

(Revised 10-6-10)

CHATTANOOGA STATE COMMUNITY COLLEGE
NURSING & ALLIED HEALTH DIVISION

PHYSICAL THERAPIST ASSISTANT COURSE SYLLABUS

PT 112 - PATHOLOGICAL CONDITIONS

CLASS HOURS: 3

SEMESTER CREDIT HOURS: 3

LABORATORY HOURS: 0

CATALOG COURSE DESCRIPTION: A survey of diseases and injuries treated by physical therapy. Associated medical or surgical treatment of these conditions as well as physical therapy treatment for the specific conditions are covered.

ENTRY LEVEL STANDARDS: The student must have completed the prerequisite courses with a minimum of a "C" grade in each PT or BI course while maintaining a 2.0 GPA on a semester-by-semester basis. The student must exhibit the attitudinal characteristics necessary for the profession.

METHODOLOGY/INSTRUCTIONAL ACTIVITIES (IA): The strategies, methods, and processes that will occur within the course to provide students with an opportunity to achieve the stated course competencies are identified in the course schedule and include these activities:

- IA1. Lecture/discussion
- IA2. Course news on E-learn
- IA3. Comparison and discussion
- IA4. Student research and investigation for independent study written projects,
- IA6. Student self instruction/review with faculty guidance.
- IA7. Homework

PREREQUISITES: PT 104, PT 115, PT 123

COREQUISITES: PT 111, PT 125, Biol 2020

TEXTBOOK(S) AND OTHER REFERENCE MATERIAL BASIC TO THE COURSE:

1. *Differential Diagnosis in Physical Therapy*; Goodman and Snyder, W. B. Saunders, 4th Edition.
2. *Therapeutic Exercise: Foundations and Techniques*; Kisner and Colby, F. A. Davis, 5th Edition.
3. *Physical Rehabilitation*; O'Sullivan, F. A. Davis, 4th Edition.
4. *Textbook of Disorders and Injuries of the Musculoskeletal System*; Salter, Williams and Wilkins
5. Anatomy and Physiology Textbook
6. *Tabers Cyclopedic Medical Dictionary*; Thomas

CHATTANOOGA STATE INSTITUTION STUDENT LEARNING OUTCOMES (ISLOs):

Chattanooga state has identified its college-level competencies and the student learning outcomes that it expects the graduates of its educational programs to have attained at appropriate levels for each program. These outcomes reflect the knowledge, skills and attitudes that a community college graduate is expected to have developed, including:

- **Effective Communication (COM):** includes speaking, writing and graphic presentation skills
- **Analytical and Critical Thinking Skills (CT):** includes skills of categorization, decoding significance, clarifying meaning, examining ideas, detecting arguments, and analyzing arguments into their component elements. Purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgment is based.
- **Information Technology Skills (TEC):** includes use of computers, online learning, information seeking, and use of new technologies.
- **Societal & Cultural Awareness (CUL):** includes awareness of how societal and cultural differences affect an individual's life, focusing on diversity and collaboration.
- **Foundational Knowledge in a Specialty (KNO):** the specialty-specific competencies that each graduate of the program is expected to achieve.
- **Work Ethic (WE):**

PTA PROGRAM STUDENT LEARNING OUTCOMES (PSLOs):

By the completion of the program, in addition to the college ISLO, Chattanooga State PTA Program Graduates will display the following physical therapy competencies/outcomes which link to Chattanooga State's ISLOs:

- A. Decision Making:** (College ISLO: ANA, KNO, CT, TEC, CUL, COM)
 - A.1 When necessary, modify intervention or data collection appropriate to changes in patient/client condition to achieve goals established by the PT and within the scope of practice of a PTA.
 - A.2. Use knowledge and information available to make reasonable and appropriate decisions regarding patient care.
- B. Communication/Teaching:** (College ISLO: COM, TEC, KNO)
 - B.1 Appropriately use medical language and physical therapy language in verbal and written or electronic communication
 - B.2. Communicate with the patient/client to relay relevant instructions regarding the physical therapy interventions.
 - B.3 Communicate with the physical therapist and/or other members of the health care team regarding patient/client status, progress, or need for re-evaluation by the PT.
 - B.4. Educate others about physical therapy and the role of the PTA.
 - B.5. Provide patient/client education about their physical therapy intervention and any additional instructions.

C. Providing Physical Therapy Interventions: (College ISLO: KNO, COM, TEC)

- C.1. Provide physical therapy interventions and data collection in a time efficient manner with all necessary documentations.
- C.2. Identify and describe background theory, pathological conditions, surgical conditions, and other issues that may influence the patient/client's physical therapy.
- C.3. Effectively and safely provide physical therapy interventions under the supervision of a physical therapist and as outlined by the physical therapist in the plan of care established for the patient/client.

D. Displaying Professional Behavior: (College ISLO: COM, CUL, CT, ANA, KNO)

- D.1. Recognize importance of lifelong learning and resources available for development opportunities
- D.2. Comply with APTA's core values of accountability, altruism, compassion/caring, cultural competence, duty, integrity, and social responsibility.
- D.3. Display behavior consistent with APTA's Standards of Ethical Conduct for the Physical Therapist Assistant.
- D.4. Abide by state practice act in the provision of physical therapy.
- D.5. Display a work ethic that aligns with Chattanooga State's college expectations as well as those of the Division of Allied Health and Nursing and the PTA Program.

WEEK/UNIT/TOPIC BASIS: A systematic and orderly list of activities and/or events that will comprise the total allotted time for the course.

