

STRANDS AND STANDARDS

PHYSICAL THERAPY, INTRODUCTION



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.

Intended Grade Level	11-12
Units of Credit	1.0
Core Code	36.01.00.00.195
Concurrent Enrollment Core Code	36.01.00.13.195
Prerequisite	N/A
Skill Certification Test Number	735
Test Weight	1.0
License Area of Concentration	CTE and/or Secondary Education 6-12
Required Endorsement(s)	
Endorsement 1	Exercise Science/Sports Medicine

STRAND 1

Students will explore the fundamentals of rehabilitation medicine.

Standard 1

Explore rehabilitation therapy.

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

Standard 2

Investigate the professions in the field of Physical Therapy.

- Explore the history of physical therapy.
- Examine the roles and responsibilities of a physical therapist according to the state practice act.
- Examine the different employment settings.
 - Hospital Setting
 - Long-term care facility
 - Clinic
 - Schools (non-clinical)
 - Home Health
 - Wellness
- Explore the members and roles of the physical therapy team.
 - Physical Therapist
 - Physical Therapist Assistant
 - Exercise Physiologist
 - Physical Therapy Aide/Technician
- Explore educational requirements, credentialing exams, and costs for a career in physical therapy.
- Explore specialty areas within the field of physical therapy.
- 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 and Speech Therapy.

- Explore educational requirements for a career in occupational therapy.
 - Occupational Therapist
 - Occupational Therapist Assistant
- Explore educational requirements for a career in speech therapy.
 - Speech Therapist/Speech Language Pathologist
 - Swallow studies
 - Cognitive therapy
 - Speech therapy
 - Audiologist
 - Speech Language Pathology Assistant

STRAND 2

Students will identify the legal issues governing the clinical practice of physical therapy.

Standard 1

Identify the rules and regulations of the Health Insurance Portability and Accountability Act (HIPAA).

Standard 2

Identify health and safety regulations in the workplace.

- Identify common workplace safety hazards.
- Describe proper cleanliness and sanitation practices.
 - Personal Protective Equipment (PPE)
 - Infection control in the clinic.

Standard 3

Describe the required documentation related to therapy visits and treatment.

- Identify the components of a SOAP note.
- Differentiate the other types of medical documentation that would be pertinent in physical therapy practice.
 - Imaging
 - Medical History
 - Lab results
 - Vital signs

Standard 4

Examine and discuss the Utah Physical Therapy Act and how it relates to the roles and relationship between the physical therapy team including evidence-based treatment and plans of care.

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

Standard 5

Discuss legal safeguards in physical therapy treatments

- Consent
 - Adults
 - Minors – parent/guardian
- Proper draping of private areas of the body.
- Avoid one-on-one treatments on private areas of the body.
- Avoid, recognize, and respond appropriately to sexual harassment.

Standard 6

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

- Understand the components of health insurance plans.
- Describe the following related terms:
 - Premium
 - Copay
 - Deductible
 - Coinsurance
 - Preventative care
 - Explanation of benefits (EOB)
 - Balance billing

STRAND 3

Identify professional standards and core values within physical therapy.

Standard 1

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

- Demonstrate and understand the APTA Core Values.
 - Accountability
 - Altruism
 - Compassion/Caring
 - Excellence
 - Integrity
 - Professional Duty
 - Social Responsibility
- Analyze and implement productivity and time management strategies.
- Understand the implications the following have on healthcare employment:
 - Criminal Record
 - Illegal drug use
- Discuss professional attire within the healthcare setting.

Standard 2

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

- Distinguish appropriate verbal and nonverbal communication skills.
- Describe appropriate listening skills.

Standard 3

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

- Describe diversity, equity, and inclusion in relation to healthcare.
- Discuss implicit bias, including the role of disability bias in patient care.
- Examine the APTA code of ethics.

STRAND 4

Students will explore the Medical Terminology used in the practice of physical therapy.

Standard 1

Describe positional terminology in regard to the human body.

- Describe anatomical position
- Identify body planes and directional terms
 - Sagittal
 - Midsagittal
 - Coronal/frontal
 - Transverse/horizontal
 - Superior
 - Inferior
 - Anterior
 - Posterior
 - Medial
 - Lateral
 - Bilateral

- Contralateral
- Ipsilateral
- Proximal
- Distal
- Superficial
- Deep
- Prone
- Supine

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 with physical therapy treatments.

- Activities of daily living (ADLs)
- Base of support
- Center of gravity
- Contracture
- Core
- Deformity
- Dynamic
- Ergonomics
- Fine motor
- Genu valgum
- Genu varum
- Gross motor
- Hypertonic
- Hypotonic
- Instability
- Kyphosis
- Long-sitting
- Lordosis
- Manual therapy
- Motor control
- Pes planus
- Proprioception
- Range of motion

- Reflex
- Spasticity
- Static

Standard 4

Define the following abbreviations/acronyms:

- L
- R
- B
- Tx
- Fx
- Hx
- d/c
- PT
- PTA
- OT
- OTA
- WNL
- WFL
- /
- J

STRAND 5

Identify common Conditions and Injuries of the Musculoskeletal System.

