

Health Science Program Elements
 January 2023

Career Cluster: Health Sciences - Pathway: Pre-Nursing / Certified Nursing Aid (CNA)									
Principles		CTE Concentrator A		TSD		CTE Concentrator B		Pathway Capstone	
7168	Principles of Healthcare	5274	Medical Terminology	7156	Technical Skills Development	7166	Healthcare Specialist: CNA	7255	Healthcare Specialist Capstone

7168 Principles of Healthcare	
Course Description	<i>Principles of Healthcare content includes skills common to specific health career topics such as patient nursing care, dental care, animal care, medical laboratory, public health, and an introduction to healthcare systems. Lab experiences are organized and planned around the activities associated with the student's career objectives.</i>
Pre/Co Req	None
Credits	Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
Counts Toward	Counts as a directed elective or elective for all diplomas
ITCC Courses	HLHS 100- Intro to Health Careers

CONTENT STANDARDS AND COMPETENCIES	
Competency #	Competency
Domain	Healthcare Systems
7168.D1.1	Describe how health care is developed, delivered and organized.
7168.D1.2	Discuss health care delivery systems and trends.
7168.D1.3	Identify ethical and legal issues in healthcare.
7168.D1.4	Apply basic medical terminology principles.
7168.D1.5	Identify the basic organization of the human body, the body systems, and the stages of growth and development.
7168.D1.6	Analyze behaviors for success in the healthcare field, including lifestyles management, professionalism, and lifelong learning.
7168.D1.7	Describe personal and workplace safety measures including body mechanics, infection control, and environmental safety.
7168.D1.8	Discuss principles of communication in a health care setting including treating the patient with respect as an individual, accommodation of cultural diversity,
7168.D1.9	identifying and providing for patient needs.
7168.D1.10	Identify the purposes and procedures for medical documentation.
7168.D1.11	Compare various health care occupations, including education requirements, credentialing or licensing, scope of practice, and workforce data.

Domain	CPR / Basic Life Support
7168.D2.1	Recognize cardiac vascular emergencies and/or respiratory arrest and take appropriate action.
7168.D2.2	Establish an airway and initiate ventilation.
7168.D2.3	Manage obstructed airway in adults, children and infants.
7168.D2.4	Perform one and two-person adult, child and infant CPR using universal precautions.
7168.D2.5	Demonstrate the use of an Automated External Defibrillator (AED)

SAMPLE ACTIVITIES			
Domain	Technical Skills	Activity	Assessment / Evaluation
Healthcare Systems	<ul style="list-style-type: none"> Students describe how health care is developed, delivered and organized. Students identify ethical and legal issues in healthcare. Students describe personal and workplace safety measures including body mechanics, infection control, and environmental safety. Students discuss principles of communication in a health care setting including treating the patient with respect as an individual, accommodation of cultural diversity. Students compare various health care occupations, including education requirements, credentialing or licensing, scope of practice, and workforce data. 	<ul style="list-style-type: none"> History Timeline Project. Code of Ethics Questionnaire. Moral Belief Worksheet. Scenarios. Reid, FRHS Orientation Materials. Peanut Butter and Jelly Activity. Nonverbal Communication Activity. Career Shoebox. 	<ul style="list-style-type: none"> Significant People Project. Law & Ethics Debate. Handwashing Skill Evaluation. Gloves, Gowns, Mask. Skill Evaluation. Orientation Post-Test. Essential Skills Evaluation. Clinical Project.
CPR / Basic Life Support	<ul style="list-style-type: none"> Students recognize cardiac vascular emergencies and/or respiratory arrest and take appropriate action. Students perform one and two-person adult, child and infant CPR using universal precautions. Students demonstrate the use of an Automated External Defibrillator (AED). 	<ul style="list-style-type: none"> Role Play/Scenarios. AHA BLS Video. CPR Practice. AHA BLS Video. AED Practice. AHA BLS Video. 	<ul style="list-style-type: none"> AHA CPR Written & Skills Certification Test. AHA CPR Written & Skills Certification Test. AHA CPR Written & Skills Certification Test.

