

## Health Science Cluster

**Therapeutic Services Pathway** - This pathway applies to occupations or functions primarily involved in changing the health status of the patient and other clients over time. The standards specify the knowledge and skills needed by professionals in the therapeutic services pathway.

**Direct Care Aide** - The health core, medical terminology and anatomy and physiology are included in this major. After completion of the health core, the students in this major will complete Long Term Care/Home Health Care Aide career major along with the Advanced Unlicensed Assistant (AUA) career major. They will learn how to provide basic care in nursing facilities, acute care facilities, and in the patient's home. In addition, they will learn the skills necessary for basic ECG recognition and its use by health care providers. Students will need to obtain Long Term Care and Home Health Care aide certification from the Oklahoma State Department of Health and may obtain AUA certification from the Oklahoma Board of Nursing.

**Advanced Acute Care Nursing Assistant (Pre-Nursing)** - The Health Careers Core Curriculum (Technology Center), Medical Terminology and Anatomy And Physiology are included in this major. Students in this career major complete a long-term care career major and the first two courses of the Licensed Practical Nurse career major. The advanced acute care nursing assistant cares for patients with routine healthcare needs, bedside care, and basic nursing procedures. Students must pass the Oklahoma State Department of Health's certification exam for long term care assistants to work in most facilities as nursing assistants.

**Advanced Unlicensed Assistant** - Students in this career major will learn the functions of an Advanced Unlicensed Assistant, which includes performing more advanced functions in an assistive role with a licensed practical nurse or registered nurse in acute care facilities. They will complete a long-term care course and then proceed into the advanced curriculum and learn how to perform sterile specimen collection, urinary catheterization, and feeding per gastrointestinal tube. Advanced Unlicensed Assistant (AUA) certification must be obtained from the Oklahoma Board of Nursing.

**Certified Medication Aide** - Students must be at least 18 years of age, have a high school diploma or GED and already be a certified in long term care nursing assistant through the Oklahoma Department of Health. Students must have six months of experience to qualify for certified medication aide certification. Students in this career major will learn how to properly administer medication to patients orally, topically, vaginally, rectally, transdermally, and by ear, nose, eye. They will also learn about ethics in this profession, recognition of improper medication, and how to properly document the medication given. Students will also complete a special course on insulin administration.

**Certified Massage Therapist** - Anatomy and physiology and medical terminology are included in this career major. Students in this major will learn the credentialing requirements, common legal and ethical issues in massage therapy, and a variety of massage therapy techniques. They will also learn the basic principles of Eastern and Western medicine, alternative therapies, pharmacology, the relationship between basic principles of kinesiology and each body system as it relates to massage therapy. Additionally the student is provided the opportunity to use the

theory in practical clinical experiences. Students will need to be certified as massage therapists by the National Certification Board for Therapeutic Massage and Bodywork.

**Chiropractic Assistant** - In this Career Major, students complete the Health Careers Core Curriculum (Technology Center), Core Medical Terminology and Anatomy and Physiology, Core First Aid and Healthcare Provider CPR. Students in this major learn the history, basic philosophy, techniques, and vocabulary of the chiropractic profession. Ethics, insurance billing and coding, and office management will be taught along with how to provide basic patient care. The student will study physiotherapy for athletic training by studying various types of exercises and their functions in patient education; the use of range of motion; strengthening and proprioceptive exercises for major areas of the body. An internship is also included in this major.

**Basic Medical Assistant** – Students in this major will learn the role of the basic medical assistant. They will learn a brief history of medicine, the characteristics needed to be a medical assistant, how to take patient history, do basic patient assessment, assist in minor office procedures, practice good ethical behavior, communication skills, phlebotomy, and other basic skills related to assisting in a medical office. Additionally students are provided the opportunity to use the theory in practical clinical experiences. In this Career Major, Core Medical Terminology and Anatomy and Physiology are taught.

**Certified Dental Assistant** - Students in this major will learn how to perform patient care, front office and laboratory duties for the dental office. They will practice infection control, use dental materials, perform dental charting and chairside functions. The major includes clinicals in a professional office. Core First Aid and Healthcare Provider CPR is included in this career major.

