

PTA 204L PT Interventions - Neurological Dysfunctions Lab

Fall 2010 – CRN 22609

Tentative Syllabus- Subject to change as needed by the instructors

Accessibility Notice

If you need support or assistance because of a disability, you may be eligible for academic accommodations through Disability Services. For more information, contact Disability Services at (541) 463-5150 (voice) or 463-3079 (TTY), or stop by Building 1, Room 218.

Catalog Description

This co-requisite lab for PTA 204 allows for practical application of physical therapy interventions related to neurological conditions, including bed mobility, gait and locomotion training, balance training, adaptive equipment, and activity modification. Issues regarding patient communication, safety, integration of the health care team, and tests and measures for this patient population are covered. This course may be offered through distance learning or in a format including some online instruction: 2 lab credits.

Instructors and Lab Contact Information

Credits	2 laboratory/ 60 - 72 contact hours
Instructors	Mark Duyck, PTA, MEd, duyckm@lanecc.edu Christina Howard, MPT, howardc@lanecc.edu
Course/Faculty Website	http://media.lanecc.edu/users/howardc/PTA204L
Office Number	Building 30, 110
Office Hours	Tu 9:30-10:30, W, 11-12noon; Th 12-1:50p (lab); by appointment
Office Phone	(541)463-5764 (541)463-5167 – Divisional Office – (call to reach instructors during lab instruction time)
Beginning Date	09/26/2010
Meeting Times/Location	Monday 8-5, Weeks 1-3 and 10-11, Building 30, 122 Moodle attendance at least 2 times a week Weeks 1-11.

Voice mail responses: Students can expect to receive a returned phone call from the instructor(s) within 48 business hours. For more immediate response, students should call the HP Department, 541-463-5167.

Email responses: Email responses to students are completed same day by 10:00pm, Monday through Friday. Weekend responses are at the discretion of the instructors.

Course Description

This course covers the principles for physical therapy interventions and treatment progression in conditions affecting the neurological and neuromuscular systems: spinal cord injury, stroke, brain injury and hemorrhage, central and peripheral nerve disorders, vestibular and developmental disorders. Treatment considerations for special populations (pediatric, psychiatric) are also introduced. This course may be offered through Distance Learning: 2 lab credits.

Prerequisites or Co-requisites

Prerequisites: Admission to the Physical Therapist Assistant Program and completion of PTA 104, PTA 104L, PTA 133 and PTA 133L with a grade of "C" or better.

Co-requisites: PTA 204

Required Texts

Michelle Cameron & Linda Monroe, *Physical Rehabilitation: Evidence-Based Examination, Evaluation, and Intervention*. 1st edition. Saunders Elsevier.

Carol Davis. *Patient Practitioner Interaction*. 4th edition. SLACK, Inc.

Carolyn Kisner & Lynn Allen Colby. *Therapeutic Exercise*. 5th edition. F.A. Davis

Frank Pierson & Sheryl Fairchild. *Principles and Techniques of Patient Care*. 1st edition. Saunders Elsevier

Darcy Umphred & Constance Carlson, *Neurorehabilitation for the Physical Therapist Assistant*. 1st edition. SLACK Inc.

Course Outcomes

The successful student will be able to achieve the following course objectives. Specific lesson level objectives are included in weekly Moodle resources. One or more of the following assessments will verify course outcomes:

Safety

OUTCOME	ASSESSMENT
Locate and discuss MSDS, emergency procedure posters, and evacuation plan	In-class activities
Disinfect treatment tables and table tops according to classroom schedule	In-class activities
Demonstrate safe and effective technique during case-simulation, skill checks, and practical examination for lesson topics posted on the class schedule	In-class activities and supervised practice, skill check, laboratory examination

Professional Conduct and Behavior

OUTCOME	ASSESSMENT
Demonstrate reliability by meeting participation standards	Professionalism and Attendance Rubric
Sign into course at least twice a week	Moodle activity reports
Completes on-line assignments completely and on-time; Initiates discussions with classmates	Professionalism and Attendance Rubric; Moodle assignment activity logs
Demonstrate informed consent and protection of patient privacy during laboratory activities	Laboratory activities and examination, skill checks
Self-assess professional behaviors following service learning activity	Service Learning Project Outline
Predict and model/role-play patient conditions noted in case simulations	In lab practice, laboratory examination

