

Montgomery College Physical Therapist Assistant Program
PHTH 206 - Measures and Interventions for Clinical Problems II

Credit/ Clock Hours: 3 semester hours for 22 clock hours lecture and 45 clock hours lab. Classes are scheduled over 11 weeks; from week of August 27 through November 2, 2018. **NB: unsuccessful completion of practical exams or didactic exams may result in delay or cancelation of PHTH 223 Clinical Practicum # 1.**

Meeting Schedule and Location: Tuesday (lec) HC 229 10:45 – 12:30 pm; Thursday (lab) HC 233 8:30 am – 12:30 pm. Practical examinations will occur on Fridays from 9 am until 2 pm. Students are assigned specific times to arrive for practical exams. **OPEN LAB HOURS:** The clinical laboratories are open from 9 am – 2 pm on Fridays. Students are allowed in the lab only if a faculty member is on site.

Instructor: Nancy Greenawald, PT, MBA, EdS

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Course Description Second course in the three course sequence which integrates clinical tests and measures with clinical interventions for common problems encountered in physical therapy care. This course includes tests, measures, and interventions for complex problems of the musculoskeletal system and the cardiopulmonary system. Posture awareness training, conditioning and reconditioning, skills training, and plyometrics are discussed. An introduction to post-surgical protocols and return to function and activity are discussed along with aerobic conditioning, changes in vital signs with exercise, breathing patterns, Chest PT, and pulmonary function rehabilitation.

Prerequisite: Program standing

Course Outline

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| I. Brief review of PCMM and tests, measures, and interventions | d. determining patient progress |
| a. PCMM | e. criteria for discharge |
| b. <i>Guide to Physical Therapist Practice</i> | III. Advanced Musculoskeletal Practice Patterns |
| c. PTA clinical problem solving model | a. clinical problems |
| II. Cardiopulmonary Practice Patterns | b. tests and measures |
| a. clinical problems | c. interventions and progression |
| b. tests and measures | d. determining patient progress |
| c. interventions and progression | e. criteria for discharge |

Course Outcomes: Upon completion of this course, the student will be able to:

1. Demonstrate accurate performance of clinical tests and therapeutic exercise interventions for patients with cardiopulmonary problems.
 - a. Identify clinical tests used to describe or quantify cardiopulmonary function
 - i. review vital signs, lab values, and graded exercise testing and 6 min walk test
 - ii. breathing patterns, lab values for ventilation, and perfusion
 - iii. auscultation of breath and heart sounds
 - iv. determining aerobic capacity (in METs) and MET values of common activities
 - v. cardiopulmonary response to exercise
 - b. Identify therapeutic exercise and other interventions for problems of the cardiopulmonary systems
 - i. cardiopulmonary conditioning and re-conditioning; aerobic conditioning
 - ii. breathing training
 - iii. Chest PT
 - iv. Pulmonary function rehabilitation

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- c. Identify environmental, self-care, and home issues that impact cardiopulmonary function
 - d. Practice performing tests and interventions
2. Demonstrate accurate performance of clinical tests and therapeutic exercise interventions for patients with complex musculoskeletal problems.
- a. Review clinical tests used to describe or quantify the musculoskeletal system
 - i. anthropomorphic measures - girth, volume, length
 - ii. sensory response, including pain
 - iii. muscle function - ROM (functional, goniometric), strength (functional, MMT), muscle length, quality of movement
 - iv. muscle performance - strength, endurance, power
 - v. regional and specific special tests
 - b. Identify clinical tests used to describe or quantify posture, cervical, thoracic, and lumbar spine mobility and function
 - i. assessment of posture in sitting and standing
 - ii. core muscle strength and spinal stability
 - iii. functional capacity and work performance
 - iv. regional and specific special tests
 - c. Review therapeutic exercise and other interventions for problems of the musculoskeletal system
 - i. flexibility exercise
 - ii. relaxation exercise
 - iii. ADL training
 - iv. strength, power, muscular endurance training
 - v. use of supportive and assistive devices
 - vi. aquatic exercise
 - d. Identify therapeutic exercise and other interventions for more complex problems of the musculoskeletal system
 - i. common post-operative treatment protocols
 - ii. cervical and lumbar stabilization protocols
 - iii. return to running and throwing sports protocols
 - iv. integration of therapeutic exercise and physical agents and modalities
 - v. functional capacity and work rehabilitation
 - e. Identify environmental, self-care, and home issues that impact the musculoskeletal system
 - i. identify any issues
 - f. Practice performing tests and interventions
3. Interpret the results of clinical tests and measures of the cardiopulmonary and musculoskeletal systems.
- a. explain difference between normal finding and patient (or simulated patient) data
 - b. identify any indications and contraindications
 - c. describe how patient findings impact patient wellbeing and goals (treatment and patient/family)
4. Construct effective clinical interventions for patients with cardiopulmonary problems based on subjective and objective clinical findings within the plan of care.
- a. analyze available interventions and select those which will maximize patient well being based on the plan of care
 - i. review indications and contraindications
 - b. organize interventions based on priority and efficacy
 - c. modify and customize interventions based on patient subjective and objective findings
5. Construct effective clinical interventions for patients with more complex problems of the musculoskeletal system based on subjective and objective clinical findings within the plan of care.
- a. analyze available interventions and select those which will maximize patient wellbeing based on the plan of care

