



Starting a New Sports Medicine Pathway Program

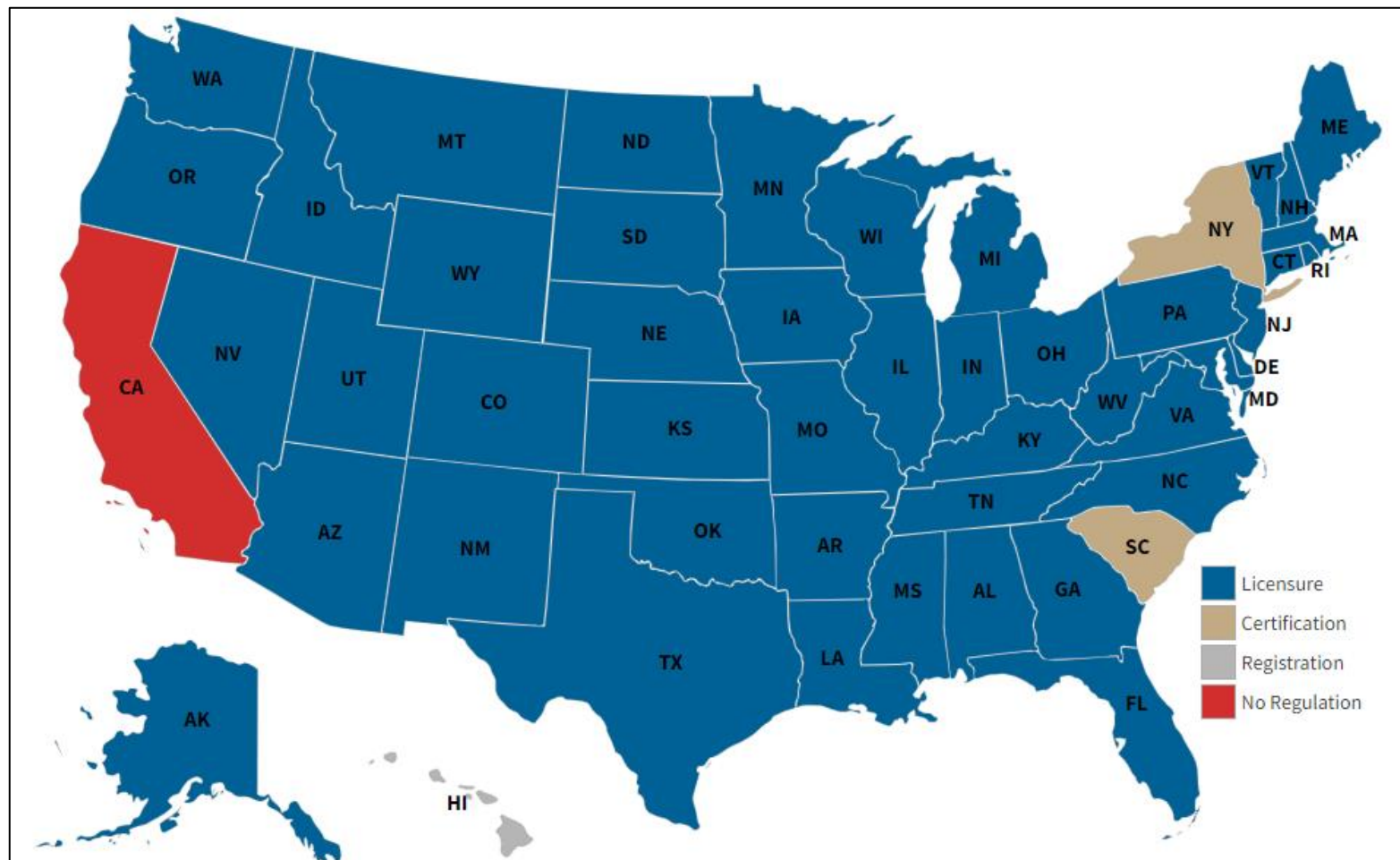


Agenda

- Identify resources for building pathways (general, health science, sports medicine)
- Introduce hands-on resources
- Additional resources
- Q&A