Technology and Computer Literacy

OUTCOME	ASSESSMENT
Use technology appropriately, efficiently, and effectively for course assignments, self-assessments, and peer and instructor	Moodle message logs, uploaded assignments; Moodle activity reports

communication	
Demonstrates knowledge and understanding of the college and program Appropriate Use Policy for computer use and electronic communications.	Moodle activity reports; Moodle message logs
Effectively communicate ideas, questions, and concerns with instructors and classmates in person and electronically	Moodle message system; Professionalism and Attendance Rubric
Use laboratory equipment appropriately, efficiently, and effectively for course activities and self-assessments during practice and case simulations	Policies and procedures for laboratory conduct and lab use; safety policies followed in laboratory; skill checks

Communication

OUTCOME	ASSESSMENT
Document accurate and thorough treatment information for course specific patient case simulations using SOAP and proper medical format.	Documentation Criteria Rubric; written assignments and examination; laboratory activities and laboratory practical
Demonstrate effective written, oral, and non-verbal communication in classroom assignments and practical examinations	Skill check, laboratory examination, discussion forums
Evaluate clinical documentation for accuracy, thoroughness, and clinical relevance	Peer-to-peer activity: skill check
Discuss rationale for selected physical therapy interventions	In-class activities; Laboratory Examination
Discuss reasons to withhold or modify selected interventions within the plan of care	In-class activities; Laboratory Examination
Respond appropriately to a patient with psychiatric/neurological condition	Role-play activities

Individual and Cultural Differences

OUTCOME	ASSESSMENT
Analyze professional behaviors and potential biases during rehabilitation	Essay
Discuss the benefits of assertive communication in maintaining therapeutic relationships and boundaries	Laboratory Manual Activities

Demonstrate awareness of delays and deficits in cognitive processing and adjust communication accordingly during a case simulation activity	In-class activities; skill check and/or laboratory examination
Discuss and acknowledge potential challenges and barriers to effective communication and collaboration post-SCI	Discussion forum

Interventions

OUTCOMES	ASSESSMENT
Discuss and observe normal and abnormal tone patterns	Laboratory activities; skill check
Recognize and describe data collected during a neuromuscular examination	Laboratory activities; skill check
Demonstrate interventions for neuromuscular reeducation (adult/pediatric)	Skill check; laboratory examination; laboratory activities
Demonstrate interventions to reduce neuromuscular tone (adult/pediatric)	Laboratory activities; skill check
Apply principles of NDT, PNF, and motor learning for functional strength and balance training for a patient (adult/pediatric) with neurological deficits	Laboratory activities; skill check; laboratory examination
Apply interventions to improve gross motor function (bed mobility, transfers, pre-gait, gait/locomotion) for a patient (adult/pediatric) with neurological deficits	Skill check; laboratory examination
Apply interventions to improve functional activities and ADLs according to the established POC for a patient (adult/pediatric) with neurological deficits	Laboratory activities and/or examination
Apply interventions to improve balance and coordination according to the established POC for a patient (adult/pediatric) with neurological deficits	Skill check; laboratory activities and/or examination
Instruct a teacher/classroom aide in facilitating gross mobility skills during a case simulation	Video analysis project
Plan a treatment progression for a pediatric patient with neurological deficits	Video analysis project
Demonstrate basic understanding of wheelchair fitting, pressure relieving	Moodle activities

cushions, adaptive devices, orthoses, and helmets	
Assess balance using standardized measures	Laboratory activities; skill check; laboratory examination
Educate patient/family on the correlation of balance test findings and resultant risk for falls	Laboratory activities; laboratory examination
Collect data relevant to the patient case	Laboratory activities; laboratory examination

