

# Introduction

Health Science is a program for students who have an interest and desire to explore medical careers. Students gain the knowledge and skills to make realistic career choices in this field. Students enhance their academic foundation through a strong science and math based enriched curriculum. Industry partnerships provide students with valuable observation-based experience so students can visualize their potential roles in safe, effective, efficient, quality health care settings. Emphasis is placed on safety and technology used in health care.

Opportunities for leadership and citizenship development are available through membership and participation in Health Occupations Students of America (HOSA). This student professional organization provides opportunities for leadership development, knowledge and skill recognition through the competitive events program and community service projects. By networking with health care professionals, students receive guidance in selecting and pursuing a health career.

# Career Opportunities

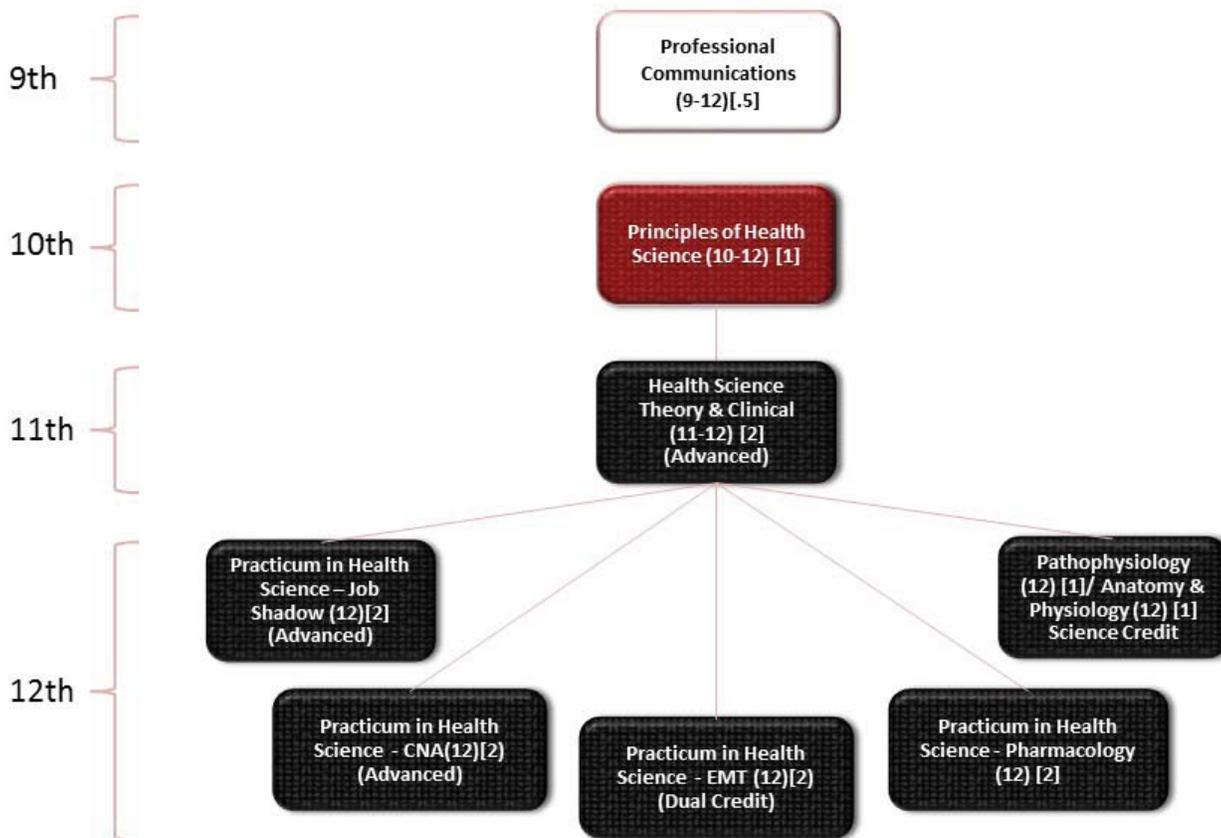
Physician  
Dentist  
Therapist (i.e., Physical, Respiratory)  
Psychologist  
Administrator

Nurse  
Emergency Medical Technician  
Radiologist  
Optometrist  
Nutritionist

Pharmacy Services  
Veterinary Services  
Lab Technician  
Ophthalmologist  
Sports Physician

# Sequences

## Health Science



Public Service

## T4080

### Principles of Health Science

- ▶ **Grade Placement** ..... 10-12
- ▶ **Credits** ..... 1
- ▶ **Prerequisite**..... None

This course gives an overview of the medical terminology, therapeutic, diagnostic, environmental and informational systems of the health care industry. The focus is on career exploration, leadership development, ethical and legal issues and the history, economics and trends in financing health care. Students will develop a concept of health and wellness from the perspective of a consumer as well as a potential professional in the health care industry. **This course is a required prerequisite for Health Science.**

## T4050

### Health Science Theory and Clinical

- ▶ **Grade Placement** ..... 11-12
- ▶ **Credits** ..... 2
- ▶ **Prerequisite**..... **Principles of Health Science (Application/Approval Required)**
- ▶ **Location**..... **Advanced Technology Complex**
- ▶ **Partnerships**..... **Denton Regional Medical, Presbyterian Hospital of Denton, Denton Fire Department**

