

# STRANDS AND STANDARDS

## INTRODUCTION TO PHYSICAL THERAPY



### Course Description

This course introduces students to the field of physical therapy through the history, medical terminology, documentation, therapy treatments, and pertinent legal and ethical considerations of the profession. Healthcare for a diverse population begins its thread in this course. Students will participate in clinical observations.

|                                 |                                     |
|---------------------------------|-------------------------------------|
| <b>Intended Grade Level</b>     | 11-12                               |
| Units of Credit                 | 1.0                                 |
| Core Code                       | 36.01.00.00.195                     |
| Concurrent Enrollment Core Code | N/A                                 |
| Prerequisite                    | N/A                                 |
| Skill Certification Test Number | 735                                 |
| Test Weight                     | 1.0                                 |
| <b>License Type</b>             | CTE and/or Secondary Education 6-12 |
| <b>Required Endorsement(s)</b>  |                                     |
| Endorsement 1                   | Exercise Science/Sports Medicine    |
| Endorsement 2                   | N/A                                 |
| Endorsement 3                   | N/A                                 |

## STRAND 1

**Students will explore the fundamentals of rehabilitation medicine.**

### Standard 1

Explore the rehabilitation therapy pathway.

- Define rehabilitation therapy.
- Explore the history of rehabilitation therapy.
- Identify careers in the rehabilitation therapy pathway.

### Standard 2

Investigate the professions in the field of Physical Therapy.

- Explore the history of physical therapy.
- Explore the members and roles of the physical therapy team.
- Examine the roles and responsibilities of a physical therapist.
  - Hospital Setting
  - Long-term care facility
  - Clinic
  - Schools
- Explore current trends and issues in physical therapy.
- Explore educational requirements, credentialing exams, and costs for a career in physical therapy.
  - Physical Therapist
  - Physical Therapy Assistant
- Explore specialty areas within the field of physical therapy as described by the American Board of Physical Therapy Specialties (ABPTS).
- Describe and understand the importance of involvement in organizations such as APTA to further career development.

### Standard 3

Investigate the professions in the field of Occupational Therapy.

- Explore the history of occupational therapy.
- Explore the members and roles of the occupational therapy team.
- Examine the roles and responsibilities of an occupational therapist.
  - Hospital Setting
  - Long-term care facility
  - Clinic
  - Schools
- Explore current trends and issues in occupational therapy.
- Explore educational requirements, credentialing exams, and costs for a career in occupational therapy.
  - Occupational Therapist
  - Occupation Therapy Assistant

- Explore specialty areas within the field of occupational therapy as described by the American Occupational Therapy Association (AOTA).
- Describe and understand the importance of involvement in organizations such as AOTA to further career development.

### Standard 4

Investigate the professions in the field of Speech Therapy.

- Explore the history of speech therapy.
- Explore the members and roles of the speech therapy team.
- Examine the roles and responsibilities of a speech therapist.
  - Hospital Setting
  - Long-term care facility
  - Clinic
  - Schools
- Explore current trends and issues in speech therapy.
- Explore educational requirements, credentialing exams, and costs for a career in speech therapy.
  - Speech Therapist/Speech Language Pathologist
  - Audiologist
  - Speech Language Pathology Assistant
- Explore specialty areas within the field of speech therapy as described by the American Speech-language Hearing Association (ASHA).
- Describe and understand the importance of involvement in organizations such as ASHA to further career development.

## STRAND 2

**Medical, Legal, & Ethical-Students will identify the medical, legal, and ethical issues governing the clinical practice of physical therapy.**

### Standard 1

Identify the rules and regulations of individually identifiable health information.

- Examine the Health Insurance Portability and Accountability Act (HIPAA).
- Identify consequences of violating HIPAA.
- Explain personal responsibilities within the parameters of HIPAA.

### Standard 2

Identify health and safety regulations in the workplace.

- Examine the Occupational Safety and Health Act (OSH Act).
- Identify common workplace safety hazards.
- Demonstrate proper cleanliness and sanitation practices.
  - Handwashing & Hygiene
  - Clinic cleaning (linens, tables, beds, equipment, etc.)
- Demonstrate proper glove use and removal.