5274 Medical Terminology	
Course Description	<i>Medical Terminology prepares students with language skills necessary for effective, independent use of health and medical reference materials. It includes the study of health and medical abbreviations, symbols, and Greek and Latin word part meanings, all taught within the context of body systems. This course builds skills in pronouncing, spelling, and defining new words encountered in verbal and written information in the healthcare industry. Students have the opportunity to acquire essential skills for accurate and logical communication, and interpretation of medical records. Emphasis is on forming a foundation of a medical vocabulary including; appropriate and accurate meaning, spelling, and pronunciation of medical terms, and abbreviations, signs, and symbols.</i>
Pre/Co Req	None
Credits	Credits: 2 semester course, 2 semesters required, 1 credit per semester, maximum of 2 credits
Counts Toward	Counts as a Directed Elective or Elective for all diplomas Counts as a science credit*
ITCC Courses	HLHS 101- Medical Terminology, HLHS 102- Essential Anatomy and Physiology

CONTENT STANDARDS AND COMPETENCIES	
Competency #	Competency
Domain	<i>Medical Terminology</i>
5274.D1.1	Demonstrate the use of a medical dictionary.
5274.D1.2	Define and properly use prefixes and suffixes with word roots and combining forms to build medical terms.
5274.D1.3	Define medical terms.
5274.D1.4	Locate and identify the organs within body systems and define their basic functions.
5274.D1.5	Define and use medical abbreviations, signs, and symbols accurately.
5274.D1.6	Define common diseases and conditions.
5274.D1.7	Identify selected procedures, treatments and diagnostic tests.
5274.D1.8	Spell medical terms correctly.
5274.D1.9	Pronounce medical terms.
Domain	<i>Essential Anatomy and Physiology</i>
5274.D2.1	Apply basic knowledge of chemistry as pertinent to the human body.

5274.D2.2	Identify the major body systems and the organs which comprise each of them.
5274.D2.3	Summarize and define the basic structure and function of each of the body systems.
5274.D2.4	Demonstrate the ability to utilize a microscope to examine prepared slides and apply to physiological conditions and body systems.
5274.D2.5	Adapt the structural and functional aspects of cell organization to the body systems.
5274.D2.6	Classify the types and composition of the 4 basic types of body tissues.
5274.D2.7	Discuss and identify disease states in relation to body systems.

SAMPLE ACTIVITIES			
Domain	Technical Skills	Activity	Assessment / Evaluation
Medical Terminology	<ul style="list-style-type: none"> Students define and use medical abbreviations, signs, and symbols accurately. Students locate and identify the organs within body systems and define their basic functions. Students define common diseases and conditions. Students identify selected procedures, treatments and diagnostic tests. Students spell medical terms correctly. 	<ul style="list-style-type: none"> Chapter FlashCards. Medical Language Lab. Organ Dissection Labs. Case Study Analysis. Chapter Learning Activities. Sparkle Spelling Game. 	<ul style="list-style-type: none"> Chapter Term Quiz. Body System Model Building. Chapter Test. Chapter Test. Chapter Term Quiz.
Essential Anatomy and Physiology	<ul style="list-style-type: none"> Students apply basic knowledge of chemistry as pertinent to the human body. Students summarize and define the basic structure and function of each of the body systems. 	<ul style="list-style-type: none"> Medical Records Activities. Clinical Connection Activities. Organ Dissection Labs 	<ul style="list-style-type: none"> Chapter Test. Body System Model Building.

7156 Technical Skills Development

Course Description	<i>The Technical Skills Development course may be used to provide students with the opportunity to apply the technical knowledge and skills learned in a Concentrator A or B course through additional real world learning experiences such as lab activities, project based learning or a work-based learning experience. Students must be co-enrolled in a Concentrator A and/or B course in order to be enrolled in the Technical Skills Development course.</i>
Pre/Co Req	Concurrently enrolled in a Next Level Programs of Study Concentrator A and/or B course.
Credits	Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum per program of study
Counts Toward	Counts as a directed elective or elective for all diplomas
ITCC Courses	

SAMPLE ACTIVITIES

Domain	Technical Skills	Activity	Assessment / Evaluation
Healthcare Systems	<ul style="list-style-type: none"> Identifying and providing for patient needs. Analyze behaviors for success in the healthcare field, including lifestyles management, professionalism, and lifelong learning. 	<ul style="list-style-type: none"> Vital Signs Practice. Nutritional Project. Leadership & Teamwork Skills Analysis. How's Your memory? Activity. Problem Solving Activity. Uncooperative Puzzle Activity. 	<ul style="list-style-type: none"> Technical Skills Evaluation. Recipe Project. Technical Skills Evaluation.