WEEK	UNIT	TOPIC BASIS
1	I	Introduction, Chapter 1-4, and 6, Interview and screening process, Pain, Cardiovascular system and conditions
2	I	Chapters 1-4, and 6, Cardiovascular system and conditions
3	I, II	Cardiovascular Conditions, Chapters 5-7, Pulmonary system review and pulmonary conditions
4	II	Chapters 5,7 Pulmonary and Hematology and related conditions
5	II, III	Chapters 8: Gastrointestinal and lecture series, Chapters 10, Renal and Urinary system review and related conditions
6	III	Chapters 9, Hepatic and Biliary anatomy review and related conditions
7	III	Chapters 11, Endocrine system review and related conditions

8/9		Spring Break: March 7th -11th
9	IV	Chapter 13, Oncological conditions, Epiphyseal disorders
10	IV, V	Epiphyseal disorders, Osteochondrosis and related disorders
11	V	Osteochondrosis, Fractures, Chapter12, Immunology
12	V	Degenerative joint disease and related disorders
13	V, VI	Miscellaneous diseases and conditions
14	VI	Nervous system review, Neurological disorders
15	VI	Congenital abnormalities and disorders, miscellaneous pathologies
15/16		Final's week May 2nd -5th

Required Student Learning Outcomes: Program Student Learning Outcomes (PSLOs) and Course Student Learning Outcomes (CSLOs) with specific indicators or instructional objectives.

PTA program student learning outcomes (PSLOs) consist of four broad outcome statements (with additional descriptors for each) that describe the abilities of the graduates of the Chattanooga State PTA Program.

The following list of Course Student Learning Outcomes (CSLOs) represents specific objectives and includes skills, knowledge and attitudes that the student will obtain or be able to perform upon completion of the course. These CSLOs and instructional objectives (IOs) or indicators are linked to the overall PTA Program Student Learning Outcomes (PSLOs). Collectively, the CSLOs from all program courses enable students to achieve the program student learning outcomes. The student is required to perform at a minimal competency of 70% on the specific CSLO.

PSLO # 1: Decision Making:

CSLO #1: Use knowledge and information available to make reasonable and appropriate decisions regarding patient care. This CSLO is additionally defined via the following **indicators or instructional objectives** :

1. Describe the guidelines for decision making and pain screening processes, where appropriate within practice guidelines.
2. Recognize when immediate medical attention is required relative to patient's condition and response.

3. Assess signs and symptoms (observation, vital signs and etc.) presented by a patient scenario and decide patient's need for immediate medical supervision

PSLO #2: Communication/Teaching:

CSLO #2: Effectively communicate with patients, despite functional illiteracy, language barriers, etc.

PSLO #3: Providing Physical Therapy Interventions

CSLO #3: Identify and describe background theory, pathological conditions, surgical conditions, and other issues that may influence the patient/client's physical therapy. This CSLO is additionally defined via the following **indicators or instructional objectives** :

4. **Assessment of pain**

- a. List the elements that comprise patient/client pain management.
- b. Perform pain screening processes and interviews within the guidelines of practice.
- c. Compare and contrast compassion and caring.
- d. Identify the components of the interview process for pain assessment
- e. Identify characteristics of pain.
- f. Relate the characteristics of pain to the type and source of pain
- g. Compare systemic versus musculoskeletal pain patterns

5. **General principles of disease**

- a. Define disease
- b. Discuss general causes and characteristics of disease
- c. Contrast illness and disease
- d. Identify predisposing factors of disease
- e. Identify the classifications of hereditary diseases
- f. Identify signs and symptoms associated with disease and health problems
- g. Describe and summarize methods of disease prevention.
- h. Identify, define appropriate treatment for specific diseases and health problems
- i. Describe the integration of systems related to the human body
 - i. Explain how individual systems are integrated to function together
 - ii. Relate common diagnostic tests and procedures
- j. Discuss the differences in pathology related to age, gender, race, and ethnicity
 - i. Describe how responses to common pathologic conditions may vary with age, gender, and race
 - ii. Identify selected pathologies for which racial or ethnic groups may be predisposed

- k. Recognize the risks related to poor health behaviors.
 - i. Describe the consequences resulting from poor health behaviors.
 - ii. Describe the effects of modeling poor health behaviors.
- l. Describe laboratory tests and values used specifically in the monitoring of diseases and conditions providing additional information regarding the client's status.
- m. Describe how laboratory test values relate to the practice of physical therapy

6. Common hematologic pathologies, management and treatment.

- a. Define hematology
- b. Describe and discuss blood composition and physiology
- c. Describe basic characteristics of diseases, conditions and procedures with primary focus on the following:
- d. Anemia: iron deficiency anemia, folic acid deficiency anemia, pernicious anemia, aplastic anemia, sickle cell anemia
- e. Polycythemia
- f. Leukocytosis
- g. Leukopenia
- h. Leukemia: acute, chronic myelocytic, chronic lymphocytic
- i. Hemophilia

7. Common cardiovascular pathologies and their management and treatment.

- a. Describe the function, anatomical components, and pathologies of the circulatory system.
- b. Identify signs and symptoms, etiology, diagnosis, treatment, prognosis, and prevention related to the circulatory system.
- c. Identify the direction of the blood flow through the heart and lungs.
- d. Contrast and compare modifiable, non modifiable and contributing
- e. Describe basic characteristics of cardiovascular diseases, conditions and procedures with the primary focus on the following:
 - i. Myocardial ischemia
 - ii. Angina Pectoris
 - iii. Myocardial infarction
 - iv. Pericarditis
 - v. Left-Sided Heart Failure
 - vi. Right-Sided Heart Failure
 - vii. Cardiac Valvular Disease
 - viii. Rhuematic Fever
 - ix. Fibrillation
 - x. Tachycardia
 - xi. Bradycardia
 - xii. Arterial Disease

