Delaware Department of Education
CTE & STEM Office
401 Federal Street, Suite 256
Dover, DE 19901
PHONE: 302.735.4015 FAX: 302.739.1780

# DELAWARE CTE PROGRAM OF STUDY APPLICATION

## LOCAL EDUCATION AGENCY INFORMATION

**Local Education Agency (LEA):**

| **School(s) where the Program of Study will be Located:** | **Program of Study Start Date:** |
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| **LEA CTE Coordinator Name:** | **Phone:** | **E-Mail Address:** |
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| | | |

| **Career Cluster Title:** | **Career Pathway Title:** | **Program of Study Title:** |
|---|---|---|
| Health Sciences | Therapeutic Services | Nurse Assisting |

**CTE Program of Study Course Titles & Sequence:**

1. Fundamentals of Health Sciences (FHS)
2. Essentials of Anatomy and Physiology (EAP)
3. Certified Nurse Assisting (CNA)

**CTE Program of Study Request:**

☒ State-model CTE Program of Study
☐ Local CTE Program of Study

## ASSURANCES & SIGNATURES

CTE Program of Study approval and funding is contingent upon the following assurances:

1. The LEA will comply with Delaware Administrative Code, 14 Del.C. §525, Requirements for Career and Technical Education Programs and the Delaware State Plan for the Carl D. Perkins Career and Technical Education Act of 2006;
2. The LEA will submit CTE program data as required by the Delaware Department of Education;
3. All teachers are certified in the appropriate CTE area and participate in program specific professional learning;
4. The LEA will convene and engage a program advisory committee for the purposes of program development, implementation, and continuous improvement;
5. All students have equal access to the program of study as well as early career/early college options;
6. Career and Technical Student Organizations are integral components of the program of study;
7. The LEA will maintain safe facilities and equipment aligned with the program of study goals; and
8. A process for continuous improvement has been established, which includes a model of evaluation and program improvement.

| LEA CTE Coordinator Signature: | Date: |
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| LEA Chief School Officer Signature: | Date: |
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## PROGRAM ADVISORY COMMITTEE MEMBER INFORMATION

Complete the list of program advisory committee members. Program of study representatives should include, but are not limited to: CTE and academic teachers, CTE/curriculum district coordinators, school counselors, business and industry representatives, labor representatives, and post-secondary partners. Community stakeholders including parents and students can also be considered. *Attach additional information if applicable*.

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| Name: | Title: |
| Affiliation: | |
| Address: | |
| Phone: | E-Mail: |
| Area of Expertise: | |
| Representing:<br>☐ Business/Industry<br>☐ Secondary Education<br>☐ Post-Secondary Education<br>☐ Community/Other | |

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| Phone: | E-Mail: |
| Area of Expertise: | |
| Representing:<br>☐ Business/Industry<br>☐ Secondary Education<br>☐ Post-Secondary Education<br>☐ Community/Other | |

## LABOR MARKET DEMAND

Certify that a labor market needs analysis has been completed for the proposed CTE program of study. Attach the *Labor Market Information (LMI) Review* document.

Access the *Labor Market Information (LMI) Review* document.

☒ The LEA certifies that regional, state, and local labor market data have been reviewed to assure a demand exists for the POS occupations and that the number of POS completers will not significantly exceed this demand. Department of Labor data are available and/or documented. Supporting evidence of supply and demand is submitted with this proposal.

☐ No data exist for POS due to a unique labor market demand. Supporting evidence of demand is submitted with this proposal. Evidence may include, but is not limited to: real-time labor market information, documentation of national, regional, state, or local labor trends, or letters from employers or workforce agencies documenting projected employment specific to the career pathway.

## ACADEMIC AND TECHNICAL SKILL STANDARDS

List the academic, technical, and workplace skills and knowledge used to develop the program of study.

**Title and source of academic standards:**

Common Core State Standards (CCSS)

The Common Core State Standards (CCSS) are national standards that set clear college- and career-ready expectations for kindergarten through 12th grade in English language arts/literacy and Mathematics. The standards help to ensure that students graduating from high school are prepared to take credit bearing introductory courses in two- or four-year college programs and enter the workforce. The standards were developed by the nation's governors and education commissioners, through their representative organizations, the National Governors Association Center for Best Practices (NGA) and the Council of Chief State School Officers (CCSSO). Teachers, parents, school administrators, and experts from across the country provided input into the development of the standards. The implementation of the Common Core, including how the standards are taught, the curriculum developed, and the materials used to support teachers as they help students reach the standards, is led entirely at the state and local levels. For more information on CCSS, please visit the link above.

