

REQUEST TO COLLEGE CURRICULUM COMMITTEE FOR CURRICULAR IMPROVEMENTS

DEPARTMENT: Phys Ther PROPOSED EFFECTIVE SEMESTER: Fall 2016 COLLEGE: CHHS

PROPOSED IMPROVEMENTS

Academic Program

- ☐ New degree*
☐ New major*
☐ New curriculum*
☐ New concentration*
☐ New certificate
☐ New minor
☐ Revised major
☐ Revised minor
☐ Admission requirements
☐ Graduation requirements
☐ Deletion ☐ Transfer
☐ Other (explain**)

Substantive Course Changes

- ☒ New course
☐ Pre or Co-requisites
☐ Deletion (required by others)
☐ Course #, different level
☐ Credit hours
☐ Enrollment restriction
☐ Course-level restriction
☐ Prefix ☐ Title and description
 (attach current & proposed)
☐ General education (select one)
 Not Applicable
☐ Other (explain**)

Misc. Course Changes

- ☐ Title
☐ Description (attach current & proposed)
☐ Deletion (not required by others)
☐ Course #, same level
☐ Variable credit
☐ Credit/no credit
☐ Cross-listing
☐ COGE reapproval
☐ Other (explain**)

**** Other:**

Title of degree, curriculum, major, minor, concentration, or certificate: Not applicable

Existing course prefix and #: Proposed course prefix and #: Credit hours:

PT 6331; Credit hours: 5

Existing course title: None

Proposed course title: Musculoskeletal Physical Therapy II

Existing course prerequisite & co-requisite(s): None.

Proposed course prerequisite(s)

If there are multiple prerequisites, connect with "and" or "or". To remove prerequisites, enter "none."

PT 6330, and PT 6340, and PT 6351, and PT 6412

Proposed course co-requisite(s)

If there are multiple corequisites, they are always joined by "and."

None.

Proposed course prerequisite(s) that can also be taken concurrently:

None.

Is there a minimum grade for the prerequisites or corequisites?

The default grades are D for undergraduates and C for graduates.

A minimum grade of "C" for prerequisites.

Major/minor or classification restrictions:

List the Banner 4 character codes and whether they should be included or excluded.

For 5000 level prerequisites & corequisites: Do these apply to: (circle one) undergraduates graduates both **N/A**

Specifications for University Schedule of Classes:

a. Course title (maximum of 30 spaces): Musculoskeletal PT II

b. Multi-topic course: x No ☐ Yes

c. Repeatable for credit: xNo Yes

d. Mandatory credit/no credit: x No ☐ Yes

e. Type of class and contact hours per week (check type and indicate hours as appropriate)

1. ☐ Lecture 3. ☒ Lecture/lab/discussion: 8 contact hrs / week 5. ☐ Independent study
 2. ☐ Lab or discussion ☐ 4. Seminar or ☐ studio 2.5 ☐ 6. Supervision or practicum

CIP Code (Registrar's use only):

Chair/Director: Don Straube, PT, PhD, NCS

Date 10/23/14

Chair, College Curriculum Committee	Date
Dean Dr. Washington Date: Graduate Dean:	Date
Curriculum Manager: Return to dean ☐ Date Forward to:	Date
Chair, COGE/ PEB / FS President	Date
FOR PROPOSALS REQUIRING GSC/USC REVIEW:	
* ☐ Approve ☐ Disapprove Chair, GSC/USC	Date
* ☐ Approve ☐ Disapprove Provost	Date

1. Explain briefly and clearly the proposed improvement.

This proposal is for the development of a new course for the proposed Doctor of Physical Therapy (DPT) degree at WMU.

2. Rationale. Give your reason(s) for the proposed improvement. (If your proposal includes prerequisites, justify those, too.)

In this course, students will apply content from foundations courses and prior clinical science courses to the physical therapy management of the patient/client with spinal orthopedic disorders. Topics include pathophysiology, risk factor management, medical and surgical management, and physical therapy management of disorders of the spine through the lifespan, including chronic pain conditions. The content of this course addresses accreditation criteria related to clinical sciences for physical therapist practice (CC-3).

