



**Ohio
Exercise Science / Sports &
Recreational Health Care**

**Technical Competency Profile
(TCP)**

2004

Ohio Exercise Science / Sports & Recreational Health Care

Technical Competency Profile (TCP)

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2004

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Introduction

The Exercise Science / Sports and Recreational Health Care Technical Curriculum Profile (TCP) developed collaboratively by the Ohio Board of Regents, the Ohio Department of Education, and College Tech Prep Curriculum Services at the University of Toledo, represents a strand within the Ohio Health Technology profile (TCP). As a strand within Ohio Health Technology profile, the Exercise Science / Sports and Recreational Health Care TCP includes competencies that are grounded in academic subject areas and built within a health care core and two of the three occupational clusters: Therapeutic and Diagnostic. A model and model descriptor of the Ohio Health Technology Profile appears on pages x and xi.

The Exercise Science / Sports and Recreational Health Care profile includes essential

Acknowledgements

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College Tech Prep Program Standards

College Tech Prep programs are rigorous programs of study starting at the secondary school level and continuing through the associate degree and beyond. In accordance with the Carl D. Perkins Vocational Technical Education Enhancement Act of 1998, College Tech Prep programs are seamless, non-duplicative programs of study combining high-level academic and technical preparation in a variety of career fields.

The Carl D. Perkins Vocational and Technical Education Act of 1998 defines College Tech Prep as:

A program that provides technical preparation in a career field such as engineering, applied science, a mechanical, industrial or practical arts or trade, agriculture, health occupations, business or applied economics and must do the following:

- Combines at least two years of secondary and two years of post-secondary education in a sequential course of study without duplication of coursework
- Integrates academic, vocational and technical education, and if appropriate and available, work-based learning
- Provides technical preparation for careers
- Leads to an associate or a baccalaureate degree or post-secondary certificate in a specific career field
- Leads to placement in appropriate employment or further education.

The Ohio College Tech Prep Advisory Council recommended to the Ohio Board of Regents and the Ohio Department of Education the following standards for all College Tech Prep programs:

Academics are taught at a college-preparatory level and are aligned with state models and academic content standards.

In addition to Ohio graduation requirements specified in SB 55, required academic components for College Tech Prep programs include:

- a. Mathematics taught at a minimum level of Algebra II by the completion of high school.
- b. An integrated or stand alone senior-year math component
- c. Three units of science including at least two lab-based science courses

College Tech Prep programs will use a state-developed Technical Competency Profile (TCP) as the basis for pathway development. The pathway document should reflect secondary and post-secondary course work and should be made available for stakeholders. All secondary and post-secondary TCP competencies must be clearly identified and addressed. The TCP is the framework used to develop all associated curricular documents; however, components from other competency profiles such as OCAP's (Occupational Competency Analysis Profile), ITAC's (Integrated Technical and Academic Competencies) and SCANS (The Secretary's Commission on Achieving Necessary Skills—America 2000) may be included and are not mutually excluded from a TCP.

Articulated pathways will be reviewed every two-years at the consortia level.

Pathways operate under an articulation agreement between/among partners in a consortium.

College Tech Prep programs at the secondary level will operate as state-approved, career-technical education programs.

Academic and technical instruction is integrated and delivered in a contextual approach where possible. Programs have common representation from secondary education, higher education, business, and labor members.

Post-secondary programs contain advanced skills in the TCP document.

Programs must operate under either regionally accredited post-secondary institutions/degrees or approved apprenticeship programs meeting U.S. Department of Labor standards.

College Tech Prep programs, secondary and post-secondary, must comply with the state College Tech Prep Advisory Council's performance measures.

State College Tech Prep Advisory Council

Revised and Approved: May 1, 2002

Health Technology State Competency Profile

In recognition of the need for a highly skilled health care workforce, the U.S. Department of Education in 1992 funded the National Health Care Skill Standards Project (NHCSSP). This project was a collaborative endeavor among health services, labor, and the education community to better prepare tomorrow's health care worker by developing skill standards today.

The NHCSSP involved representatives from key constituencies in a comprehensive process of research, review, and revision to ensure that the resulting standards meet the needs of the industry. The standards make explicit the knowledge and skills health care workers need in order to provide quality health care.

The Ohio Health Technology Competency Profile (TCP) is based upon these standards to provide the foundation for better worker preparation, both in school and on the job. The goals of the College Tech Prep educational tract are to provide a seamless transition from secondary to postsecondary health programs, value added curriculum, and educational continuity. This TCP provides a common language, common goals, and a common reference point for employers, workers, students, labor, educators, and consumers.

As a strand with the Ohio Health Technology Competency Profile (TCP), the Exercise Science / Sports and Recreational Health Care TCP is also based on the standards developed through the National Health Care Skill Standards Project. Also, in concert with College Tech Prep, the Exercise Science / Sports and Recreational Health Care TCP was designed to provide a seamless transition from secondary to an associate or baccalaureate degree. Students desiring a career in health care with an emphasis on sports and recreation will be appropriately served through this TCP.

Under the Ohio College Tech Prep initiative, high schools and colleges preparing students for specific health care licensure and certification examinations are individually responsible to ensure that their Tech Prep health program meets all of the requirements of the appropriate accrediting agency(ies).

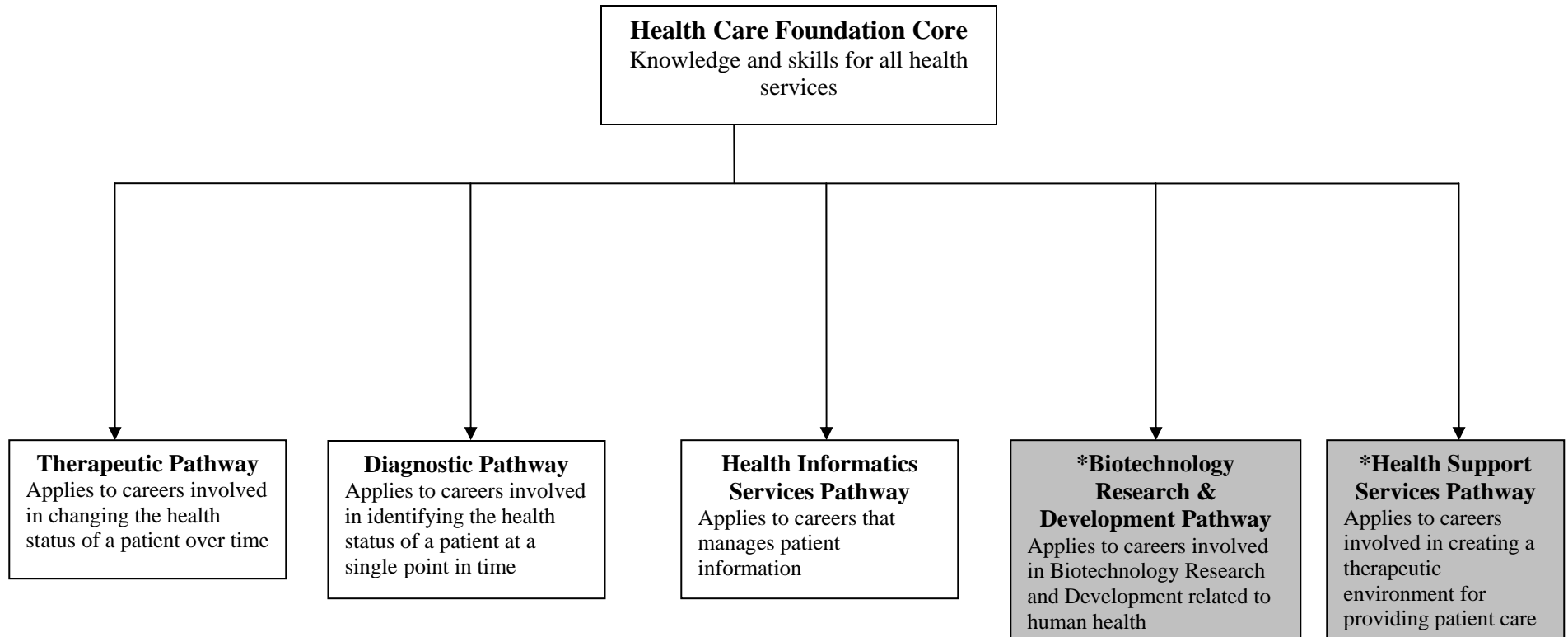
MODEL FOR OHIO HEALTH TECHNOLOGY COMPETENCY PROFILE (TCP)

The competencies in the following Health TCP were developed in accordance with the Health Care Core Standards developed by The National Consortium on Health Science and Technology Education. These standards specify the knowledge and skills that the vast majority of health care workers should have. The health care core standards include:

- I. Academic Foundation
 - Human Structure and Function
 - Disease and Disorders
- II. Communication
 - Communication Skills
 - Reporting
 - Technical Reports
- III. Systems
 - Systems Theory
 - Health Care Delivery System
 - Health Care Delivery Systems Results
 - System Change
- IV. Employability Skills
 - Key Employability Skills
 - Interpersonal Communication
 - Personal Growth and Development
 - Career Decision-Making
- V. Legal Responsibilities
 - Legal Implications
 - Legal Practices
- VI. Ethic
 - Legal and Ethical Boundaries
 - Ethical Practices
 - Cultural, Social, and Ethnic Diversity
- VII. Safety Practices
 - Infection Control
 - Personal Safety
 - Environmental Safety
 - Common Safety Hazards
 - Emergency Procedure and Protocols
- VIII. Teamwork
 - Health Care Teams
 - Team Member Participation

In addition to competencies in the above core areas, the later part of the document includes competencies in the following pathway areas: therapeutic/diagnostic (combined), therapeutic, diagnostic, information services, biotechnology research and development, health support services (see diagram on the following page). This health profile also encompasses the Health Services Career Cluster Integrated Technical and Academic Competencies (ITAC) (1999) developed by the Vocational Instructional Materials Laboratory with funding from the Ohio Department of Education Division of Career-Technical and Adult Education.

**OHIO MODEL OF HEALTH CARE CORE STANDARDS
DEVELOPED FROM
THE NATIONAL CONSORTIUM ON HEALTH SCIENCE AND TECHNOLOGY EDUCATION**



*To be developed

COLLEGE TECH PREP OHIO HEALTH TECHNOLOGY COMPETENCY PROFILE

Model Descriptor

The base of the model provides a solid foundation and represents the College Tech Prep Health Career Plan of two years of programming during high school, two years of learning at the Community College Level, and two years of study at the Baccalaureate Level. The points on the base represent education and career progression. The career pathway may occur at any time from high school and continue throughout adulthood and represents principles of life long learning.