Athletic Trainer Certification by State



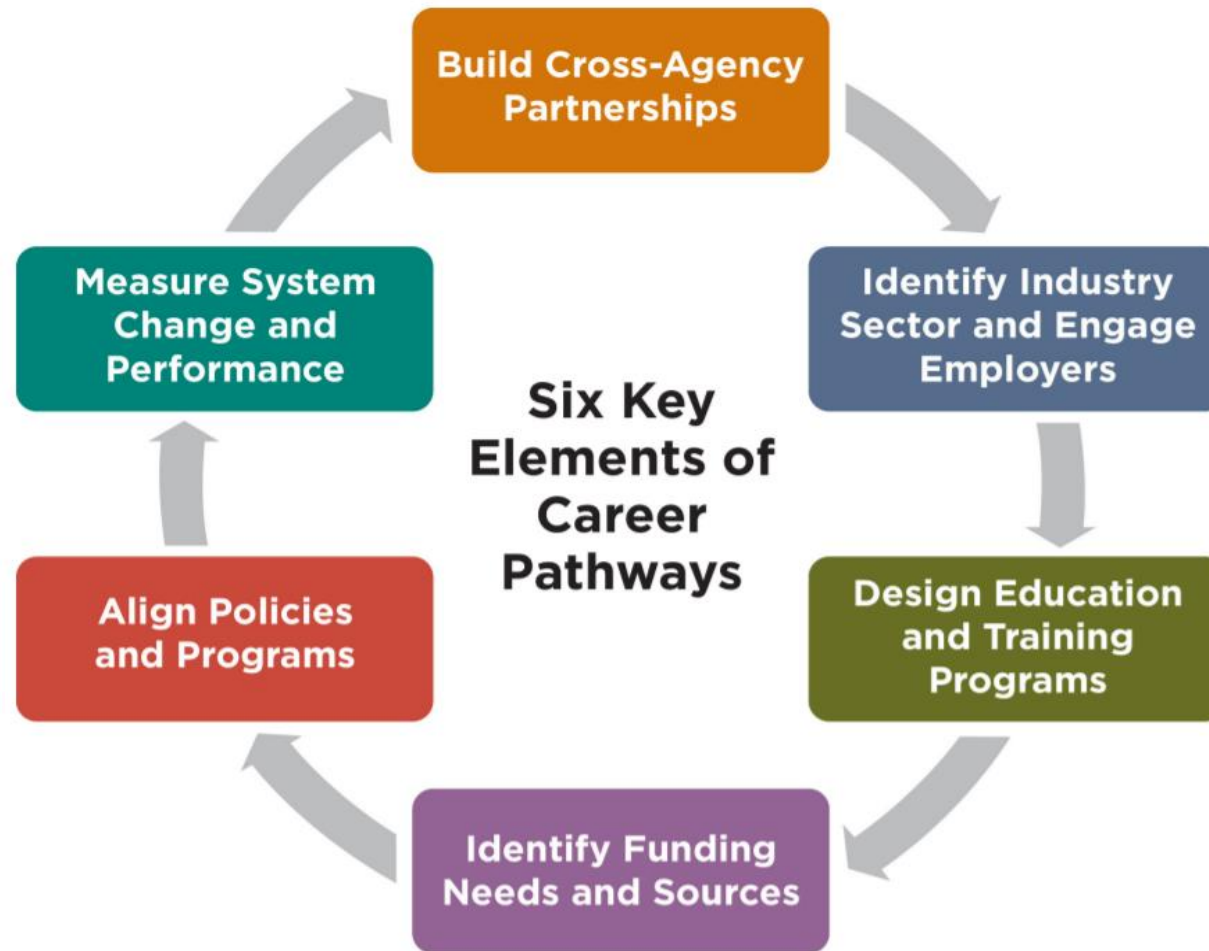
Occupational Outlook

*Employment of athletic trainers is projected to grow **23 percent** from 2020 to 2030, much faster than the average for all occupations.*

