

A. <u>Academic Division</u>: Health Sciences

B. <u>Discipline</u>: Physical Therapist Assistant

C. <u>Course Number and Title</u>: PHTA2070 Pathophysiology and Interventions

D. <u>Assistant Dean</u>: Heidi Kreglow, PT

E. Credit Hours: 3

Lecture: 2 hours Laboratory: 3 hours

F. Prerequisites: PHTA2110, PHTA2115

Co-requisites: PHTA2090 (M), PHTA2170 (M)

G. <u>Last Course/Curriculum Revision Date</u>: Fall 2023 Origin date: 12/22/2010

H. <u>Textbook(s) Title</u>:

Pathophysiology for the Physical Therapist Assistant

Author: LescherCopyright Year: 2012

• Edition: First

• ISBN#: 9780803607866

PTA Examination Review & Study Guide

• Author: O'Sullivan, Siegelman, & McGinty

• Copyright Year: 2024

• Edition: 7th

• ISBN #: 9798989231416

- I. Workbook(s) and/or Lab Manual: None
- J. <u>Course Description</u>: This course examines diagnoses encountered by the physical therapist assistant during practice and will be presented in terms of their relationship to physical therapy. Topics will include but not be limited to cardiovascular conditions, respiratory diseases, infectious diseases, and geriatric disorders.
- K. <u>College-Wide Learning Outcomes</u>:

| College-Wide Learning Outcome | Assessments How it is met & When it is met |
|--|--|
| Communication – Written | |
| Communication – Speech | |
| Intercultural Knowledge and Competence | |
| Critical Thinking | |
| Information Literacy | |
| Quantitative Literacy | |

L. <u>Course Outcomes and Assessment Methods</u>:

Upon successful completion of this course, the student shall:

| | Outcomes | Assessments – How it is met & When it is met |
|-----|---|--|
| 1. | Identify and demonstrate Isolation technique | mini-test and lab practical exams |
| 2. | Explain the indications, contraindications, and precautions for interventions with cardiovascular, respiratory, endurance, wounds and geriatric conditions addressed. | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |
| 3. | Identify components of prosthetic devices | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |
| 4. | Explain principles of prosthetic fitting | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |
| 5. | Identify cardiovascular, peripheral vascular diseases | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |
| 6. | Identify respiratory diseases and symptoms such as cyanosis and shortness of breath | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |
| 7. | Demonstrate application of therapeutic exercise interventions for gait for simulated patient using prosthesis. | mini-test and lab practical exams |
| 8. | Recognize, report proper use, fit and care of prosthetic devices and skin. | written final exam |
| 9. | Analyze gait for simulated patient using prosthesis. | written final exam |
| 10. | Explain normal changes of aging. | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |
| 11. | Describe the classification of wounds. | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |
| | Identify and demonstrate interventions for cardiovascular, respiratory, wounds and geriatric conditions including aerobic conditioning and chest PT. | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |
| 13. | Define medical interventions commonly utilized with cardiovascular, respiratory, wounds and geriatric conditions addressed. | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |
| 14. | Describe the pathogenesis of the cardiovascular, respiratory, wounds and geriatric conditions addressed. | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |
| | Interpret prognosis of the cardiovascular, respiratory, and geriatric conditions addressed. | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |
| 16. | Describe wound healing. | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |
| 17. | Explain the subcategories of the cardiovascular, respiratory, and geriatric conditions addressed. | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |

| Outcomes | Assessments – How it is met |
|--|--|
| Outcomes | & When it is met |
| 18. Recognize the need for lifelong learning. | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |
| 19. Retain previous and concurrent applied physical therapy science and technical knowledge for further application and synthesis. | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |
| 20. Complete written assignment on task analysis as assigned by instructor. | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |
| 21. Integrate anatomy and physiology principles to the cardiovascular, respiratory, wounds and geriatric conditions addressed. | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |
| 22. Apply anatomy and physiology principles to the application of chest physical therapy interventions. | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |
| 23. Determine if chest physical therapy interventions should be performed based on knowledge of indications, precautions and contra-indications. | midterm exam, written assignment, quizzes during term, final exam; mini lab testing during term and final lab practical exam |
| 24. Demonstrate technically correct chest PT interventions. | lab skills checklist |
| 25. Interpret PT Plan of Care and patient subjective and objective data and use to initiate and implement prescribed procedures. | midterm exam, final exam; and midterm and final lab practical exams |
| 26. Implement simulated patient treatments in a technically correct manner. | midterm and final lab practical exams |
| 27. Synthesize information from patient scenarios to develop and carry out treatment activities which meet parameters of plan of care. | midterm exam, final exam; and midterm and final lab practical exams |
| 28. Interpret patient response to treatment and adjust treatment accordingly. | midterm and final lab practical exams |