**Dental Assistant** - Students in this major will learn how to perform patient care, front office and laboratory duties. They will practice infection control, use dental materials, perform dental charting and chairside functions. The major includes clinicals in a professional office. Core First Aid and Healthcare Provider CPR is included in this career major. This career major is for students who have an accredited Dental Assistant career major option available on their campus.

**Dental Hygienist** - Students in this major will learn the dental hygiene process of care procedures including how to care for pediatric and aging patients and how to communicate with patients. They will also learn about pharmacology, dental terminology, head and neck anatomy, and tooth identification. Students will also study the oral cavity with an emphasis on the development of oral structures including the anatomy, functions and structure of teeth. In addition, students will also learn how to do some advanced treatments. There will also be a clinical portion to this major. Students will need to be admitted into the University of Oklahoma Dental Hygiene program prior to enrolling in this major.

**Dental Laboratory Technician** - Students in this major will learn the roles and responsibilities of a dental laboratory technician including safety, infection control, legal and ethical standards and preventative dentistry. They will learn dental terminology, tooth morphology, and oral anatomy. They will also learn how to set denture teeth and build crowns and bridges. An internship may be included as part of this major.

**EMR Emergency Medical Responder** - In this Career Major, students complete the Health Careers Core Curriculum (Technology Center), Core Medical Terminology and Anatomy and Physiology, Core First Aid and Healthcare Provider CPR. Students in this major learn how to treat and assess patients in emergency medical and trauma situations, including how to treat patients in shock and those who are unconscious. The major is designed for firefighters, law enforcement personnel, industry and first response providers and it prepares students for testing and registration through the Oklahoma State Department of Health or NREMI as EMR.

**Emergency Medical Technician–Basic** - Core First Aid and Healthcare Provider CPR is included in this career major. Students in this major learn about airway management, how to perform patient assessment, how to respond and treat patients in common medical emergencies, and how to manage trauma patients. They will gain fundamental knowledge of EMS operational roles and responsibilities, including ethics, to ensure safe and effective response, scene management, and transport of patients. Students practice in a variety of settings as chosen by the instructor. Students must obtain EMT-Basic certification to work in this field.

**Emergency Medical Technician–Advanced** - Students in this major will learn about the roles and responsibilities of an EMT-Advanced. They will study the same topics as EMT-Basics, but more in depth. They will learn the medical and legal considerations, communication, medical terminology, advanced airway management, IV therapy skills, and ventilation and shock management. A clinical preceptorship is also included in this major. Students will need to have completed EMT-Basic before enrolling in this major and they must obtain EMT-Advanced certification to work in this field.

**Emergency Medical Technician-Paramedic** - EMT-Paramedics study the same topics as EMT-Basics, but more in depth. EMT-Paramedics also have more responsibilities and play a larger role in the EMS system. In the EMT majors students will learn airway management and ventilation, how to perform patient assessment, how to respond and treat patients in medical emergencies, and how to manage trauma patients. They will gain fundamental knowledge of EMS operational roles and responsibilities, including ethics, to ensure safe and effective response, scene management, and transport of patients. Students practice in a variety of settings as chosen by the instructor. Students must obtain EMT-Paramedic certification to work in this field.

**Emergency Medical Technician-(Advanced & Paramedic)** - Emergency Medical Technicians will complete the EMT-Advanced and EMT-Paramedic majors in order to become EMT-Paramedics. Students will study the same topics as EMT-Basics, but more in depth. The students will learn airway management and ventilation, how to perform patient assessment, how to respond and treat patients in medical emergencies, and how to manage trauma patients. They will gain fundamental knowledge of EMS operational roles and responsibilities, including ethics, to ensure safe and effective response, scene management, and transport of patients. Students must complete EMT-Basic prior to enrolling in this one and they must obtain EMT-Paramedic certification to work in this field.