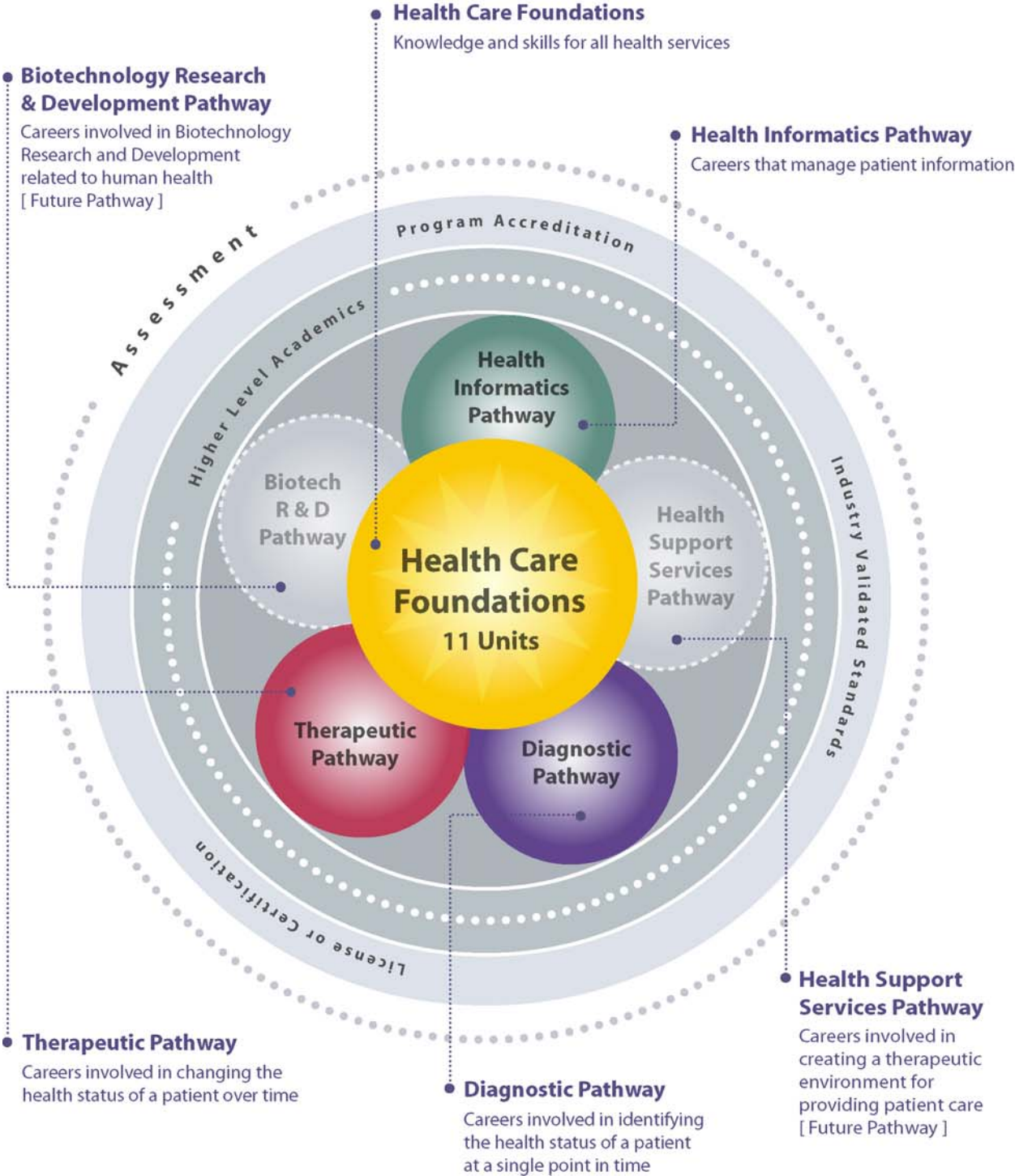
Located in the epicenter of the model are 11 components. These components represent the content in the Health Care Core. The 11 components provide the foundation skills essential to all health careers. These concepts are: Anatomy and Physiology, Diseases and Disorders, Communication, Organizational Systems, Employability Skills, Legal Practices, Ethics, Safety Practices, Teamwork, Health Maintenance Practice.

Encompassing the epicenter there are five elliptic circles. Each represents one of the health career pathways. These are: Therapeutic Pathway, Diagnostic Pathway, Health Informatics Service Pathway, Biotechnology Research and Development Pathway, and Health Support Services Pathway that has yet to be designed.

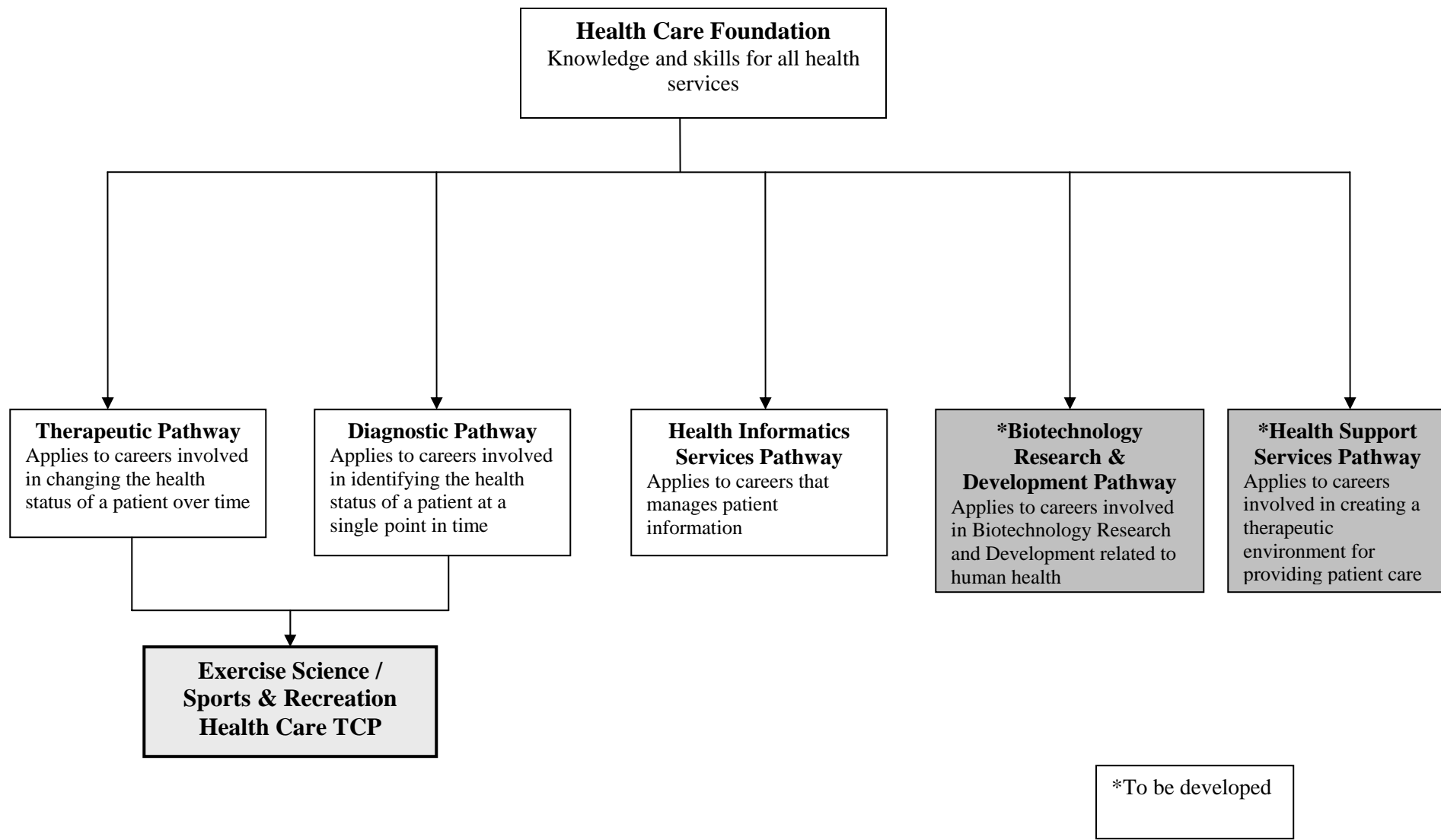
Surrounding the five elliptic circles and the common core are components that provide strength and support to the model. These circles represent: work-based learning, industry-based credentials and industry-validated standards, program accreditation, teacher credentials and contextual academic coursework in language arts, mathematics, sciences, social studies, foreign language, and technology. On the circumference of the model and embracing the model is assessment. The arrows point in each direction and represent the concept of a dynamic process that is ever changing and evolving. This on-going assessment provides strength to the model by ensuring currency of practice and accountability to the individuals in a health career.

Ohio Health Technology College Tech Prep

Secondary → Associate Degree → Bachelor's Degree



**EXERCISE SCIENCE / SPORTS & RECREATION HEALTH CARE
POSITION ON THE
OHIO MODEL OF HEALTH CARE CORE STANDARDS**



Key to Profile Codes

Importance of Competencies

All of the competencies in this document represent the minimum requirements for a College Tech Prep program. It is the responsibility of the local consortia to further define and/or expand, as needed, the key indicators for each competency. Each competency must be taught at the Proficient level (P) by the completion of the College Tech Prep program, which is an Associate Degree (AD). A minimal number of competencies have been identified as Introduce at the Associate Degree level. These may require further higher education.

This document integrates college prep level academics with technical skill. Technical skills are a required component.

I = Introduce (Learner will demonstrate knowledge and comprehension of the competency.)

P = Proficient (Learner will demonstrate ability to apply knowledge of and/or perform the competency.)

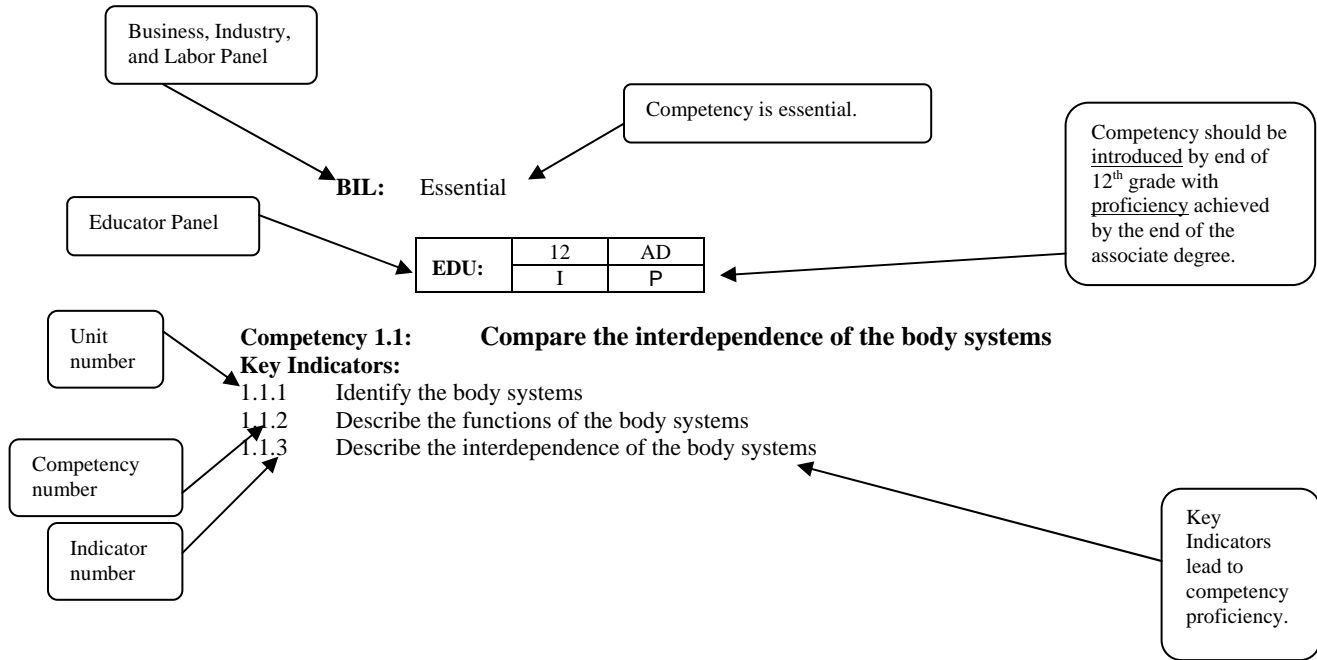
R = Reinforced (Competencies marked proficient at the secondary level are to be reinforced at the associate degree level.)

Grade Level: **12** = by the end of grade 12
 AD = by the end of the Associate Degree

Academic Connection

All College Tech Prep programs are responsible for meeting the academic content standards.