7166 Healthcare Specialist: CNA

Course Description	<i>The Healthcare Specialist: CNA prepares individuals desiring to work as nursing assistants with the knowledge, skills and attitudes essential for providing basic care in extended care facilities, hospitals and home health agencies under the direction of licensed nurses. The course will introduce students to the disease process and aspects of caring for a long-term care resident with dementia. Individuals who successfully complete this course are eligible to apply to sit for the Indiana State Department of Health (ISDH) certification exam for nursing assistants. This course meets the minimum standards set forth by the ISDH for Certified Nursing Assistant training and for health care workers in long-term care facilities.</i>
Pre/Co Req	Principles of Healthcare
Credits	Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
Counts Toward	Counts as a directed elective or elective for all diplomas
ITCC Courses	HLHS 107- CNA Preparation, HLHS 113- Dementia Care

CONTENT STANDARDS AND COMPETENCIES	
Competency #	Competency
Domain	CNA
7166.D1.1	Demonstrate an understanding of the role of the nursing assistant in health care.
7166.D1.2	Identify and demonstrate beginning nursing assistant knowledge, skills and attitudes for the provision of quality nursing care.
7166.D1.3	Demonstrate communication techniques appropriate to a nursing assistant.
7166.D1.4	Perform resident care procedures according to the Indiana State Department of Health standards.
7166.D1.5	Utilize knowledge of the legal and ethical aspects of health care related to the responsibilities as a nursing assistant and member of the health care team.
7166.D1.6	Apply basic math skills to patient care situations.
7166.D1.7	Apply knowledge of Infection Control Standard Operating Procedures, visitation guidelines for Long-term Care Facilities and proper use of PPE in the practice of skills and during supervised clinical experience.
Domain	Dementia Care
7166.D2.1	Identify the major components of the dementia disease process and its treatment.
7166.D2.2	Discuss how dementia affects patient behavior.
7166.D2.3	Define different types of communication and why each type is important.
7166.D2.4	Identify the key issues of keeping the environment safe for a person with dementia.
7166.D2.5	Identify methods of involving the family in the care of a patient with dementia.

7166.D2.6	Identify the components of planning care and activities that are meaningful to the client with dementia.
7166.D2.7	Discuss appropriate communication techniques in dealing with a resident with dementia.
7166.D2.8	Discuss the impact of the death of a patient/resident.

SAMPLE ACTIVITIES			
Domain	Technical Skills	Activity	Assessment / Evaluation
CNA	<ul style="list-style-type: none"> Students demonstrate beginning nursing assistant knowledge, skills and attitudes for the provision of quality nursing care. Students perform care procedures according to the Indiana State Department of Health standards. Students apply knowledge of Infection Control Standard Operating Procedures, visitation guidelines for long-term care facilities, and proper use of PPE in the practice of skills. 	<ul style="list-style-type: none"> Discussion of Indiana State Department of Health (ISDH) and Federal Law Omnibus Reconciliation Act 1987 (OBRA) regulations. Practice of all required seventy-two (72) skills with a partner in skills lab including but not limited to: bathing, dressing, feeding, ambulation, moving the resident safely, emergency procedures, and application of restraints. Practice of identified infection control skills per ISDH: handwashing, hand sanitizing, don and doff gloves, gown, and masks. 	<ul style="list-style-type: none"> Unit Quizzes and Skills Evaluation Forms - Resident Care Procedures (RCP's) from ISDH CNA standard curriculum. Completion of 30 hours of didactic and 75 hours of clinical per ISDH and OBRA requirements prior to State testing. Perform skills as assigned in a clinical facility setting. Evaluation of skills per instructor and/or facility supervisor. Demonstrate Resident Care Procedures (RCP's) based on acceptable Infection Control Standards and apply daily in the clinical setting.
Healthcare Specialist Certifications	<ul style="list-style-type: none"> After the 105 hour CNA course, the student is required to take a 100 question 	<ul style="list-style-type: none"> Written Evaluation - Cognitive Assessment. Skills Evaluation - 	<ul style="list-style-type: none"> STATE CNA EVALUATION per IVY Tech State

	<p>written/computer evaluation and pass with 80% . In addition students must pass five technical skills that are chosen randomly.</p> <ul style="list-style-type: none"> ● Students will complete the Centers for Medicare Service (CMS) Hand in Hand dementia training program. 	<p>Technical Assessment.</p> <ul style="list-style-type: none"> ● Understanding of various types of dementia and the caregiver response to identified behaviors. 	<p>College with 80% efficiency.</p> <ul style="list-style-type: none"> ● Students will be evaluated by written testing and project development for Dementia Care Certificate.
<p><i>Dementia Care</i></p>	<ul style="list-style-type: none"> ● Students identify the major components of the dementia disease process and its treatment. 	<ul style="list-style-type: none"> ● Overview Of Dementia Types and identification in specific populations using Mini-Cog and Montreal Cognitive Assessment (MOCA). ● Student participates in - "12 minutes that changed my life." ● Discussion of Safe Living Facilities for Residents with dementia. 	<ul style="list-style-type: none"> ● Completion of the Centers for Medicare Services (CMS) approved dementia program "Hand in Hand"Completion of the Mini-cog and MOCA on a partner in class. ● Psychomotor exercise that simulates various levels of dementia. ● Dementia Facility model development.