## Standard 3

Discuss desirable attitudes and behaviors when providing healthcare to diverse patients.

- Describe cultural sensitivity in relation to healthcare.
- Explore ways to treat the underserved and under-represented populations.
- Identify ways that people from different cultures and backgrounds are stereotyped.
- Describe the importance of treating patients as individuals.

## Standard 4

Describe the required documentation related to therapy visits and treatment.

- Analyze medical records used in a therapy setting.
- Create a SOAP note for one of the following conditions: musculoskeletal, neuromuscular, cardiovascular, or integumentary.
- Understand components of an Electronic Medical Record (EMR).

## Standard 5

Discuss the Utah Physical Therapy Act and how it relates to the roles and relationship between the physical therapy team.

- Identify the scope of practice of the following:
  - Physical Therapist
  - Physical Therapist Assistant
  - Physical Therapy Aide

## Standard 6

Discuss the Utah Occupational Therapy Act and how it relates to the roles and relationship between the occupational therapy team.

- Identify the scope of practice of the following:
  - Occupational Therapist
  - Occupational Therapist Assistant
  - Occupational Therapy Aide

## Standard 7

Discuss the Utah Speech Therapy Act and how it relates to the roles and relationship between the speech therapy team.

- Identify the scope of practice of the following:
  - Speech Therapist/Speech Language Pathologist
  - Audiologist
  - Speech Language Pathology Assistant
  - Speech Aide

## Standard 8

Investigate the various types of health insurance and the reimbursement process for physical therapy.

- Describe health insurance plans.
  - Premium

- Copay
- Deductible
- Compare and contrast government funded plans and private insurance plans in regard to the number of reimbursed therapy visits.

### STRAND 3

#### Professionalism-Identify professional standards and characteristics of a therapy team.

##### Standard 1

Describe the characteristics of an effective healthcare provider in personal and professional terms.

- Examine productivity and time management strategies.
- Understand the implications the following have on healthcare employment:
  - Criminal Background Check
  - Drug Testing
- Discuss implications of dress and other personal behaviors within the healthcare setting.
- Identify best practices in respect to client relations.

##### Standard 2

Explain effective communication strategies of a therapist with patients and all members of the therapy team.

- Demonstrate appropriate verbal communication skills.
- Demonstrate appropriate nonverbal communication skills.
- Demonstrate appropriate listening skills.
- Demonstrate and understand the APTA Core Values.
  - Accountability
  - Altruism
  - Compassion/Caring
  - Excellence
  - Integrity
  - Professional Duty
  - Social Responsibility

### STRAND 4

#### Medical Terminology

##### Standard 1

Describe positional terminology in regard to the human body.

- Describe anatomical position
- Identify body planes and directional terms
  - Sagittal
  - Mid-sagittal

- Coronal/frontal
- Transverse/horizontal
- Superior
- Inferior
- Anterior
- Posterior
- Medial
- Lateral
- Proximal
- Distal
- Superficial
- Deep

### Standard 2

Compare and contrast body movements.

- Flexion, extension, and hyperextension
- Adduction and abduction
- Pronation and supination
- Retraction and protraction
- Elevation and depression
- Rotation and circumduction
- External rotation and internal rotation
- Lateral flexion (side-bending left and right)
- Inversion and eversion
- Dorsiflexion and plantar flexion
- Radial deviation and ulnar deviation
- Opposition

### Standard 3

Define terms associated to physical therapy.

- Activities of daily living (ADLs)
- Ataxia
- Base of support
- Bilateral
- Calcaneal valgum
- Calcaneal varum
- Cervical
- Contracture
- Core
- Deformity
- Dissociation
- Distal
- Dynamic

- Education
- Extension
- External rotation
- Fine motor
- Flexion
- Genu valgum
- Genu varum
- Gross motor
- Hamstrings
- Hyperextension
- Hypermobility
- Hypertonic
- Hypotonic
- Instrumental Activities of Daily Living (IADL)
- Instability
- Internal rotation
- Kinesthesia
- Kyphosis
- Leisure
- Long-sitting
- Lordosis
- Lumbar
- Manual therapy
- Midline
- Motor control
- Motor planning
- Obliquity
- Pes planus
- Play
- Prone
- Proprioception
- Proximal
- Quadriceps
- Range of motion
- Recurvatum
- Reflex
- Ring sitting
- Sacral
- Side-sitting
- Sleep
- Social Participation
- Spasticity