Standard 1

Locate the following bones of the axial and appendicular skeletons.

- Axial Skeleton
 - Mandible
 - Maxilla
 - Zygomatic
 - Frontal
 - Parietal
 - Occipital
 - Temporal
 - Vertebrae
 - Cervical
 - Thoracic
 - Lumbar
 - Sacrum
 - Coccyx
 - Ribs
 - Sternum
- Appendicular Skeleton
 - Clavicle
 - Scapula
 - Pelvis
 - Ilium

- Ischium
- Pubis
- Femur
- Patella
- Tibia
- Fibula
- Tarsals
- Metatarsals
- Phalanges
- Humerus
- Ulna
- Radius
- Carpals
- Metacarpals

Standard 2

Describe the locations and functions of the following skeletal muscles:

- Sternocleidomastoid
- Levator scapulae
- Trapezius
 - Upper
 - Middle
 - Lower
- Rotator cuff (SITS)
 - Supraspinatus
 - Infraspinatus
 - Teres minor
 - Subscapularis
- Biceps brachii
- Triceps brachii
- Deltoid
- Pectoralis major
- Latissimus dorsi
- Quadratus lumborum
- Erector Spinae
- Rectus abdominis
- External oblique
- Internal oblique
- Transverse abdominis
- Gastrocnemius
- Soleus
- Tibialis anterior
- Hamstrings
 - Semimembranosus
 - Semitendinosus
 - Biceps femoris
- Quadriceps
 - Rectus femoris
 - Vastus lateralis

- Vastus medialis
- Vastus intermedius
- Tensor fasciae latae (TFL)
- Iliotibial band or tract
- Gluteus maximus
- Piriformis
- Sartorius
- Gracilis

Standard 3

Identify the general pathologies in various parts of the body that can require physical therapy treatment or post-operative rehabilitation.

- Osteoarthritis
- Osteoporosis
- Ligament sprain
- Muscle strain
- Fracture
- Tendinitis
- Effusion

Standard 4

Identify the conditions of the shoulder that likely require physical therapy treatment.

- Rotator cuff tear
- Dislocation
- Subluxation
- Adhesive Capsulitis (Frozen shoulder)
- Impingement syndrome

Standard 5

Identify the conditions of the elbow that require physical therapy treatment.

- Medial epicondylitis – (Golfer’s elbow)
- Lateral epicondylitis – (Tennis elbow)
- Cubital tunnel syndrome

Standard 6

Identify the conditions of the wrist that require physical therapy treatment.

- Carpal tunnel syndrome
- DeQuervain’s tenosynovitis

Standard 7

Identify the conditions of the neck and back that require physical therapy treatment.

- Disc pathology
- Stenosis
- Muscle spasm
- Poor posture
- Sacroiliac joint dysfunction
- Coccydynia

Standard 8

Identify the conditions of the hip that require physical therapy treatment.

- Acetabular labral tears
- Iliotibialband syndrome
- Total hip replacement
- Piriformis syndrome

Standard 9

Identify the conditions of the knee that require physical therapy treatment.

- Anterior cruciate ligament tear
- Collateral ligament tears
- Meniscal tears
- Patellar tendinitis

Standard 10

Identify the conditions of the ankle that require physical therapy treatment.

- Achilles tendinitis
- Peroneal tendinitis
- Anterior talofibular ligament sprain (ATFL)

Standard 11

Identify the conditions of the foot and toe that require physical therapy treatment.

- Plantar fasciitis
- 1st Metarsalphalangeal joint extension sprain (Turf toe)
- Arch pain

STRAND 6

Explore common pathologies of the Neuromuscular System.

Standard 1

Identify how neuromuscular conditions originate and their impact on functional activities.

- Congenital
- Traumatic
- Genetic
- Effect on quality of life
- Mobility
 - Ambulation
 - Activities of Daily Living (ADL's)
 - Required levels of assistance
 - Musculoskeletal impact
 - Strength
 - Joint contractures

Standard 2

Identify a sample of pathologies associated with the neuromuscular system.

- Parkinson's disease
- Cerebrovascular accident (CVA/stroke)
- Multiple Sclerosis (MS)
- Cerebral palsy
- Rheumatoid Arthritis (RA)
- Traumatic Brain Injury (TBI)

- Spinal cord injury (SCI)
- Vestibular disorders

Standard 3

Identify tests that are used to classify neuromuscular pathologies.

- American Spinal Injury Association (ASIA scale) - neurological classification of spinal cord injury
- Glasgow Coma Scale (GCS) – measure of cognitive coherence after injury.

STRAND 7

Explore the common pathologies of the Cardiovascular and Pulmonary Systems.

Standard 1

Identify how cardiovascular and pulmonary conditions originate and their impact on functional activities.

- Prevalence
- Risk factors
- Heart and lung anatomy
- Heart conduction
- Peripheral circulation
- Respiration

Standard 2

Identify pathologies associated with the cardiovascular and pulmonary systems.