M. Recommended Grading Scale:

| NUMERIC | GRADE | POINTS | DEFINITION |
|---------|-------|--------|---------------|
| 93-100 | A | 4.00 | Superior |
| 90–92 | A- | 3.67 | Superior |
| 87–89 | B+ | 3.33 | Above Average |
| 83-86 | В | 3.00 | Above Average |
| 80-82 | B- | 2.67 | Above Average |
| 77–79 | C+ | 2.33 | Average |
| 73–76 | C | 2.00 | Average |
| 70-72 | C- | 1.67 | Below Average |
| 67–69 | D+ | 1.33 | Below Average |
| 63-66 | D | 1.00 | Below Average |
| 60-62 | D- | 0.67 | Poor |
| 00-59 | F | 0.00 | Failure |

N. <u>College Procedures/Policies</u>:

North Central State College believes that every student is a valued and equal member of the community.* Every student brings different experiences to the College, and all are important in enriching academic life and developing greater understanding and appreciation of one another. Therefore, NC State College creates an inclusive culture in which students feel comfortable sharing their experiences. Discrimination and prejudice have no place on the campus, and the College takes any complaint in this regard seriously. Students encountering aspects of the instruction that result in barriers to their sense of being included and respected should contact the instructor, assistant dean, or dean without fear of reprisal.

* Inclusive of race, color, religion, gender, gender identity or expression, national origin (ancestry), military status (past, present or future), disability, age (40 years or older), status as a parent during pregnancy and immediately after the birth of a child, status as a parent of a young child, status as a foster parent, genetic information, or sexual orientation

Important information regarding College Procedures and Policies can be found on the syllabus supplement located at

https://ncstatecollege.edu/documents/President/PoliciesProcedures/PolicyManual/Final%20PDFs/14-081b.pdf



| Academic Division: | Health Sciences | Discipline: | Physical Therapist Assistant |
|------------------------|-----------------------|--------------------|---|
| Course Coordinator: | Jennifer Lacey | | |
| Course Number: | PHTA 2070 | Course Title: | Pathophysiology |
| Semester / Session: | Fall 2025 / Session A | Start / End Date | e: _08/11/2025 thru 10/03/2025 |
| Instructor Information | on | | |
| Name: Jennifer | Lacey | Credentials: P | TA, REHS, BSAS Allied Health |
| Phone Number: | 419-755-5634 | E-Mail Address: jl | acey@ncstatecollege.edu |
| | | N | Ion: 8:30-11:30 AM, Tues/Thurs 9:00-10:00 |
| Office Location: | HS-140 | Office Hours: A | .M |

I. <u>Topical Timeline / Course Calendar (Subject to Change):</u>

| Weeks | Topics | Assignment | Due Date |
|-------|--|--|-----------------|
| 1 | Cardiovascular pathologies and cardiac rehab | -Read Chapter 3 & Therapy Ed pages 157-198 | 8/12 |
| 2 | Respiratory diseases | -Read Chapter 4 & Therapy Ed pages 201-225 -Discussion Post | 8/21 |
| 3 | Exam review, Exam 1 | -Lecture Exam 1 | 8/26 |
| | GI, digestive and urinary pathologies | -Read Chapter 12 & Therapy Ed ages 257-265, 246-250, 256-260 -Discussion Post | 8/28 |
| 4 | Endocrine system pathologies & Prosthetics | -Read Chapter 9 & Therapy Ed Pages 260-268, 418-425 -Discussion Post | 9/4 |
| 5 | Exam review | -Exam 2 | 9/9 |
| | Integumentary | -Read Therapy Ed Pages 277-297 -Discussion Post | 9/11 |
| 6 | Acute Care/ICU | -Case Study 1 | 9/16 |
| | | -Read Chapter 13 & Therapy Ed Pages 223-225 -Discussion Post | 9/18 |
| 7 | Pharmacology & Final Exam Review | -Case Study 2 | 9/25 |
| 8 | Comprehensive Final Exam | | 9/30 |