- Static
- Supine
- Symmetrical
- Tactile defensiveness
- Tailor-sitting
- Thoracic
- Tone (muscle)
- Unilateral
- Vestibular stimulation
- Weight shift
- Work

### Standard 4

Define the following abbreviations/acronyms:

- L
- R
- B
- Tx
- Fx
- PT
- PTA
- OT
- OTA

## STRAND 5

### Musculoskeletal System

#### Standard 1

Identify common Conditions and Injuries of the Musculoskeletal System.

- General conditions
  - Osteoarthritis
  - Osteoporosis
  - Fibromyalgia
  - TMJ dysfunction
- Shoulder
  - Rotator cuff tear
  - Dislocation
  - Frozen shoulder
  - Tendinitis
  - Fracture
  - Shoulder impingement
  - Thoracic outlet syndrome
- Elbow



- Golfer's elbow
- Tennis elbow
- Sprain
- Strain
- Fracture
- Wrist
  - Carpal tunnel syndrome
  - Sprain
  - Strain
  - Fracture
- Neck and back
  - Sprain
  - Strain
  - Disc herniation
  - Stenosis
  - Muscle spasm
  - Posture
  - SI joint dysfunction
  - Coccygodynia
- Hip
  - Acetabular labral tears
  - Bursitis
  - IT band tightness/syndrome
  - Tendinitis
  - Total knee replacement
- Ankle
  - Achilles tendinitis
  - Peroneal tendinitis
  - Sprain
  - Strain
  - Fracture
- Foot and Toe
  - Plantar fasciitis
  - Tarsal tunnel syndrome
  - Sprain
  - Strain
  - Fracture

### Standard 2

Identify tests that are used to determine musculoskeletal injuries/deformities.

- Lachman's Test
- Anterior Drawer Test

- Phalen's Test
- Drop Arm Sign
- Hop Test
- Adam's Forward Bend Test
- Straight Leg Raise Test
- Push up Sign
- Goniometer

### Standard 3

Describe therapeutic exercises and modalities used to treat musculoskeletal conditions and injuries.

- Strengthening
  - Therapeutic exercises
  - Stabilization
- Modalities
  - Traction
  - E-stimulation
  - Astym
  - Laser
  - Ultrasound
  - Taping
  - Heat/ice
- Home exercise program (HEP)
- Manual Therapy
  - Myofascial release
- Range of motion
  - Stretching

## STRAND 6

### Neuromuscular Systems

#### Standard 1

Identify how to assess neuromuscular conditions.

- Impact on life expectancy
- Involvement of organ systems
- Family, social, and community roles
- Impact of daily functioning
  - Ambulation
  - ADLs
  - Communication
  - Nutritional status
  - Community mobility
  - Work performance

- Functional Tasks
- Muscle strength
- Joint contractures
- Pulmonary function
- Cardiomyopathy
- Intellectual capacity

### Standard 2

Identify conditions and injuries associated with the neuromuscular system.

- Parkinson's disease
- Guillian-Barre Syndrome
- Multiple Sclerosis (MS)
- Chronic inflammatory demyelinating neuropathy
- Cerebral palsy
- ALS
- Traumatic Brain Injury

### Standard 3

Identify tests that are used to determine neuromuscular injuries/deformities.

- Neurological classification of spinal cord injury
- Dermatomes
- Rancho Los Amigos Scale-Level of Cognitive Functioning

### Standard 4

Describe therapeutic exercises and modalities used to treat neuromuscular conditions and injuries.

- Assistive and Adaptive devices
  - Canes
  - Crutches
  - Prostheses
  - Transfers
  - Wheelchairs
  - Walkers
- Modalities
  - E-stimulation
  - Ultrasound
  - Traction
  - Heat/ice
  - Aquatic therapy
- Range of Motion
- Manual therapy
- Home exercise program (HEP)

## STRAND 7

### Cardiovascular System

#### Standard 1

Identify how to assess cardiovascular conditions.