- Myocardial Infarction (MI)
- Aneurysm
- Cardiomyopathy
 - Genetic
 - Acquired
- Vascular insufficiency
- Arrhythmia
- Congestive Heart Failure (CHF)
- Hypertension
- Pulmonary Embolism (PE)
- Chronic Obstructive Pulmonary Disease (COPD)
- Asthma

Standard 3

Identify tests and equipment that are used to measure cardiovascular and pulmonary function.

- Pulse oximeter
- Blood pressure
 - Stethoscope
 - Sphygmomanometer
- Heart rate
 - Respiratory rate
 - VO₂ max – the maximal amount of oxygen consumption capacity
 - 6-minute walk test
 - 12- minute run/walk test
 - Bicycle ergometer test
- Rate of Perceived Exertion scale (RPE)

STRAND 8

Explore the common pathologies of the Integumentary System.

Standard 1

Identify pathologies associated with the integumentary system.

- Burns
- Pressure injuries
- Infection
- Wounds
 - Location and size
 - Characteristics
 - Tunneling
 - Phases of healing
- Dermatitis

Standard 2

Understand the progression and time frame of the healing process.

- Inflammatory phase
 - Acute
 - Chronic
- Proliferative phase
 - Collagen
 - Granulation tissue
- Maturation phase
 - Scar formation
 - Skin contracture

STRAND 9

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

Standard 1

Describe the types of therapeutic exercises used in Physical Therapy.

- Range of motion (ROM)
 - Passive (PROM)
 - Active (AROM)
 - Goniometer
 - Static stretching
- Strengthening
 - Types of muscle contractions
 - Isometric
 - Isotonic
 - Eccentric
 - Concentric
 - Progressive Resistive Exercises
 - Calisthenics
 - Free weights
 - Resistance bands
 - Pulley

- Open chain
- Closed chain

Standard 2

Ascertain the need for various assistive devices.

- Canes
 - Single point
 - 4-point
- Crutches
 - Axillary
 - Forearm
- Gait belt
- Wheelchairs
- Walkers
 - Front-wheeled walker (FWW)
 - Four-wheeled walker (4WW)

Standard 3

Associate the different therapeutic modalities used in physical therapy.

- Traction (cervical and lumbar)
- Electrical Stimulation/Transtheic Neuromuscular Stimulation (TENS)
- Instrument-Assisted Soft Tissue Mobilization
- Ultrasound
- Iontophoresis
- Dry needling
- Thermotherapy
- Cryotherapy
- Home exercise program (HEP)
- Manual Therapy
 - Joint mobilization
 - Cross-friction massage

Strand 10

Explore the unique needs of pediatric patients.

Standard 1

Differentiate the normal physical developmental milestones in infants and children.

Standard 2

Identify a sample of pediatric pathologies.

- Club foot
- Scoliosis
- Torticollis
- Plagiocephaly
- Juvenile Rheumatoid Arthritis
- Duchenne Muscular Dystrophy
- Down Syndrome
- Cerebral Palsy
- Fetal Alcohol Syndrome

- Cystic Fibrosis
- Spina bifida
- Osteogenesis Imperfecta
- Hip Dysplasia

Standard 3

Identify special considerations when treating pediatric patients.

- Physical size of patient
- Cognitive level/tolerance to treatment
- Modifications to therapeutic treatment
- Be aware of signs of child abuse and legal requirement to report

STRAND 11

Explore the unique needs of geriatric patients

Standard 1

Identify common conditions that may be treated in geriatric patients.

- Balance impairments
- Deconditioning/generalized weakness
- Obesity
- Independence with functional activities
- Joint replacement surgery

Standard 2

Define levels of care that geriatric patients may require.

- Hospital/Acute care
- Skilled nursing facility (SNF)
- Rehabilitation facility
- Assisted living center
- Home health
- Hospice/palliative care

Standard 3

Understand special considerations when working with geriatric patients.

- Modifications to therapeutic treatment
 - Avoid being too aggressive
 - Allow the patient to decide intensity of exercise
- Be aware of signs of elder abuse and legal requirement to report

Performance Skills

- Demonstrate the documentation of a patient's subjective report.
- Demonstrate taking a patient from the clinic waiting area to a treatment table.
 - Welcoming and positive interactions
 - Congeniality with patient
 - Walking at pace of patient
- Demonstrate taking the vital signs of a patient.
 - Heart rate
 - Manual blood pressure

- Respiratory rate
- Demonstrate using a goniometer to measure knee range of motion.
- Explain and demonstrate a therapeutic exercise to a patient.
- Demonstrate how to transfer a patient from a wheelchair to another sitting location using a gait belt.
 - Sit to stand
 - Stand pivot
 - Stand to sit
- Teach a patient the correct and safe usage of an assistive device using verbal cues and demonstration.
- Set up and administer modalities. Choose one of the following:
 - Estim/TENS
 - Cryotherapy
 - Thermotherapy

Workplace Skills

- Communication
- Problem Solving
- Teamwork
- Critical Thinking
- Dependability
- Accountability
- Legal Requirements/expectations

Skill Certificate Test Points by Strand

Test Name	Test #	Number of Test Points by Strand											Total Points	Total Questions
		1	2	3	4	5	6	7	8	9	10	11		