EXAMPLE:



HEALTH TECH PREP PROGRAM PROFILE

Unit

1-11	Health Care Foundation Core Required for ALL programs
1	Anatomy and Physiology
2	Variations of Health
3	Communication
4	Information Technology Applications
5	Systems
6	Employability Skills
7	Legal Responsibilities
8	Ethics
9	Safety Practices
10	Teamwork
11	Health Maintenance Practices
	Pathway Units: Health pathways offered are decided by the Tech Prep Consortium and local districts based on the educational setting and the career pathway
12	Therapeutic Pathway
13	Diagnostic Pathway
14	Health Informatics Services Pathway

Unit 1: Anatomy and Physiology

BIL: Essential

EDU:	12	AD
	I	P

Competency 1.1: Describe the basic structure and functions of cells, tissues, organs, and systems as they relate to homeostasis

Key Indicators:

- 1.1.1 Define homeostasis
- 1.1.2 Describe basic life functions

BIL: Essential

EDU:	12	AD
	I	P

Competency 1.2: Demonstrate knowledge of human growth and development across the lifespan

Key Indicators:

- 1.2.1 Identify developmental tasks for each age group (neonate, infant, child, adolescent, adult, and geriatric)
- 1.2.2 Identify health issues for each age group (neonate, infant, child, adolescent, adult, and geriatric)

BIL: Essential

EDU:	12	AD
	I	P

Competency 1.3: Compare the interdependence of the body systems

Key Indicators:

- 1.3.1 Identify the body systems
- 1.3.2 Describe the functions of the body systems
- 1.3.3 Describe the interdependence of the body systems

Unit 2: Variations of Health

BIL: **Essential**

EDU:	12	AD
	I	P

Competency 2.1: Describe the individual's response to stressors across the lifespan

Key Indicators:

- 2.1.1 Identify the body's defenses against stressors (e.g., invasion, disease, and injury)
- 2.1.2 Explain negative and positive feedback systems
- 2.1.3 Describe the individual's physiological response to stressors across the lifespan
- 2.1.4 Describe the individual's psychological response to stressors across the lifespan
- 2.1.5 Describe the individual's social response to stressors across the lifespan

BIL: **Essential**

EDU:	12	AD
	I	P

Competency 2.2: Summarize common categories of variations of health

Key Indicators:

- 2.2.1 Classify etiology of common categories of variations of health
- 2.2.2 Describe the manifestation of common categories of variations of health
- 2.2.3 Identify potential diagnostic procedures
- 2.2.4 Compare traditional and complementary therapies

Unit 3: Communication

BIL: Essential

EDU:	12	AD
	I	P

Competency 3.1: Demonstrate communication techniques

Key Indicators:

- 3.1.1 Practice the appropriate methods of giving and receiving information
- 3.1.2 Contrast therapeutic and social communications
- 3.1.3 Identify selected cultural differences that may affect therapeutic and social communication

BIL: Essential

EDU:	12	AD
	I	P

Competency 3.2: Utilize communication technology

Key Indicators:

- 3.2.1 Communicate using electronic equipment (e.g., computer, fax, photo copier, internet, phone, printer, etc.)
- 3.2.2 Access information using electronic equipment
- 3.2.3 Utilize a variety of computer applications that support provision of health care education

BIL: Essential

EDU:	12	AD
	I	P

Competency 3.3: Utilize basic medical terminology

Key Indicators:

- 3.3.1 Define basic medical terms
- 3.3.2 Spell basic medical terms
- 3.3.3 Pronounce basic medical terms
- 3.3.4 Utilize abbreviations safely (i.e. Joint Commission on the Accreditation of Health Care Organizations, National Safety Standards)

BIL: Essential

EDU:	12	AD
	I	P

Competency 3.4: Summarize Health Insurance Portability and Accountability Act (HIPAA)

Key Indicators:

- 3.4.1 Demonstrate knowledge of HIPAA standards
- 3.4.2 Apply HIPAA standards

Unit 4: Information Technology Applications

BIL: **Essential**

EDU:	12	AD
	I	P

Competency 4.1: Discuss the role of technology in Healthcare

Key Indicators:

- 4.1.1 Summarize general technology trends
- 4.1.2 Identify trends in monitoring devices
- 4.1.3 Identify trends in diagnostics testing
- 4.1.4 Employ technology applications that support therapeutic intervention

BIL: **Essential**

EDU:	12	AD
	I	P

Competency 4.2: Utilize technology in health care

Key Indicators:

- 4.2.1 Identify software programs appropriate for specific needs
- 4.2.2 Manage health care information using selected software program(s)

Unit 5: Systems

BIL: Essential

EDU:	12	AD
	I	P

Competency 5.1: Explain systems theory

Key Indicator:

- 5.1.1 Identify the components of systems theory
- 5.1.2 Discuss how key systems affect quality of care

BIL: Essential

EDU:	12	AD
	I	P

Competency 5.4: Investigate factors that may affect various health delivery systems

Key Indicators:

- 5.4.1 Examine current trends in health care
- 5.4.2 Describe current issues in health care
- 5.4.3 Discuss current accreditation agencies and standards

Unit 6: Employability Skills

BIL: Essential

EDU:	12	AD
	I	P

Competency 6.1: Demonstrate characteristics that enhance employment opportunities

Key Indicators:

- 6.1.1 Discuss desirable personal and professional attitudes, behaviors, and work habits
- 6.1.2 Discuss the process and documents needed for obtaining a health care position

BIL: Essential

EDU:	12	AD
	I	P

Competency 6.2: Interact appropriately with diverse groups

Key Indicators:

- 6.2.1 Recognize the impact of diversity in the workplace
- 6.2.2 Demonstrate appropriate strategies and solutions for dealing with conflicts and differences
- 6.2.3 Identify strategies for understanding and working with various diverse groups

BIL: Essential

EDU:	12	AD
	I	P

Competency 6.3: Develop a career plan in each of the following health care pathways: diagnostic, therapeutic, and health informatics

Key Indicators:

- 6.3.1 Identify educational requirements and availability of educational opportunities for different health careers
- 6.3.2 Explore specific health care career interests (e.g., shadowing, worksite experiences, professional readings)
- 6.3.3 Research projected growth of various health care careers

Unit 7: Legal Responsibilities

BIL: Essential

EDU:	12	AD
	I	P

Competency 7.1: Perform duties according to regulations, policies, laws, and legislated rights of clients/patients

Key Indicators:

- 7.1.1 Explain legal responsibilities, limitations, and implications of actions
- 7.1.2 Comply with legal responsibilities specified by state practice act(s) and other pertinent legislation
- 7.1.3 Compare/contrast the roles of various regulatory agencies

BIL: Essential

EDU:	12	AD
	I	P

Competency 7.2: Survey mandated standards in the health care industry

Key Indicator:

- 7.2.1 Describe mandated standards for workplace safety, harassment, labor, and employment laws
- 7.2.2 Identify legal responsibilities specified by state practice act(s) and other pertinent legislation as it relates to mandated reporting of client/family abuse
- 7.2.3 Identify legal responsibilities specified by state practice act(s) and other pertinent legislation and regulatory agencies as it relates to confidentiality (i.e. HIPAA)

BIL: Essential

EDU:	12	AD
	I	P

Competency 7.3: Differentiate between licensure, certification, registration, and legislated scope of practice

Key Indicators:

- 7.3.1 Describe licensure, certification, registration, and legislated scope of practice
- 7.3.2 Identify behaviors that violate acceptable practice

Unit 8: Ethics

BIL: Essential

EDU:	12	AD
	I	P

Competency 8.1: Differentiate between legal and ethical issues

Key Indicators:

- 8.1.1 Define “legal”
- 8.1.2 Define “ethical”
- 8.1.3 Compare/contrast legal and ethical health care
- 8.1.4 Apply legal and ethical concepts to health care practice

BIL: Essential

EDU:	12	AD
	I	P

Competency 8.2: Practice responsibly within the ethical framework

Key Indicators:

- 8.2.1 Identify codes of ethics within the health care profession
- 8.2.2 Develop an individual ethical framework
- 8.2.3 Demonstrate ethical behavior when interacting with colleagues both internal and external to the agencies
- 8.2.4 Maintain appropriate boundaries in all professional interactions

BIL: Essential

EDU:	12	AD
	I	P

Competency 8.3: Evaluate the implications of health care ethics

Key Indicators:

- 8.3.1 Compare/contrast personal, professional, and organizational ethics
- 8.3.2 Explain the role of the health care ethics committee within the health care organization
- 8.3.3 Develop strategies to deal with conflict between personal and organizational ethics

Unit 9: Safety Practices

BIL: Essential

EDU:	12	AD
	I	P

Competency 9.1: Survey state and federal regulations concerning safety, health, and protection of the environment

Key Indicators:

- 9.1.1 Identify current Occupational Safety and Health Administration (OSHA) regulations
- 9.1.2 Identify current Environmental Protection Agency (EPA) regulations
- 9.1.3 Identify current Center for Disease Control (CDC) guidelines
- 9.1.4 Identify current Nuclear Regulatory Commission (NRC) regulations
- 9.1.5 Identify current Federal Drug Administration (FDA) regulations
- 9.1.6 Identify current Clinical Laboratory Improvement Act (CLIA) regulations

BIL: Essential

EDU:	12	AD
	I	P

Competency 9.2: Demonstrate practices that contribute to the creation of a hazard-free, accident-free environment

Key Indicators:

- 9.2.1 Follow procedures established to prevent accidents
- 9.2.2 Handle substances in accordance with Material Safety Data Sheets (MSDS) and other applicable regulatory guidelines
- 9.2.3 Discuss the principles of ergonomics and body mechanics

BIL: Essential

EDU:	12	AD
	I	P

Competency 9.3: Examine emergency preparedness plans in a variety of health care settings

Key Indicators:

- 9.3.1 Describe different types of emergency preparedness plans
- 9.3.2 Identify procedures to be followed in the event of a disaster
- 9.3.3 Discuss health care issues related to Homeland Security
- 9.3.4 Construct an emergency preparedness plan for a health care setting

BIL: **Essential**

EDU:	12	AD
	P	R

Competency 9.4: **Complete requirements for First Aid/CPR certification (e.g., American Heart Association or American Red Cross)**

Key Indicators:

- 9.4.1 Maintain first-aid certification
- 9.4.2 Maintain cardiopulmonary resuscitation (CPR) certification

Unit 10: Teamwork

BIL: **Essential**

EDU:	12	AD
	I	P

Competency 10.1: Explain the roles and responsibilities of the individual as part of the health care team

Key Indicators:

- 10.1.1 Identify the roles and responsibilities of the individual as part of the health care team
- 10.1.2 Discuss attitudes and behaviors that promote positive interaction between members of the health care team

BIL: **Essential**

EDU:	12	AD
	I	P

Competency 10.2: Perform responsibly as a team member

Key Indicators:

- 10.2.1 Organize assignments
- 10.2.2 Complete assignments in timely and effective manner
- 10.2.3 Assist other members of the health care team
- 10.2.4 Recognize the patient and family as key members of the health care team (i.e. Safe, Timely, Effective, Efficient Patient Centered Care {STEER})

Unit 11: Health Maintenance Practices

BIL: **Essential**

EDU:	12	AD
	I	P

Competency 11.1: Examine the psychosocial and physiological needs of the health care provider

Key Indicators:

- 11.1.1 Identify stresses in the health care profession (e.g., death, dying, staffing shortages, critical incidents)
- 11.1.2 Express feelings related to being a health care provider (e.g., appropriate forum, at the appropriate time)
- 11.1.3 Describe coping strategies, resources, and support persons
- 11.1.4 Differentiate between healthy and unhealthy behaviors
- 11.1.5 Identify health screenings and preventive examinations

BIL: **Essential**

EDU:	12	AD
	I	P

Competency 11.2: Evaluate health and wellness across the lifespan

Key Indicators:

- 11.2.1 Describe measures that promote wellness across the lifespan
- 11.2.2 Examine potential health hazards in lifestyles, life practices, and the physical environment
- 11.2.3 Identify community resources for prevention and management of health problems

BIL: **Essential**

EDU:	12	AD
	I	P

Competency 11.3: Evaluate nutrition across the lifespan

Key Indicators:

- 11.3.1 Explain basic nutritional concepts
- 11.3.2 Summarize nutritional requirements across the lifespan
- 11.3.3 Identify regional, cultural, and religious food preferences
- 11.3.4 Identify safety issues regarding food handling and storage
- 11.3.5 Create consumer nutritional health product awareness

THERAPEUTIC PATHWAY

UNIT 12

THERAPEUTIC PATHWAY

Career Pathway Description

This pathway includes careers involved in the treatment and care of those who are in need of health care services. Careers in this pathway focus on the promotion and maintenance of wellness and on the prevention and treatment of physical, mental and emotional disorders of clients.