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- i. review indications and contraindications
 - b. organize interventions based on priority and efficacy
 - c. modify and customize interventions based on patient subjective and objective findings
6. Propose accurate rationale for the progression and documentation of clinical interventions within the plan of care.
- a. apply PCMM and PTA clinical problem solving model to determine progression
 - b. practice identifying data for inclusion in SOAP note
 - i. categorize types of data
 - ii. propose documentation of interventions

Required Texts:

Cameron, Michelle H. and Linda G. Monroe. *Physical Rehabilitation for the Physical Therapist Assistant*. St. Louis, MO: Elsevier Saunders. 2011.

Fell, D., Luman, K., and Rauk, R. *Lifespan Neurorehabilitation: A patient-centered approach from examination to interventions and outcomes*. Philadelphia, PA: FA Davis. 2018.

Kisner, Carolyn and Lynn Allen Colby. *Therapeutic Exercise: Foundations and Techniques, 7th Edition*. Philadelphia: FA Davis Company. 2018.

Robert C. Manske. *Fundamental Orthopedic Management for the Physical Therapist Assistant , 4th Edition*. St. Louis, MO: Elsevier Saunders. 2016.

Recommended / additional resources:

Guide to Physical Therapist Practice, 2nd ed. (electronic copies in MLC) also available on APTA web page, www.apta.org

O’Sullivan, Susan B. and Thomas J. Schmitz. *Physical Rehabilitation, 6th Edition*. Philadelphia: FA Davis Company. 2014.

COURSE TEACHING METHODS Teaching methods employed will include lectures, audiovisual presentations, small group discussions, question and answer sessions, demonstrations, patient case discussions, lab practice, and web-quests.

GRADING POLICY - See *Student Handbook* for grading scale.

Exam I, II	50%	Final Exam	25%
Quizzes (3)	15%	Oral presentations.	10%

Two practical exams. Detailed criteria and scoring rubric for practical exams will be distributed at least 2 weeks prior to the due date.

COURSE REQUIREMENTS

Attendance: On time attendance of all lecture sessions are mandatory. The skills taught and practiced in this course are essential to physical therapist assistant practice. MC college-wide regulations state that if a student misses more than two classes (equivalent to one week of classes), then the student may be dropped from the class.

All absences are considered unexcused with the exception of court appearances, sudden hospitalization, religious observation, natural disaster, or family emergency. In order to be considered an excused absence, the student must provide documentation.

Three late arrivals will count as one absence from class. Two absences will result in a decrease of the final grade by one letter. (An "A" becomes a "B," etc.)

Make up policy: If the student must be absent during a quiz, practical or written exam, he/she will notify the instructor by telephone or e-mail at least 24 hours in advance. In order to qualify for a make up quiz, practical or written exam, the reason for absence must be documented. As stated above, only court appearance, sudden hospitalization, religious observation, natural disaster, or family emergency will we considered appropriate reasons.

Make-up written quizzes and exams are taken in the Assessment Center (Student Services Building). Make up practical exams are re-scheduled at the instructors availability. The instructor reserves the right to alter

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the content or format of any make up quizzes, written or practical exams in order to preserve the academic integrity of the assessment.

Re-takes and extra credit: If a student is unsuccessful in the first attempt at a practical exam, ONE re-take is scheduled. Additional re-takes on practical exams are scheduled at the discretion of the instructor and may require a second faculty member as an impartial evaluator.

No additional assignments outside of those scheduled on this syllabus, termed “extra credit”, will be given for grade improvement.

ELECTRONIC MAIL Student e-mail (montgomerycollege.edu) is an official means of communication for the College. It is expected that students check e-mail regularly and frequently, as students are responsible for information and announcements sent from the College.

For this class, student e-mail will be used only for situations where timing is essential. Most information is discussed in class and all assignments will be turned in as hard copy during regular class times. If students contact the instructor through e-mail, they must use the MC student e-mail account (rather than a personal account) so that the instructor will recognize this as a student communication. Please use the following line in the subject line: **STUDENT NAME with question in PHTH 206.**

Important Student Information Link

In addition to course requirements and objectives that are in this syllabus, Montgomery College has information on its web site (see link below) to assist you in having a successful experience both inside and outside of the classroom. It is important that you read and understand this information. The link below provides information and other resources to areas that pertain to the following: student behavior (student code of conduct), student e-mail, the tobacco free policy, withdraw and refund dates, disability support services, veteran services, how to access information on delayed openings and closings, how to register for the Montgomery College alert System, and finally, how closings and delays can impact your classes. If you have any questions please bring them to your professor. As rules and regulations change they will be updated and you will be able to access them through the link. If any student would like a written copy of these policies and procedures, the professor would be happy to provide them. By registering for this class and staying in this class, you are indicating that you acknowledge and accept these policies.