- xiii. Arteriosclerosis Obliterans
- xiv. Raynaud's Phenomenon
- xv. Deep Vein Thrombosis
- xvi. Lymphedema
- xvii. Orthostatic Hypotension
- xviii. Herpes Zoster
- xix. Thoracic Outlet Syndrome
- xx. Aneurysms
- xxi. Peripheral Vascular disease and disorders
- xxii. Buerger's disease
- xxiii. Congestive Heart Failure
- xxiv. Septal defects
- xxv. Hypertension
- xxvi. Varicose Veins
- xxvii. CVA/ TIAs
- xxviii. CABG
- xxix. Pacemaker
- xxx. Defibrillator
- xxxi. Types of valve deformities

8. **Common pulmonary pathologies and their management and treatment.**

- a. Describe and identify the function, anatomical components, and pathologies of the pulmonary system.
- b. Discuss how gas exchange occurs in the lungs.
- c. Define pneumonectomy, lobectomy, segmental resection, wedge resection, thorocotomy and chest tube.
- d. Contrast and compare inspiration, expiration, ventilation and respiration.
- e. Describe and recognize the following types of breathing: eupnea, hyperventilation, hypoventilation, dyspnea, orthopnea, apnea, cheyne-stokes, and respiratory arrest.
- f. Discuss acid/base regulation
- g. Recognize abnormal and normal parameter for PH
- h. Describe basic characteristics of pulmonary diseases, condition and procedures with the primary focus on the following:
 - i. Compare and contrast Respiratory Acidosis and Respiratory Alkalosis
 - ii. Atelectasis
 - iii. Chronic Obstructive Pulmonary Disease
 - iv. Bronchitis
 - v. Emphysema
 - vi. Asthma
 - vii. Pneumonia
 - viii. Lung Abscess

- ix. Tuberculosis
- x. Systemic Sclerosis Lung disease
- xi. Lung Cancer: small cell, squamous cell, Adenocarcinoma, and large cell
- xii. Cystic Fibrosis
- xiii. Pulmonary embolisms
- xiv. Deep Vein Thrombosis
- xv. Major risk factors
- xvi. Preventative majors
- xvii. Signs and symptoms
- xviii. Homan sign and test
- xix. Cor Pulmonale
- xx. Puerisy
- xxi. Pneumothorax

9. **Common gastrointestinal pathologies and their management and treatment.**

- a. Describe the function, anatomical components, and pathologies of the gastrointestinal system.
- b. Identify signs and symptoms, etiology, diagnosis, treatment, prognosis, and prevention related to the gastrointestinal system.
- c. Describe basic characteristics of gastrointestinal diseases, conditions and procedures with primary focus on the following:
 - i. Dysphagia
 - ii. Odynophagia
 - iii. Melena
 - iv. Constipation
 - v. Diarrhea
 - vi. Fecal incontinence
 - vii. Peptic Ulcer
 - viii. Gastrointestinal complications of NSAIDS
 - ix. Appendicitis
 - x. Pancreatitis
 - xi. Pancreatic Carcinoma
 - xii. Inflammatory Bowel Disease
 - xiii. Crohn's Disease
 - xiv. Ulcerative Colitis
 - xv. Irritable Bowel Syndrome
 - xvi. Colorectal Cancer
 - xvii. Diverticular Disease
 - xviii. Diverticulosis
 - xix. Diverticulitis
 - xx. Inflammatory Bowel Disease
 - xxi. Gastroesophageal Reflux Disease (GERD)

10. **Common hepatic and biliary pathologies and their management and treatment.**

- a. Describe the function, anatomical components, and pathologies of the hepatic and biliary systems.
- b. Identify signs and symptoms, etiology, diagnosis, treatment, prognosis, and prevention related to the hepatic and biliary system.
- c. Describe basic characteristics of hepatic and biliary diseases, conditions and procedures with primary focus on the following:
 - i. Jaundice
 - ii. Hepatitis: viral and non-viral, hepatitis A (infectious), hepatitis B, hepatitis C, hepatitis D, hepatitis E, hepatitis G and chronic hepatitis
 - iii. Cirrhosis
 - iv. Ascites
 - v. Liver Cancer
 - vi. Cholelithiasis
 - vii. Cholecystitis

11. **Common renal and urogenital pathologies and their management and treatment.**

- a. Describe the function, anatomical components, and pathologies of the urinary system.
- b. Identify signs and symptoms, etiology, diagnosis, treatment, prognosis, and prevention related to the urinary system.
- c. Demonstrate basic knowledge of the categorization of renal and urinary tract problems according to their causative agent.
- d. Define the following types of incontinence: stress, urge, overflow, mixed, and functional
- e. Describe the basic characteristics of urinary diseases, condition and procedures with primary focus on the following:
 - i. Cystitis
 - ii. Neurogenic bladder
 - iii. Flaccid bladder
 - iv. Spastic bladder
 - v. Uninhibited bladder
 - vi. Renal failure
 - vii. Discuss and define dialysis, peritoneal dialysis, and hemodialysis
 - viii. Renal Calculi
 - ix. Urethritis

12. **Common endocrine and metabolic pathologies and their management and treatment.**

- a. Describe the function, anatomical components, and pathologies of the endocrine system and metabolic disorders.