College Tech Prep Program/Student

A College Tech Prep student is enrolled in a state approved Tech Prep education program. A College Tech Prep Program means a program of study that:

- Combines, at a minimum, two years of secondary education (as determined by Ohio definitions) with a minimum of two years of postsecondary education in a non-duplicative, sequential course of study
- Integrates academic and technical instruction and utilizes work-based and work-site learning, where appropriate and available
- Curriculum competencies are driven by standards of business, industry, accreditation, and/or credentialing agencies
- Creates a career pathway of multiple entry and exit points
- Promotes the seamless pathway from secondary to postsecondary education
- Provides value-added educational experiences
- Provides a common language, common goals, and a common reference point for employers, workers, students, labor, educators, and consumers

Career Pathways

College Tech Prep is two years of secondary education plus an associate degree. This career pathway correlates to the Tech Prep 2 plus 2 program. Health Technologies Tech Prep can be delivered in a variety of educational settings at career/technical centers, comprehensive school districts, or partnering with the consortia community colleges and universities. Examples of delivery options:

- Satellite programming at an associate school
- Health Academy
- Partnerships with Health Care Providers/Facilities for delivery of technical skills

Health Care Exploration is a component of the health care pathway. This component can be delivered through community service learning projects, job shadowing, internships, mentorships, capstone experience/projects, site visits with guest speakers, and college visits.

Unit 12: Therapeutic Pathway Competencies

(Pathway Units: Health pathways are decided by the Tech Prep Consortium and local districts based on the educational setting and the career pathway)

The student ascertaining the appropriate certificates/credentials associated with the therapeutic cluster program of study determines technical competencies.

Program of Study
Health Care Core:
Anatomy and Physiology Variations of Health Communication Information Technology Applications Systems Employability Skills Legal Responsibilities Ethics Safety Practices Teamwork Health Maintenance Practices
Therapeutic Pathway

Under the Ohio Tech Prep initiative, high schools and colleges preparing students for specific health care licensure and certification examinations are individually responsible to ensure that their Tech Prep health program meets all of the requirements of the appropriate accrediting agency(ies).

Therapeutic Pathway Careers

Secondary

Nurse Aide
 Licensed Practical Nurse
 Dental Assistant
 Patient Care Technician
 Dietary Aide
 Medical Assistant
 Personal Trainer
 Home Health Aide
 Emergency Medical Technician
 Veterinary Aide

Associate Degree

Licensed Practical Nurse
 Dental Assistant
 Dental Hygienist
 Registered Nurse (ADN)
 Dietetic Technician
 Respiratory Therapy Technician
 Physical Therapy Assistant
 Paramedic
 Emergency Medical Technician

Bachelor's Degree

Physician Assistant
 Physical Therapist
 Radiation Therapist
 Registered Nurse (BSN)
 Occupational Therapist
 Respiratory Therapist
 Speech-Language Pathologist
 Audiologist
 Athletic Trainer
 Registered Dietitian

Professional Careers with education beyond Bachelor's Degree

Dentist
 Physical Therapist
 Optometrist

Physician
 Nurse Practitioner
 Ophthalmologist

Veterinarian
 Exercise Physiologist
 Chiropractor

Listed are one or more credentials a student may ascertain in preparing for careers in the therapeutic cluster.

Credentials

Secondary

STNA – State tested Nurse Assistant
 LPN – Licensed Practical Nurse
 CPR – Cardiopulmonary Resuscitation
 First Aid
 Emergency Medical Technician (Ohio, Age 18 to take exam)
 Ohio Dental Assisting
 Registered Medical Assistant
 Home Health Aide
 Certified Personal Trainer

Postsecondary

STNA – State tested Nurse Assistant
 LPN - Licensed Practical Nurse
 CPR – Cardiopulmonary Resuscitation
 First Aid
 Emergency Medical Technician
 Certified Dental Assistant
 Certified Medical Assistant
 Respiratory Therapy Technician
 Certified Personal Trainer
 Registered Nurse

BIL: Essential

EDU:	12	AD
	I	P

Competency 12.1: Interact with client/patient

Key Indicators:

- 12.1.1 Demonstrate the ability to explain planned procedures and goals to clients/patients
- 12.1.2 Respect clients’/patients’ cultural differences
- 12.1.3 Use facility guidelines to give health care information
- 12.1.4 Use language appropriate to situation
- 12.1.5 Identify the different types of information collected
- 12.1.6 Access resources needed to remove communication barriers (e.g., client/patient with limited English)
- 12.1.7 Assure privacy and confidentiality (i.e. HIPAA)
- 12.1.8 Maintain professional boundaries

BIL: Essential

EDU:	12	AD
	I	P

Competency 12.2: Convey essential client/patient information to appropriate team members

Key Indicators:

- 12.2.1 Observe and report unsafe environmental conditions
- 12.2.2 Recognize and report unusual occurrences
- 12.2.3 Maintain confidentiality (i.e. HIPAA)
- 12.2.4 Recognize and report changes in patient’s condition

BIL: Essential

EDU:	12	AD
	I	P

Competency 12.3: Demonstrate competency in measuring client/patient vital signs and other indicators of health status within the scope of practice

Key Indicators:

- 12.3.1 Measure vital signs and other indicators
- 12.3.2 Report client/patient vital signs or other indicators of health status
- 12.3.3 Record client/patient health status according to facility protocol
- 12.3.4 Provide input to the plan of care

BIL: Essential

EDU:	12	AD
	I	P

Competency 12.4: Apply the principles of proper body mechanics and ergonomics**Key Indicators:**

- 12.4.1 Demonstrate proper personal body mechanics and ergonomics
- 12.4.2 Instruct client/patient and family in proper body mechanics
- 12.4.3 Demonstrate proper positioning and moving of client/patient

BIL: Essential

EDU:	12	AD
	I	P

Competency 12.5: Utilize appropriate methods of data collection**Key Indicators:**

- 12.5.1 Identify methods and types of data collected in health care
- 12.5.2 Differentiate between subjective and objective data
- 12.5.3 Record and report information
- 12.5.4 Maintain professional standards in all documentation activities

BIL: Essential

EDU:	12	AD
	I	P

Competency 12.6: Contribute to the development of a plan of care**Key Indicators:**

- 12.6.1 Identify the purpose of a plan of care
- 12.6.2 Identify the components of a plan of care
- 12.6.3 Provide input in the development of plan of care based on the scope of practice

BIL: Essential

EDU:	12	AD
	I	P

Competency 12.7: Implement procedures accurately in support of the plan of care**Key Indicators:**

- 12.7.1 Demonstrate knowledge of the procedures within the scope of practice
- 12.7.2 Perform procedures accurately and in a timely fashion
- 12.7.3 Document procedure according to facility policy

BIL: **Essential**

EDU:	12	AD
	I	P

Competency 12.8: Evaluate client/patient status within the scope of practice

Key Indicators:

- 12.8.1 Use appropriate evaluation methods
- 12.8.2 Determine client/patient response to procedures/plan of care
- 12.8.3 Provide input to modify plan of care accordingly

DIAGNOSTIC PATHWAY

UNIT 13

DIAGNOSTIC PATHWAY

Career Pathway Description

This pathway includes careers involved in the performance of tests or evaluations to identify the presence or absence of illness or injury. Careers in this pathway focus on ascertaining the status of body functions and conditions and determining the cause and nature of diseases and disorders.

College Tech Prep Program/Student

A College Tech Prep student is enrolled in a state approved Tech Prep education program. A College Tech Prep Program means a program of study that:

- Combines, at a minimum, two years of secondary education (as determined by Ohio definitions) with a minimum of two years of postsecondary education in a non-duplicative, sequential course of study
- Integrates academic and technical instruction and utilizes work-based and work-site learning, where appropriate and available
- Curriculum competencies are driven by standards of business, industry, accreditation, and/or credentialing agencies
- Creates a career pathway of multiple entry and exit points
- Promotes the seamless pathway from secondary to postsecondary education
- Provides value-added educational experiences
- Provides a common language, common goals, and a common reference point for employers, workers, students, labor, educators, and consumers

Career Pathways

College Tech Prep is two years of secondary education plus an associate degree. This career pathway correlates to the Tech Prep 2 plus 2 program. Health Technologies Tech Prep can be delivered in a variety of educational settings at career/technical centers, comprehensive school districts, or partnering with the consortia community colleges and universities. Examples of delivery options:

- Satellite programming at an associate school
- Health Academy
- Partnerships with Health Care Providers/Facilities for delivery of technical skills

Health Care Exploration is a component of the health care pathway. This component can be delivered through community service learning projects, job shadowing, internships, mentorships, capstone experience/projects, site visits with guest speakers, and college visits.

Unit 13: Diagnostic Pathway Competencies

(Pathway Units: Health pathways are decided by the Tech Prep Consortium and local districts based on the educational setting and the career pathway)

The student ascertaining the appropriate certificates/credentials associated with the diagnostic pathways program of study determines technical competencies.

Program of Study

Health Care Core

Anatomy and Physiology
Variations of Health
Communication
Information Technology Applications
Systems
Employability Skills
Legal Responsibilities
Ethics
Safety Practices
Teamwork
Health Maintenance Practices

Diagnostic Pathway

Under the Ohio Tech Prep initiative, high schools and colleges preparing students for specific health care licensure and certification examinations are individually responsible to ensure that their Tech Prep health program meets all of the requirements of the appropriate accrediting agency(ies).

Diagnostic Pathway Careers

Secondary

Emergency Medical Tech (Basic)
Phlebotomist
Para Optometric
Pharmacy Aide
Surgical Technician
Radiology Aide

Associate Degree

Emergency Medical Tech-Paramedic
Pharmacy Technician
Radiographer
Medical Lab Technician
Para Optometric
Certified Surgical Technician
Diagnostic Medical Sonographer
Nuclear Medical Technician
Radiation Therapy Technician

Bachelor's Degree

Cytotechnologist
Computer Tomography
Histotechnologist
Medical Technologist
Nuclear Medicine Technologist
Radiographer

Professional Careers with education beyond Bachelor's Degree

Pharmacist

Radiologist

Pathologist

Optometrist

Listed are one or more credentials a student may ascertain in preparing for careers in the diagnostic pathway.

Credentials

Secondary

CPR – Cardiopulmonary Resuscitation
First Aid
Certified Phlebotomist
Emergency Medical Technician
(Ohio, Age 18 to take exam)

Postsecondary

CPR – Cardiopulmonary Resuscitation
First Aid
Certified Phlebotomist
Emergency Medical Technician
Certified Surgical Technician

BIL: Essential

EDU:	12	AD
	I	P

Competency 13.1: Interact with client/patient

Key Indicators:

- 13.1.1 Demonstrate the ability to explain planned procedures and goals to clients/patients
- 13.1.2 Respect clients'/patients' cultural differences
- 13.1.3 Use facility guidelines to give health care information
- 13.1.4 Use language appropriate to situation
- 13.1.5 Identify the different types of information collected
- 13.1.6 Access resources needed to remove communication barriers (e.g., client/patient with limited English)
- 13.1.7 Assure privacy and confidentiality (i.e. HIPAA)
- 13.1.8 Maintain professional boundaries

BIL: Essential

EDU:	12	AD
	I	P

Competency 13.2: Convey essential client/patient information to appropriate team members

Key Indicators:

- 13.2.1 Observe and report unsafe environmental conditions
- 13.2.2 Recognize and report unusual occurrences
- 13.2.3 Maintain confidentiality (i.e. HIPAA)
- 13.2.4 Recognize and report changes in patient's condition

BIL: Essential

EDU:	12	AD
	I	P

Competency 13.3: Apply the principles of proper body mechanics and ergonomics

Key Indicators:

- 13.3.1 Demonstrate proper personal body mechanics and ergonomics
- 13.3.2 Instruct client/patient and family in proper body mechanics
- 13.3.3 Demonstrate proper positioning and moving of client/patient

BIL: Essential

EDU:	12	AD
	I	P

Competency 13.4: Process procedural request

Key Indicators:

- 13.4.1 Identify purpose and intent of request (e.g., physician’s order, requisition)
- 13.4.2 Resolve apparent inconsistency or error in the request

BIL: Essential

EDU:	12	AD
	I	P

Competency 13.5: Prepare the supplies, equipment, and client/patient for procedures, according to facility protocol

Key Indicators:

- 13.5.1 Identify and gather equipment necessary for procedures
- 13.5.2 Maintain and calibrate equipment
- 13.5.3 Explain procedures and give related information to client/patient

BIL: Essential

EDU:	12	AD
	I	P

Competency 13.6: Perform procedures to create precise and accurate diagnostic data

Key Indicators:

- 13.6.1 Use appropriate supplies and equipment
- 13.6.2 Monitor quality of sample or specimen
- 13.6.3 Examine results of procedure to assure a quality result
- 13.6.4 Maintain proper documentation of quality assurance procedures

BIL: Essential

EDU:	12	AD
	I	P

Competency 13.7: Evaluate the procedure and results

Key Indicators:

- 13.7.1 Analyze results for diagnostic quality
- 13.7.2 Recognize abnormal results
- 13.7.3 Use alternative protocol, as needed, within established guidelines

BIL: Essential

EDU:	12	AD
	I	P

Competency 13.8: Produce and report results using appropriate communication channels

Key Indicators:

- 13.8.1 Use appropriate means to produce reports
- 13.8.2 Disseminate reports appropriately following HIPAA regulations

**EXERCISE SCIENCE /
SPORTS &
RECREATIONAL HEALTH
CARE**

UNIT 14 - 25

Exercise Science / Sports & Recreational Health Care

Unit 14	Exercise Science / Sports & Recreational Health Care Orientation
Unit 15	Professional Practices
Unit 16	Workplace Safety
Unit 17	Functional Anatomy and Exercise Science
Unit 18	Health Appraisal and Fitness Testing
Unit 19	Emergency Policies and Procedures
Unit 20	Exercise Programming
Unit 21	Nutrition and Weight Management
Unit 22	Injury Recognition and Prevention
Unit 23	Rehabilitation and Treatment
Unit 24	Communication
Unit 25	Education and Counseling

2004 Exercise Science / Sports & Recreational Health Care Competency Chart

At the end of the secondary program (12) and associate degree (AD) each competency is coded:
I = Introductory; P = Proficient; R = Reinforce. In addition, the business, industry and labor
partnership (BIL) validated each competency: BIL - E = Essential; R = Required

Competency	12	AD	BIL
Unit 14: Exercise Science / Sports & Recreational Health Care Orientation			
14.1 Survey exercise science and sports health care	P	R	E
14.2 Demonstrate facility operational protocols	P	R	E
14.3 Assess the role of technology in the sports health care and exercise science industry	I	P	E
14.4 Demonstrate principles of facility management and operation	I	P	E
Unit 15: Professional Practices			
15.1 Project professional image	P	R	E
15.2 Demonstrate responsibility and accountability in accordance with appropriate professional organizations and regulatory agencies	P	R	E
15.3 Demonstrate competent care consistent with the requirements and limitations of the professions	I	P	E
15.4 Practice procedures consistent with legal and ethical behavior	I	P	E
15.5 Apply liability reduction strategies	I	P	E
Unit 16: Workplace Safety			
16.1 Maintain safe working environment	P	R	E
16.2 Use tools and equipment in accordance with established safety procedures	P	R	E
Unit 17: Functional Anatomy and Exercise Science			
17.1 Describe basic anatomical structures	I	P	E
17.2 Locate musculoskeletal landmarks of the human body	I	P	E
17.3 Examine the principles and concepts of human movement	I	P	E
17.4 Define the components of physical fitness	P	R	E
17.5 Describe the physiological responses to static and dynamic exercise	P	R	E
17.6 Utilize common techniques used to enhance neuromuscular flexibility	P	R	E
17.7 Demonstrate training techniques to enhance muscle strength, endurance, and flexibility	I	P	E
Unit 18: Health Appraisal and Fitness Testing			
18.1 Administer a health history appraisal form	I	P	E
18.2 Demonstrate knowledge of testing data	I	P	E
18.3 Describe the testing environment	P	R	E
18.4 Demonstrate testing procedures and equipment calibration	I	P	E
18.5 Describe the selection of exercise test protocols	P	R	E
18.6 Measure and Record Vital Signs	P	R	E

Competency	12	AD	BIL
18.7 Conduct a fitness assessment	I	P	E
18.8 Interpret a fitness assessment	I	P	E
Unit 19: Emergency Policies and Procedures			
19.1 Complete and maintain certification in first aid and CPR	P	R	E
19.2 Utilize contemporary first aid equipment and supplies	P	R	E
19.3 Develop an emergency plan for facilities	P	R	E
Unit 20: Exercise Programming			
20.1 Construct components of exercise programming	I	P	E

Competency	12	AD	BIL
23.5 Apply physical parameters to be evaluated for the development of individualized rehabilitation programs	I	P	E
23.6 Demonstrate contemporary therapeutic modalities	I	P	E
23.7 Prepare contemporary immobilization devices		I	R
Unit 24: Communication			
24.1 Practice effective verbal and nonverbal communication skills	I	P	E
24.2 Practice communication skills and strategies	I	P	E
24.3 Complete the basic records and forms pertaining to the management of an injury	I	P	E
Unit 25: Education and Counseling			
25.1 Describe the physiological effects, comparative benefits, and contraindications of ergogenic aids	I	P	E
25.2 Describe techniques and methods of disseminating injury prevention and health care information	I	P	E
25.3 Apply psychological principles associated with health behavior changes	I	P	E
25.4 Describe psychological factors that may affect exercise	I	P	E
25.5 Describe the individual's response to stress keys	P	R	E

Exercise Science / Sports Health Care

Instructional Unit 14: Exercise Science / Sports & Recreational Health Care Orientation

BIL: Essential

EDU:	12	AD
	P	R

Competency 14.1: Survey exercise science and sports health care

Key Indicators:

- 14.1.1 Identify markets and types of exercise science and sports health care related businesses
- 14.1.2 Identify educational requirements, certification and licensure and availability of education opportunities for exercise science and sports health care
- 14.1.3 Explore career and employment opportunities for exercise science and sports health care

BIL: Essential

EDU:	12	AD
	P	R

Competency 14.2: Demonstrate facility operational protocols

Key Indicators:

- 14.2.1 Comply with facility policy and procedure manuals and/or handbooks
- 14.2.2 Comply with facility expectation and documentation for specific job assignments
- 14.2.3 Identify facility security policies
- 14.2.4 Demonstrate the function and use of various supplies used in daily operations (i.e. inventory, maintenance, budget, purchasing)

BIL: Essential

EDU:	12	AD
	I	P

Competency 14.3: Assess the role of technology in the sports health care and exercise science industry

Key Indicators:

- 14.3.1 Demonstrate knowledge of current technology trends in the industry
- 14.3.2 Evaluate and select software, hardware, and training appropriate for identified needs
- 14.3.3 Utilize available technology that supports sports health care and exercise science

BIL: Essential

EDU:	12	AD
	I	P

Competency 14.4: Demonstrate principles of facility management and operation

Key Indicators:

- 14.4.1 Classify personnel
- 14.4.2 Differentiate supervision types and assignments (i.e. roles, scheduling), and evaluations of personnel and services
- 14.4.3 Inventory and demonstrate appropriate storage and use of supplies and equipment
- 14.4.4 Demonstrate cleaning and maintenance of facility and equipment
- 14.4.5 Identify equipment and supplies for a facility

Instructional Unit 15: Professional Practices

BIL: Essential

EDU:	12	AD
	P	R

Competency 15.1: Project professional image

Key Indicators:

- 15.1.1 Define professionalism for exercise science/sports and recreation health care careers (i.e. comply with dress codes; demonstrate appropriate grooming habits, etc.)
- 15.1.2 Exhibit professional image, attitude, and manners
- 15.1.3 Demonstrate dependability, loyalty, respect, integrity, and honesty
- 15.1.4 Demonstrate initiative and self-confidence
- 15.1.5 Identify the individual's vital role in organization
- 15.1.6 Exhibit proper etiquette in professionally related situations
- 15.1.7 Assist other members of the adjunct health care professionals team (i.e. HIPAA)
- 15.1.8 Recognize and respect diversity in the workplace
- 15.1.9 Maintain confidentiality in handling work-related issues
- 15.1.10 Participate in staff meetings

BIL: Essential

EDU:	12	AD
	P	R

Competency 15.2: Demonstrate responsibility and accountability in accordance with appropriate professional organizations and regulatory agencies

Key Indicators:

- 15.2.1 Describe professional standards
- 15.2.2 Discuss responsibility and accountability to professional standards
- 15.2.3 Demonstrate responsibility to client(s) and employer(s) according to professional standards
- 15.2.4 Discuss consequences of unprofessional behavior

BIL: Essential

EDU:	12	AD
	I	P

Competency 15.3: Demonstrate competent care consistent with the requirements and limitations of the professions

Key Indicators:

- 15.3.1 Research credentialing requirements
- 15.3.2 Identify the scope of care prescribed by law and the facility of practice
- 15.3.3 Identify behaviors that violate acceptable practice as outlined by the credentialing agencies
- 15.3.4 Apply legal and ethical concepts to exercise science / sports and recreation health care (i.e. code of ethics)
- 15.3.5 Describe strategies to deal with conflict between personal and organizational ethics
- 15.3.6 Compare/contrast the roles of various regulatory agencies

BIL: Essential

EDU:	12	AD
	I	P

Competency 15.4: Practice procedures consistent with legal and ethical behavior

Key Indicators:

- 15.4.1 Describe and comply legal responsibilities specified by state and federal act(s) and other pertinent legislation
- 15.4.2 Compare/contrast legal and ethical behavior
- 15.4.3 Compare/contrast personal, professional, and organizational ethics
- 15.4.4 Apply legal and ethical concepts to exercise science / sports and recreation health care (i.e. code of ethics)
- 15.4.5 Describe the importance and protocol for reporting unethical practices

BIL: Essential

EDU:	12	AD
	I	P

Competency 15.5: Apply liability reduction strategies

Key Indicators:

- 15.5.1 Describe liability concerns
- 15.5.2 Identify issues related to liability and negligence
- 15.5.3 Discuss liability reduction strategies (i.e. documentation, policies, and procedures)

Instructional Unit 16: Workplace Safety

BIL: Essential

EDU:	12	AD
	P	R

Competency 16.1: Maintain safe working environment

Key Indicators:

- 16.1.1 Discuss the purpose of the Occupational Safety and Health Administration (OSHA) and how it promotes safety
- 16.1.2 Comply with Occupational Safety and Health Administration (OSHA) standards
- 16.1.3 Report unsafe conditions in accordance with Occupational Safety and Health Administration (OSHA) Guidelines
- 16.1.4 Comply with workplace and personal safety rules and procedures (i.e. disaster plans)
- 16.1.5 Identify location of control panels, shut-off valves, fire extinguishers, and escape routes
- 16.1.6 Locate fire exits and escape routes
- 16.1.7 Demonstrate use of fire extinguishers
- 16.1.8 Identify consequences of disregarding safety rules
- 16.1.9 Simulate facility evacuation procedures

BIL: Essential

EDU:	12	AD
	P	R

Competency 16.2: Use tools and equipment in accordance with established safety procedures

Key Indicators:

- 16.2.1 Use safety apparatus and equipment in accordance with job requirements and safety standards
- 16.2.2 Operate all equipment according to manufacturer's specifications regarding safe use
- 16.2.3 Conduct routine inspections of equipment (i.e. calibrations, wear)
- 16.2.4 Interpret instructional manuals for safe operation of equipment

Instructional Unit 17: Functional Anatomy and Exercise Science

BIL: Essential

EDU:	12	AD
	I	P

Competency 17.1: Describe basic anatomical structures

Key Indicators:

- 17.1.1 Describe the structural components of skeletal muscle
- 17.1.2 Describe the structural components of bone
- 17.1.3 Describe the structural components of connective tissue
- 17.1.4 Describe the structural components of the cardiovascular system
- 17.1.5 Describe the structural components of the respiratory systems
- 17.1.6 Describe the structural components of the articular (joint) system
- 17.1.7 Describe the nervous system structure and function
- 17.1.8 Describe the digestive systems structure and function
- 17.1.9 Describe the endocrine systems structure and function
- 17.1.10 Describe the reproductive/urinary systems structure and function
- 17.1.11 Describe the dermatological systems structure and function

BIL: Essential

EDU:	12	AD
	I	P

Competency 17.2: Locate musculoskeletal landmarks of the human body

Key Indicators:

- 17.2.1 Group the muscles of the spine by location and primary function
- 17.2.2 Classify the muscles of the upper quarter by location and primary function
- 17.2.3 Classify the muscles of the lower quarter by location and function
- 17.2.4 Locate bony landmarks on the human body
- 17.2.5 Locate soft tissue landmarks on the human body