**Feeding Assistant** - This Health Careers Core Curriculum (Technology Center) core is required as part of this career major. Students in this major will learn about the nutritional needs of

residents in a long-term care facility. They will also learn about communication and interactions involving the residents and staff. In addition, they will learn about the challenges and safety procedures of this profession. Students will also complete Core Healthcare Provider CPR/First Aid course.

**Fitness Specialist** - This Health Careers Core Curriculum (Technology Center) core is required as part of this career major. Students in this major will explore the fitness industry while learning a variety of exercise techniques and how to individualize programs. They will learn the code of ethics and the legal guidelines of professional responsibilities that fitness professionals must follow. They will also learn the physiology behind fitness and exercise and how to evaluate current fitness levels using a variety of tests along with the concepts of nutrition and weight control. Students will also complete Core Healthcare Provider CPR/First Aid course as well as medical terminology, and anatomy and physiology. Additionally, the student is provided the opportunity to use the theory in practical clinical experiences.

**Home Health Care Nursing Assistant** - A home health care nursing assistant provides basic health care in a patient's home. They assist with routine healthcare needs, bedside care and basic nursing procedures. Additionally students are provided the opportunity to use the theory in practical clinical experiences. They play a vital role in the health care team. Students must pass the Oklahoma State Department of Health's certification exam for long term care assistants prior to enrolling in this major.

**Licensed Practical Nurse** - Core Medical Terminology, Anatomy and Physiology as well as Long Term Care Assistant are included in this career major. This career major prepares the student to become a licensed practical nurse, an important member of the health care team who works under the supervision or direction of a registered nurse, licensed physician or dentist. Students will learn the role of the LPN and how to care for a variety of patients including geriatric, pediatric, oncology, and pre/post operative patients. Students will learn how to identify patient problems, identify appropriate interventions and evaluate nursing care. Graduates of this career major will be eligible take the NCLEX-PN and become licensed through the Board of Nursing.

**Long Term Care Nursing Assistant** - Long-term care assistants play a vital role in the health care team. They help patients with routine healthcare needs, bedside care, and basic nursing procedures. They are often employed in long-term care facilities and hospitals. Additionally students are provided the opportunity to use the theory in practical clinical experiences. Students must pass the Oklahoma State Department of Health's certification exam for long term care assistants to work in most facilities.

**Long Term Care/Home Health Care Assistant** - This career major is a combination of the Long Term Care Assistant and Home Health Care Assistant Majors and allows students to complete the requirements for both majors. Long-term care assistants help patients with routine healthcare needs, bedside care, and basic nursing procedures in long term care facilities and hospitals. A home health nursing assistant provides the basic health care in a patient's home. Both play a vital role in the health care team. Additionally students are provided the opportunity

to use the theory in practical clinical experiences. Students must obtain certification from the Oklahoma State Department of Health to work in most facilities.

**Medical Assistant** - Medical assistants are multi-skilled health professionals who work primarily in ambulatory settings such as medical offices and clinics. They perform clinical and administrative tasks and their duties vary by office or clinic. The major combines classroom, laboratory and work-site learning components to ensure that each student achieves entry-level competencies for the medical assistant. Students practice in a variety of settings as chosen by the instructor. Students completing this career major will be eligible to sit for the Registered Medical Assistant exam.

**Multi-Skilled Technician** - After completion of the Health Careers Core Curriculum (Technology Center) core students in this major will complete a variety of other majors in order to become a healthcare provider with multiple certifications. The other majors that will be completed as part of this major are: Long Term Care Assistant, Restorative Care Aide, Advanced Unlicensed Assistant, EKG Technician, and Phlebotomy Technician. In addition, students will also learn Basic Radiography for The Healthcare Provider including the principles and basic concepts of radiography. Students will need to obtain certifications or will receive certifications of completion in the completed major areas to work in this field.