Bureau of Labor Statistics

Building a Career Pathway

Six Key Elements for Developing Career Pathways



Build an Advisory Council

- Invite 5-10 industry professionals to participate in a health science advisory council
- Meet several times per year
- Focus on outcomes – what are employers looking for
- Are you teaching the right things?
- Form partnerships for field experience, job-shadowing, guest speaker opportunities



Seek Industry-Recognized Certifications

- Does your state dep. recommend a specific certification or testing agency?
- Are your instructors licensed to teach sports courses?
- What are local employers looking for?
- Is employment transferable?
- What is the cost of certification or a specific credential?



Building a Health Science Career Pathway

Career Tech



State Leaders Connecting Learning to Work

[Member Portal](#)



[Sign Up](#)

[Blog](#)

[About Us](#)

[Career Technical Education](#)

[Federal Policy](#)

[Promote CTE](#)

[Initiatives](#)

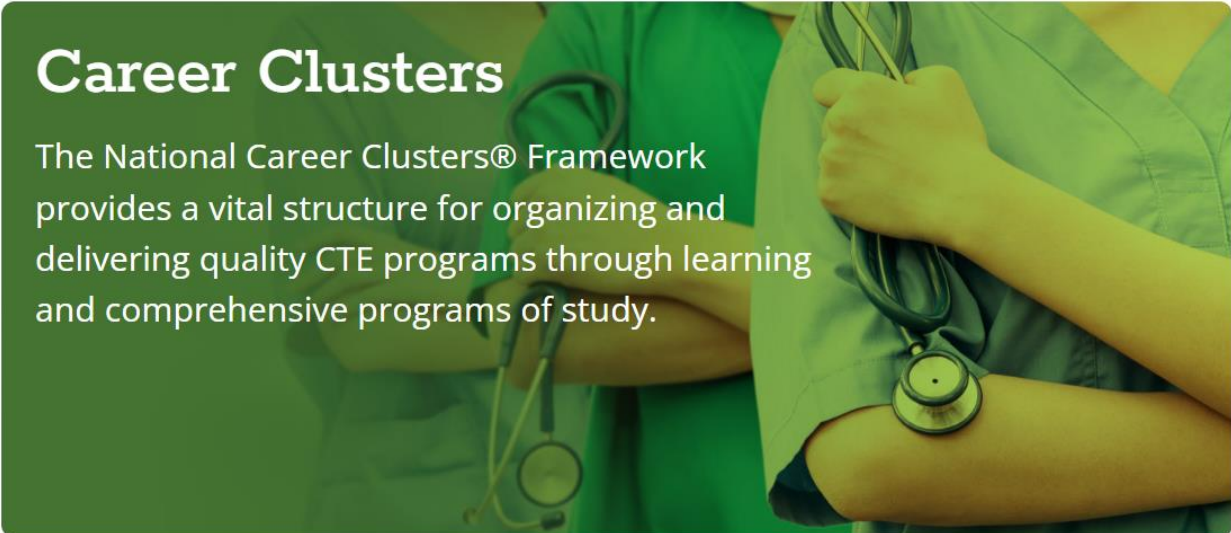
[Resource Center](#)

[News & Events](#)

[Career Technical Education](#) / [Career Clusters](#)

Career Clusters

The National Career Clusters® Framework provides a vital structure for organizing and delivering quality CTE programs through learning and comprehensive programs of study.



