1. **Course Description**  
The Health Science Academy is designed for College Tech Prep and career technical education Trumbull County students in Grades 11-12. The course of study portion of this program reflects the academic and technical competencies for secondary education students. The technical focus is on the blending of a variety of Health Care concepts into hands-on applications for the improvement of life. Students transitioning to post-secondary education will receive reinforcement and additional training in these areas.

During the first semester all Health Science Academy (HSA) students will complete coursework that is basic/core to all medical programs. They will then go into one of two pathways in the medical professions: the Pre-Nursing pathway will focus on therapeutic or hands on care, growth and development throughout the lifespan, and basic pharmacology knowledge or the Pharmacy Tech pathway which will focus on pharmacological science, retail tasks and responsibilities, and institutional pharmacy technician skills.

Pre Nursing students will complete five (5) courses during their two year educational experience at TCTC: Principles of Allied Health Medicine, Patient Centered Care, Medical Terminology, Patient Centered Care and Diagnostics, and Pharmacology. Students will take a Web Exam at the completion of each course.

Students will be prepared to advance into a post-secondary nursing or other type of health care post-secondary education, or take the certification exam if their chosen field is Pharmacy Technician. The Pharm Tech certification allows the graduates to work in this profession or use it as a basis for advancement in the pharmacy career area or other health care profession of their choice. All pathways will begin the second semester of the junior year. All pathways will take the Nurse Aide Training and Competency Program (NATCEP) to have the opportunity to become a State Tested Nurse Aide (STNA) at the beginning of the senior year.

The students will receive instruction in the following areas:

1. **Business Operations:**
   - Employability Skills
   - Leadership, Professionalism, and Communications
   - Business Ethics and Law
   - Knowledge Management and Information Technology
   - Global Environment
   - Business Literacy
   - Critical Thinking & Decision Making

2. **Human Body System**
   - Human Body Form, Function and Pathophysiology
   - Evaluate Body Systems
   - Medical Terminology

3. **Therapeutic Interventions**
   - Environmental Interventions
   - Health Promotion Interventions
   - Emergency Interventions
   - Nutritional Interventions
2. **Instructional Philosophy**

A key component of the Ohio Career Field Initiative is a career pathway, which is a series of academic and technical career-focused course work and other learning experiences leading to a career specialty and employment in a career field. Pathways facilitate a seamless transition from high school to postsecondary education (including apprenticeships, adult education, two- and four-year colleges and graduate school) and from postsecondary education to the workplace.

To effectively facilitate the transition from secondary to postsecondary education and a career, high school career pathways should encompass:

- challenging technical course work in a chosen career field based on career field technical content standards;
- rigorous academics that meet Ohio’s academic content standards and grade-level expectations;
- electives that relate to career objectives;
- instructional enhancements such as experiential and authentic learning opportunities (e.g. work-based learning, advanced placement, mentorships, internships) and career-technical student organization participation;
- opportunities for student certification: CPR, STNA
- preparation for transition to further study that includes college readiness and opportunities to earn college credit while in high school;
- preparation for transition to employment with advancement opportunities; and
- performance targets that include high school academic and technical testing/exit and postsecondary entry/placement requirements
Students will have a clinical component during the STNA portion of the program, approximately 20 clinical hours in a local long-term care facility, with instructor supervision. Students will be expected to apply theoretical concepts to actual, real-life patient situations. Students will be responsible to complete the care of the assigned patients while maintaining patient confidentiality, following the health care facility policies while providing a safe environment for the patient.

3. Course Goals
Upon completion of the Health Science Academy: Pre-Nursing course, the student will be able to:

- Discuss Health Care Core material as prescribed by the ODE.
- Demonstrate communication skills, which enhance collaboration with members of the health care team, patients, and families.
- Demonstrate accountability in delivering patient care.
- Implement and maintain a high standard of professional ethics and legal responsibilities.
- Utilize medical terminology and medical abbreviations correctly, including spelling.
- Provide a safe environment conducive to the well being of patients, families, co-workers, and self.
- Successfully complete the STNA certification test
- Demonstrate knowledge of basic healthcare principles and skills.
- Demonstrate knowledge of Growth and Development through the lifespan.
- Demonstrate knowledge of basic pharmacology principles
- It is the goal of the program to prepare students for a seamless transition into a two- or four-year post-secondary education setting or enter into an entry-level STNA position directly out of high school.

4. Major Course Assignments and Projects
- Research project during Career Exploration unit
  The student will complete research on one health care profession and present this information to the class. Students will research and present a variety of topics including a definition of the profession, amount of education required, and licensure tests/requirements, duties and skills, wages, where to find a job in this profession, etc.
- TCTC Job Shadow Experience-junior year
  Students may participate in TCTC’s Job Shadow experience if they academically qualify. This provides an opportunity for HSA students to explore healthcare career options that the student is interested in. The student will be responsible for arranging their shadow experience. The student is responsible for completing all assignments that are aligned with this experience. If the student does not qualify for this experience, an alternative assignment will be provided. Students must participate in the Job Shadow Experience in order to qualify to participate in advance placement in their senior year.
- Nurse Aide Training Competency Program test as designed by the Ohio Department of Health-senior year
  Students will complete the theory and clinical component (90 hours) of the STNA training. Approximately 20 clinical hours in a local long-term care facility will be completed with instructor supervision. Students will be expected to apply theoretical concepts to actual, real-life patient situations. Students will be responsible to
complete the care of the assigned patients while maintaining patient confidentiality, following the health care facility policies while providing a safe environment for the patient.

- **Written Clinical Assignments:**
  The student is expected to apply theoretical concepts to patients in the clinical setting. Students will complete a written assignment each clinical day correlating key STNA concepts to resident care provided that day.

- **Senior Project**
  All senior students are required to complete all components of a senior project to earn their certification of completion.

5. **Course Assessment Plan**
   - Student assessment will be based on written exams, tests, quizzes, final exams, individual completion of written clinical assignments, performance tests in lab, and projects related to coursework. A rubric will be used for special projects. Students will know prior to completion of the project, how it will be graded and the point value of the project.

   - Students are expected to take and pass the STNA certification test. Students must have at least 80% in the STNA course to be eligible to take the STNA certification test.

   - Students may participate in College Credit plus program through Eastern Gateway Community College (EGCC) to earn 5 college credits through the STNA program. All EGCC admissions and class requirements must be completed to qualify.

   - Students will have the opportunity to earn college credit through an Ohio Articulation agreement (CTAG) through the Ohio Board of Regents (OBR). Students must earn a “B” or better in Medical Terminology course 072150, and pass the Web Exam at the end of the course.

   - Students will have the opportunity to participate in the Emergency Medical Technician (EMT) program with the Public Safety program during the second semester of their senior year if qualify and wish to acquire this additional certification.

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