BIL: Essential

EDU:	12	AD
	I	P

Competency 17.3: Examine the principles and concepts of human movement

Key Indicators:

- 17.3.1 Describe the classifications of joints
- 17.3.2 Describe muscle structures responses to movement
- 17.3.3 Describe the physiological kinesthetic events associated with muscle contraction
- 17.3.4 Describe and apply the principles of kinesthesia and proprioception

BIL: Essential

EDU:	12	AD
	P	R

Competency 17.4: Define the components of physical fitness

Key Indicators:

- 17.4.1 Define cardiorespiratory fitness (i.e. Maximal Oxygen Consumption)
- 17.4.2 Define muscular strength, endurance, and power
- 17.4.3 Define neuromuscular flexibility (i.e. static stretching techniques, proprioceptive neuromuscular facilitation (PNF), dynamic, and ballistic stretching techniques)
- 17.4.4 Define body composition
- 17.4.5 Define agility, balance, coordination, and proprioceptions

BIL: Essential

EDU:	12	AD
	P	R

Competency 17.5: Describe the physiological responses to static and dynamic exercise

Key Indicators:

- 17.5.1 Define physiological changes and recognize variables associated with work
- 17.5.2 Describe the heart rate response to exercise
- 17.5.3 Describe the blood pressure response to exercise
- 17.5.4 Describe oxygen consumption response to exercise
- 17.5.5 Describe muscular/skeletal response to exercise
- 17.5.6 Describe the common theories of muscle soreness

BIL: Essential

EDU:	12	AD
	P	R

Competency 17.6: Utilize common techniques used to enhance neuromuscular flexibility

Key Indicators:

- 17.6.1 Demonstrate static stretching techniques
- 17.6.2 Demonstrate proprioceptive neuromuscular facilitation (PNF)
- 17.6.3 Demonstrate dynamic stretching techniques
- 17.6.4 Demonstrate ballistic stretching techniques

BIL: Essential

EDU:	12	AD
	I	P

Competency 17.7: Demonstrate training techniques to enhance muscle strength, endurance, and flexibility

Key Indicators:

- 17.7.1 Describe and demonstrate isometric exercises, isotonic, and isokinetic training techniques
- 17.7.2 Describe and demonstrate concentric and eccentric strengthening
- 17.7.3 Describe and demonstrate aerobic, strength, power, and flexibility programs

Instructional Unit 18: Health Appraisal and Fitness Testing

BIL: Essential

EDU:	12	AD
	I	P

Competency 18.1: Administer a health history appraisal form

Key Indicators:

- 18.1.1 Perform a health history including medications
- 18.1.2 Identify and assess components of a medical clearance form
- 18.1.3 Identify purpose and complete an informed consent form
- 18.1.4 Identify orthopedic limitations and activity patterns
- 18.1.5 Identify stressors and/or anxiety levels of a patient
- 18.1.6 Identify the medical clearance process following appraisal
- 18.1.7 Identify risk factors for high-risk populations

BIL: Essential

EDU:	12	AD
	I	P

Competency 18.2: Demonstrate knowledge of testing data

Key Indicators:

- 18.2.1 Organize and record various test data
- 18.2.2 Interpret various types of test data

BIL: Essential

EDU:	12	AD
	P	R

Competency 18.3: Describe the testing environment

Key Indicators:

- 18.3.1 Describe the preferred testing environment
- 18.3.2 Describe the recommended personnel for various testing situations
- 18.3.3 Describe the testing equipment used for various physiological tests
- 18.3.4 Describe considerations with special populations

BIL: Essential

EDU:	12	AD
	I	P

Competency 18.4: Demonstrate testing procedures and equipment calibration

Key Indicators:

- 18.4.1 Describe and demonstrate a treadmill, cycle, and arm ergometer test including equipment calibration
- 18.4.2 Describe and demonstrate a physiological test using an ECG, EMG, spirometer, and sphygmomanometer

BIL: Essential

EDU:	12	AD
	P	R

Competency 18.5: Describe the selection of exercise test protocols

Key Indicators:

- 18.5.1 Describe the appropriate mode of exercise for the test
- 18.5.2 Describe the appropriate starting level for various tests
- 18.5.3 Describe the work increments and length of stages of the testing protocol
- 18.5.4 Describe the frequency and types of physiological assessment
- 18.5.5 Describe performance measures and limitations for special populations

BIL: Essential

EDU:	12	AD
	P	R

Competency 18.6: Measure and Record Vital Signs

Key Indicators:

- 18.6.1 Measure and record temperature
- 18.6.2 Measure and record pulse
- 18.6.3 Measure and record blood pressure
- 18.6.4 Measure and record respirations

BIL: Essential

EDU:	12	AD
	I	P

Competency 18.7: Conduct a fitness assessment

Key Indicators:

- 18.7.1 Identify the components of a total physical fitness assessment
- 18.7.2 Outline the methodology used to assess body composition
- 18.7.3 Examine cardiorespiratory fitness using multiple test protocols
- 18.7.4 Examine muscular strength and endurance through strength testing protocols
- 18.7.5 Perform muscular flexibility tests
- 18.7.6 Use performance tests to assess skill-related fitness
- 18.7.7 Perform skin fold and girth measurements
- 18.7.8 Describe the principle and technique of underwater weighing
- 18.7.9 Perform height and weight measurements

BIL: Essential

EDU:	12	AD
	I	P

Competency 18.8: Interpret a fitness assessment

Key Indicators:

- 18.8.1 Estimate weight according to recommended percent body fat values
- 18.8.2 Interpret cardiorespiratory endurance assessment test results
- 18.8.3 Predict oxygen uptake and caloric expenditure from exercise heart rate
- 18.8.4 Interpret strength testing results
- 18.8.5 Interpret flexibility test results
- 18.8.6 Compare Maximal Oxygen Consumption values with performance

Instructional Unit 19: Emergency Policies and Procedures

BIL: Essential

EDU:	12	AD
	P	R

Competency 19.1: Complete and maintain certification in first aid and CPR

Key Indicators:

- 19.1.1. Complete and maintain appropriate certifications for first aid and CPR training
- 19.1.2. Complete AED (Automated External Defibrillator) training

BIL: Essential

EDU:	12	AD
	P	R

Competency 19.2: Utilize contemporary first aid equipment and supplies

Key Indicators:

- 19.2.1. Describe and utilize the various types of splints
- 19.2.2. Describe the various types of stretchers
- 19.2.3. Describe and utilize airway management equipment
- 19.2.4. Describe the contents of appropriate emergency field kits

BIL: Essential

EDU:	12	AD
	P	R

Competency 19.3: Develop an emergency plan for facilities

Key Indicators:

- 19.3.1. Identify emergency situations
- 19.3.2. Identify persons involved in an emergency plan
- 19.3.3. Outline the role of individuals involved in an emergency plan
- 19.3.4. Demonstrate ways to activate emergency response procedures
- 19.3.5. Complete a written emergency procedure form
- 19.3.6. Identify emergency equipment by purpose and location
- 19.3.7. Demonstrate function of emergency equipment
- 19.3.8. Practice emergency protocol
- 19.3.9. Describe the basic components of athletic injury emergency care

Instructional Unit 20: Exercise Programming

BIL: Essential

EDU:	12	AD
	I	P

Competency 20.1: Construct components of exercise programming

Key Indicators:

- 20.1.1 Define intensity, frequency, duration, and mode
- 20.1.2 Define volume (i.e. sets and repetitions)
- 20.1.3 Define periodization
- 20.1.4 Describe and apply interval training techniques
- 20.1.5 Describe and apply continuous training techniques
- 20.1.6 Describe and apply circuit training techniques
- 20.1.7 Differentiate and apply aerobic and anaerobic training techniques

BIL: Essential

EDU:	12	AD
	I	P

Competency 20.2: Demonstrate the principles of exercise programming

Key Indicators:

- 20.2.1 Define and apply the overload principle
- 20.2.2 Define and apply the principle of specificity
- 20.2.3 Define and apply the principle of individual differences
- 20.2.4 Define and apply the principle of detraining
- 20.2.5 Discuss the factors associated with exercise selection, programming, and testing
- 20.2.6 Demonstrate appropriate warm-up and cool-down procedures (i.e. cardiovascular, weight training, special sports events)

BIL: Essential

EDU:	12	AD
	I	P

Competency 20.3: Demonstrate the ability to recognize proper technique with exercise

Key Indicators:

- 20.3.1 Describe and demonstrate proper body mechanics with performing lifts
- 20.3.2 Describe and demonstrate proper positioning when lifting
- 20.3.3 Describe and demonstrate appropriate settings on cardiovascular equipment
- 20.3.4 Describe and perform proper monitoring techniques
- 20.3.5 Describe and demonstrate safety considerations

BIL: Essential

EDU:	12	AD
	P	R

Competency 20.4: Describe aquatic exercise regime**Key Indicators:**

- 20.4.1 Describe the advantages and disadvantages of aquatic exercise
- 20.4.2 Describe the control indications and safety considerations of aquatic exercise
- 20.4.3 Describe the physiological effects of aquatic exercise

BIL: Recommend

EDU:	12	AD
	I	P

Competency 20.5: Design various exercise programs**Key Indicators:**

- 20.5.1 Design strength, power, and flexibility programs
- 20.5.2 Design age appropriate training
- 20.5.3 Design programs for improving cardiovascular performance
- 20.5.4 Design program procedures for special populations
- 20.5.5 Design programs associated with specific health conditions

Instructional Unit 21: Nutrition and Weight Management

BIL: Recommend

EDU:	12	AD
	P	R

Competency 21.1: Describe the functions of the nutrients in the body

Key Indicators:

- 21.1.1 Describe basic nutritional concepts
- 21.1.2 Identify the functions and sources of carbohydrates
- 21.1.3 Identify the sources and functions of fats
- 21.1.4 Identify the functions and sources of protein
- 21.1.5 Identify the sources and functions of vitamins and minerals
- 21.1.6 Identify the function of water to the human body

BIL: Essential

EDU:	12	AD
	I	P

Competency 21.2: Evaluate the concepts of healthy eating and weight management

Key Indicators:

- 21.2.1 Provide examples of energy balance (i.e. both positive and negative energy balance)
- 21.2.2 Evaluate common nutritional aids, practices, and misinformation
- 21.2.3 Define obesity (i.e. BMI, body mass index)
- 21.2.4 Define percent fat
- 21.2.5 Define lean body mass and fat free mass
- 21.2.6 Calculate the energy of carbohydrates, proteins, and fats
- 21.2.7 Calculate the % of kcal per daily intake
- 21.2.8 Describe norms for recommended intake
- 21.2.9 Relate eating lifestyle modification to dietary goals

BIL: Essential

EDU:	12	AD
	P	R

Competency 21.3: Identify medically related nutrition issues

Key Indicators:

- 21.3.1 Define anorexia and bulimia eating disorders
- 21.3.2 Define disordered eating (i.e. wrestling, weight losses over indulgence eating)
- 21.3.3 Define diabetes
- 21.3.4 Define osteoporosis
- 21.3.5 Define amenorrhea

BIL: Essential

EDU:	12	AD
	I	P

Competency 21.4: Explain the USDA food pyramid**Key Indicators:**

- 21.4.1 Define the major food groups and servings for each group
- 21.4.2 Describe the history and changes of dietary guidelines over the years
- 21.4.3 Compare/contrast nutritional habits using the food pyramid as a guideline
- 21.4.4 Identify regional, cultural, and religious food preferences
- 21.4.5 Identify safety issues regarding food handling and storage
- 21.4.6 Discuss consumer nutritional health product and practice awareness

Instructional Unit 22: Injury Recognition and Prevention

BIL: Essential

EDU:	12	AD
	P	R

Competency 22.1: Discuss risk factors and causes of injury

Key Indicators:

- 22.1.1 Identify intrinsic risk factors for age and gender
- 22.1.2 Identify specific congenital and acquired abnormalities
- 22.1.3 Identify sport specific risk factors
- 22.1.4 Identify environmental risk factors
- 22.1.5 Identify biomechanical or extrinsic risk factors
- 22.1.6 Describe the physiological phenomenon of over training and over reaching

BIL: Recommend

EDU:	12	AD
	I	P

Competency 22.2: Discuss strategies to protect workers from occupation related injuries

