiological Research Methods I (3 cr)

This course is designed to provide an introduction to epidemiological research theory, methods, and practice. The course focuses on the design, implementation, analysis, and interpretation of cohort, case-control, and cross-sectional epidemiological studies. Students will become proficient in the interpretation of epidemiologic data and the application of epidemiologic approaches to the investigation of infectious and non-infectious diseases.

Prerequisite: PH-705

PH-772 - Epidemiological Research Methods II (3 cr)

This course is a continuation of PH-771, Epidemiological Research Methods I, and as such will further refine students' ability to analyze and interpret data from various epidemiologic study designs. Students gain experience in analysis of original research reports, writing critiques of epidemiologic articles, data management, preparing appropriate tables and graphs, designing and analyzing observational studies.

Prerequisite: PH-771

PH-775 - Public Health Geographic Information Systems (3 cr)

This course provides students with the knowledge of Geographic Information Systems (GIS) and Spatial Analysis as they apply to public health. Students focus on the collection, maintenance, and interpretation of spatial data to study health concerns, specifically disease clusters, access to health care, health outcomes, risk factors, health status disparities, and emergency response operations. Students will use a variety of downloadable software such as ArcGIS to gain hands-on experience and supplement the case studies provided.

Prerequisite: PH-660

PH-776 - Public Health Surveillance Methods (3 cr)

This course prepares students to design, evaluate, and operate a public health surveillance system; analyze and interpret surveillance data; apply surveillance to various settings, diseases, and public health emergencies; understand how surveillance is used to develop public policy; and appreciate the legal and ethical implications of surveillance. Students learn the procedures used to investigate and track infectious and communicable diseases as well as non-infectious chronic diseases in the United States and developing countries.

Prerequisite: PH-660

PH-780 - Internship in Public Health (3 cr)

In this course students integrate the theories learned in the classroom with real world practical experiences. The Public Health internship allows students to gain valuable skills to be effective in the workplace and to demonstrate public health competencies to their assigned tasks.

Designation: Field Experience

PH-785 - Culminating Experience in Public Health (3 cr)

This course serves as the Capstone experience for the Biostatistics and Epidemiology concentration of the MPH degree. Students utilize the information acquired from the core and concentration courses to design, execute, and present a scholarly project. The course integrates knowledge and competencies in project management, teamwork, research methods, and presentations approaches. Taken in the Final Semester.

PH-790 - Public Health Capstone I (3 cr)

The Capstone course is designed to synthesize the knowledge and skills acquired in all previous courses and apply them to the development of a thesis proposal or a capstone project. Students are expected to work closely with their capstone advisor, committee member and external partner throughout the semester. The capstone is undertaken near the end of the course of study. Principles of Biostatistics, Principles of Epidemiology and Research Methods in Public Health must be completed prior to registering for the Capstone course. Capstone Options: Students who choose to develop a thesis proposal are guided through the preparation of the research question(s) and hypothesis, and literature review. A community-based capstone project option requires collaboration with an institution such as a hospital, an NGO or a community center. The aim is to address a public health issue in an under-served community through the lense of management, quality improvement, program planning, policy, or practice.

Prerequisite: PH-660 and PH-705 and PH-770

PH-795 - Public Health Capstone II (3 cr)

Capstone II is designed to synthesize the knowledge and skills acquired in all previous courses and apply them to the development of a thesis proposal or a capstone project. Students are expected to work closely with their capstone advisor, committee member and external partner throughout the semester. Capstone II culminates in a presentation of the thesis proposal or capstone project to the capstone advisor, committee member, external partner and college community. The capstone is undertaken near the end of the course of study. Students who choose to develop a thesis proposal are guided through the preparation of a proposed methodology for answering the research question(s), completing PH760. A community-based capstone project option requires collaboration with an institution such as a hospital, an NGO or a community center. The aim is to address a public health issue in an under-served community through the lens of management, quality improvement, program planning, policy, or practice.

Prerequisite: PH-790

A**Adebisi Adeyeye**

DHA, University of Phoenix; MPH, New York Medical College
RN, CIC, FAPIC

Sandy Adler

PhD, Hunter College; MPhil, Hunter College

Martin Adorno

Certificate, Ultrasound Diagnostic School
RVT

Vernessa Alexander

BS, St. Francis College
RDMS(AB, OB/GYN)

Leslie Allicks

MHA, Iona College

Amanfo Ankomah

AAS, Westchester Community College
RVT

B**Su-Yan Barrow**

PhD, Walden University; MPH, Hunter College; MA, New York University

Radica Basdeo

AAS, Monroe College

Wendy Brizer

MPH, Columbia University
HCCA

Ilana Bronheim

MS, New York University
RD, CDN

Collette Brown

PhD, Walden University; MS, Florida A & M University

Ida Brown Outlaw

MPA, Long Island University
PA-C

Velda Burgess

MS, Hunter College
RN

C**Lisa Campbell**

PhD, Capella University
CHC, CERHS, CPB, CPMA, CRC

Radames Carlo Jr.