Clinical Problem Solving and Judgment

OUTCOME	ASSESSMENT
Apply problem-solving algorithms accurately during clinical case studies	Peer-to-peer activities case simulation, written assignments and examination
Withhold and/or modify the intervention according to the patient response during practice and simulated activities	Peer-to-peer activities case simulation, laboratory examination
Select ambulation and ADL devices according to patient need	Case simulation, skill check and examination
Correct compensatory patterns during gait and therapeutic exercise activities	Laboratory activities; laboratory examination
Formulate possible mat activity progressions (early and advanced) for a patient with a spinal cord injury	Laboratory activity
Select a physical agent for neuropathic pain or neuromuscular reeducation for a given case simulation	Laboratory activity and/or skill check
Select and modify wheelchair positioning to promote upright tolerance and alignment in a patient with neurological impairments	Laboratory activity
Distinguish classifications of restraints vs. positioning devices for bed and wheelchair positioning	Discussion forum
Recognize and communicate the need for additional information or reassessment from the supervising physical therapist for each of the physical therapy interventions and simulated patient care activities in the	Role play, case simulations, written assignment and examination

course	
Defend clinical decision making during skill check and laboratory practice and examination	In class activities, peer-to-peer feedback, formal examination and skill check
Evaluate clinical documentation for accuracy, thoroughness, and clinical relevance	Peer-to-peer activity: skill check
Assess areas for improvement in professional presence and clinical technique	Laboratory examination

Informed Consent

Hybrid Design

This lab course is a hybrid design with both face-to-face and distance learning components. In order to meet course objectives and provide evidence of sufficient contact hours of instruction, there will be assigned class time on alternate days. Students will be given at least two weeks notice if there are face-to-face class activities that are required beyond our scheduled Monday 8am-5pm class time.

Technology Requirements

Students are expected to have access to an internet connection (preferably high speed), be able to send and receive email, be able to send and receive email attachments, download applications, and view videos linked within lessons. Specific course requirements include:

Computer with personal access to the Internet (e.g., computer with a modem, or cable modem connection).

An e-mail account.

Web-browser software

For PC: Windows 98 operating system or higher

For Macintosh: OS9 operating system or higher

The latest virus-checking software

Microsoft Office software

iTunes

Some web sites require additional software programs for your web browser called "plugins" that enable your browser to display various audio, video, or graphics. Some of these utilities are:

Adobe Acrobat Reader (for PDF files)

Quicktime digital media player

RealPlayer digital media player

Macromedia Shockwave Player

WSFTP Free Version

PowerPoint Viewer

Technology can have its challenges, so please take a moment to access the [Student Help Desk](#) at the college and use this resource when you have questions or challenges with Moodle.

Manual contact participation

This course requires a high level of touch as it deals with the actual delivery of physical therapy treatments and procedures while in class. Clinical considerations for cases of

physical, mental, emotional, and/or sexual abuse will be discussed on-line and in face-to-face formats.

All students are expected to actively participate in the delivery and reception of such modalities and procedures as: hot packs, cold packs, biofeedback, exercise instruction, reflex and sensation testing, and transfer training.

Anyone with physical contraindications to the reception of any modality or procedure in this course has the responsibility to notify the instructor before acting as a patient for a fellow student.

A high level of professionalism and respect is expected in the classroom and lab. Anyone who feels compromised by a fellow student or instructor has the responsibility to discuss the situation with the parties involved at an appropriate time and location. Students with apprehension regarding communication style, amount of touch required, given, or received, or with apprehensions regarding the delivery of modalities to fellow students has the responsibility to talk to the instructor or Program Coordinator at an appropriate time and location.

Personal Care

Dress

Shorts (running, short-legged) for men and women and halter or jog bras for women are the appropriate lab attire for all lab courses. Access to the trunk, low back, shoulders, and extremities are required for certain activities. Sweats may be worn over lab clothing when not playing the role of a patient.

Recommended shoes are to be closed toe and heel and of low height sole and heel. No flip flops or sandals without a back strap. Shoes may be removed when simulating the role of the patient. Hair will be worn up or pulled back off the face during all lab sessions. Jewelry shall be simple - dangling earrings, bracelets, necklaces, caps and hats are not allowed.

Hygiene

Good personal hygiene is a must and should include the avoidance of an excessive amount of perfumes, sprays, colognes, strong breath smells resulting from smoking or eating certain foods, smoky clothing, etc. Gum chewing is not allowed.

Equipment and Lab Practice Rules

Laboratory Requirements

All students are expected to abide by the rules of the lab. Safety is the most important consideration. When in doubt, ask your instructor(s). No one is to leave the lab until it is in order. Students are responsible for straightening the lab area and returning all equipment to its proper place at the conclusion of each lab session.