Next Generation Science Standards (NGSS)

The Next Generation Science Standards (NGSS) are national standards for science that lay out the disciplinary core ideas, science and engineering practices, as well as crosscutting concepts that students should master in preparation for college and careers. The standards were developed through a state-led effort that was managed by Achieve. The development of the NGSS involved the National Research Council (NRC), the National Science Teachers Association (NSTA), the American Association for the Advancement of Science (AAAS), and other critical partners such as K–12 teachers,

state science and policy staff, higher education faculty, scientists, engineers, cognitive scientists, and business leaders. For more information on the NGSS, please visit the link above.

The Nurse Assisting program of study incorporates aspects of Common Core State Standards for English language arts/literacy and mathematics, the Next Generation Science Standards, the National Health Science Standards, and other national standards where appropriate.

**Title and source of technical skill standards:**

National Consortium for Health Science Education (NCHSE) – National Health Science Standards

The National Health Science Standards provide a clear and consistent understanding of industry and post-secondary expectation for health science teachers and students. These standards are designed to provide essential knowledge common across health professions to prepare and increase the number of students that are college and career ready. The National Consortium for Health Science Education (NCHSE), in partnership with the U.S. Departments of Education and Labor, has established eleven (11) common health science standards and four (4) career pathway standard sets (i.e. Diagnostic, Therapeutic, Environmental, and Health Information) which guide curriculum related materials for healthcare programs. More than 1,000 healthcare employers, college and university faculty, secondary teachers, and professional organization representatives provided input to identify common practices, reviewed the content for each standard, and piloted the results within their agency or organization. For more information on the National Health Science Standards, please visit the link above.

**Title and source of workplace or other skill standards, as applicable:**

Common Career Technical Core (CCTC)

The Common Career Technical Core (CCTC) are national standards for Career & Technical Education (CTE) that help to inform the establishment of state standards and/or programs of study. The CCTC were developed by educators, school administrators, representatives from business and industry, faculty from higher education, as well as workforce and labor markets economists. The CCTC include a set of standards for each of the sixteen (16) Career Clusters and the corresponding Career Pathways that help to define what students should know and be able to do after completing instruction in a program of study. A crosswalk of the NCHSE National Health Science Standards and the CCTC standards for the Health Sciences Career Cluster can be accessed through the following link: http://www.healthscienceconsortium.org/docs/Foundation_Standards_Crosswalk.pdf.

Career Ready Practices (CRP)

The Career Ready Practices (CRP) are a component of the CCTC framework and includes twelve (12) statements that address the knowledge, skills, and dispositions that are important to becoming career ready. The CRP describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline, or level of education and should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a career pathway. The CRP statements are embedded throughout the NCHSE Health Science Standards to

ensure students possess employability and workplace skills for career success. For more information on the CRP, please visit the link above.

## EARLY CAREER AND EARLY COLLEGE OPPORTUNITIES

Identify CTE program of study early career opportunities, industry-recognized certifications and licenses, options for early college credit, two- and four-year degree and certification program alignment, and the technical skill attainment measures for the program of study. *Attach articulation/dual enrollment agreement(s)*.

**Describe early career opportunities (i.e. work-based learning experiences and industry-mentored projects):**

Students in the Nurse Assisting Program of Study are required to complete 75 hours of clinical experience as required by the Delaware Department of Health and Social Services, Division of Long Term Care Residents Protection. This requirement will be completed in the Certified Nursing Assistant (CNA) course. Teachers will secure clinical sites approved by the Division of Long Term Care Residents Protection.

Students will also explore a career as a nurse assistant as they learn content in the context of real-world, hands-on activities, projects, and problems, as well as the roles of healthcare professionals and the concepts of healthcare and interprofessional collaborative practice. Further, students will examine the structure and function of the human body systems and explore the prevention, diagnosis, and treatment of disease while working collaboratively to understand and design solutions to the most pressing health challenges of today and the future.

Clinical scenarios and simulated patient conditions will be used in the laboratory setting to introduce students to the clinical and communication skills needed in the healthcare industry. Work-based learning experiences such as health fairs, guest speakers, and job-shadowing will be incorporated in each course as determined by the local education agency and program advisory committee.

**List industry-recognized certifications and/or licenses, as appropriate (include the partner organization and credential):**

National Consortium for Health Science Education (NCHSE)-Health Science Assessment **-** The National Health Science Assessment is a knowledge-based test designed to evaluate the extent of the candidate's knowledge of the National Health Science Standards, which include academic foundation, communication, systems, employability skills, legal responsibilities, ethics, safety practices, teamwork, health maintenance practices, technical skills, and information technology application.