- b. Identify signs and symptoms, etiology, diagnosis, treatment, prognosis, and prevention related to the endocrine system and metabolic disorders.
- c. Analyze the actions of hormones on various body functions.
- d. Contrast and compare types of fluid imbalances: fluid deficit and fluid excess.
- e. Discuss edema
- f. Define Metabolism
- g. Demonstrate basic knowledge and understanding of endocrine and metabolic diseases, condition and procedures with primary focus on the following:
 - i. Diabetes Insipidus
 - ii. Hyperpituitarism
 - iii. Acromegaly
 - iv. Gigantism
 - v. Hypopituitarism
 - vi. Dwarfism
 - vii. Cushing Syndrome
 - viii. Goiter
 - ix. Hashimoto's Thyroiditis
 - x. Hyperthyroidism
 - xi. Graves
 - xii. Chronic Periarthritis
 - xiii. Hypothyroidism
 - xiv. Cretinism
 - xv. Myxedema
 - xvi. Addison disease
 - xvii. Hyperparathyroidism
 - xviii. Hypoparathyroidism
 - xix. Diabetes Mellitus
 - xx. Diabetic Neuropathy
 - xxi. Periarthritis
 - xxii. Hypoglycemia
 - xxiii. Gout
 - xxiv. Hemochromatosis
 - xxv. Osteoporosis: hormonal, disuse, postmenopausal, and senile
 - xxvi. Osteomalacia
 - xxvii. Paget's Disease
 - xxviii. Osteogenesis imperfecta
 - xxix. Rickets
- h. Recognize diabetic shock and diabetic coma signs and symptoms

13. Common immunologic pathologies and their management and treatment.

- a. Describe the function, anatomical components, and pathologies of the immune system.
- b. Identify signs and symptoms, etiology, diagnosis, treatment, prognosis, and prevention related to the immune system.
- c. Discuss and define histocompatibility complex.
- d. Compare and contrast natural and acquired immunity.
- e. Define the following terms: allergy, autoimmunity, immunodeficiency
- f. List the organs of the immune system and the role they play: bone marrow, thymus, lymph nodes and vessels, spleen, tonsils, Peyer's patch, and appendix
- g. Know the primary functions of the lymph system
- h. Discuss the three major ways the body protects itself: body structure, inflammatory response, and specific immune responses.
- i. Describe basic characteristics of immune system diseases, condition and procedures with primary focus on the following:
 - i. HIV/AIDS
 - ii. Tuberculosis
 - iii. Toxoplasmosis
 - iv. AIDS Dementia Complex
 - v. Allergy
 - vi. Anaphylaxis
 - vii. Graft rejection
 - viii. Myasthenia Gravis
 - ix. Guillain Barre
 - x. Multiple Sclerosis
 - xi. Amyotrophic lateral sclerosis
 - xii. Rheumatoid arthritis—including the stages of RA
 - xiii. Juvenile arthritis
 - xiv. Stills disease
 - xv. Ankylosis Spondylitis
 - xvi. Sjogrens syndrome
 - xvii. Systemic lupus erythematosus
 - xviii. Scleroderma
 - xix. Polymyositis
 - xx. Infectious arthritis
 - xxi. Infectious arthritis
 - xxii. Lymes disease
 - xxiii. Bacterial arthritis
 - xxiv. Fibromyalgia

14. Common oncologic pathologies and their management and treatment.

- a. Describe the function, anatomical components, and pathologies related to different types of cancer.

- b. Identify signs and symptoms, etiology, treatment, prognosis, and prevention related to the oncologic disorders
- c. Define contrast and compare neoplasm and tumor.
- d. Contrast and compare benign and malignant tumors.
- e. Classify neoplasms in accordance with tissue type.
- f. Recognize grading and staging systems of neoplasms.
- g. Define: carcinogenesis, hyperplasia, dysplasia, differentiation, metaplasia, anaplasia and neoplastic hyperplasia.
- h. Discuss factors that increase one's risk for cancer: heredity, occupational, tobacco use, diet, and sun exposure.
- i. State the seven warning signs of cancer.
- j. Describe and discuss the process of metastasis relative to individual body systems.
- k. Demonstrate basic knowledge and understanding of cancerous diseases, conditions and procedures with primary focus on the following:
 - i. Skin cancer: Basal cell, squamous cell, melanoma
 - ii. Breast cancer
 - iii. Endometrial cancer
 - iv. Cervical cancer
 - v. Prostatic cancer
 - vi. Testicular
 - vii. Leukemia
 - viii. Multiple myeloma
 - ix. Hodgkins disease
 - x. Non-Hodgkins lymphoma
 - xi. Sarcoma
 - xii. Osteosarcoma
 - xiii. Ewing's sarcoma
 - xiv. Chondrosarcoma
 - xv. Brain tumors
 - xvi. Spinal cord tumors
 - xvii. Pancreatic cancer
 - xviii. Liver cancer
 - xix. Colorectal cancer
 - xx. Lung cancer

15. Common congenital and childhood abnormalities and their management and treatment.

- a. Describe the function, anatomical components, and pathologies of congenital and childhood diseases and conditions.
- b. Identify signs and symptoms, etiology, diagnosis, treatment, prognosis, and prevention related to congenital and childhood diseases.

- c. Describe basic characteristics of congenital and childhood diseases, conditions and procedures with primary focus on the following:
- i. Talipes Equinovarus
 - ii. Talipes calcaneovalgus
 - iii. Aplasia
 - iv. Hypoplasia
 - v. Dysplasia
 - vi. Torticollis or Wry neck
 - vii. Osteogenesis imperfect
 - viii. Kippel-Fell syndrome
 - ix. Achondroplasia
 - x. Marfan's syndrome
 - xi. Congenital hip dysplasia
 - xii. Amyotonia Congenita
 - xiii. Amyoplasia
 - xiv. Deformities : equinus, pes cavus, pes planus, varus, and valgus
 - xv. Cerebral palsy: spastic, athetoid, ataxic
 - xvi. Duchennes'
 - xvii. MD
 - xviii. Down syndrome
 - xix. Hydrocephalus
 - xx. Neurofibromatosis
 - xxi. Poliomyelitis
 - xxii. Reyes syndrome
 - xxiii. Spina bifida (four levels)
 - xxiv. Erythroblastosis
 - xxv. Ventricular septal defects
 - xxvi. Patent ductus
 - xxvii. Tetralogy of Fallot