[About CTE](#)

[Career Clusters](#)

[CTE In Your State](#)

[State Comparisons](#)

[Common Career Technical Core](#)

[Programs of Study](#)

[Crosswalks](#)

[Advancing The National Career Clusters Framework](#)

Health Science Pathways

Sample Career Specialties/Occupations	Acupuncturist Anesthesiologist/Assistant Anesthesia Technologist/Technician Art/Music/Dance Therapist(s) Athletic Trainer Audiologist Certified Nursing Assistant Chiropractor Chiropractic Assistant Dental Assistant/Hygienist Dental Lab Technician Dietitian/Nutritionist Dosimetrist EMT/Paramedic Endodontist Exercise Physiologist Home Health Aide Kinesiotherapist Licensed Practical Nurse Massage Therapist Medical Assistant Mental Health Counselor Naturopathic Doctor Nurse Anesthetist Nurse Midwife Nurse Practitioner Occupational Therapist/Assistant Oral Surgeon Orientation/Mobility Specialist Orthodontist Orthoptist Orthotist/Prosthetist/Technician Podiatrist Perfusionist Pharmacist Pharmacy Technician Physical Therapist/Assistant Physician (MD/DO) Physician Assistant Podiatrist Psychologist Psychiatrist Radiation Therapist Recreation Therapist Registered Nurse Rehabilitation Counselor Respiratory Therapist Speech-Language Therapist Surgical Technician Veterinarian Veterinarian Assistant/Technician Vision Rehabilitation Therapist Wellness Coach	Audiologist Blood Bank Technology Specialist Cardiovascular Technologist Clinical Lab Technician Clinical Laboratory/Technologist Computer Tomography (CT) Technologist Cytogenetic Technologist Cytotechnologist Dentist Diagnostic Medical Sonographer Electrocardiographic (ECG) Technician Electroneurodiagnostic Technologist Electronic Diagnostic (EEG) Technologist Exercise Physiologist Geneticist Geriatrician Histotechnician Histotechnologist Magnetic Resonance Technologist Mammographer Medical Technologist/ Clinical Laboratory Scientist Nuclear Medicine Technologist Optician Ophthalmologist Ophthalmic Assistant/Technologist Optometrist Pathologist Pathologists' Assistant Phlebotomist Polysomnographic Technologist Positron Emission Tomography (PET) Technologist Radiologic Technologist Radiologist Speech-Language Pathologist	Admitting Clerk Applied Researcher Compliance Technician Clinical Account Manager Clinical Account Technician Clinical Data Specialist Community Services Specialists Data Quality Manager Epidemiologist Ethicist Health Educator Health Information Mgmt. Administrator Health Information Mgmt. Technician Healthcare Access Manager Healthcare Administrator Healthcare Finance Informatician Information Privacy Officer Managed Care Contract Analyst Medical Coder Medical Historian Medical Illustrator Medical Information Technologist Medical Librarian Medical Transcriptionist Patient Account Manager Patient Account Technician Patient Advocate Patient Information Coordinator Project Manager Public Health Educator Quality Management Specialist Quality Data Analyst Research and Decision Support Specialist Reimbursement Specialist Risk Manager Unit Coordinator Utilization Manager Utilization Review Manager	Animal Behaviorist Biomedical/Clinical Engineer Biomedical/Clinical Technician Clinical Simulator Technician Central Service Manager Central Service Technician Community Health Worker Dietary Manager Dietetic Technician Environmental Health Advocate Environmental Health Practitioner Environmental Services/ Specialist Facilities Manager Food Safety Specialist Health Advocate Hospital Maintenance Engineer Industrial Hygienist Interpreter Martial, Couple, Family Counselor/Therapist Materials Manager Medical Health Counselor Mortician/ Funeral Director Nurse Educator Occupational Health Nurse Occupational Health & Safety Expert Social Worker Transport Technician	Biochemist Bioinformatics Scientist Biomedical Chemist Biomedical Manufacturing Technician Biostatistician Cancer Registrar Cell Biologist Clinical Data Management Specialist Clinical Pharmacologist Clinical Trials Monitor Clinical Trials Research Coordinator Crime Scene Investigator Diagnostic Molecular Scientist Forensic Biologist Forensic Chemist Forensic Odontologist Forensic Pathologist Genetic Counselor Geneticist-Lab Assistant Lab Technician Medical Editor/Writer Microbiologist Molecular Biologist Nurse Researcher Packaging Technician Patent Lawyer Pharmaceutical/Clinical Project Manager Pharmaceutical Sales Representative Pharmaceutical Scientist Pharmacokineticist Pharmacologist Product Safety Scientist Process Development Scientist Processing Technician Quality Assurance Technician Quality Control Technician Regulatory Affairs Specialist Research Assistant Research Scientist Toxicologist
Pathways	Therapeutic Services	Diagnostics Services	Health Informatics	Support Services	Biotechnology Research and Development