7255 Healthcare Specialist Capstone	
Course Description	<i>The capstone course will provide Healthcare students with additional knowledge and skills necessary to work in a variety of health care settings beyond a long term care facility, including hospitals, doctor's offices and clinics. Students can accomplish this goal by completing coursework that will cover topics such as Medical Law and Ethics, Electronic Health Records, and/or Behavioral Health. Students will engage in extended lab experience or have the ability to do Cooperative Education while employed in a healthcare related occupation. Both opportunities will allow the student to experience real life settings. Will utilize the model of interacting areas of Critical Thinking, Psychomotor, and Technical Skills</i>
Pre/Co Req	Principles of Healthcare; Medical Terminology; Healthcare Specialist: CNA
Credits	2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
Counts Toward	Counts as a Directed Elective or Elective for all diplomas
ITCC Course	
Promoted Certifications	Certified Nursing Aide (CNA); Dementia Care Certificate

CONTENT STANDARDS AND COMPETENCIES	
Competency #	Competency
Domain	<i>Medical Law and Ethics</i>
7255.D1.1	Explain how professional standards, laws, and ethics guide behavior for healthcare professionals in medical practices, hospitals, long term care facilities, clinics, and in emergency service settings.
7255.D1.2	Compare and contrast concepts related to ethics, bioethics, and law.
7255.D1.3	Discuss the United States legal system and processes as they relate to medical practice.
7255.D1.4	Describe the current healthcare environment including types of practices, licensing, and certification of health care professionals.
7255.D1.5	Defend the rights of physicians and their patients as protected by federal and state laws.
7255.D1.6	Detailed federal and state statutes pertinent to health care professionals in the areas of hiring and employment, safety, patient privacy and confidentiality, consumer protection, and public records/reporting.
7255.D1.7	Outline the public duties expected of physicians in the areas of reporting, legal records, management of controlled substances, and the Good Samaritan laws.
7255.D1.8	Outline appropriate risk management procedures in regards to minimizing litigation and practicing within legal boundaries.
Domain	<i>Electronic Health Records</i>
7255.D2.1	Describe accepted processes for handling medical records and for medical documentation.
7255.D2.2	Apply course concepts to discussions of bioethical dilemmas.

7255.D2.3	Describe the process, principles, and issues of risk management.
7255.D2.4	Describe the transaction, privacy and security standards as related to HIPAA.
7255.D2.5	Acquire, store and retrieve patient information from the EHR database.
7255.D2.6	Execute, manage EHR database and maintain software and hardware including updates and file maintenance (e.g. purging, archiving).
7255.D2.7	Operate integrated devices with EHR software (e.g. scanners, fax machine, signature pads, and cameras) to transmit patient data for external use (e.g. insurance, pharmacies, and other providers).
7255.D2.8	Access clinical vocabularies in a health information system when appropriate and comply with patient safety standards regarding abbreviations in the health information system.
7255.D2.9	Generate Insurance verifications, patient statements, encounter forms/super bills, and face/admission sheets.
7255.D2.10	Retrieve diagnosis and procedural descriptions from medical records, enter codes and billing information into the EHR, and post payments to patient accounts at the time of visit.
7255.D2.11	Understand how to find codes in the ICD, CPT and HCPCS manuals.
7255.D2.12	Review charts to ensure compliance of proper charting, report to the proper enforcement office, and document the link between effective charting and reimbursement for procedures performed by clinicians.
7255.D2.13	Adhere to professional standards of care, including HIPAA Privacy & Security Rules and facility policy, as they pertain to medical records.
7255.D2.14	Generate reports for clinical and financial resources (e.g. aging report and financial analysis).
7255.D2.15	Compile and maintain medical care and census data for continuity of care records (e.g. reports on diseases treated, surgery performed, and use of hospital beds for clinical audits).
7255.D2.16	Provide ongoing end-user training and technical support of EHR software.
7255.D2.17	Execute EHR workflow, patient flow within the office (e.g. scheduling, patient registration and verification, patient referrals).
7255.D2.18	Use proper privileges and develop clinical templates from existing searchable databases.
Domain	Behavioral Health
7255.D3.1	Identify theories and demonstrate fundamental knowledge of biological, sociological, cultural, psychological and spiritual development across the adult lifespan.
7255.D3.2	Define and discuss the impact of culture, diversity and social justice as they pertain to perception and treatment of behavioral health concerns and aging.
7255.D3.3	Examine lifestyle behaviors associated with the development of chronic behavioral health illnesses.
7255.D3.4	Discuss and identify treatment options, pharmacological and non-pharmacological interventions of psychological and behavioral disorders for the following: Anxiety, Stress Disorders, Disorders of Mood, Eating Disorders, Substance Use and Addictive Disorders, Disorders of Aging and Cognition, Exhibiting expression or indications of distress (i.e. anxiety, striking out, self isolating, etc)