<http://cms.montgomerycollege.edu/mcsyllabus/>

Course evaluations: The College has recently changed the semester course evaluation system on-line. Students will be notified via campus communication systems about when the course evaluation is active. The PTA Program faculty considers course evaluations to be good practice at giving professional feedback. In addition, the faculty uses course evaluation data to improve the learning experience for future students.

Any student who has difficulty accessing sufficient food to eat every day, or who lacks a safe and stable place to live, is urged to contact Dr. Clemmie Solomon (TPSS) or look for support resources on the Student Affairs web page. <http://cms.montgomerycollege.edu/edu/secondary5.aspx?urlid=55>

We know that issues around food and shelter can affect your academic performance. If you feel comfortable, please discuss your concerns with any of your instructors. We are committed to your success and will assist you in any way that we can.

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COURSE SCHEDULE

Fell: Lifespan Neurorehabilitation

Kisner: Therapeutic Exercise, 6th Ed

Cameron: Physical Rehabilitation for the PTA

Manske: Fundamental Orthopedic Management for the PTA, 4th Ed

Week of:	Lecture - Tuesday	Lab- Thursday	Reading
Aug 27	Course introduction - Cardiac Aerobic exercise, Deconditioning, and Congestive heart failure	BMI, 6 min walk test; vital signs response to exercise; MET levels, Aerobic ex lab; Sternal Precautions	Big Red, Ch 13 (handout) Kisner, Ch 7 (aerobic ex section) Cameron, Ch 25
Sept 3	Respiratory failure	Airway Clearance and Pulmonary Rehab lab	Big Red, Ch 12 (handout) Cameron, Ch 24, 26
Sept 10	Applying principles to cases – heart transplant, CHF, etc.	<i>Case studies from Cameron</i>	Fell, Ch 11 (skim) and Ch 32
Sept 17	Exam # 1	WEDNESDAY: Holy Cross Seniors- falls risk screening; Please sign up for either 11:30 – 1:pm or 1 – 2:30 pm	
		THURSDAY: OSCE for the first 2 hours. <i>Final 2 hours: Lecture: Ortho pathology and Joint MOBS</i>	Manske, Ch 8-12 Ch 28 Kisner, Ch 5
Sept 25	Frozen shoulder and shoulder pathology; Joint Mobilization UE pathology - shoulder, exercise protocols for scapular stabilization, Shoulder lab	Shoulder presentations Shoulder Exercise protocols and mobilization <i>Last 1 hour: Quiz # 1 – Ortho pathology</i>	Manske, Ch 5, 21 Kisner, Ch 17
Oct 2	UE pathology - elbow, forearm, wrist and hand	Elbow, forearm and Wrist lab Elbow and forearm presentations; protocols for return to throwing sports; joint mobilization <i>Last 1 hour: Quiz # 2- UE Kines</i>	Kisner, Ch 18,19 Manske, Ch 22,23
Oct 9	Posture dysfunction, lumbar spine pathology, C-spine pathology	Cervical and Lumbar spine labs Lumbar and core stabilization presentation; protocols;	Kisner, Ch 14, 15,16 Manske: Ch 20
Friday Oct 13	UE and Spine Practical # 1		
Oct 16	LE pathology - hip and pelvis	First 2 hours Hip lab and protocols Exam # 2 (starts at 10:45)	Kisner, Ch 20 Manske, Ch19
Oct 23	knee, ankle, and foot pathology	Hip Knee and ankle labs Hip and knee presentations; protocols for ACL, return to running sports <i>Last 1 hour – Quiz # 3- LE Kinse</i>	Kisner, Ch 21, 22 Manske, Ch 18,17
Oct 30	Work hardening and chronic pain protocols; gait training review	Knee and ankle athletic taping labs	Big Red, Ch 25
Friday Nov 3	Final written exam and Practical exam # 2 NB: unsuccessful completion of practical exams or didactic exams may result in delay or cancelation of PHTH 223		

The instructor reserves the right to adjust class topics, lab skills, readings or assignments based on the learning needs of the students.

IMPORTANT DATES for Fall Semester 2018

Classes start: August 27, 2018

Classes end: December 7, 2018

Final exam week: December 10-14, 2018

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Professional Activities

DC/Maryland Annual Conference 2018	November 3	Towson, MD
DC/Maryland Student Conclave 2018	November 17	Ellicott City, MD
National Student Conclave 2018	October 11-13	Providence, RI
Combined Sections Meeting 2019	January 23-26	Washington, DC
Advocacy Day on the Hill 2019	tba	Washington, DC
DC/Maryland Spring Conference 2019	March 30	Silver Spring, MD
Annual Conference NEXT 2019	June 12 -15	Chicago, IL

Check the following web sites for chapter and section meetings in 2018 - 2019

www.apta.org	Open Membership and Leadership page, select Chapters and Sections
www.aptamd.org	APTA of Maryland, select Meetings
www.dcpta.com	APTA of Washington DC, select Meetings