**Occupational Therapy Aide** - After completion of the Health Careers Core Curriculum (Technology Center) core students in this major will learn about the field of occupational therapy including licensure and certification requirements and the legal/ethical issues of the field. They will learn how to perform clerical duties for this profession along with the communication skills that they will need. Students will also learn how to assist with therapy agent and modalities including therapeutic exercises. In addition, students will also complete the health core, CPR/First Aid, medical terminology, and anatomy and physiology. Additionally, the student is provided the opportunity to use the theory in practical clinical experiences.

**Occupational Therapy Assistant** - General Education courses must be taken as part of this Career Major. These include: English Composition I, English Composition II, American Government & Politics, Math or College Algebra and US History. Prerequisites - Support courses taken are: General Psychology, Medical Terminology, Biological Concepts with Lab, Human Anatomy with Lab, Human Physiology with Lab and Developmental Psychology. Students in this major will learn about the role of the occupational therapy assistant. They will learn the basic anatomic and physiologic concepts of human movement and about the various mental and physical health problems that are commonly dealt with in occupational therapy. They will learn how to treat patients with physical limitations, pediatrics, geriatrics, and patients with emotional, cognitive, and psychosocial problems. They will also learn about incorporating crafts and other activities into treatment. There will also be an observation and clinical portion to this major. Students must obtain certification from National Board for Certification in Occupational Therapy (NBCOT) to work in this field.

**Prosthetic Technician** - Students in this major will learn how to use the equipment, tools, and materials used to make and repair prosthetic devices and about the fabrication processes involved in prosthetics. They will learn about the importance of alignment in the prosthetics and how to

use reinforcement materials. Students will also complete medical terminology and technical anatomy. In addition, students will fabricate several prostheses including one for a pediatric patient and complete a clinical externship as part of this major.

**Orthotics Technician** - Students in this major will learn how to use the equipment, tools and materials used to manufacture orthotic devices including how to use plastics, metal and leather. Students will also learn the procedures used to manufacture foot orthosis, ankle-foot orthosis, knee-ankle-foot orthosis and orthotic shoe modifications along with spine supports and upper limb support systems. Students will also complete medical terminology and technical anatomy along with clinical externship.

**Orthotics/Prosthetics Technician** - This career major is the combination of the prosthetic and orthotics technician's career majors. Students in this major will learn how to use the equipment, tools, and materials used to make and repair prosthetic devices and about the fabrication processes involved in prosthetics. They will learn about the importance of alignment in the prosthetics and how to use reinforcement materials. Students will also complete medical terminology and technical anatomy. In addition, students will fabricate several prostheses including one for a pediatric patient and complete a clinical externship as part of this major.

Students in this major will also learn how to use the equipment, tools and materials used to manufacture orthotic devices including how to use plastics, metal and leather. Students will also learn the procedures used to manufacture foot orthosis, ankle-foot orthosis, knee-ankle-foot orthosis and orthotic shoe modifications along with spine supports and upper limb support systems. Students will also complete medical terminology and technical anatomy along with clinical externship.

**Physical Therapy Aide** - In this Career Major, students complete the Health Careers Core Curriculum (Technology Center), Core Medical Terminology and Anatomy and Physiology, Core First Aid and Healthcare Provider CPR. A physical therapy aide has many duties such as keeping the treatment area clean and prepped and assisting patients in preparation for treatment. Many physical therapy aides also have clerical duties such as paperwork, maintaining patient records, and making sure that supplies are in stock. In addition to the physical therapy aide courses include courses in ethics and law, patient care, clerical skills, ambulation, therapeutic exercises, agents and modalities. Students practice in a variety of settings as chosen by the instructor.

**Physical Therapy Assistant** - General Education courses must be taken as part of this Career Major. These include: English Composition I, English Composition II, American Government & Politics, Math or College Algebra and US History. Prerequisites - Support courses taken are: General Psychology, Medical Terminology, Biological Concepts with Lab, Human Anatomy with Lab, Human Physiology with Lab and Developmental Psychology Physical therapy assistants perform a variety of tasks under the direction and supervision of physical therapists. They provide part of a patient's treatment, which may include exercises, massages, electrical stimulation, paraffin baths, hot and cold packs, traction, and ultrasounds. Physical therapist assistants also record the patient's responses to treatment and report the outcome of each treatment to the physical therapist. Students in this major will learn about vital signs, range of

motion, muscle function, pain management, advanced therapeutic exercise training, and how to do work with patients with severe injuries or disabilities. Students practice in a variety of settings as chosen by the instructor. Students must obtain Physical Therapy Assistant certification to work in this field.