American Heart Association – The American Heart Association's CPR/First Aid program certifies students for adult, child, and infant CPR, the use of an AED on adults, and treatment of a foreign body airway obstructions for adult and infant victims.

Certified Nurse Assistant - Prometrics is the certifying organization for the State of Delaware Nurse Aide programs. Students who successfully pass the written and clinical portions of the Prometics assessment will become Certified Nurse Assistants.

**Describe early college credit options (i.e. advanced placement, dual enrollment, transcripted and/or articulated credit, credit by exam, pre-apprenticeship, other) and options for two- and four-year degree and/or certification program alignment (attach articulation/dual enrollment agreement). The partner organization and hours of credit earned should be included, as applicable:**

Students who successfully complete Fundamentals of Health Sciences (FHS) course (Level I) will receive articulated credit for the following course:

- DTCC BIO100 - Medical Terminology (3-credits)*

Students who successfully complete the Essentials of Anatomy and Physiology (EAP) course (Level II) will receive articulated credit for the following course:

- DTCC BIO110 - Essentials-Anatomy and Physiology (4-credits)*

Students who successfully complete the Nurse Assisting Training (CNA) course (Level III) will receive articulated credit for the following course:

- DTCC HLH130 - Nurse Assistant Training (6-credits)

*BIO 100 and BIO110 are not required for the Associates Degree of Nursing Program; however, are required courses for other DTCC Allied Health programs.

Students who successfully complete the Nurse Assisting Program of Study will also have the opportunity to enroll in the following courses following high school graduation in preparation for the nursing clinical experience at DTCC:

- BIO120 - Anatomy & Physiology I (5-credits)
- MAT129 - Math for Health Sciences (3-credits)

Students applying to the Associates Degree of Nursing Program at DTCC must submit by March 15th a paper application as a "First-Time-Full-Time" student to be considered for a clinical experience in January of the following academic year. Students must also take the National League for Nursing Pre-Admission Examination (NLN-PAX) prior to August 15th application deadline. This program also requires CPR certification (Healthcare Provider), random drug testing, and a criminal background check as specified by the Delaware Division of Long Term Care Residents Protection.

The Registered Nurse program offered at DTCC has connected degree programs with colleges and universities including Delaware State University, Immaculata University, University of Delaware, Wesley College, and Wilmington University. Information about connected degree programs is located at: https://www.dtcc.edu/academics/transfer-options/connected-degrees.

**List technical skill attainment measures for the program of study (i.e. industry recognized certification or license, advanced placement, dual enrollment, transcripted and/or articulated credit, dual enrollment, credit by exam):**

☒ Certification/credentialing exam (specify): Prometric-Delaware Nurse Aide Exam

☒ Nationally recognized exam (specify): NCHSE National Health Science Assessment

☒ Advanced standing (specify):

Delaware Technical Community College**:**

DTCC BIO100 - Medical Terminology (3 credits)

DTCC BIO110 - Essentials-Anatomy and Physiology (4 credits)

DTCC HLH130 – Nursing Assistant Training (6 credits)

## POS OVERVIEW, COURSE DESCRIPTIONS, END-OF-COURSE, AND PROGRAM ASSESSMENTS

Provide a CTE program of study overview that broadly describes the program and student expectations. Identify end-of-program assessment(s) and opportunities for students to participate in early college and early career experiences. List each course title in the CTE program of study. Provide an overview of each course and define what students should know and be able to demonstrate upon completion of each level. Identify appropriate end-of-course assessment(s).

**CTE Program of Study Overview:**

The Nurse Assisting program of study is a three (3) course Career & Technical Education (CTE) instructional program that engages students in open-ended problem solving where they study topics such as medical terminology and human anatomy and physiology. Through exploration of the National Health Science Standards, students will acquire important skills necessary for healthcare professionals such as medical mathematics, communication, safety practices, legal responsibilities, and teamwork. In addition, students will develop technical skills such as providing personal care of the resident while taking care of their environmental needs and psychosocial needs. Students will identify signs and symptoms that require alerting other members of the healthcare teams such as choking or a significant change in vital signs. The program prepares students for a career as a certified nurse assistant (CNA), patient care technician, home health aide, licensed practical nurse (LPN), or registered nurse (RN) in acute or long term care settings.