16. **Degenerative disorders of joints and related tissues and their management and treatment.**

- a. Describe the function, anatomical components, and pathologies of the degenerative disorders of joints and related tissues.
- b. Identify signs and symptoms, etiology, diagnosis, treatment, prognosis, and prevention related to the degenerative disorders of joints and related tissues.
- c. Describe basic characteristics of degenerative joint diseases, condition and procedures with primary focus on the following:
 - i. Rheumatic disorders
 - ii. Degenerative joint disease
 - iii. Hallux rigidus
 - iv. Hallux valgus

- v. Chondromalacia
- vi. Spondylosis
- vii. Disc degeneration
- viii. Segmental instability
- ix. Segmental hyperextension
- x. Segmental narrowing
- xi. The four degree of nucleus pulposus herniation:
Intraspongi , protrusion, extruded, and
sequestered
- xii. Spinal stenosis
- xiii. Charcot'
- xiv. Myofascial pain syndrome
- xv. Degenerative tendon and capsule disease
- xvi. Calcific Supraspinatus
- xvii. Tendinitis
- xviii. Tears in the musculotendinous cuff
- xix. Bicipital Tendinitis
- xx. Ruptured tendon
- xxi. Adhesive encapsulitis
- xxii. Shoulder hand syndrome
- xxiii. Lateral epicondylitis
- xxiv. DeQuervain's Tenovaginitis Stenosans
- xxv. Trigger finger
- xxvi. Dupuytren's
- xxvii. Bursitis
- xxviii. Ganglion
- xxix. Baker's cyst

d. Thoroughly discuss the pathogenesis of DJD relative to the following areas: articular cartilage, sunchondrol bone, synovial membrane and fibrous capsule, and muscle.

e. Types of surgical interventions: osteotomy, arthroplasty, arthrodesis, soft tissue operation, partial and total joint replacement.

17. Common neuromuscular disorders and their management and treatment.

- a. Describe the function, anatomical components, and pathologies of the nervous system
- b. Identify signs and symptoms, etiology, diagnosis, treatment, prognosis, and prevention related to the nervous system.
- c. Know, recognize and define the divisions of the brain and their components: Brain stem, Cerebellum, diencephalon, and cerebrum.
- d. Define consciousness and its two components: content and arousal
- e. Define ARAS

- f. Define the following terms in relationship with altered levels of consciousness: Full, confusion, delirium, obtundation, stupor, semicomatose, comatose, and deeply comatose.
- g. Discuss increased intracranial pressure
- h. Define brain death
- i. Define the following diagnostic procedures: skull x-ray, spine x-ray, CT scan, P.E.T., MRI, cerebral angiography, Myelography, lumbar puncture, and laminectomy
- j. Discuss types of headaches.
- k. Compare epidural to subdural hematomas.
- l. Discuss meningitis and encephalitis.
- m. Contrast concussion to contusion.
- n. Define brain abscess
- o. Discuss cardiovascular accident
- p. Contrast and compare Transient ischemic attack to Cardiovascular accident.
- q. Describe basic characteristics of neurological diseases, condition and procedures with primary focus on the following:
 - i. Hemiplegia
 - ii. Paraplegia
 - iii. Quadriplegia
 - iv. Peripheral neuritis
 - v. Bell's palsy
 - vi. Epilepsy
 - vii. Alzheimer's disease
 - viii. Parkinson's disease
 - ix. Multiple Sclerosis
 - x. ALS

18. **Common disorders of the epiphyses and epiphyseal growth and their management and treatment.**

- a. Describe the function, anatomical components of long bones
- b. Discuss epiphysis and their components.
- c. Define and discuss the two types of epiphyses: pressure and traction
- d. Identify signs and symptoms, etiology, diagnosis, treatment, prognosis, and prevention related to the epiphysis and epiphyseal growth.
- e. Describe basic characteristics of diseases, condition and procedures with primary focus on the following:
 - i. Avascular necrosis
 - ii. Osteochondroses
 - iii. Legg-Perthes disease
 - iv. Panner's disease
 - v. Freiberg's disease
 - vi. Scheurermann's disease

- vii. Kohler's disease
- viii. Kienbock's disease
- ix. Calve's disease
- x. Chandler's disease
- xi. Osgood-Schlatter's disease
- xii. Sever's disease
- xiii. Post-traumatic avascular necrosis of the subchondral bone
- xiv. Adolescent Coxa Vara
- xv. Blount's disease
- xvi. Madelung's deformity
- xvii. Spondylolysis
- xviii. Spondylolithesis
- xix. Scoliosis

- d. Discuss the four phases of the pathological process of osteochondrosis.
- e. Recognize the clinical features and complications of osteochondrosis.