- Onset and duration of symptoms
- Previous and ongoing medical and/or surgical treatment
- Lab results and diagnostic tests
- Social history
- Prior functional endurance level
- Home environment
- Family/caregiver support
- Family, professional, social, and community roles
- Patient's goals and expectations of returning to previous life roles
- Prior drug, tobacco, and alcohol use
- Current medications

#### Standard 2

Identify conditions and defects/injuries associated with the cardiovascular system.

- Pulmonary Embolism
- Chronic Obstructive Pulmonary Disorder
- Myocardial Infarction
- Coronary Artery Bypass Graft
- High Blood Pressure/Hypertension
- Pacemaker
- Left Ventricular Assist Device
- Heart Transplant
- Aortic Aneurysm
- Cardiomyopathy

#### Standard 3

Identify tests that are used to determine cardiovascular injuries/deformities.

- Pulse oximeter
- Blood pressure
- Pulse
- Respirations
- VO2 max
- 6-minute walk test
- Step up test
- Pulmonary drainage
- Spirometry

- Low-impact aerobic exercises

### STRAND 8

#### Integumentary System

##### Standard 1

Identify conditions and injuries associated with the integumentary system.

- Burns
- Contusions
- Pressure ulcers
- Neuropathic ulcers
- Infection
- Surgical wounds
- Vascular disease
- Abscess
- Traumatic injury

##### Standard 2

Identify tests that are used to determine integumentary injuries/deformities.

- Wound location and size
- Wound characteristics
- Tunneling and undermining
- Phases of wound healing

##### Standard 3

Describe therapeutic exercises and modalities used to treat integumentary conditions and injuries.

- Hydrotherapy
- Thermotherapy
- Hyperbaric oxygen therapy
- Compression therapies (IPC, VAC)
- Electrotherapy
- Manual therapy
- ROM stretching
- Strengthening exercises
- Adaptive, protective, or assistive equipment

##### Standard 4

Explain the progress of a patient through the phases of physical therapy for integumentary injuries.

- Pain management
- Range of motion and strengthening
- Wound debridement and dressing application

- Minimize scar/contracture development

### STRAND 9

#### Pediatric Patients

##### Standard 1

Understand the stages of Child Development.

- Normal child development
- Developmental milestones

##### Standard 2

Identify pediatric Diseases and Disorders.

- Developmental Disorders
- Club foot
- Scoliosis
- Tortocollis
- Juvenile Rheumatoid Arthritis
- Duchenne Muscular Dystrophy
- Down Syndrome
- Cerebral Palsy
- Fetal Alcohol Syndrome
- Cystic Fibrosis
- Developmental Coordination Disorder
- Neural Tube Defects
- Osteogenesis Imperfecta
- Hip Dysplasia

##### Standard 3

Identify Special Considerations when it comes to pediatric patients.

- Child abuse
- Size of patient
- Modifications to therapeutic treatment

### STRAND 10

#### Geriatric Patients

##### Standard 1

Identify Common conditions that may be treated in geriatric patients.

- Osteoarthritis
- Rheumatoid arthritis
- Osteoporosis
- Hip fractures
- Diabetes

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- Polio

## Standard 2

Define Common facilities where geriatric patients may be treated.

- Hospital
- Long-term rehab
- Skilled nursing
- Short-term rehab
- Assisted living
- Memory care
- Home health
- Hospice

## Standard 3

Understand Special Considerations that must be understood when working with geriatric patients.

- Elderly abuse
- Age
- Modifications to therapeutic treatment

## Skill Certificate Test Points by Strand

| Test Name                        | Test # | Number of Test Points by Standard |   |   |    |    |   |   |   |   |    | Total Points | Total Questions |
|----------------------------------|--------|-----------------------------------|---|---|----|----|---|---|---|---|----|--------------|-----------------|
|                                  |        | 1                                 | 2 | 3 | 4  | 5  | 6 | 7 | 8 | 9 | 10 |              |                 |
| Introduction to Physical Therapy | 735    | 2                                 | 8 | 2 | 11 | 14 | 6 | 7 | 4 | 4 | 2  | 60           | 53              |