This course is designed to provide for the development of multi-occupational knowledge and skills related to a wide variety of health care careers. Students will have hands-on experiences for continued knowledge and skill development. The course may be taught by different methods such as laboratory, simulations, clinical rotation, or cooperative education. Students may be placed in clinical rotation internships at the hospitals; this placement is a privilege, not a guarantee. **This course is a required prerequisite for Practicum in Health Science: Job Shadow Internship.**

## T4055 / T4060 / T4065 / T4085

### Practicum in Health Science

- ▶ **Grade Placement** ..... 12
- ▶ **Credits** ..... 2
- ▶ **Prerequisite**..... **Principles of Health Science, Health Science(Approval Required)**
- ▶ **Location**..... **Advanced Technology Complex**

The course may be taught by different methodologies such as laboratory, cooperative education or an occupationally specific course with clinical training. Students may be placed in clinical rotation internships at the hospitals; this placement is a privilege, not a guarantee.

#### T4055

##### **1) Job Shadow Internships (Seniors Only)**

**Prerequisite:** Principles of Health Science/Health Science

Job Shadow Internships in a specific and selected specialty area are what this course entails. This course provides students an opportunity for an unpaid internship at a medical location correlated with the student's career goals. It can also be used as an occupational course specifically designed to provide knowledge and skills for certification or licensure in an allied health career. Students develop advanced clinical skills necessary for employment in the health care industry or continued education in health careers. Students must provide their own transportation to their internship sites.

#### T4060

##### **2) Certified Nursing Assistant (CNA) (Seniors Only)**

**Prerequisite:** Principles of Health Science/Health Science

**Partnerships:** Good Samaritan

This course is designed to provide instruction toward a certification with the State of Texas for Certified Nursing Assistant. CNAs provide basic bedside care under the care of a Physician, Registered Nurse and Licensed Vocational Nurse. Students will be able to work in a medical facility after passing state certification. Class requirements include 76 hours of classroom instruction along with 30 to 40 hours of clinical instruction at the nursing facility. Students will have an opportunity to test for certification.

## T4065

### **3) Pharmacology (Seniors Only)**

**Prerequisite:** Principles of Health Science/Health Science

The Pharmacology Program provides students with the skills and knowledge to prepare them for the national Pharmacy Technician Certification Board exam and enable students to qualify for entry-level positions in retail and hospital pharmacies. The course content will emphasize medical math skills for pharmacy and nursing, drug classifications, drug actions, drug administration, ethical and legal issues, safety, and pharmacodynamics/pharmacokinetics of prescription and nonprescription medications. Students will explore career options. Students will have an opportunity to test for certification.

## T4085

### **5) Emergency Medical Technician (Dual Credit Program) (Senior Only)**

**Prerequisite:** Principles of Health Science, Health Science

This course provides an introduction to the normal structure and function of the body, including an understanding of body systems in maintaining homeostasis with principles of microbiology also included. The course uses a method of instruction providing detailed education, training and work-based experience, and direct patient/client care, generally at a clinical site. Instruction includes all the skills necessary to provide emergency medical care at a basic life support level with an ambulance service or other specialized services. The Emergency Medical Technician (EMT) courses provides instruction to prepare students for EMT certification. This course is a dual credit program offered with NCTC . The courses students will register for are VNSG 1420, EMSP 1160 & 1501. The EMT curriculum is based on the National EMS Educational Standards

## Allied Health Program

These courses are designed to provide a portion of basic foundation curriculum of the Allied Health program offered at North Central Texas College. Upon passing the final provided by NCTC with a minimum grade of 80%, the student will earn Anatomy and Physiology credit in the Allied Health program at NCTC. The student will be required to pass the Nursing Entrance Exam to be accepted into the NCTC Allied Health program.

### **Semester 1**

#### **T4090**

### **Allied Health Anatomy & Physiology**

- ▶ **Grade Placement ..... 12**
- ▶ **Credits ..... 1**
- ▶ **Prerequisite..... Biology and 2nd Science**
- ▶ **Location..... Advanced Technology Complex**
- ▶ **Partnerships ..... North Central Texas College**

Anatomy and Physiology focuses on the study of the structure of function of the human body, its individual systems and the integration of the body systems into an efficiently functioning organism. Respiration, transportation, nutrition, excretion, support/movement, and reproduction are the major topics covered. Student must take both semesters to receive college Anatomy & Physiology credit.

### **Semester 2**

#### **T40953**

### **Allied Health Pathophysiology**

- ▶ **Grade Placement ..... 12**
- ▶ **Credits ..... 1**
- ▶ **Prerequisite..... Biology and Chemistry**
- ▶ **Location..... Advanced Technology Complex**
- ▶ **Partnerships ..... North Central Texas College**

The pathophysiology course is designed for students to make informed decisions using critical thinking and scientific problem solving. Students in this class will study disease processes and how humans are effected. Emphasis is placed on prevention and treatment of disease. Students will differentiate between normal and abnormal physiology. This course counts as a Science credit.