PhD, Northcentral University; MS, Boricua College

Taneille Cloudent

MPA, Keller Graduate school; BS, SUNY Downstate; BA, University of Miami
RDMS(AB, OB/GYN), RDCS(AE), RVT, NYS Teaching Certificate Courses

Cesar Cordova Aguilar

Doctor of Medicine, Universidad Evangelica de El Salvador

D**Lauren DeGiacomo**

BS, St. John's University
RDCS (AE), RVT, NYS Teaching Certificate Courses

Rachel Dumay

BS, St Francis College
RDMS (OB/GYN)

E**Drina Edwards**

MA, Lehman College

Simone Edwards

DrPH, New York Medical College; MPH, New York Medical College

Chigozie Ekpe

DHS, Nova Southeastern University; MOH, University of North Carolina;
MBA, Lagos State University, Nigeria

Tamarra Ellington

BS, SUNY Downstate Health Sciences University
RDMS (AB, OB/GYN), RVT, RDCS

Catherine Elser

MS, Pace University
RN

Sarai Encarnacion

AAS, New York University
RDMS (AB, OB/GYN, PS), RDCS(AE), MSKS

F**Hany Nasar Fam**

MD, D.CH, Shams University Medical School

Dexter Forde

MBA, University of the West Indies; MPA, Long Island University

David A. Forte

MBA, Pace University; MA, Fordham University

G**Gelena Gorelik**

MS, University of California, Davis
RD

H**Shanon Harris**

MS, Mercy College
LMFT-CCTP

Heather Hatcher

JD, Fordham University School of Law; MPH, Johns Hopkins University
CPHRM

Olympia Hoffman

MBA, DeVry University

Loriann Holmes-Wheaton

MPH, Hunter College
CHES

Huda Husseini

MSc, University of Illinois at Chicago

I**Sharon P. Imperiale**

MEd, Grand Canyon University

J**Abdulhakeem Jimoh**

MD, University of Ilorin
Clinical Research Certification, Advanced Drug Safety and
Pharmacovigilance Certification

Tawyanna Joseph-Francis

MA, Lehman College

K**Nana Karikari**

MS, Thomas Jefferson University

Eugene Kaufman

DBA, University of Phoenix; MBA, California State University

Sheila Kaye

MPH, Hunter College; MPH

Erum Khan

BDS, University of Karachi; MBA, Monroe College

Jerry Kostroff

DPM, New York College of Podiatric Medicine; MPH, Columbia University

Nooshik Krekorian

DMRD, Baghdad University; MD, Al Basrah University
RDMS (AB, OB/GYN)

Maria Krivenkova

MD, Russian National Research Medical University
RDMS (AB, OB/GYN), RVT

Komal Kungeesingh

MD, University of The West Indies; MPH, Monroe College
RDMS (AB, OB/GYN)

L**Clover Laguerre**

MS, University of The West Indies

Patrice Lewis-Riley

ND, University of Bridgeport

Michael Limongelli

MS, Fordham University
LMSW

M**Michael Maciol**

MD, Ross University

Francesco Marcello

MD, Albert Szent-Gyorgi University

Elena Mashalova

PhD, Albert Einstein College of Medicine; MS, Sofia University

Phyllis McClain

MPA, DeVry University

Estelita Menor

BS, Notre Dame of Kidapawan College; AS, Eastern Internal College
RDMS (OB/GYN)

Joan Morris

MSN, Lehman college
RN-C, RN Registered Nurse

N**Sarah Nasson**

MS, Buffalo State University; BA, Brigham Young University
RDMS(AB, OB/GYN), NYS Teaching Medical Certificate Courses

Carmen Navarro

MS, Hunter College

Lynn Nguyen

BA, University of Connecticut
RDMS(AE), RVT

Peter Nwakeze

PhD, Fordham University; MA, University of Nigeria

O**Prisca Onyegwara**

DHA, Virginia University of Lynchburg; MPH, Monroe College; BS, Imo
state University Nigeria
CHES

Orobosa Owie

DHA, Capella University; MHA, Capella University

P**Aditi Puri**

PhD, Simmons College; MS, Simmons College

R

Denese Ramadar

MS, Teachers College, Columbia University
RD, CD/N

Deepika Rao-Khan

MD, St. Christopher's College of Medicine; MBA, Loyola University
(Chicago)
LSSBB, CSM, CBAP, CHFP, FACHE

Sheila Rivera

MBA, Monroe College

Katie Rullo

MBA, Concordia University
Licensed Real Estate Broker

Danielle Russ

BSN, Concordia University; BA, StonyBrook

S

Alfonso Santa Teresa

MD, University of Santo Tomas, Phillippines
RDCS (AE), RVT

Hana Sarran-Bridgemohan

PhD, University at Buffalo; MS, University of the West Indies
RD

Melanie E. Schmidt

MSHCA, Independence University; EdD, Walden University

T

Namia A. Tania

AS, MBBS Sylhet MAG Osmani Medical College Hospital
SPI, RDMS (OB/GYN), NYS Teaching Medical Certificate Courses

Franklin Thomas

MPA, Metropolitan College of New York; BA, John Jay College

Doris Trentacosta

MS, Iona College
RN

Dennis Tsui

PhD, University at Albany; MS, University at Albany

V

Tasha Valentino

MPA, John Jay College of Criminal Justice

Carlos Vargas

DBH, Arizona State University; MS, Drexel University

Sol Velazquez

MSW, Yeshiva University
LMSW

W

Stephen Waldow

PhD, University at Buffalo

Lancelot Walker

MS, LIU; BS, SUNY; BS, StonyBrook
RDMS (AB, OB/GYN), RVT, RVS

Daphne Warrington

MHA, University of Phoenix
CST

Kimberly Willet

AAS, Jefferson Community & Technical College
RDMS (AB, OB/GYN), RDCS (FE)

Z

Jorge Zavala

PhD, Esade Ramon Llull University; MBA, ESAN Graduate School of
Business - ESAN University

Yun Zheng

MS, University of New Haven
RDMS (AB, OB/GYN, PS), RVT