Equipment Operation

During any open lab time or any lab time in which the assigned activities have been completed, the students are encouraged to practice treatment procedures that have been previously covered in class. The students may not operate equipment that has not been introduced in class discussion. Any broken equipment shall be reported immediately, promptly tagged, and placed out of commission.

All equipment will be handled with care and respect. The appropriate machine instruction booklet (when available) will be read prior to the use of any machine.

Additional Lab Practice

The lab area will be available to students outside of class time since there are many skills and techniques to be mastered during the course. Immediate supervision will not be available. An instructor will be available Thursdays from 12:00 to 1:50pm.

The lab is not available on holidays, or immediately prior to lab tests. Any use of the lab space after 6pm on weekdays or during weekends must include notification of campus Public Safety officers. Any request for supervised lab times other than the scheduled time must be presented to the instructor in advance. All clinic rules apply during lab practice.

Grading Policies

Grades are based on the following:

Course Percentage	Activity	Minimum Passing Criteria
5%	Professionalism and Attendance (lab, Moodle)	70% of total points
15%	Pre-Lab Quiz/Assignments	70% of total points
15%	Graded Assignments	70% of total points
40%	Skill Checks	70% of total points
25%	Neuro Combined Skills Laboratory Examination	70% of total points

Your course grade is based on attendance, quality of participation in on-line and face-to-face instructional activities, safety, skill check criteria, and professionalism. To obtain full credit for Moodle professionalism and attendance, students must actively engage in classroom discussions and activities, ask questions to clarify concepts in which the student may need additional instruction, check the Moodle forums regularly, download and print necessary materials from the web, and submit any assignments online as required. Student engagement is evaluated at the discretion of the instructor.

Student must earn 70% of all points in each course activity category to pass. There is no option to change grading basis for this course to pass(P)/no pass(NP).

The instructors may assign additional activities. In such case, students will be informed of any additional requirements and how those requirements will be included when calculating the final grade for the course.

Professionalism and Attendance

Lateness/tardiness is unacceptable behavior in the classroom as well as in the clinic. All assignments are to be submitted on time. If an assignment is submitted after the due date, it will be graded and the final grade will be lowered 15% for each calendar day the assignment is late. No assignments will be accepted later than 3 days past the original due date without prior approval by the instructor. Deadlines and due dates are available on the Moodle course calendar.

The health professions (HP) office phone is 541-463-5167. Call the HP office to reach instructors during instructional time.

Do not come to class if you have a fever >100 degrees Fahrenheit. Send instructors a message (telephone or electronic) regarding the nature of your absence so that we can make arrangements to make up work and practice.

Snow or Ice: When bad weather strikes, check <http://mylane.lanecc.edu> or call 541-463-3000 to find out about college closures or delays. KLCC (89.7 FM) broadcast closure information Closure notices also will be posted on the local school closure website at www.valleyinfo.net

It is up to the instructor to determine the nature and amount of make-up activities and face-to-face practice time due to any scheduled or unscheduled absence.

Grading Criteria for Lab Professionalism and Attendance

50/50 😊

Dressed appropriately for all lab sessions

Present and punctual for all class and lab sessions

Prepared for all class and lab sessions (reading assignments, practicing skills, and participating in class/lab discussions).

Asked or answered questions 90% of class sessions

Demonstrated active listening and thoughtful speaking in all class sessions

Demonstrated consistent professional behaviors (i.e. notifies instructor before class if absent or late, respectful, accepts constructive feedback, accepts responsibility for own learning).

Completed all written assignments on time and completely

42/50 😊

Dressed appropriately for all but one lab session

Absent one time, notified instructor before class began, made up all assignments
Late or left early ≤ 2 times, notified instructor before class began/ended
Prepared for 90% class and lab sessions by reading assignments, practicing skills, and participating in class/lab discussions.
Asked or answered questions 80% of class sessions
Demonstrated active listening and thoughtful speaking in all class sessions
Demonstrated consistent professional behaviors most of the time (i.e. notifies instructor before class if absent or late, respectful, accepts constructive feedback, accepts responsibility for own learning).
Completed 90% written assignments on time and completely.