- **Fundamentals of Health Sciences (FHS**) introduces students to careers in healthcare and is a prerequisite to the other Nurse Assisting program of study courses. This course will explore the National Consortium for Health Science Education (NCHSE) National Health Science Standards and entry level healthcare skills as well as the language of medicine. Further, this course will be offered as an articulated course with Delaware Technical Community College (BIO100 – Medical Terminology). Students begin preparation for the National Consortium for Health Science Education (NCHSE) National Health Science Assessment.

- **Essentials of Anatomy and Physiology (EAP)** introduces students to anatomy and physiology of humans including the structure and function of cells, tissues, integumentary, skeletal, muscular, nervous, and endocrine systems. Coordinated laboratory experiments are an integral part of this course. Students learn physiology of each body system, as well as how to investigate common

diseases, disorders, and emerging diseases. The prevention of disease, diagnosis, and treatment are addressed. Students participate in CPR/First Aid certification through the American Heart Association.

- **Certified Nurse Assisting (CNA)** introduces students to care of the long-term-care resident as they learn how to provide personal care and basic nursing skills directed by the licensed nurse. Students will learn clinical skills in both in-school and out-of-school clinical lab settings. Clinical scenarios and simulated patient conditions will be used in the laboratory setting to introduce students to the clinical and communication skills needed in the healthcare industry. Throughout this course, students will transfer knowledge and skills to an approved long-term-care facility while providing supervised care to residents. A seventy-five (75) clinical hours are required by Title 16 Health and Safety under the Department of Health and Social Services, Division of Long Term Care Residence Protection. Upon the completion of the program of study, students complete the National Consortium for Health Science Education (NCHSE) National Health Science Assessment and the Prometics Delaware Nurse Aide Exam.

**End-of-Program Assessment(s):**

☒ Certification/credentialing exam (specify): Prometric-Delaware Nurse Aide Exam
☒ Nationally recognized exam (specify): NCHSE National Health Science Assessment
☒ Other (specify): AHA CPR/First Aid Certification

**Course title:**

Fundamentals of Health Sciences (FHS)

**Course description (include prerequisites):**

Fundamentals of Health Sciences (FHS) introduces students to careers in healthcare and is a prerequisite to the other Health Science pathway courses. This course focuses on medical terminology which includes Greek and Latin prefixes, suffixes, roots, abbreviations, names of diseases and surgeries related to hospital services and healthcare specialties. In addition, students explore the National Consortium Health for Science Education (NCHSE) Health Science Standards and entry level healthcare skills. Students begin preparation for the NCHSE National Health Science Assessment and develop skills focusing on the language of medicine.

**Course knowledge and skills (what students will know and be able to do):**

By the end of this course students will:

1. Analyze the basic elements of a medical word, including word roots, combining forms, prefixes, and suffixes.

2. Define, pronounce, and appropriately apply (in written and oral communications) terminology related to the general structure and organization of the human body, the structures and functions the major body systems (i.e. digestive, urinary, female reproductive, male reproductive, nervous cardiovascular, respiratory, blood, and musculoskeletal system), human diseases, clinical and surgical procedures, imaging procedures, laboratory procedures, and medical abbreviations.

3. Interpret and apply medical abbreviations to communicate information and differentiate abbreviations confirmed by the Joint Commission official "Do Not Use List."

4. Differentiate common diseases and disorders of each body system (e.g. cancer, diabetes, dementia, stroke, heart disease, tuberculosis, hepatitis, COPD, kidney disease, arthritis, ulcers); define the etiology, pathology, diagnosis, treatment, and prevention for common diseases and disorders through analysis of clinical case studies.

5. Research and discuss emerging diseases and disorders (e.g. autism, VRSA, PTSD, Listeria, seasonal flu) and biomedical therapies as they relate to the prevention, pathology, and treatment of disease including gene testing, gene therapy, human proteomics, cloning, and stem cell research.

6. Demonstrate competency in mathematics and mathematical conversions as they relate to healthcare including the use of the metric system, mathematical computations, and conversions; demonstrate the ability to analyze diagrams, charts, graphs, and tables to interpret healthcare results; and demonstrate the use of the 24-hour clock/military time. Demonstrate college and career readiness by applying Common Core State Standards (CCSS) with ratio reasoning, fractions, and decimals using clinical scenarios such as measuring intake and output and calculating medication dosages.

7. Utilize employability skills to enhance employment opportunities and job satisfaction; identify personal traits and attitudes desirable in a member of the career ready healthcare team such as communication, professional characteristics of healthcare professionals, teamwork, and employability preparation; and identify strategies for pursuing employment.