19. **Common musculoskeletal disorders and injuries, their management and treatment.**

- a. Explain the basic anatomy and function of the musculoskeletal system.
- b. Describe the etiology, pathology, signs, symptoms and prognosis of common orthopedic disorders
- c. State medical management strategies for common musculoskeletal pathologies and injuries.
- d. Describe the forces required to break bone: tension, torsional, traction, and compression.
- e. Define the types of causative forces: direct, indirect.
- f. Recognize the points by which a fracture can be described: site, extent, configuration, relationship of fragments.
- g. Discuss the role of the periosteum in fracture healing.
- h. Discuss and explain the healing process of a fracture in accordance with Stage
- i. Recognize, explain and discuss basic treatment interventions: manipulation, open reduction, immobilization.
- j. Define the following: malunion, delayed union, nonunion
- k. Recognize and discuss the complications of fractures: pressure areas, vascular complications, fracture blisters, compartment syndrome, thrombosis, embolus, delayed union, malunion, non-union, nerve compression, infection, reflex sympathetic dystrophy, refracture and myositis ossificans
- l. Define: contusion, sprain, strain, subluxation, dislocation
- m. Define the following common types of fractures:
 - i. Agenetic
 - ii. Articular
 - iii. Avulsion

- iv. Barton's
- v. Boxer
- vi. Bursting
- vii. Buttonhole fracture
- viii. Chip
- ix. Colles
- x. Condylar
- xi. Cough
- xii. Depressed
- xiii. Displaced
- xiv. Epicondylar
- xv. Epiphyseal
- xvi. Galeazzi
- xvii. Greenstick
- xviii. Hangman
- xix. Intercondylar
- xx. Intertrochanteric
- xxi. Intrauterine
- xxii. Mallet
- xxiii. Neoplastic
- xxiv. Neurogenic
- xxv. Pathologic
- xxvi. Periarticular
- xxvii. Rolando
- xxviii. Stress
- xxix. Subtrochanteric
- xxx. Supracondylar
- xxxi. Trimalleolar
- xxxii. Wedge

20. **Miscellaneous conditions, disorders and abnormalities.**

- a. Contrast and compare the eating disorders: anorexia nervosa and bulimia
- b. Describe symptoms of *Methicillin-Resistant Staphylococcus aureus (MRSA)*, methods of transmission, common patient types, ways to avoid cross contamination and the implications for physical therapy
- c. Describe symptoms of *Clostridium difficile*, often called *C. difficile* or "C. diff," common patient types, ways to avoid cross contamination and the implications for physical therapy.

PSLO #4: Professional Behavior**CSLO # 4: The student will demonstrate and practice generic abilities related to course content.**

- a. *Commitment to Learning* – Demonstrate the ability to self-assess, self-correct, and self direct.
- b. Identify needs and sources of learning. Seek new knowledge and understanding. (Review current literature regarding pathological conditions and summarize results.)
- c. *Interpersonal Skills* – Demonstrate the ability to interact effectively with patients, families, colleagues, other health care professionals, and the community. Demonstrate the ability to effectively deal with cultural and ethnic diversity issues.
- d. *Communication Skills* – Demonstrate the ability to communicate effectively (i.e., speaking, body language, reading, writing, and listening) for a varied audiences and purposes.
- e. *Effective Use of Time* – Demonstrate the ability to obtain maximum benefit from a minimum investment of time and resources.
- f. *Use of Constructive Feedback* – Demonstrate the ability to identify sources and seek out feedback and to effectively use and provide feedback for improving personal interaction.
- g. *Problem-Solving* – Demonstrate the ability to recognize and define problems, analyze data, develop and implement solutions, and evaluate outcomes.
- h. *Professionalism* – Demonstrate the ability to exhibit appropriate professional conduct and to represent the profession effectively.

EVALUATION/ASSESSMENT:**A. TESTING PROCEDURES:**

1. Six (6) written exams will be given. The questions will be a variety of multiple choice, matching, fill-in-the-blank, and short answer/discussion. Each exam will comprise 10% of your final grade. Make-up exams will NOT be given for unexcused absences. Student will receive a zero for all unexcused, incomplete or missed work. All regular exams must be passed with a minimum grade of 70. Students who score less than 70 on an exam must repeat the exam within 3 days and score a minimum grade of 70. All work is to be done independently.

EXAM 1: PSLO#1: CSLO#1(1, 2, 3); PSLO#2: CSLO#2; PSLO#3: CSLO#3(4a-g, 5a-m, 7a-e); PSLO#4: CSLO#4(c, e, g, h)

EXAM 2: PSLO#1: CSLO#1(1-3); PSLO#3: CSLO#3 (4b, e, f, 5a-m, 8a-h, 9a-c) PSLO#4: CSLO#4c, e, g, h

EXAM 3: PSLO#1: CSLO#1(1-3); PSLO#3: CSLO#3 (4b, e, f, 5a-m, 10(a-e), 11 (a-e), 12 (a-h)); PSLO#4: CSLO#4 c, e, g, h

EXAM 4: PSLO#1: CSLO#1 (1-3); PSLO#3: CSLO#3 (4b, e, f, 5a-m, 14a-k, 18a-e, 19a-m; PSLO#4:CSLO#4 c, e, g, h

EXAM 5: PSLO#1: CSLO#1 (1-3); PSLO#3: CSLO#3 (4b, e, f, 5a-m, 13a-i, 16a, b, c, d, e); PSLO#4: CSLO#4 c, e, g, h

EXAM 6: PSLO#1: CSLO#1 (1-3), PSLO#3 (ab, e, f, 5a-m, 15a-c, 17a-q, 20, PSLO#4: CSLO#4 c, e, g, h

2. Cumulative FINAL exam: A cumulative final exam will be given at the completion of the semester which will comprise 20% of your final grade. PSLO#1: CSLO#1, PSLO#2: CSLO#2, PSLO#3: CSLO#3, PSLO#4: CSLO#4
3. Unannounced and announced quizzes will be given throughout the semester. These quizzes will cover the subject matter being studied at that time or at any previous time. The average of quizzes and homework assignments (questions and article notebook) will comprise 10% of your final grade. Any tardy student or one with an unexcused absence (as outlined in the student packet) *will not be allowed to make up a missed quiz or turn in assigned homework, student will receive a zero*. All work is to be done independently.