2. Effect on other colleges, departments or programs. If consultation with others is required, attach evidence of consultation and support. If objections have been raised, document the resolution. Demonstrate that the program you propose is not a duplication of an existing one.

This course is unique in that it addresses the physical therapy management of individuals with orthopedic spinal conditions, and meets accreditation criteria for this population. Thus, there are no anticipated effects on other colleges, departments or programs.

3. Effect on your department's programs. Show how the proposed change fits with other departmental offerings.

Not applicable, as there are no competing departmental programs.

5. Effects on enrolled students: Are program conflicts avoided? Will your proposal make it easier or harder for students to meet graduation requirements? Can students complete the program in a reasonable time? Show that you have considered scheduling needs and demands on students' time. If a required course will be offered during summer only, provide a rationale.

The course is limited to students enrolled in the DPT program at WMU and is integrated and built upon with content in subsequent DPT curriculum courses. It is delivered once per year, allowing enrolled students to meet graduation requirements within the 3 year program timeline.

6. Student or external market demand. What is your anticipated student audience? What evidence of student or market demand or need exists? What is the estimated enrollment? What other factors make your proposal beneficial to students?

The audience are students enrolled in the DPT program at WMU. The course meets current accreditation criteria established by the Commission on Accreditation of Physical Therapy Education. Estimated enrollment is 40 graduate students.

7. Effects on resources. Explain how your proposal would affect department and University resources, including faculty, equipment, space, technology, and library holdings. Tell how you will staff additions to the program. If more advising will be needed, how will you provide for it? How often will course(s) be offered? What will be the initial one-time costs and the ongoing base-funding costs for the proposed program? (Attach additional pages, as necessary.)

The course would be housed and delivered by core faculty within the DPT program and utilize PT Department space, equipment, technology resources. Existing library holdings support the requirements for this course. Thus, there are no perceived impacts on other departmental or university resources. The course will be offered 1x/year.

8. General education criteria. For a general education course, indicate how this course will meet the criteria for the area or proficiency. (See the General Education Policy for descriptions of each area and proficiency and the criteria. Attach additional pages as necessary. Attach a syllabus if (a) proposing a new course, (b) requesting certification for baccalaureate-level writing, or (c) requesting reapproval of an existing course.)

Not applicable. This is not a general education course.

9. List the learning outcomes for the proposed course or the revised or proposed major, minor, or concentration. These are the outcomes that the department will use for future assessments of the course or program.

Upon completion of this course, students will be able to:

- 1) Utilizing a disablement framework, explain the pathophysiology, risk factor management, medical and surgical management of disorders of the following disorders of the musculoskeletal system:
 - a) soft tissue injuries of the spine
 - b) fractures of the spine
 - c) bone tumors of the spine
 - d) skeletal deformities of the spine
- 2) Apply knowledge of anatomy, physiology, and kinesiology in presenting a rationale for physical therapy management of persons with musculoskeletal disorders of the spine and related structures.
- 3) Analyze the different elements of patient/client management for the person with musculoskeletal disorders:
- 4) Apply tests and measures used in the examination of the person with disorders of the musculoskeletal system, including tests and measures of:
 - a) Anthropometric characteristics
 - b) Assistive and adaptive devices
 - c) Ergonomics and body mechanics
 - d) Gait, locomotion, and balance
 - e) Joint integrity and mobility
 - f) Muscle performance
 - g) Orthotic, protective, and supportive devices
 - h) Pain
 - i) Posture
 - j) Prosthetic requirements