8. Analyze legal responsibilities, limitations, and implications on healthcare worker actions and explore accepted ethical practices with respect to cultural, social, and ethnic differences within the healthcare environment including the differentiation between ethical and legal issues impacting healthcare, identifying ethical issues, and their implications related to healthcare.

9. Differentiate how key systems affect services performed and quality of care by comparing healthcare delivery systems such as nonprofit and for profit and government and nonprofit; assess the impact of emerging issues on healthcare delivery systems; and discuss healthcare economics and common methods of payment for healthcare.

10. Identify existing and potential hazards to clients, co-workers, and self; employ safe work practices, follow health and safety policies and procedures to prevent injury and illness; and explore principles of infection control.

11. Differentiate between wellness and disease; promote disease prevention and model healthy behaviors; promote behaviors of health and wellness; describe strategies for prevention of

disease; and investigate complementary and alternative health practices as they relate to wellness and disease prevention.

12. Utilize information technology applications common across health professions while understanding key principles of health information systems which includes identifying types of data collected in electronic health records (EHR)/electronic medical records (EMR), exploring different types of health record data collection tools, identifying the types and content of an EHR/EMR (e.g. pharmacy, laboratory, radiology), creating documentation in an EHR/EMR that reflects timeliness, completeness, and accuracy, and adhering to information systems policies, procedures, and regulations as required by national, state, and local entities.

**End-of-Course Assessment(s):**

- ☒ Teacher designed assessment
- ☐ LEA designed assessment
- ☐ Certification/credentialing exam (specify):
- ☐ Licensing exam (specify):
- ☐ Nationally recognized exam (specify):
- ☒ Other (specify): DTCC BIO100 Course Assessment(s)

**Course title:**

Essentials of Anatomy and Physiology (EAP)

**Course description (include prerequisites):**

Essentials of Anatomy and Physiology (EAP) introduces students to the structure and function of the human body with an emphasis on gross anatomy as well as all organ systems and their relationship to homeostasis. Students will learn physiology of each body system, as well as how to investigate common diseases, disorders, and emerging diseases. The prevention of disease and the diagnosis and treatment are addressed. This course reinforces and builds upon the knowledge and skills developed in the Fundamentals of Health Sciences (FHS) course.

Students focus on a career path in nursing by applying classroom/lab knowledge and skills to clinical settings as they participate in direct or simulated patient care. Students participate in the CPR/First Aid certification program (Healthcare Provider Level) through the American Heart Association.

Prerequisite: Fundamentals of Health Sciences (FHS)

**Course knowledge and skills (what students will know and be able to do):**

By the end of this course students will:

1. Define terminology related to the general organization of the human body, which include body cavities, regions, quadrants, directional terms, planes, and the ten major human organ systems.

2. Conceptualize basic chemical principles to cell function and homeostasis including the function of electrolytes in maintaining an adequate acid-base and fluid balance in the body.

3. Diagram the structures of a human cell and describe the functions of each; and differentiate between active and passive transport methods, and isotonic, hypotonic, and hypertonic solutions with regard to their effect on red blood cells (RBCs).

4. Describe the organization and functions for tissues and membranes by differentiating four major groups of tissues, their locations, and functions and the four types of membranes, their locations, and functions; and differentiate between exocrine and endocrine glands.

5. Identify structures and functions related to the skin and the five appendages of the skin.

6. Identify structures and functions related to the skeleton and differentiate between the male and female pelvis; and identify the structures and functions related to joints and joint movement.

7. Identify structures and functions related to the muscular system including the main parts of a muscles, the functions of a muscle, and principles of muscular action.

8. Explore structures and functions related to the nervous system including the cranial nerves and the autonomic nerve system.

9. Describe structures and functions related to the sensory system such as, but not limited to, the six types of sense receptors that include the eye, ear, and nerves involved in taste and smell.

10. Identify structures and functions related to the endocrine system; and describe the chief action of all hormones secreted from each gland, the effects of malfunctioning of the endocrine glands, and how the endocrine system responds to stress.

11. Identify structures and functions related to the blood system and explain normal values for hemoglobin, hematocrit, white blood cells, and prothrombin time; and differentiate between the four (4) blood types and the reasons for blood transfusions.

12. Diagram the normal electrocardiogram (EKG) tracing associated with the activity of the heart; and identify structures and functions related to the heart and trace the circulation of blood through the heart and lungs.

13. Demonstrate the route of circulation of blood throughout the body and identify structure and functions related to blood vessels and circulation.