B. FIELD WORK:

1. The student is encouraged to attend all professional meetings at the state and local level.
2. Homework assignments will be given throughout the semester. These assignments must be complete and turned in by assigned date and time. Non-compliance by the student will result in a grade of zero. Homework, article notebook and quiz grades will be averaged and comprise 10% of student's final grade. All work is to be done independently. (
3. The student is required to complete a research project as outlined below. Student's grade will be determined as outlined on handout. The research project final summation will comprise 10% of your final grade. **Late or incomplete assignments will not be accepted** and student will receive a zero for all missing weekly articles and summary assignments.
***Research project will consist** of a compilation of newspaper, magazine and 2 journal articles (medical and PT journal; use online text as resource and printing of article is required.) related to specific pathological conditions.

The student will be required to formulate a notebook that is to contain current (no older than 1 year) **newspaper, magazine** and the **two required journal articles**, and a written summary of each submitted article. All other articles not including the two journal articles **must be original newspaper and magazine articles**... no copies will be accepted. The student is to submit one article and summary per week. The notebook will be due on Monday of each week by 7:55 am. At the end of the semester, the student is required to write a final summation encompassing all their findings pertaining to each selected pathological condition as outlined on handout. Their summation of findings should be grouped according to each pathological condition. Summation of the pathological condition will include: a) etiology, b). pathogenesis, c). common symptoms and side effects, d). prognosis, e) brief description, f). current treatments and medications to manage the disease process. Follow the summation grading sheet for exact topics and order of presentation. Summation

headings **will be bolded** and **only information pertaining to that topic should be listed**. Summation grade will be assigned in accordance with content, neatness, completeness of assignment and directions followed. Remember this paper must reflect effort, content, and depth commiserate with a semester long project. The final summation will comprise 10% of final course grade. The student will receive a home work grade of one hundred (100) for each article and summary submitted; **if the assignment is complete, well written, directions followed and received by assigned date and time**. Instructor will provide an example of the correct format. If articles are not complete, well written, directions not followed, or received by assigned date and time, the student will receive a zero in their homework portion of their grade. **No exceptions, if any one of the above items is not completed as required students will receive a zero for that week's article assignment.**

Remember articles must be about pathological conditions, stay away from Dental disease s and purely psychological disease such as depression and etc. Just a reminder, pregnancy and menopause are not pathological conditions. If unsure if a particular pathology is acceptable get it pre-approved by instructor. A grade of zero will be given for all late research articles but the required number of articles must be included in final summation for the student to receive any credit for the research project. The student is required to have 4 different pathology's articles and summaries. All work is to be done independently.

No source may be used more than twice (newspaper as a source can be used more often provided it is a different author). The final research summation must include a source cited list written in **MLA format** and a **table of contents**. The library has MLA method information as well as the internet. Consult handout for specific grading criteria.

Plagiarism is unacceptable and punishment is in accordance with school and program policy. Minimally, student will receive a zero for the entire project; other possible punishments may be a fine, dismissal from PTA program, dismissal from college and imprisonment. All directions must be followed as outlined by instructor to receive credit.

C. OTHER EVALUATION METHODS

1. For every **3 unexcused absences**, a student's course grade will be **lowered one letter grade**. (See PTA Student Handbook.)
2. **Three tardies** are calculated as one **unexcused absence**. Therefore, a total of **nine tardies** would **lower the course grade** by one letter.
3. Weekly classroom progress assessment report.

CSLO/Assessment Alignment:

CSLO:	CSLO #1	CSLO #2	CSLO #3	CSLO #4
PT 112 Assessments	Exams:1-6 (units 1-6) Final exam Quizzes Weekly summaries Research project	Exam:1 (unit1) Final exam Quizzes Weekly summaries	Exam: 1-6 (units 1-6) Final exam Quizzes Weekly summaries Research project	Exams: 1-6 (units1-6) Final exam Quizzes Weekly summaries Research project Instructor /student Assessment report

D. GRADES:

1. Computation of course grade:

6 written tests at 10% each =	60%
Research project =	10% (final summation)
Homework and quizzes =	10% (includes articles/summaries, general HW, and quizzes)
Final Exam =	20%

2. Grading Scale:

- A 90 - 100%
- B 80 - 89%
- C 70 - 79% (must make "C" or better to continue in program)
- D 60 - 69%
- F 59 or less failure

3. **A student must pass the course with a grade of "C" (70%) or better in order to continue in the PTA program. A course grade of less than 70% will result in dismissal from the PTA program. All exams must be passed with a minimum grade of 70.** The student must repeat all exams, except final exam, that a grade of 70 or above has not been met. The student's original exam grade will only be changed one time. The student's original grade and retake will be averaged. The student may not receive a recorded grade greater than 70 after taking a repeat exam but the student could have a recorded grade less than a 70. The student must take repeat exam within 3 days of the original exam unless otherwise stated by primary instructor.

V. COLLEGE POLICIES

This class is governed by the policies and procedures stated in the current Chattanooga State Student handbook. Additional or more specific guidelines may apply such as those located in the Allied Health Division Handbook and in the Physical Therapist Assistant Program Handbook.

ADA statement

Students who have educational, psychological, and/or physical disabilities may be eligible for accommodations that provide equal access to educational programs and activities of Chattanooga State. These students should notify the instructor immediately, and should contact Disabilities Support Services within the first two weeks of the semester in order to discuss individual needs. The student must provide documentation of the disability so that reasonable accommodations can be requested in a timely manner. All students are expected to fulfill essential course requirements in order to receive a passing grade in a class, with or without reasonable accommodations.