7255.D3.5	Identify types and classes of drugs related to the treatment of selected behaviors and abnormal behaviors, including potential complications from drug interactions.
7255.D3.6	Discuss and define parameters of therapeutic touch and communication.
7255.D3.7	Demonstrate general and specific verbal interventions used to support patient treatment and recovery.
7255.D3.8	Demonstrate understanding of caregiver behaviors which support low conflict interactions with patients.
7255.D3.9	Identify strategies for behavioral health promotion and interprofessional collaborative practice when interacting with patients with behavioral health issues.
7255.D3.10	Describe and discuss the dying process, the definition of death, and the stages of grief as they apply to caregivers.
Domain	Healthcare Specialist Certifications
7255.D4.1	Certified Nursing Assistant (C N A)

SAMPLE ACTIVITIES			
Domain	Technical Skills	Activity	Assessment / Evaluation
Medical Law and Ethics	<ul style="list-style-type: none"> Student explains how professional standards, laws, and ethics guide behavior for healthcare professionals in medical practices, hospitals, long-term care facilities, and clinics. 	<ul style="list-style-type: none"> Identification of legal and ethical dilemmas that can affect student's practice as a health care worker 	<ul style="list-style-type: none"> Essay project covering various legal and ethical dilemmas that are commonly seen in a healthcare setting - Students will assigned a project on various topics.
Electronic Health Records	<ul style="list-style-type: none"> Students acquire, store, and retrieve patient information from the EHR database. Students retrieve diagnosis and procedural descriptions from medical records, enter codes and billing information into the EHR, and post payments to patient accounts at the time of visit. Students adhere to professional standards of care, including HIPAA Privacy & Security Rules and facility policy, as they pertain to medical records. 	<ul style="list-style-type: none"> Explain the Health Information Privacy and Accountability Act (HIPAA) of 1997 and the repercussions of divulging confidential information. Acquire, store and retrieve patient information from the practice EHR database. Execute, manage EHR database and maintain software and hardware including updates and file maintenance (e.g. purging, archiving). 	<ul style="list-style-type: none"> Project on identifying what is and what is not protected health information based on HIPAA guidelines and the possible consequences of divulging confidential information. Data entry and retrieval of information quiz. Identify various ways to manage files by saving, purging and archiving materials in a "sandbox" format.
Behavioral Health	<ul style="list-style-type: none"> Students identify treatment and intervention options for psychological and behavioral disorders, such as Anxiety, Stress Disorders, Disorders of Mood, Eating Disorders, Substance Use and Addictive Disorders, Disorders of Aging and Cognition, etc. 	<ul style="list-style-type: none"> Identify theories and demonstrate fundamental knowledge of biological, sociological, cultural, psychological and spiritual development across the adult 	<ul style="list-style-type: none"> Applying theoretical concepts of bio/psycho/social , cultural and spiritual principles when working with residents in a

	<ul style="list-style-type: none"> ● Students demonstrate understanding of caregiver behaviors which support low conflict interactions. ● Students identify strategies for behavioral health promotion and interprofessional collaborative practice when interacting with patients with behavioral health issues. 	<p>lifespan and role play various situations with a partner in class.</p> <ul style="list-style-type: none"> ● Review conflict resolution skills with both co-worker and resident focus with a partner in classroom setting. ● Student utilizes basic communication skills and understanding of human behaviors with a student partner in the classroom setting role play ie: Interviewing the Resident. 	<p>clinical setting.</p> <ul style="list-style-type: none"> ● Evaluation of bio/psycho social skills in a clinical setting by instructor/clinical supervisor. ● Demonstrate the ability to solve conflicts in the classroom and/or clinical settings. ● Evaluation of conflict resolution skills (as they arise) by instructor/preceptor in clinical setting. ● Practice communication skills as assigned in a clinical facility setting and evaluated by instructor/facility supervisor.
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