Key Indicators:

- 22.2.1 Define ergonomics
- 22.2.2 Define maximum permissible limit (MPL) and action limit (AL) for lifting
- 22.2.3 Define cumulative trauma disorder (CTD)
- 22.2.4 Identify strategies to minimize use of excessive muscle/physical force.
- 22.2.5 Identify strategies to minimize repetitive tasks
- 22.2.6 Describe adequate environmental conditions (i.e., lighting, sound, vibrations, temperature)
- 22.2.7 Identify equipment and work practices that insure healthy ergonomic practices
- 22.2.8 Identify repetitive motion activities that might cause injury
- 22.2.9 Identify proper posture to prevent injuries
- 22.2.10 Identify principles of ergonomics and body mechanics
- 22.2.11 Describe strategies to lift and transport objects and materials in accordance with established safety practices

BIL: Essential

EDU:	12	AD
	I	P

Competency 22.3: Describe components of a pre-participation physical examination

Key Indicators:

- 22.3.1 Describe and use the appropriate records and forms
- 22.3.2 Identify the appropriate personnel and roles
- 22.3.3 Describe the testing stations and their organizational flow
- 22.3.4 Describe specific procedures and their importance (i.e. BP {Blood Pressure}, HT/WT {Height/Weight})

BIL: Essential

EDU:	12	AD
	P	R

Competency 22.4: Identify and define environmental hazards

Key Indicators:

- 22.4.1 Identify and define heat disorders (i.e., heat cramps, heat exhaustion, heat stroke)
- 22.4.2 Identify and define cold disorders (i.e., chilblains, frost bite, hypothermia)
- 22.4.3 Identify and define altitude related disorders

BIL: Essential

EDU:	12	AD
	P	R

Competency 22.5: Describe recommendations for environmental hazards

Key Indicators:

- 22.5.1 Describe thermal related prevention procedures (i.e., appropriate clothing, acclimatization techniques, practice scheduling techniques, and fluid replacement)
- 22.5.2 Describe weather conditions affecting outside exercise

BIL: Essential

EDU:	12	AD
	P	R

Competency 22.6: Monitor participants and environmental conditions

Key Indicators:

- 22.6.1 Demonstrate use of appropriate environmental monitoring devices
- 22.6.2 Make activity recommendations based on findings including at risk populations

BIL: Essential

EDU:	12	AD
	I	P

Competency 22.7: Administer clinical joint measurement techniques

Key Indicators:

- 22.7.1 Perform limb length measurements
- 22.7.2 Describe common joint biomechanics
- 22.7.3 Identify typical ROMs (Range of Motions) of all joints
- 22.7.4 Define joint action terminology
- 22.7.5 Perform active, passive, and resistive ROM (Range of Motion) on the joints of the body
- 22.7.6 Record ROM (Range of Motion) for each joint of the body through the use of goniometry
- 22.7.7 Identify abnormalities in the ROM (Range of Motion) of joints

BIL: Essential

EDU:	12	AD
	P	R

Competency 22.8: Select and apply appropriate ambulatory aids

Key Indicators:

- 22.8.1 Describe and apply the procedure for fitting ambulatory aids
- 22.8.2 Perform gait training with ambulatory aids

BIL: Essential

EDU:	12	AD
	I	P

Competency 22.9: Apply protective taping, wrapping, padding, and protective equipment

Key Indicators:

- 22.9.1 Describe the purpose of and apply UE/LE (upper extremities/lower extremities) taping techniques
- 22.9.2 Describe the purpose of and apply UE/LE (upper extremities/lower extremities) wrapping techniques
- 22.9.3 Describe the purpose of and apply UE/LE (upper extremities/lower extremities) padding techniques
- 22.9.4 Describe the purpose of and apply UE/LE (upper extremities/lower extremities) bracing techniques
- 22.9.5 Describe and apply protective equipment

BIL: Essential

EDU:	12	AD
	P	R

Competency 22.10: Perform history and observation techniques

Key Indicators:

- 22.10.1 Complete the history portion of an examination
- 22.10.2 Complete the observation portion of an examination
- 22.10.3 Document the findings in each section of the examination
- 22.10.4 Observe and document body posture

BIL: Essential

EDU:	12	AD
	I	P

Competency 22.11: Identify common injuries to each body part

Key Indicators:

- 22.11.1 Identify acute and chronic injuries
- 22.11.2 Identify injuries to lower extremities
- 22.11.3 Identify injuries to the hip and spine
- 22.11.4 Identify injuries to the abdomen, thorax, and chest
- 22.11.5 Identify injuries to the upper extremities
- 22.11.6 Identify injuries to the head and neck

BIL: Essential

EDU:	12	AD
	I	P

Competency 22.12: Administer Manual Muscle Testing Techniques

Key Indicators:

- 22.12.1 Perform muscle isolation techniques and segmental stabilization
- 22.12.2 Identify and apply appropriate resistance and pressure
- 22.12.3 Identify and apply muscle grading
- 22.12.4 Interpret and document the findings of manual muscle testing

BIL: Essential

EDU:	12	AD
	I	P

Competency 22.13: Administer clinical exams for bone and soft tissues

Key Indicators:

- 22.13.1 Demonstrate joint positioning for selected body parts
- 22.13.2 Demonstrate segmental stabilization used during testing
- 22.13.3 Demonstrate appropriate pressure and resistance techniques
- 22.13.4 Interpret and document findings based on baseline measures-and bilateral comparisons

BIL: Essential

EDU:	12	AD
	I	P

Competency 22.14: Administer sensory and motor neurological tests

Key Indicators:

- 22.14.1 Demonstrate and document neurological tests on a conscious and unconscious victim
- 22.14.2 Demonstrate and document neurological tests on a suspected spinal cord injury
- 22.14.3 Demonstrate and document neurological tests on nerve root/plexus injuries
- 22.14.4 Demonstrate and document peripheral nerve injury tests

BIL: Essential

EDU:	12	AD
	I	P

Competency 22.15: Describe the characteristic pathology of selected injuries

Key Indicators:

- 22.15.1 Identify characteristics and MOIs (Mechanism of Injuries) of closed soft tissue injuries
- 22.15.2 Identify characteristics and MOIs of open soft tissue injuries
- 22.15.3 Identify characteristics and MOIs of bone injuries
- 22.15.4 Identify characteristics and MOIs of neurological injuries

BIL: Essential

EDU:	12	AD
	I	P

Competency 22.16: Identify physical activity concerns and modifications for specific medical conditions**Key Indicators:**

- 22.16.1 Identify limitations on physical activities related to asthma and other chronic lung disorders
- 22.16.2 Identify limitations on physical activity related to sickle cell and other blood disorders
- 22.16.3 Identify limitations on physical activity related to diabetes and other endocrine disorders
- 22.16.4 Identify limitations on physical activity related to osteoporosis, *postural deformities*, and other skeletal disorders
- 22.16.5 Identify modifications of physical activity across the changes of life (i.e. age, obesity, pregnancy etc.)

Instructional Unit 23: Rehabilitation and Treatment

BIL: Essential

EDU:	12	AD
	P	R

Competency 23.1: Explain how the body reacts to injury

Key Indicators:

- 23.1.1 Describe the pain-spasm cycle
- 23.1.2 List ways to disrupt the pain-spasm cycle
- 23.1.3 Explain the body's response to injury (i.e. inflammatory process)
- 23.1.4 Explain the healing process

BIL: Essential

EDU:	12	AD
	P	R

Competency 23.2: Describe general physiological effects of inactivity and immobilization

Key Indicators:

- 23.2.1 Describe the effects of cardiovascular detraining
- 23.2.2 Describe the effects of muscle atrophy during immobilization
- 23.2.3 Describe techniques to prevent the effects of inactivity

BIL: Essential

EDU:	12	AD
	I	P

Competency 23.3: Discuss typical psychological and emotional responses to trauma and forced physical inactivity affecting the rehabilitation process

Key Indicators:

- 23.3.1 Describe common motivational techniques
- 23.3.2 Identify methods to reduce anxiety
- 23.3.3 Describe apprehension reduction
- 23.3.4 Describe the five phases of emotional responses to injury

BIL: Essential

EDU:	12	AD
	I	P

Competency 23.4: Apply basic components of a comprehensive rehabilitation program

Key Indicators:

- 23.4.1 Define therapeutic goals and objectives
- 23.4.2 Apply appropriate therapeutic modalities and exercises
- 23.4.3 Demonstrate methods of evaluating and recording rehabilitation progress
- 23.4.4 Identify criteria for progression and return to competition
- 23.4.5 Identify appropriate manual therapy techniques

BIL: Essential

EDU:	12	AD
	I	P

Competency 23.5: Apply physical parameters to be evaluated for the development of individualized rehabilitation programs

Key Indicators:

- 23.5.1 Describe and apply parameters for the measurement of strength, power, and endurance
- 23.5.2 Describe and apply parameters for the use of dynamometry and goniometry
- 23.5.3 Describe the use of isometric, isotonic, and isokinetic testing devices
- 23.5.4 Describe and apply functional progression tests

BIL: Essential

EDU:	12	AD
	I	P

Competency 23.6: Demonstrate contemporary therapeutic modalities

Key Indicators:

- 23.6.1 Demonstrate the techniques of cryotherapy, thermotherapy, hydrotherapy, and electrotherapy
- 23.6.2 Utilize appropriate cardiovascular equipment
- 23.6.3 Apply passive, active, active assistive, and resistive exercises through the use of manual exercise and contemporary commercial exercise equipment
- 23.6.4 Apply aquatic exercise for improvement of joint Range of Motion (ROM) and strength

BIL: Recommended

EDU:	12	AD
		I

Competency 23.7: Prepare contemporary immobilization devices**Key Indicators:**

- 23.7.1 Fabricate protective pads and moldable splints
- 23.7.2 Adjust and fit selected braces
- 23.7.3 Demonstrate taping and wrapping procedures

Instructional Unit 24: Communication

BIL: Essential

EDU:	12	AD
	I	P

Competency 24.1: Practice effective verbal and nonverbal communication skills

Key Indicators:

- 24.1.1 Identify techniques to deal with disruptive individuals in group programs
- 24.1.2 Examine appropriate responses to an over-exerciser
- 24.1.3 Classify types of interpersonal communication
- 24.1.4 Discuss the essential role of effective communication in all phases of health care
- 24.1.5 Practice techniques of effective verbal and nonverbal communication
- 24.1.6 Identify barriers to communications
- 24.1.7 Identify ways to improve communication
- 24.1.8 Apply techniques for communicating with behaviorally or emotionally impaired clients
- 24.1.9 Demonstrate sensitivity to cultural differences that may affect therapeutic and social communication
- 24.1.10 Identify adjustments in communication techniques necessary for different levels of client understanding
- 24.1.11 Operate basic communication systems
- 24.1.12 Apply accepted rules for spelling, grammar, and punctuation in written and oral communications

BIL: Essential

EDU:	12	AD
	I	P

Competency 24.2: Practice communication skills and strategies

Key Indicators:

- 24.2.1 Identify communication procedures between healthcare providers and medical practitioners, medical team and general public
- 24.2.2 Practice communication skills and strategies

BIL: Essential

EDU:	12	AD
	I	P

Competency 24.3: Complete the basic records and forms pertaining to the management of an injury**Key Indicators:**

- 24.3.1 Identify physician prescribed orders
- 24.3.2 Identify the importance of obtaining and securing emergency care information and parental consent (i.e. emergency and non-emergency)
- 24.3.3 Demonstrate accident report and injury reporting
- 24.3.4 Demonstrate completion of medical referral forms
- 24.3.5 Demonstrate documentation of treatment
- 24.3.6 Demonstrate recording of rehabilitation progress
- 24.3.7 Identify forms for release of medical information according to the Health Insurance Portability and Accountability Act (HIPAA) and other regulatory agencies
- 24.3.8 Identify and demonstrate computer operation for record keeping and data analysis

Instructional Unit 25: Education and Counseling

BIL: Essential

EDU:	12	AD
	I	P

Competency 25.1: Describe the physiological effects, comparative benefits, and contraindications of ergogenic aids

Key Indicators:

- 25.1.1 Identify physical agents and their affects in physiological functions and performance
- 25.1.2 Identify therapeutic drugs used and their affects in physiological functions and performance
- 25.1.3 Identify nontherapeutic “drugs” and their affects in physiological functions and performance

BIL: Essential

EDU:	12	AD
	I	P

Competency 25.2: Describe techniques and methods of disseminating injury prevention and health care information

Key Indicators:

- 25.2.1 Identify appropriate information for distribution to athletes, coaches, and parents
- 25.2.2 Identify appropriate information for distribution to the general public
- 25.2.3 Describe methods of information dissemination at meetings or workshops
- 25.2.4 Describe how to read and assess research articles

BIL: Essential

EDU:	12	AD
	I	P

Competency 25.3: Apply psychological principles associated with health behavior changes

Key Indicators:

- 25.3.1 Describe behavior modification techniques associated with wellness
- 25.3.2 Examine readiness for exercise program
- 25.3.3 Outline goal setting procedures in fitness
- 25.3.4 Examine the importance of social support in exercise
- 25.3.5 Describe the influences of peer groups and how to manage them in exercise programs
- 25.3.6 Identify Stage of Change (transtheoretical model)

BIL: Essential

EDU:	12	AD
	I	P

Competency 25.4: Describe psychological factors that may affect exercise

Key Indicators:

- 25.4.1 Characterize the effect of depression on wellness behavior
- 25.4.2 Outline how anxiety effects an individual in a wellness program
- 25.4.3 Define how psychosis and neurosis can affect an individual's performance and compliance
- 25.4.4 Describe the psychological phenomenon of over training and over reaching

BIL: Essential

EDU:	12	AD
	P	R

Competency 25.5: Describe the individual's response to stress keys

Key Indicators:

- 25.5.1 Identify the body's defenses against stress
- 25.5.2 Identify negative and positive feedback systems
- 25.5.3 Identify physiological response to stress
- 25.5.4 Identify psychological response to stress
- 25.5.5 Identify the individual's social response to stress
- 25.5.6 Identify stress reduction techniques

Appendix A

Review Panels

Exercise Science / Sports & Recreational Health Care TCP Writing Panel Participants

Joyce Boudreau, State Consultant, Health Careers Education, Ohio Department of Education

Dr. David Litt, M.Ed., ATC/L, Assistant Professor, Columbus State Community College

Blake Little, Instructor, Glen Oak-Canton

Andrew Nicholson, Certified/Licensed Athletic Trainer, Wayne County Schools Career Center

Ernie Rutzky, Athletic Director, Kent Roosevelt High School

Barbara Trent, ODE Facilitator, Ohio Department of Education

Jeff Wills, Certified/License Athletic Trainer, Warren Harding

Exercise Science / Sports & Recreational Health Care TCP Business Panel Participants

Charles Goodwin, L/ATC, Head Athletic Training and Clinical Instructor, Otterbein College

Dale Googins, Retired, Denison University

Lisa Kluchurosky, ATC/L, Children's Sports Medicine

Gary Lake, Manager; Outpatient Rehabilitation Services, Summa Health Systems

Art McCreary, Coordinator Outreach Programs, Akron General Hospital

Don Moxley, Midwest Product Manager, Polar Electro

Kimberly Peer, EdD., ATC/L, Athletic Training Program Coordinator, Kent State University

Dr. Bert Rogers, Coordinator Sports Medicine, Health South

Dr. Nilesh Shah, Director of Sports Medicine, Summa's Center of Sports Health

Linda Toth, Fitness Coordinator/Personal Trainer, Macedonia Recreation Center

Skip Vosler, Director of Operations/Partner, Southeast Ohio Physical Therapy

Exercise Science / Sports & Recreational Health Care TCP Educator Panel Participants

Lori Bamrick, Allied Health & Fitness Instructor, Polaris Career Center

Tim Berger, Professor – Medical Assisting Program, MATC

Stacey Buser, Sports Science & Wellness Education – Clinical Instructor, University of Akron

Laurie Carlburg, Division Director of Health, Physical Education, Recreation and Student Life,
Lorain County Community College

Rachel Householder, Teacher, Coventry High School

Dr. David Litt, M.Ed., ATC/L, Assistant Professor, Columbus State Community College

Andy Nicholson, Certified/Licensed Athletic Trainer, Wayne County Schools Career Center

Terry Slattery, Instructor, Athletic Health Care and Fitness, Health Athletic Trainer, Theodore
Roosevelt High School

Susan Ward, ATC Athletic Health Care Teacher, Norton High School

Kristen Wellman, Health Technology Instructor, Head Athletic Trainer, Glen Oaks Career
Center

Exercise Science / Sports & Recreational Health Care TCP Stakeholders Panel Participants

Stacey Buser, Sports Science & Wellness Education – Clinical Instructor, University of Akron

Dr. David Litt, M.Ed., ATC/L, Assistant Professor, Columbus State Community College

Kim Peer, EdD., ATC/L, Athletic Training Program Coordinator, Kent State University

Art McCreary, Coordinator Outreach Programs, Akron General Hospital

Dr. Nilesh Shah, Director of Sports Medicine, Summa's Center of Sports Health

Appendix B

College Tech Prep Pathway Template

(High School)

(Career Center)

(Community College)

College Tech Prep Program

(School Year)

9 th GRADE	CREDIT	10 th GRADE	CREDIT	11 th GRADE	CREDIT	12 th GRADE	CREDIT
Recommended Prerequisites for Grade 11 of Tech Prep				Recommended for College Portion of Tech Prep			
Junior Year Tech Center/College Technical Courses				Senior Year Tech Center/College Technical Courses			
*Technical Subjects		On-transcript _____ College Credits		*Technical Subjects		_____ College Credits	
Articulated Credits: - _____ Community College							

This template is used to facilitate Ohio College Tech Prep Pathways and is submitted by the Ohio College Tech Prep Consortium with the application.
Revised 6/20/03

DEGREE: ASSOCIATE OF _____

- College Tech Prep _____

(Career Center)

(Name of College Tech Prep Program)

Term Taken	First Term	Pre-requisite	Co-requisite	Quarter Credit Hours	University Pathway Equivalent	Completed as Tech Prep Component
Term Taken	Second Term	Pre-requisite	Co-requisite			
Term Taken	Third Term	Pre-requisite	Co-requisite			

DEGREE: ASSOCIATE OF _____
- College Tech Prep _____

(Career Center)

(Name of College Tech Prep Program)

Term Taken	Fourth Term	Pre-requisite	Co-requisite	Quarter Credit Hours	University Pathway Equivalent	Completed as Tech Prep Component
Term Taken	Fifth Term	Pre-requisite	Co-requisite			
Term Taken	Sixth Term	Pre-requisite	Co-requisite	Quarter Credit Hours	University Pathway Equivalent	Completed as Tech Prep Component

Appendix C

Professional Associations

Exercise Science / Sports & Recreational Health Care

Professional Associations

National Athletic Trainer's Association
Ohio Athletic Trainer's Association
Ohio Occupational Therapy, Physical Therapy and Athletic Trainer's Board
National Strength and Conditioning Association
American College of Sports Medicine
American Counsel on Exercise

Credentialing Bodies

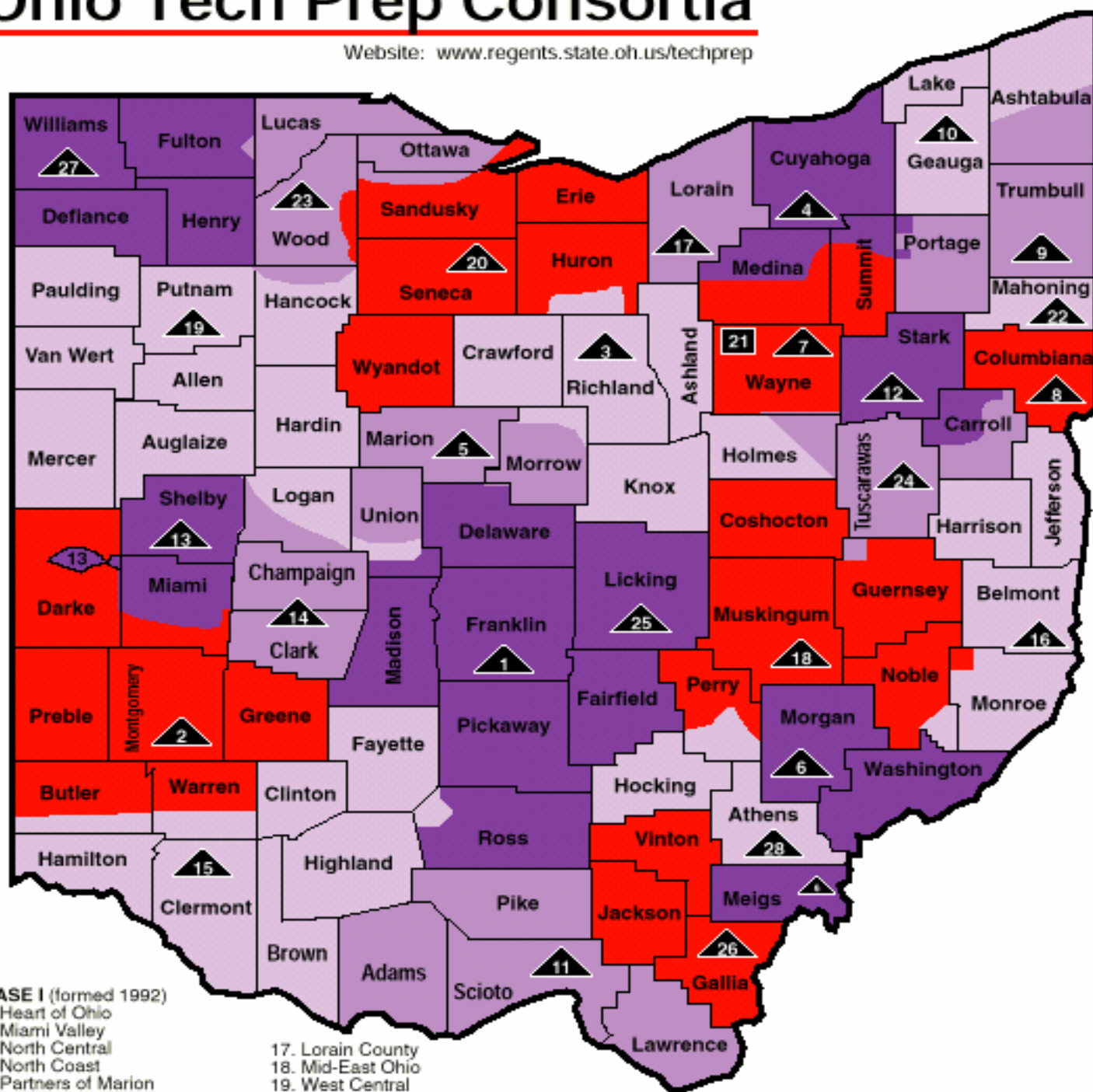
National Strength and Conditioning Association
American Council on Exercise
American College of Sports Medicine
National Athletic Trainer's Association Board of Certification

Appendix D

Ohio Tech Prep Consortia

Ohio Tech Prep Consortia

Website: www.regents.state.oh.us/techprep



PHASE I (formed 1992)

- 1. Heart of Ohio
- 2. Miami Valley
- 3. North Central
- 4. North Coast
- 5. Partners of Marion
- 6. Washington-Morgan-Meigs

- 17. Lorain County
- 18. Mid-East Ohio
- 19. West Central
- 20. Workforce Development Council

PHASE II (formed 1993)

- 7. Akron Area
- 8. Columbiana County
- 9. Kent
- 10. Lakeland
- 11. Ohio South
- 12. Stark County
- 13. Upper Miami Valley

PHASE IV (formed 1995)

- 21. Ohio State Agricultural Education Institute (with programs at locations throughout Ohio)
- 22. Mahoning Area
- 23. Northwest Ohio
- 24. Tuscarawas Valley

PHASE III (formed 1994)

- 14. Clark State
- 15. Greater Cincinnati
- 16. Eastern Ohio Valley

PHASE V (formed 1996)

- 25. East Central Ohio
- 26. Ohio Valley
- 27. Maumee Valley
- 28. Southeast

10/99
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Note: Consortia 8, 9 and 24 merged with headquarters at #9