Therapeutic Services Pathway

ADVANCE CTE
State Leaders Connecting Learning to Work

Who We Are ▾ Career Technical Education ▾ CTE in Your State ▾ Federal Policy ▾ CTE: Learning that Works for America ▾ Resource Center ▾ News & Events ▾ Members ▾

Career Technical Education / Career Clusters / Health Science

Health Science

Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

Health Science Career Cluster

- The Common Career Technical Core with performance elements (PDF)
- Knowledge & Skills Statements (PDF, Excel)
- Plan of Study (PDF, Excel)
- Career Cluster Frame (PDF), which provides a broad overview for each Career Cluster, including Essential Knowledge and Skills, the types of educational topics studied within a particular Career Pathway, and a listing of sample Career Specialties or occupations.

Therapeutic Services Pathway

- Knowledge & Skills Statements (PDF, Excel)
- Plan of Study (PDF, Excel)

Diagnostic Services Pathway

- Knowledge & Skills Statements (PDF, Excel)
- Plan of Study (PDF, Excel)

Health Informatics Pathway

- Knowledge & Skills Statements (PDF, Excel)
- Plan of Study (PDF, Excel)

Support Services Pathway

- Knowledge & Skills Statements (PDF, Excel)
- Plan of Study (PDF, Excel)

Biotechnology Research & Development Pathway

- Knowledge & Skills Statements (PDF, Excel)
- Plan of Study (PDF, Excel)

Therapeutic Services Pathway

- Knowledge & Skills Statements (PDF, Excel)
- Plan of Study (PDF, Excel)

- Includes Knowledge and Skills Statements for the Cluster and each individual pathway
- Identifies an editable Plan of Study template

Knowledge and Skill Statements



Health Science Career Cluster Therapeutic Services Pathway Knowledge and Skill Statements

The Pathway Knowledge and Skills Chart describes what all/most learners/workers need to know and be able to do to demonstrate competence within a career pathway. Following the pathway description, there are four sets of knowledge and skill expectations:

A. Foundational Academic Expectations

B. Essential Knowledge and Skills

C. Cluster (Foundation) Knowledge and Skills

D. Pathway Knowledge and Skills

PATHWAY DESCRIPTION

Therapeutic Services Pathway: Careers in the Therapeutic Services pathway are focused primarily on changing the health status of the patient over time. Health professionals in this pathway work directly with patients; they may provide care, treatment, counseling and health education information.

Knowledge and Skill Statements – Therapeutic Services

Therapeutic Services Career Pathway (HL-THR)

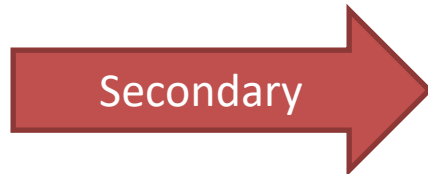
1. Utilize communication strategies to answer patient/client questions and concerns on planned procedures and goals.

HL-THR 1.1: Employ effective oral communication techniques when responding to patient questions and concerns.