35/50 🙄

Dressed appropriately for all but two lab sessions
Absent two times, notified instructor before class began, made up 50% of all assignments
Late or left early 3 times, notified instructor before class began/ended
Prepared for 80% class and lab sessions by reading assignments, practicing skills, and participating in class/lab discussions.
Asked or answered questions 60-70% of class sessions
Demonstrated active listening and thoughtful speaking in most class sessions
Demonstrated consistent professional behaviors most of the time (i.e. notifies instructor before class if absent or late, respectful, accepts constructive feedback, accepts responsibility for own learning).
Completed 60-80% written assignments on time and completely.

20/50 😞

Dressed appropriately for all but three lab sessions
Absent three times, notified instructor for some but not all absences, no make up assignments completed
Late or left early 4 times, notified instructor for some but not all of the times
Prepared some of the time, frequently not prepared for questions, discussions, small group work, etc.
Asked or answered questions less than 50% of class sessions
Demonstrated active listening and thoughtful speaking inconsistently
Demonstrated consistent professional behaviors inconsistently
Completed $\leq 50\%$ written assignments on time and completely.

10/50 🤔

Dressed appropriately for all but four or more lab sessions
Absent > 3 times, did not notify instructor before class began, made up no assignments
Late or left early > 4 times, did not notify instructor before class began/ended
Frequently not prepared for class and lab sessions
Asked or answered questions less than 30% of class sessions
Consistently demonstrated lack of active listening and thoughtful speaking in most class sessions
Consistently demonstrated lack of professional behaviors

Critical Safety Elements

Red Flags are Critical Safety Elements

Students must demonstrate competency in identified patient safety skills during skill checks and formal assessments. Failure to demonstrate a critical safety element according to the skill check/lab assessment will result in automatic failure of the skill check/assessment. Critical Safety elements for skill checks include, but are not limited to:

- safety belts used
- wheelchairs locked
- foot rests lifted
- good body mechanics
- bed locked
- wash or sanitize hands before and after patient contact, hands on patient and,
- alert to patient's response

Skill Check Grading

Skill checks are graded practical tests where students demonstrate safe and effective techniques for skills taught in class. Grading criteria is provided during instruction and practice to allow you to seek peer and instructor input on your ability to demonstrate basic competency before completing a formal lab test that includes the skill.

We expect students practice multiple times with multiple partners, and actively seek feedback from others. Make use of the skill sheets to perform practice and self-evaluation activities during lab practice. By the time you start your graded skill check, you should be well rehearsed and prepared.

Initial skill checks are scheduled during lab. If you are absent, a grade of zero will be earned for that skill check (with exceptions according to course Wellness Policy). If you cannot demonstrate competency during the initial skill check (<70% or red flags), then you must repeat the skill until you earn at least 70%. The score earned on your first skill check attempt is your grade. All skill checks must be completed before finals week.

80-100% points, 100% on safety criteria	V or V+ 😊
70-79%, omissions in safety	V- 😐
<70%, omission in safety	Repeat

Laboratory Examination

The comprehensive final examination is a timed, clinical case simulation where you integrate 3-4 interventions learned in lab. Grading is based on your ability to demonstrate proficiency in theoretical knowledge and effective application of PT

interventions. Goals for treatment will be explicitly stated on the grading criteria and include:

- proper positioning
- correct patient and SPTA body mechanics
- treatment explanations, clearly stated instructions
- professional manner,
- inclusion of any precautions that might exist
- assessment pre/during/post treatment, and
- appropriate treatment response to any inappropriate physiological/psychological response of the patient, etc

It is the student's responsibility to immediately notify the instructor if he/she has selects a lab test scenario in which they have previously assumed the patient role. Failure to do so will result in loss of points during examination.

PLEASE PLAN AHEAD FOR FINALS WEEK. Practical exams are scheduled on Monday and Tuesday, Week 11. You are responsible for signing up for a time which works in your schedule during the sign up period. There are no make-up comprehensive final exams.

The instructors will assign testing times for the Week 11 lab examination. A grade of no less than 70% of the total lab exam is required to pass the course. Students may re-take the laboratory exam once. The initial exam is the scored attempt. Students may also be required to perform remedial study, assigned by the instructor, prior to retaking a laboratory exam. This may include, but not be limited to, a peer evaluation of competency performance.

Make-up tests are allowed under extenuating circumstances of a medical nature.

Guidelines for Documentation

Students will be provided guidelines for documentation on each skill check and practical examination.