**Restorative Aide** – This major allows students the opportunity to complete the requirements for being a long-term care assistant and to continue their education to be a restorative aide. Restorative aides focus their care on patients in long term care facilities and they may help in the rehabilitation with patients with physical and mental impairments. Students must obtain CNA certification prior to completing the restorative care courses in the major. In this Career Major, students complete the Health Careers Core Curriculum (Technology Center), Core Medical Terminology and Anatomy and Physiology. Also, Core First Aid and Healthcare Provider CPR is included in this career major.

**Student Athletic Training Aide** - In this Career Major, students complete the Health Careers Core Curriculum (Technology Center), Core Medical Terminology and Anatomy and Physiology, Core First Aid and Healthcare Provider CPR. Students will also be provided a history and introduction to the athletic training profession and an introduction to pharmacology and nutrition. They will learn to recognize, evaluate, and provide care to athletic injuries including how to wrap, tape, and fit equipment according to safety regulations. In addition, patient care and exercises and their functions will also be covered. Students practice in a variety of settings as chosen by the instructor.

**Surgical First Assistant** - Students in this major will learn the legal, ethical, moral and professional responsibilities of a surgical first assistant. They will study disease process including specific types of pathologies associated with body systems and the impact of microorganism in the surgical environment including the risks to patients. Students will also study preoperative and intraoperative effects of drugs used in surgery, wound management techniques, suturing techniques, and perioperative care. They will also learn how to recognize certain complications and how to respond. There will also be a clinical portion to this major and students should obtain certification from National Board of Surgical Technology and Surgical Assisting (NBSTSA) as a certified first assistant.

**Surgical Technologist (Accredited Program)** - Surgical technologists handle instruments, supplies and equipment necessary during the surgical procedure and work closely with surgeons, anesthesiologists, registered nurses, and other surgical personnel to deliver patient care before, during and after surgery. The major combines classroom instruction, laboratory practice, and clinical experience to ensure that each graduate meets entry-level competencies as a Surgical Technologist.

**Therapy Technician** - After completion of the Health Careers Core Curriculum (Technology Center) core students in this major will complete a variety of other majors in order to become a healthcare provider with multiple certifications. The career majors that will be completed as part of this major are: Occupational Therapy Aide, Physical Therapy Aide, and Student Athletic Training Aide. These three major areas will provide the student with a variety of skills that can

be used in a variety of therapy settings. Students should obtain available certifications of completion in the completed career majors.

**Veterinary Assistant** - In this Career Major, students complete the Health Careers Core Curriculum (Technology Center), Core Medical Terminology and Anatomy and Physiology, Core First Aid and Healthcare Provider CPR. Veterinary Assistants feed and bathe animals, administer medication as prescribed by the Veterinarian and assist the Veterinary team with animal nursing techniques. Students learn how to do basic office procedures and how to provide large and small animal care including how to perform diagnostic procedures. Students practice in a variety of settings as chosen by the instructor. Upon completion of this course, students have experiences and skills necessary to become employed in a veterinary clinic or hospital.

**Vision Care Technician** - After completion of the Health Careers Core Curriculum (Technology Center) core students in this major will learn about major body systems with an emphasis on the interaction of these systems and ocular anatomy and physiology. Students will also learn about common ocular abnormalities and disease processes along with ophthalmic medications and their uses. They will also learn the basic concepts and principles of office practices and procedures including maintenance of diagnostic and ophthalmic equipment. In addition students will also learn about ocular examination techniques, basic optics and refractive error correction, and contact lens types and their appropriate wear and care regimen. Students will practice in a variety of settings as chosen by the instructor. Upon completion of this course, students will have experience and skills necessary to become employed in a vision care setting.