Sample Indicators:

- *Assess patients/clients' understanding of the information provided.*
- *Demonstrate empathy for patients/clients.*
- *Construct communication appropriate to the needs of the patient/client and the situation.*

Building your Plan of Study



EDUCATION LEVELS	GRADE	English/ Language Arts	Math	Science	Social Studies/ Sciences	Other Required Courses Other Electives Recommended Electives Learner Activities	*Career and Technical Courses and/or Degree Major Courses for Therapeutic Services Pathway	SAMPLE Occupations Relating to This Pathway
Interest Inventory Administered and Plan of Study Initiated for all Learners								
SECONDARY	9	English/ Language Arts I	Algebra I	Biology	State History Civics	All plans of study should meet local and state high school graduation requirements and college entrance requirements. Certain local student organization activities are also important including public speaking, record keeping and work-based experiences. A foreign language is recommended.	• Health Science I: Introduction to Health Science • Information Technology Applications	Occupations Requiring Less than Baccalaureate Degree ▶ Anesthesiologist Assistant ▶ Certified Nursing Assistant ▶ Clinical Medical Assistant ▶ Data Entry Coordinator ▶ Dental Assistant/Hygienist ▶ Dental Lab Technician ▶ EMT/Paramedic ▶ Home Health Aide ▶ Licensed Practical Nurse ▶ Massage Therapist ▶ Orthotist/Prosthetist ▶ Pharmacist/Pharmacy Technician ▶ Physical Therapist/Assistant ▶ Radiologic Technician ▶ Registered Nurse ▶ Respiratory Therapist ▶ Surgical Technician
	10	English/ Language Arts II	Geometry	Chemistry	U.S. History		• Health Science II: Health, Safety and Ethics in the Health Environment	
	11	English/ Language Arts III	Algebra II	Physics or other science course	World History Sociology		• Health Science III: Employment in Health Occupations	
	College Placement Assessments-Academic/Career Advisement Provided							
	12	English/ Language Arts IV	Pre-Calculus or Calculus or Statistics	Anatomy and Physiology	Psychology Economics		• Health Science IV: Introduction to Therapeutic Services	
Articulation/Dual Credit Transcribed-Postsecondary courses may be taken/moved to the secondary level for articulation/dual credit purposes.								
POSTSECONDARY	Year 13	English Composition	Algebra	Chemistry Biological Science	American Government Psychology	All plans of study need to meet learners' career goals with regard to required degrees, licenses, certifications or journey worker status. Certain local student organization activities may also be important to include. Work-based learning is an integral part of this pathway.	• Health Science V: Therapeutic Services Preparation	Occupations Requiring Baccalaureate Degree ▶ Athletic Trainer ▶ Audiologist ▶ Chiropractor ▶ Dentist ▶ Dietician ▶ Exercise Physiologist ▶ Nurse Practitioner ▶ Occupational Therapist ▶ Optometrist ▶ Physician (MD/DO) ▶ Physician's Assistant ▶ Psychologist ▶ Recreation Therapist ▶ Social Worker ▶ Speech Language Pathologist ▶ Veterinarian
	Year 14	Speech/ Oral Communication Technical Writing	Statistics or Calculus	Microbiology	American History Sociology		• Continue Courses in the Area of Specialization	
	Year 15	Continue courses in the area of specialization.						
	Year 16						• Complete Therapeutic Services Major (4-Year Degree Program)	

NCHSE

NCHSE
National Consortium for
Health Science Education

ABOUT ▾ CURRICULUM ▾ RESOURCES ▾ PROFESSIONAL DEVELOPMENT ▾

JOIN TODAY

2023 Conference Registration Now Open! [Find Out More](#)

We educate the
next generation of
healthcare
professionals.
Better Education, Better Health Science

JOIN TODAY

Let's build the future
of health science
together.

We have the tools you need to develop and
maintain a successful health science program in
your school.

[National Consortium for Health Science Education | We help
educate the next generation of health professionals
\(healthscienceconsortium.org\)](https://healthscienceconsortium.org)

National Health Science Standards

- Academic foundations
- Communications
- Systems
- Employability skills
- Legal responsibilities
- Ethics
- Safety practices
- Teamwork
- Health maintenance practices
- Technical skills
- Information technology in healthcare



NCHSE Crosswalk



National Health Science Standards Crosswalk

The crosswalk template is a working resource to document where the National Health Science Standards (NHSS) being met in their courses. This resource provides teachers a way to ensure all the NHSS have been taught in your health science courses throughout your program. The curriculum column can be used to include examples such as: what lesson is used to teach the standard, which chapter in a particular resource, an activity, project, or PPT, and educational resource used to support teaching of the standard.