II. Grading and Testing Guidelines:

This course includes both lecture and laboratory components:

- 1. Minimum passing requirements:
 - a. 77 % in each component (lecture and lab)
 - b. 80 % on all lab practicals and test components

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| Course Number: | PHTA 2070 | Course Title: | Pathophysiology |
|---------------------|----------------------|-------------------|----------------------------|
| Semester / Session: | Fall 2025/ Session A | Start / End Date: | 08/11/2025 thru 10/03/2025 |

• If less than 80% on 1st attempt, a 2nd attempt will be given with an automatic 6-point deduction, and a 3rd/final attempt given with a 12-point deduction.

2. Grade Weighting:

- a. Lecture: 60% of the total course grade
- b. Laboratory: 40% of the total course grade.

3. Final Grade Calculation:

a. Lecture and lab grades will be averages only if the student achieves at least 77% in each component.

| Activity | Qty | Points | Percentage |
|---------------------------|-----|--------|------------|
| Exams | 2 | 100 | 40% |
| Assignments | | | 15% |
| Lecture/Lab Participation | | | 5% |
| Comprehensive Final Exam | 1 | 200 | 40% |
| | | | |

4. Progression Policy:

a. A grade below 77% in either component will result in failure to meet the requirements for continuation in the PTA program.

III. Examination Policy:

- 5. The reasons for which a student will be excused from taking an examination:
 - a. Hospitalization (with documented verification)
 - b. Death in the immediate family (with documented verification)
 - c. Personal illness or illness in immediate family (doctor's excuse required).
- 6. A student who misses an examination for any reason is responsible for:
 - a. Contacting/notifying the instructor immediately
 - b. Make up per college policy/at instructor discretion at earliest date available
- 7. No makeup opportunity will be given for absences of unscheduled quizzes upon:
 - a. Lack of notifying instructor
 - b. Lack of coordination with instructor to schedule make up quiz

IV. Class Attendance and Homework Make-Up Policy:

- 1. Class attendance is necessary to acquire the knowledge required to:
 - a. Successfully complete lab skills check offs/tests with 80% or higher.
 - b. Successfully pass lecture quizzes/tests and assess weekly assignments
- 2. Students are responsible for:
 - a. Weekly studying, assigned weekly readings, completion of weekly assignments, and regular attendance in both lecture and lab.
 - b. Submitting assignments according to established due dates in weekly lecture and lab Canvas modules.
 - Late assignments will receive a 10% grade reduction for every day assignment is late unless other arrangements have been made with the instructor.
 - Technical malfunctions will not be accepted as an automatic excuse for late work.
 - c. Promptly notifying the instructor upon recognizing any difficulty in meeting the course requirements or maintaining a passing grade.

V. Classroom Expectations:

| Course Number: | PHTA 2070 | Course Title: | Pathophysiology |
|---------------------|----------------------|-------------------|----------------------------|
| Semester / Session: | Fall 2025/ Session A | Start / End Date: | 08/11/2025 thru 10/03/2025 |

1. Students are expected to attend all classes and labs, engage respectfully, and maintain professional behavior. Disruptive conduct may result in dismissal from class and a required meeting with the program director to review expectations.

- 2. Student's should review weekly lecture and lab Canvas modules for required readings, assignments, supplemental materials, preparation guidelines, quizzes, skill checks, and lab testing information.
- 3. Students are expected to allocate sufficient time outside of class to review course materials, complete assignments, and prepare for assessments. A minimum of 2–4 hours of study per week for each credit hour is recommended to support mastery of course content and skill development.