**Vision Care Assistant** – After completion of the Health Careers Core Curriculum (Technology Center) core students in this major will learn about major body systems with an emphasis on the interaction of these systems and ocular anatomy and physiology. Students will also learn about common ocular abnormalities and disease processes along with eye care medications and their uses. They will also learn the basic concepts and principles of office practices and procedures including maintenance of diagnostic and vision care equipment. In addition students will also learn about ocular examination techniques, basic optics and refractive error correction, and contact lens types and their appropriate wear and care regimen. Students will practice in a variety of settings as chosen by the instructor. Upon completion of this course, students will have experience and skills necessary to become employed in a vision care setting.

**CAN/AUA** - This major is a combination of the Nursing Assistant and Advanced Unlicensed Assistant (AUA) majors. Students will learn the skills needed to perform personal care for patients in various care facilities. They will also learn the more advanced skills in the AUA training such as how to perform sterile specimen collection, urinary catheterization, and feeding per gastrointestinal tube. Students will need to obtain certification of completion and may receive AUA certification from the Oklahoma Board of Nursing.

**Advanced Respiratory Therapist** - Students in this major will learn about the theory and practice in preparation for the Respiratory Therapist. Respiratory care procedures and the medications used in the treatment of respiratory and cardiac disorders are presented. They will also learn the anatomy and physiology of healthy and diseased cardiopulmonary systems. In addition, students will learn chemistry, physics, biology and microbiology as it relates to



respiratory care additionally; the student is provided the opportunity to use the theory in practical clinical experiences. Students may obtain certification as a respiratory care therapist from the National Board of Respiratory Care (NBRC).

**LTCNA Specialist** - This major is designed as a bridge for students with long term nursing assistant certifications and the Licensed Practical Nurse Majors. In this major students will complete the Certified Medication Aide major and the Advanced Unlicensed Major and start working on the first few courses of the licensed practical nurse major. In addition, students will also learn medical mathematics. Students will be eligible for advanced unlicensed certification (AUA) from the Oklahoma Board of Nursing and certified medication aide (CMA) from the Oklahoma State Department of Health.

**Pharmacy Technician** - After completion of the Health Careers Core Curriculum (Technology Center) core students in this major learn the state and federal laws concerning controlled substances, classification of drugs, and pharmaceutical math. Medical and pharmaceutical terminology will also be covered including how to properly pronounce drug names. Students will also learn the customer service and employability skills necessary to succeed in a retail pharmacy. There will also be an internship, or simulation, component of this major. It is recommended that students obtain their pharmacy technician certification.

**Multi-Skilled Assistant** - After completion of the Health Careers Core Curriculum (Technology Center) core students in this major will complete a variety of other majors in order to become a healthcare provider with multiple certifications. The other majors that will be completed as part of this major are: Veterinary Assistant, EKG Technician, and Phlebotomy Technician. These three major areas will provide the student with a variety of skills that can be used in a variety of settings. In addition, students will also learn basic radiography for the healthcare provider including the principles and basic concepts of radiography. Students should obtain available certifications or certifications of completion in the completed major areas.

**Advanced Pharmacy Technician** - This Career Major builds upon the basic coursework of a Pharmacy Technician including advanced procedures and practice settings. Students will learn aseptic techniques in the pharmacy and compounding skills. In addition to retail exposure, students will become familiar with hospital and long-term care pharmacy environments.

**Pharmacy Aide** - Students in this major learn medical math and medical terminology. In addition students will complete the first phase of the pharmacy technician training.

**Medical Office Specialist** - Students in this major will learn about front office procedures needed in doctor's offices and other medical settings. They will learn how to type, format documents, and use MS Word, Excel, and Outlook. In addition, students will also learn how to prepare medical insurance forms, transcript medical reports, code, and how to bill and schedule. Students will also learn CPR/First Aid, medical terminology and the basics of anatomy and physiology. Students will practice in a variety of settings as chosen by the instructor. Upon completion of this course, students will have experience and skills necessary to become employed in a medical, dental or veterinary office setting.