Foundation Standard 1: Academic Foundation

Understand human anatomy, physiology, common diseases and disorders, and medical math principles.

1.1 Human A&P	Subcategories	Curriculum	Courses
1.1.1 Describe the organization of the human body and directional terms.			
<i>a. Identify levels of organization</i>	- Cellular - Chemical - Organ - Organism - System - Tissue		
<i>b. Demonstrate anatomical position</i>			
<i>c. Identify body planes</i>	- Coronal / Frontal - Midsagittal - Sagittal - Transverse/Horizontal		
<i>d. Use directional terms</i>	- Anterior / Posterior - Cephalic/Caudal - Medial / Lateral - Proximal / Distal - Superficial / Deep - Superior / Inferior - Ventral/Dorsal		

Building a Sports Medicine Pathway

NATA

The Secondary School Sports Medicine Course Outline



- Includes 15 different units
- Identifies specific terms, concepts and applications for each unit

<https://www.nata.org/sites/default/files/secondary-school-sports-medicine-course-outline.pdf>

NATA: The Secondary School Sports Medicine Course Outline

- Investigating the field of sports medicine
- Understanding concepts of health care administration
- Analyzing legal, ethical and insurance considerations
- Understanding training and conditioning techniques
- Environmental factors that lead to injury
- Anatomy & physiology
- Taping, wrapping & bracing
- Sports nutrition
- Common injuries
- Blood borne pathogens
- Emergency injury management
- Psychological aspect of injury
- Rehabilitation and modalities
- Pharmacology
- Concepts of evaluation

NATA Unit Example

Unit 13 Introduction to Rehabilitation and Modalities

Treatment and Rehabilitation

- **Terms:** cryotherapy, thermotherapy, therapeutic ultrasound, electrical modality, manual therapy, protocol, parameter, indication, contraindication, thermal modality, ground fault circuit interrupter, hydrotherapy, light modality
 - 13.1 List the safety procedures with each type of modality.
 - 13.2 Investigate the role of various rehabilitation professionals.
 - 13.3 Understand the five phases of rehabilitation.
- **Applications-Activities students may perform:**
 - Create a first aid treatment plan for an acute injury.



Realityworks!

Hands-on and Curriculum!

Sports Medicine Pathway Package

- Environmental Factors Lab Kit
- Concussion Education Kit
- Sports Nutrition Lab Kit
- Rehabilitation and Modalities Scenario Kit
- Taping and Wrapping Skills Sim Kit
- Ethical and Legal Issues in Healthcare Program (paper-based)
- AED Simulator
- Knee and Ankle Sports Injury Assessment Trainer
- Blood Pressure Simulator
- Adult Nursing Manikin
- Closed Fracture Trauma Manikin
- Soft Skills Program for Caring for Patients with ID, MI or PTSD
- Joint Model Class Set
- Sports Medicine Scenario Cards

Content Applied to Plan of Study

 NCHSE National Consortium for Health Science Education National Health Science Standards Crosswalk The crosswalk template is a working resource to document where the National Health Science Standards (NHSS) being met in their courses. This resource provides teachers a way to ensure all the NHSS have been taught in your health science courses throughout your program. The curriculum column can be used to include examples such as: what lesson is used to teach the standard, which chapter in a particular resource, an activity, project, or PPT, and educational resource used to support teaching of the standard. Foundation Standard 1: Academic Foundation Understand human anatomy, physiology, common diseases and disorders, and medical math principles.			
1.1 Human A&P	Subcategories	Curriculum	Courses
1.1.1 Describe the organization of the human body and directional terms.			
<i>a. Identify levels of organization</i>	- Cellular - Chemical - Organ - Organism - System - Tissue		
<i>b. Demonstrate anatomical position</i>			
<i>c. Identify body planes</i>	- Coronal / Frontal - Midsagittal - Sagittal - Transverse/Horizontal		
<i>d. Use directional terms</i>	- Anterior / Posterior - Cephalic/Caudal - Medial / Lateral - Proximal / Distal - Superficial / Deep - Superior / Inferior - Ventral/Dorsal		



Begin to fit these hours of content into your courses.