- k) Range of motion
 - l) Reflex integrity
 - m) Sensory integrity
 - n) Community and Work Integration
 - o) Cranial Nerves
 - p) Environmental, home and work barriers
- 5) Develop clinical judgments made based on data from the examination of persons with musculoskeletal disorders.
 - 6) Construct diagnoses based on evaluating information from the examination of persons with musculoskeletal disorders.
 - 7) Develop, discuss, and modify prognosis of persons with musculoskeletal disorders
 - 8) Discuss and apply physical therapy interventions for persons with musculoskeletal disorders.
 - 9) Demonstrate examination skills for musculoskeletal impairments of the spine.
 - 10) Demonstrate the following physical therapy interventions for persons with musculoskeletal disorders
 - a) Thrust and non-thrust Manual and Manipulative therapy
 - b) Therapeutic exercise
 - 11) Appraise the role of the physical therapist in prevention of disorders of the musculoskeletal system.
 - 12) Analyze the influence of gender on management of musculoskeletal disorders.
 - 13) Compare the management of an injured worker to the management of other persons with musculoskeletal problems.
 - 14) Identify signs of abuse and illustrate how identification of abuse would influence physical therapy management.
 - 15) Compare the management of the person with multiple musculoskeletal problems to the management of persons with isolated local musculoskeletal problems.
 - 16) Discuss and analyze evidence for the management of persons with musculoskeletal disorders.
 - 17) Analyze the musculoskeletal preferred practice patterns from the Guide to Physical Therapist Practice.
 - 18) Critically evaluate information/literature related to new and established physical therapy techniques, legislation, policy, and environments related to patient care.
 - 19) Analyze screening tools/indications for physical therapist examination and/or referral to another health care professional.
 - 20) Demonstrate effective communication skills with all individuals during practical examinations and role-playing practice sessions.
 - 21) Apply knowledge of individual and cultural differences within a disablement framework to physical therapy management of the person with a musculoskeletal condition.
 - 22) Design a care path for the physical therapy management of persons with musculoskeletal disorders.
 - 23) Demonstrate professional behavior in all interactions with patients, clients, family members, other health care providers, payers, instructors, and classmates.
 - 24) Describe changes in the nociceptive pathways as musculoskeletal injury progresses from acute to chronic stages.
 - 25) Describe how quantitative sensory testing may assist in staging musculoskeletal pathology and determining prognosis.
 - 26) Describe the role of the physical therapist in management of chronic pain.
10. Describe how this curriculum change is a response to assessment outcomes that are part of a departmental or college assessment plan or informal assessment activities.

Not applicable.

11. (Undergraduate proposals only) Describe, in detail, how this curriculum change affects transfer articulation for Michigan community colleges. For course changes, include detail on necessary changes to transfer articulation from Michigan community college courses. For new majors or minors, describe transfer guidelines to be developed with Michigan community colleges. For revisions to majors or minors, describe necessary revisions to Michigan community college guidelines. Department chairs should seek assistance from college advising directors or from the admissions office in completing this section.

Not applicable.

PT 6331: Musculoskeletal Physical Therapy II

**Department of Physical Therapy
College of Health and Human Services
Western Michigan University**

Course Name: Musculoskeletal Physical Therapy II
Course Number: PT 6331

Credit Hours: 5
Lecture Hours: 60
Laboratory Hours: 30

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Course Description

This course addresses the application of foundations content to the management of the client with musculoskeletal disorders, specifically for conditions impacting the spine. Topics include pathophysiology, risk factor management, and medical and surgical management of disorders of the musculoskeletal system through the lifespan. Utilizes a disablement framework for management of various disorders including soft tissue injuries, fractures, bone tumors, skeletal deformities and post-surgical management. Physical therapy management focuses on impairments of the head, neck, and trunk and includes the following elements of patient/client management: examination, evaluation, diagnosis, prognosis, and intervention. Emphasis is placed on tests and measures to identify musculoskeletal impairments and functional limitations. Interventions addressed include manual therapy, thrust and non-thrust manipulative therapy, therapeutic exercise, prescription and application of spinal prosthetics, functional training in self-care and home management, and functional training in community and work integration and reintegration.

Faculty

Principal Faculty
Address, room number
Phone numbers

PT 6331: Musculoskeletal Physical Therapy II

e-mail address

Office Hours

Guest Lecturers

Name, degree

Title

Affiliation

Accommodations

Any student with a documented disability (e.g., physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact Disability Services for Students at (269) 387-2116 at the beginning of the semester. A disability determination must be made by this office before any accommodations are provided by the instructor. For more information, go to <http://www.wmich.edu/disabilityservices/>.