Disruption Statement

The term “classroom disruption” means--student behavior that a reasonable person would view as substantially or repeatedly interfering with the activities of a class. A student who persists in disrupting a class will be directed by the faculty member to leave the classroom for the remainder of the class period. The student will be told the reason (s) for such action and given an opportunity to discuss the matter with the faculty member as soon as practical. The faculty member will promptly consult with the division dean and the college judicial officer. If a disruption is serious, and other reasonable measures have failed, the class may be adjourned, and the campus police summoned. Unauthorized use of any electronic device constitutes a disturbance. Also, if a student is concerned about the conduct of another student, he or she should please see the teacher, department head, or division dean.

Affirmative Action

Students who feel that he or she has not received equal access to educational programming should contact the college affirmative action officer.

Academic Integrity/Academic Honesty

In their academic activities, students are expected to maintain high standards of honesty and integrity. Academic dishonesty is prohibited. Such conduct includes, but is not limited to, an attempt by one or more students to use unauthorized information in the taking of an exam, to submit as one’s own work, themes, reports, drawings, laboratory notes, computer programs, or other products prepared by another person, or to knowingly assist another student in obtaining or using unauthorized materials. Plagiarism, cheating, and other forms of academic dishonesty are prohibited. Students guilty of academic misconduct, either directly or indirectly through

participation or assistance, are immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions, which may be imposed through the regular institutional procedures as a result of academic misconduct, the instructor has the authority to assign an "F" or zero for an activity or to assign an "F" for the course.

VIII. PROGRAM /COURSE POLICIES:

Refer to the PTA Program Handbook for additional program policies that may apply to this and other PTA courses. --Such as attendance, lab expectations, etc. **The instructor reserves the right to modify this syllabus in writing during the course of the semester.**

Academic and Behavioral Concern Alert

Purpose: The purpose of the Academic and Behavioral Concern Alert is to notify the student, in a timely manner, as to any academic or behavioral concern that may have the potential of jeopardizing their successful completion of the Physical Therapist Assistant Program. The faculty is devoted to affording each student opportunity to successfully complete this program and assures the student that all reasonable steps will be taken to attain this end. If the faculty discovers an area of concern, the student will be notified in written form on the weekly progress report form. A meeting time will be assigned and a remediation plan including learning objectives will be discussed and implemented. Failure to comply with remediation will result in failure of course and ultimately dismissal from the program.

Spring 2011

PT 112/Pathological Conditions

Class Meeting Times: Monday, Wednesday and Friday: 8:00 - 9:00

Class Room: HSC 2029

Instructor: Cindy Birchell

Office Number: HSC 2038

Office Phone Number: 697- 4771

Home Phone Number: 423-886-6184 (I do not give out my cell number and do not call that number.)

Office Hours: As posted on office door.

PT 112 Pathological Conditions

Spring: 2011

I hereby acknowledge that I have read the course syllabus and am aware of the policies regarding objectives, grading, performance, participation, absenteeism, tardiness and conduct. My signature documents my agreement to abide by all policies and conditions stated on the course syllabus, as well as all program policies. All work is to be done independently.

Student Signature: _____

Date: _____

PT 112 Pathological Conditions
Spring: 2011

(Turn this copy in to instructor)

I hereby acknowledge that I have read the course syllabus and am aware of the policies regarding objectives, grading, performance, participation, absenteeism, tardiness and conduct. My signature documents my agreement to abide by all policies and conditions stated on the course syllabus, as well as all program policies. All work is to be done independently.

Student Signature: _____

Date: _____

***** This form is to be signed and turned by the second day of class.*****

Criteria And Point Values Used For The Determination Of Summation Grade

The student will select 4 diseases from their previously selected disease articles. A disease may only be used once. Student is to use information in article and do heavy research using the internet for information to complete the project. Student is required to complete 4 final in depth summations.

The following point's values were allocated for each category listed for each disease process to be included in your final summation:

- **etiology = 2 points**
- **pathogenesis = 3 points**
- **common symptoms and effects = 3 points**
- **prognosis = 2 points**
- **brief description = 2 points**
- **current treatments/ medications = 3**

15 points possible X 4 diseases = 60

The following points were allocated for the following miscellaneous categories:

- **neatness = 5 points**
- **presentation = 5 points**
- **directions followed = 5 points**
- **MLA source sited list = 5 points**

20 possible points

Grade will be determined based on 80 total possible points.

Student's Name : _____

Final Summation Grade: _____

* These forms should be placed in the front pocket of a three brad folder in front of original articles and weekly summaries. The back pocket of the folder is to contain a copy of all other research information attained from internet; to include printed articles and sites used from internet.* Remember all instructions must be followed to receive full credit.

Directions: The following grading sheet are to be placed in the front pocket of your final summation folder. **Do not write on these sheets**, as they are for instructor use only.

Disease 1: _____

- etiology = (2) _____
- pathogenesis = (3) _____
- common symptoms and effects = (3) _____
- prognosis = (2) _____
- brief description = (2) _____
- current treatments/ medications = (3) _____

Disease 2: _____

- etiology = (2) _____
- pathogenesis = (3) _____
- common symptoms and effects = (3) _____
- prognosis = (2) _____
- brief description = (2) _____
- current treatments/ medications = (3) _____

Disease 3: _____

- etiology = (2) _____
- pathogenesis = (3) _____
- common symptoms and effects = (3) _____
- prognosis = (2) _____
- brief description = (2) _____
- current treatments/ medications = (3) _____

Disease 4: _____

- etiology = (2) _____
- pathogenesis = (3) _____
- common symptoms and effects = (3) _____
- prognosis = (2) _____
- brief description = (2) _____
- current treatments/ medications = (3) _____

The following points were allocated for the following miscellaneous categories:

Total points received: _____

- neatness = (5)
- presentation = (5)
- directions followed = (5)
- MLA source sited list = (5)