14. Identify structures and functions related to the lymphatic system; and differentiate between the two main lymphatic ducts and areas drained by each.

15. Differentiate the structures of the respiratory system; and trace the pathway of oxygen and carbon dioxide.

16. Identify structures, functions, and terms related to the digestive system and accessory organs; and differentiate the absorption of foods in the stomach, small intestine, and large intestine.

17. Differentiate the parts of the urinary system and their functions as well as the four organs of the excretory system and the waste from each organ.

18. Identify structures, function, and terms related to the reproductive system; differentiate the phases of the menstrual cycle and the hormones involved in the phases; describe the function of the mammary glands and the advantages of breastfeeding; and compare and contrast five (5) methods of contraception.

19. Explore the basic principles of human genetics and heredity and how sex is determined in human reproduction; describe sex-linked traits and provide examples of sex-linked traits; and explain the process of meiosis.

20. Perform and analyze various lab activities related to anatomy and physiology; and identify anatomy of the integumentary, skeletal, muscular, nervous, and endocrine system as well as the digestive, cardiovascular, respiratory, urinary and reproductive systems on models, specimens, diagrams, and/or computer programs.

**End-of-Course Assessment(s):**

- ☒ Teacher designed assessment
- ☐ LEA designed assessment
- ☒ Certification/credentialing exam (specify): AHA CPR/First Aid Certification (Provider Level)
- ☐ Licensing exam (specify):
- ☐ Nationally recognized exam (specify):
- ☒ Other (specify): DTCC BIO110 Assessment(s)

**Course title:**

Certified Nurse Assistant (CNA)

**Course description (include prerequisites):**

**Certified Nurse Assisting (CNA)** introduces students to care of the long-term-care resident as they learn how to provide personal care and basic nursing skills directed by the licensed nurse. Students will learn clinical skills in both in-school and out of school clinical lab settings. Clinical scenarios and simulated patient conditions will be used in the laboratory setting to introduce students to the clinical and communication skills needed in the healthcare industry. Throughout this course, students will transfer knowledge and skills to an approved long-term-care facility while providing supervised care to residents. A minimum of seventy-five (75) clinical hours are required by Title 16 Health and Safety under the Department of Health and Social Services, Division of Long Term Care Residence Protection. Upon the completion of the program of study, students complete the National Consortium for Health Science Education (NCHSE) National Health Science Assessment and the Prometics Delaware Nurse Aide Exam.

Prerequisites: Fundamentals of Health Sciences (FHS) and Essentials of Anatomy and Physiology (EAP)

**Course knowledge and skills (what students will know and be able to do):**

By the end of this course students will:

1. Understand the nursing assistant role, responsibility, and scope of practice of the nursing assistant; maintain personal hygiene and exhibit a professional appearance that meets professional standards; recognize the importance of punctuality and commitment to the job; and differentiate between ethical and unethical behavior on the job.

2. Define the responsibilities of the nursing assistant as a member of the health care team; understand the relevant state and federal regulations for long term care and legalities of reporting and documenting incidents and accidents; and recognize the legal limitations of being a nursing assistant.

3. Understand the role of long term care advocates, investigators, and surveyors; and identify the "chain of command" in the organizational structure of the health care agency.

4. Demonstrate behavior that maintains resident's rights; provide privacy and maintenance of confidentiality; promote the resident's right to make personal choices to accommodate individual needs; provide assistance in resolving grievances; provide needed assistance in resident, family groups, and activities; and maintain care and security of resident's personal possessions.

5. Provide care which ensures that the residents are free from abuse, mistreatment, neglect or financial exploitation; report any instances of such poor care to the Division of Long Term Care Residents Protection; and discuss the psychological impact of abuse, neglect, mistreatment, misappropriation of property of residents, and/or financial exploitation.

6. Maintain the resident's environment and care through appropriate nursing assistant behavior to keep the resident free from physical and chemical restraints; and discuss the potential negative outcomes of physical restraints, including side rails.

7. Apply key infection control principles and isolation techniques; identify how diseases are transmitted and understand concepts of infection prevention; demonstrates proper hand washing technique; demonstrates appropriate aseptic techniques in the performance of normal duties; understand the role of basic cleaning, disinfecting, and sterilization tasks; demonstrate proper isolation and safety techniques in the care of infectious resident and proper handling and disposal of contaminated materials.