Course Prerequisites

Successful completion of PT 6330, PT 6340, PT 6351, PT 6412, or departmental permission.

Learning Activities

This course will consist of lecture and laboratory class sessions, computer-based activities including but not limited to Medline searches to supplement the classroom activities. Active participation is expected of all students in this course.

Active participation includes familiarizing oneself with all assignments prior to class and participation in discussion and lab activities during class. The student is expected to complete all assignments, including readings, before the appropriate class session, and to be prepared to discuss the material in class. It is also expected that students will review additional material, such as anatomy, kinesiology and the research literature, as needed in preparation for each unit. As most of the units in this course are covered in one lecture and laboratory session each, the student who does not prepare in advance is likely to fall behind quickly and not obtain maximum benefit from the classroom sessions.

Textbooks

Required

1. Cook C. Orthopedic Manual Therapy: An Evidence-Based Approach. Prentice Hall 2012.
2. Kisner, Carolyn and Lynn Colby. 'Therapeutic Exercise.' 4th edition. FA Davis, 2007.

Reading will also be used from:

3. Sueki D, Brechter J Orthopedic Rehabilitation Clinical Advisor, 1st Ed. Mosby 2009.

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4. Maitland G. Maitland's Peripheral Manipulation, 4th ed.. Butterworth-Heinemann, Boston, 2013.
5. Magee, DJ. Orthopedic Physical Assessment, 5th ed. Saunders, 2013
6. Goodman CC, Snyder TE. Differential Diagnosis in Physical Therapy, 3rd edition. WB Saunders, Philadelphia, 2012.
7. Ciccone CD. Pharmacology in Rehabilitation, ed 3. FA Davis, Philadelphia, 2007.
8. Goodman CC, Boissonnault WG. Pathology: Implications for the Physical Therapist. WB Saunders, 2009.
9. Guide to Physical Therapist Practice. *Phys Ther.* 2014;81:1-768.

Course Objectives

- 1) Utilizing a disablement framework, explain the pathophysiology, risk factor management, medical and surgical management of disorders of the following disorders of the musculoskeletal system:
 - a) soft tissue injuries of the spine
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- 2) Apply knowledge of anatomy, physiology, and kinesiology in presenting a rationale for physical therapy management of persons with musculoskeletal disorders of the spine and related structures.
- 3) Analyze the different elements of patient/client management for the person with musculoskeletal disorders:
- 4) Apply tests and measures used in the examination of the person with disorders of the musculoskeletal system, including tests and measures of:
 - a) Anthropometric characteristics
 - b) Assistive and adaptive devices
 - c) Ergonomics and body mechanics
 - d) Gait, locomotion, and balance
 - e) Joint integrity and mobility
 - f) Muscle performance
 - g) Orthotic, protective, and supportive devices
 - h) Pain
 - i) Posture
 - j) Prosthetic requirements
 - k) Range of motion
 - l) Reflex integrity
 - m) Sensory integrity
 - n) Community and Work Integration
 - o) Cranial Nerves
 - p) Environmental, home and work barriers

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- 5) Develop clinical judgments made based on data from the examination of persons with musculoskeletal disorders.
- 6) Construct diagnoses based on evaluating information from the examination of persons with musculoskeletal disorders.
- 7) Develop, discuss, and modify prognosis of persons with musculoskeletal disorders
- 8) Discuss and apply physical therapy interventions for persons with musculoskeletal disorders.
- 9) Demonstrate examination skills for musculoskeletal impairments of the spine.
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- 18) Critically evaluate information/literature related to new and established physical therapy techniques, legislation, policy, and environments related to patient care.
- 19) Analyze screening tools/indications for physical therapist examination and/or referral to another health care professional.
- 20) Demonstrate effective communication skills with all individuals during practical examinations and role-playing practice sessions.
- 21) Apply knowledge of individual and cultural differences within a disablement framework to physical therapy management of the person with a musculoskeletal condition.
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- 23) Demonstrate professional behavior in all interactions with patients, clients, family members, other health care providers, payers, instructors, and classmates.
- 24) Describe changes in the nociceptive pathways as musculoskeletal injury progresses from acute to chronic stages.
- 25) Describe how quantitative sensory testing may assist in staging musculoskeletal pathology and determining prognosis.
- 26) Describe the role of the physical therapist in management of chronic pain.