Want More?

19-30
hours



Employability Skills:

- Communication
- Teamwork
- Problem-solving
- Critical Thinking
- Using Technology
- Time Management
- Interviews
- Motivation
- Work Ethic
- Listening
- Respect
- Responsibility
- Flexibility
- Interpersonal Skills
- Networking
- Patience
- Presentation Skills
- Negotiation
- Self-Confidence
- Stress Management

Create Leaders

18-26
hours



Leadership Skills:

- Trust
- Professionalism
- Coaching and Mentoring
- Conflicts Resolution
- Decision Making & Goal Setting
- Delegation
- Honesty and Integrity
- Diplomacy and Tact
- Determination
- Empathy
- Servant Leadership
- Team Building
- Visionary Leadership
- Optimism
- Public Speaking
- Observation
- Creativity
- People Skills



Additional Resources

www.realityworks.com

Realityworks Webinars

Webinars that may be of interest for sports medicine:

- What's New in Sports Medicine
- Activities and Resources for Teaching Sports Medicine Skills
- 10 FREE Resources for Teaching Health Science Concepts Online
- Designing Simulation-Based Lessons for High School Students
- Employing Innovative Learning Methods to Educate Generation Z EMS Students

<http://realityworks.com/webinars>

Career Exploration

FREE one-week unit on Sports Medicine Career Exploration

Another one-week unit on Therapeutic Service Careers

<https://www.realityworks.com/resources/free-lesson-plans/>



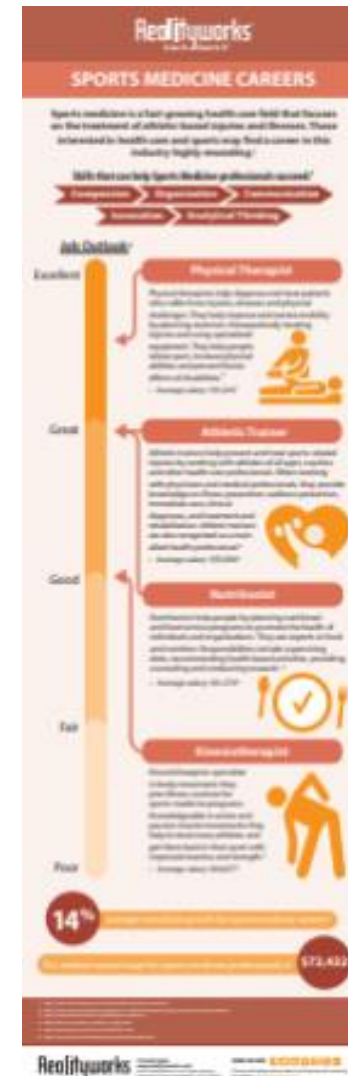
More FREE Resources

FREE posters/infographics

<https://www.realityworks.com/resources/realityworks-interactive-posters-downloads/>

FREE Health Science Implementation Guide

<https://www.realityworks.com/health-science-program-implementation-resources/>



Additional Resources

- Realityworks Blog
 - <http://realityworks.com/blog/>
- Facebook
 - <https://www.facebook.com/realityworksinc>
- Twitter
 - <https://twitter.com/RealityworksInc>



- Receive presentation slides
- Instant access to Sports Medicine Career Exploration Lessons
- Enter win a \$500.00 voucher



Scan me



For more information please contact Realityworks, Inc.
through email at information@realityworks.com
or call toll free at 800.830.1416