8. Assist with basic emergency procedures and follow safety and emergency procedures; identify safety measures that prevent accidents to residents; recognize signs when a resident is choking or may have an obstructed airway and assist with clearing the airway; find assistance when encountering convulsive disorders, loss of consciousness, shock, hemorrhage, and assist the resident until professional help arrives; follow disaster procedures, report emergencies accurately and immediately, and identify potential fire hazards.

9. Identify the resident's need for a clean and comfortable environment; describe types of common accidents in the nursing home and their preventive measures; explain the impact of environmental factors on the resident in all areas, including but not limited to, light and noise levels; report unsafe conditions to appropriate supervisor; use the nurse call system effectively; and report evidence of pests and nonfunctioning equipment to appropriate supervisory personnel.

10. Demonstrate basic skills for identifying psychosocial characteristics of the populations being serves in the nursing facility including persons with learning needs, mental illness, dementia, Alzheimer's disease, developmental disabilities, and other related conditions; indicate ways to meet the resident's basic human needs for life and mental well-being, and modify his/her behavior in response to the resident's behavior.

11. Respect the resident's beliefs recognizing cultural differences in holidays, spirituality, clothing, foods, and medical treatments.

12. Identify methods to ensure that the resident reaches maximum potential within the normal aging process; provide opportunities and training to the resident for self-care according to the resident's capabilities; demonstrate skills that allow the resident to make personal choices and promote the dignity.

13. Utilize the resident's family as a source of emotional support and recognize the family's need for emotional support; recognize how age, illness, and disability affect memory, sexuality, mood, and behavior, including wandering.

14. Demonstrate effective verbal and nonverbal communication with residents, their families, and staff; and document observations using appropriate terms and participate in the care planning process.

15. Apply the principles of basic nutrition in the preparation and serving of meals; incorporate principles of nutrition and hydration in assisting residents at meals; differentiate basic physiology of nutrition, hydration, malnutrition and dehydration; accurately calculate and document intake and report inadequate intake or changes in normal intake.

16. Differentiate therapeutic diets including dysphasia diets and the related risks associated with dysphagia including aspiration and aspiration pneumonia.

17. Distribute meals quickly and assist residents with meals as needed; differentiate techniques for feeding residents with meal challenges such as missing teeth or ill-fitting dentures; demonstrate proper positioning, feeding, and use of assistive devices; identify signs and symptoms that require alerting a nurse during meals; and demonstrate proper positioning of residents who receive tube feedings.

18. Demonstrate understanding of basic anatomy and physiology; and recognize signs and symptoms of common illness and conditions such as a respiratory infection, diabetes, urinary tract infection, cardiovascular conditions, cerebral vascular conditions, skin conditions, gastrointestinal conditions, and infectious disease.

19. Provide personal care and basic nursing skills as directed by the licensed nurse that includes dressing and undressing, bathing and personal grooming, oral hygiene, shaving and shampooing, bed making, and assisting the resident in using the bathroom; assist the resident in using a bedside commode, urinal, and bedpan; provide care to toenails and fingernails unless medically contraindicated; and demonstrate measures to prevent decubitus ulcers such as positioning, turning, and applying heel and elbow protectors.

20. Accurately measure and record blood pressure, height, weight, temperature, pulse, and respirations with a variety of commonly used devices.

21. Demonstrate proper catheter care or perineal care; assist with a physical exam; apply a non-sterile dressing properly and non-sterile compresses and soaks properly and safely; apply cold and/or heat application properly and safely; and demonstrate proper application of physical restraints including side rails under the direction of a licensed nurse.

22. Incorporate principles of restorative care under the direction of a licensed nurse to include bowel or bladder training, assisting with activities of daily living, and assisting with ambulation aids (e.g., cane, quadcane, walker, crutches, wheelchair, and hydraulic lifts).

23. Provide care to resident when death is imminent and to the resident's body after death.

**End-of-Course Assessment(s):**

- ☐ Teacher designed assessment
- ☐ LEA designed assessment
- ☒ Certification/credentialing exam (specify): Prometric-Delaware Nurse Aide Exam
- ☐ Licensing exam (specify):
- ☒ Nationally recognized exam (specify): NCHSE National Health Science Assessment
- ☐ Other (specify):

| PROGRAM OF STUDY CURRICULUM |
|---|
| Identify the method of technical and academic curriculum development (adopted, adapted, or developed in accordance with guidance from the program advisory committee). |

**POS technical and academic curriculum will be:**

- ☒ Adopted (specify source): State-model program of study
- ☐ Adapted (specify source):
- ☐ Developed locally (describe):
- ☐ Other (specify):

## TEACHER CERTIFICATION

Provide valid teacher certification(s), candidate experience, pre-requisite and requisite licensure or certification requirement(s) for POS teachers.