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Course Schedule

WEEK	TOPIC/INSTRUCTOR	READING ASSIGNMENT
WEEK 1	Introduction of Course Review Cervical Anatomy/Kinesiology Review Clinical Reasoning Movement Diagram Manipulation Theory and Principles History of Manipulation	
	Headache Begin Assessment of Upper Cervical Spine Contraindications & precautions to Manipulation Cerebral Arterial Dysfunction C-spine ligamentous instability Differential Dx Activity: Headache	
WEEK 2	Whiplash/ Cervical Pain	
	Cervical Spine Related Arm Pain Grade V thrust manipulation lower Cx spine Differential Dx Activity: Neck Pain	
WEEK 3	Cervical Spine rehabilitation	
	Cx Spine Diff. Dx Activity: Cx spine related extremity Pain	
WEEK 4	Craniomandibular Dysfunction	
	Tx Spine	
WEEK 5	Thoracic Spine/Thoracic Outlet	
	Tx Spine	
WEEK 6	Cx and Tx Spine Rehabilitation	
	Rehabilitative Ultrasound Traction, Dry Needling	
WEEK 7	Written Exam I Open Lab	
	Practical Exam I	
WEEK 8	Medical and Surgical Conditions of the Spine	
	Lx Spine	
WEEK 9	Sacroiliac joint dysfunction	

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	Lumbar Spine Lumbar instability	
WEEK 10		
WEEK 11	Lumbar Spine	
WEEK 12	Written exam II Open lab	
	Practical Exam II	
WEEK 13	Medical Management of the Chronic Pain Patient PT management of the Chronic Pain Patient	
	Occupational Medicine	
WEEK 14	Occupational Medicine	
	Identification and Management of Psychological Aspects of Chronic Pain Management of Musculoskeletal Problems of Women	
WEEK 15	Written Exam III	

Course Policy

Mastery of course material will be demonstrated through course projects and class participation. Class attendance is mandatory. Students who miss classes must inform the instructor in writing to the instructor (prior to that class if possible). The course is part of a professional education program, therefore professional behavior is expected (active listening / engagement / participation in class / timeliness / etc). Because this is expected, there are no points awarded for professional behaviors. However points (5% of total grade) will be deducted from total with repetitive (≥ 3) instances of unprofessional behavior discussed with the student.

Grading Criteria

The distribution is as follows:

Practical Exam I	15%
Written Exam I	20%
Practical Exam II	15%
Written Exam II	20%
Written Exam III	15%
Clinical Pattern Notebook	15%

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A = 95-100

BA = 87-94

B = 80-86

CB = 75-79

C = 70-74

F = 0-69

Clinical Pattern Notebook/Critically Appraised Topic

One component of the transition from novice to expert Physical Therapy practitioner involves the ability to recognize clinical patterns of musculoskeletal dysfunction. Actively reflecting on these clinical patterns aids the student as they advance their clinical reasoning skills. The following hypothesis categories are included in the clinical pattern.

- Functional Limitation and Disability

- Pathobiological Mechanism

- Source and location of symptoms

- Exam findings (including medical tests and radiographic imaging)

- Contributing Factors

- Precautions and Contraindications to physical exam and treatment

- Management (medical, pharmacological, physical therapy)

- Prognosis

Requirements:

The student is required to obtain one 3-ring notebook for exclusive use as their Clinical Pattern Notebook. Using the provided forms, the student is required to develop clinical patterns for each of the peripheral joints using class notes or published research papers. *Use of textbooks for this activity is strongly discouraged.* Forms for this assignment may be found on Blackboard. Clinical Patterns should be referenced when possible.

The student will also create a Critically Appraised Topic (CAT) in 5 of 6 of the joints covered in this course (shoulder, elbow, hand/wrist, hip, knee, ankle/foot). Place this CAT and the paper it is based on in the clinical pattern notebook.