**POS teacher requirements include:**

☒ Teacher certification(s) (list): Skilled and Technical Sciences (STS) in Therapeutic Services (Nurse Assistant). For STS candidate see (Regulation 1559) for all requirements.

☒ Candidate experience (describe): Candidate may have experience as a Registered nurse providing care for sick, disabled, infirmed, or other individuals or groups. Nursing care includes instruction in the administration of medication and treatments, assisting a physician during treatments and examinations, referring patients to physicians and other health care professionals, and providing education for health maintenance. Each Nurse Assisting program must have a primary teacher who is an RN with a minimum of one (1) year of long-term care experience. For more information, please see the Bureau of Labor Statistics: Registered Nurse.

☒ Pre-requisite professional licensure or certification requirement(s) (list): Current American Heart Association CPR Certification and:

**Primary Nurse Assisting Teacher must possess:**

1) A current Delaware Registered Nurse license in good standing with the Delaware Division of Professional Regulations Board of Nursing: http://regulations.delaware.gov/AdminCode/title24/1900.shtml; and
2) Delaware Health and Social Services (DHSS) Certified Nursing Assistant (CNA) teaching requirements which includes a minimum of one year of full-time, continuous, long-term care experience that meets all long-term care regulations: http://regulations.delaware.gov/AdminCode/title16/3000/3220.shtml#TopOfPage .

**Supporting Nurse Assistant Teacher(s) must possess:**

A current Delaware Registered Nurse license in good standing with the Delaware Division of Professional Regulations Board of Nursing: http://regulations.delaware.gov/AdminCode/title24/1900.shtml.

## VALUE-ADDED OPPORTUNITIES

List extended early career and college credit opportunities available during the student's senior year. Document transition services, cooperative learning experiences, additional dual enrollment, or other.

**Opportunities for extended and accelerated learning include:**

☐ Cooperative education (describe):
☐ Structured internship (describe):
☐ Dual enrollment (list):
☐ Advanced Placement (list):
☐ Transition services (describe):
☐ Other (describe):

| CAREER AND TECHNICAL STUDENT ORGANIZATIONS |
| --- |
| Indicate the Career and Technical Student Organization (CTSO) affiliation by checking the appropriate box. |
| ☒ HOSA – Future Health Professionals |

| PROGRAM OF STUDY MATRIX |
| --- |
| Complete the program of study matrix to demonstrate the alignment of academic and technical courses, culminating early career and/or early college experiences. Identify appropriate certification and licensure options, opportunities for obtaining early college credit (courses with articulated or dual enrollment credit agreements should be appropriately designated within the matrix), the post-secondary program sequence, and potential career options. *Attach the Program of Study Matrix*. |
| Access the Program of Study Matrix. |

| DEPARTMENT OF EDUCATION PROGRAM OF STUDY APPROVAL | | |
|---|---|---|
| The following section will be completed by staff from the Delaware Department of Education, CTE & STEM Office and reported to the LEA as part of the CTE program of study approval process. | | |
| **Date Delaware CTE Program of Study Application Received:** | | |
| **Local Education Agency (LEA):**<br><br>**School(s):** | | **Program of Study Start Date:** |
| **LEA CTE Coordinator Name:** | **Phone:** | **E-Mail Address:** |
| **Career Cluster & Code:**<br>Health Sciences / 8 | **Career Pathway & Code:**<br>Therapeutic Services / 8.01 | **Program of Study & Code:**<br>Nurse Assisting / 8.01610 |
| **CTE Program of Study Course Titles, Course Codes, and Funding Levels:**<br>1. Fundamentals of Health Sciences / 8.0161011 / 2<br>2. Essentials of Anatomy and Physiology / 8.0161022 / 3<br>3. Certified Nurse Assisting / 8.0161033 / 3 | | |
| **CTE Concentrator/Completer Course Titles:**<br>Concentrator Course: Essentials of Anatomy and Physiology<br>Completer Course: Certified Nurse Assisting | | |
| **CTE Program of Study Request:**<br>☒ State-model CTE Program of Study<br>☐ Local CTE Program of Study | | |
| **CTE Program of Study Attachments:**<br>☒ Labor Market Information (LMI) Review;<br>☒ Articulation/Dual Enrollment Agreement(s); and<br>☒ Program of Study Matrix. | | |
| DDOE CTE & STEM Director Signature: | | Date: |
| DDOE Chief Academic Officer Signature: | | Date: |