

# Proposal for Graduate Certificate in Orthopedics

Program in Physical Therapy  
School of Health Sciences  
Oakland University

## Summary

In June of 2001 the Oakland University Board of Trustees approved the entry level and graduate level clinical doctorates in physical therapy. These programs, which are slated to begin in September of 2002, are built around an already regionally and nationally recognized program and faculty in the field of physical therapy. Currently students enrolling in the Masters of Science Program and the Doctor of Science Program in Physical Therapy may select electives from two graduate certificate tracts, the Graduate Certificate in Orthopedic Manual Physical Therapy and the Graduate Certificate in Pediatric Rehabilitation. The Orthopedic Manual Physical Therapy Program which was approved on April 17, 1996 is designed to prepare clinicians who are expert in the application of manual therapy and can practice in an autonomous environment, conduct clinical studies, participate in formal and informal educational programs and contribute to their professional and social communities.

The proposed *Graduate Certificate in Orthopedics (GCO)* is based upon Oakland University's popular Graduate Certificate in Orthopedic Manual Physical Therapy (OMPT). Designed to give licensed physical therapists and final year DPT students advanced patient management skills with a broader area of focus than the current OMPT program, the GCO will offer additional flexibility and another point of entry for individuals interested in pursuing graduate education at Oakland University. The proposed certificate requires 15 credits and can be completed within one calendar year. Course work in this program may serve as a step toward the post entry-level Doctor of Science (DScPT), Masters of Science (MS), and provide a pathway of specialization for DPT students in their last year of entry level education.

## I. Rationale

There continues to be a clear need for graduate educational programs in physical therapy that provide specialty skills to practicing physical therapists. The American Physical Therapy Association (APTA) has recognized this need by credentialing residency and fellowship programs throughout the United States. Orthopedic physical therapy remains the largest growing specialty section within the APTA with nearly 12,000 individuals of the 70,000 therapists currently practicing in the US.

Oakland University's current certificate offering with orthopedic content has a strong component emphasizing manual physical therapy. While the physical therapy program remains committed to the OMPT program it is clear that not all individuals interested in pursuing advanced orthopedic knowledge and skills have the physical capability, interest, and physical environments suited for manual physical therapy practice.

The GCO program will share the base courses taught in the OMPT program with a two-credit class in evidence-based clinical practice and an additional 3 credits of electives taken in place of the manipulative coursework and second clinical internship. These electives will also be offered in the DScPT program. Coursework taken in the OMPT, GCO, MS and DScPT Programs can be applied by graduate students in a flexible manner allowing them to tailor their educational experience to their current life style.

## II. Relationship of DPT, MS, Dsc and GCO Programs

The current entry level Doctor of Physical Therapy (DPT) prepares students for entry into the profession of physical therapy. Course work emphasizing knowledge in basic and applied science prepares the student to successfully manage the professional skills needed in physical therapy practice. This degree allows the graduate to take the professional licensure examination. The duration of this program is three years.

The Advanced Master of Science (MS) and Doctor of Science (DScPT) in Physical Therapy with a clinical specialty develops the intricacies of advanced clinical problem solving and research. Advanced graduate coursework and the completion of a thesis or comprehensive examination as the capstone experience leads to a well-versed clinical specialist with sound research knowledge. The duration of these programs is approximately four to five years when taken on a part-time basis.

The Graduate Certificate in Orthopedic Physical Therapy (GCO) allows for clinical specialization in the area of orthopedic physical therapy. Students take 17 credits of graduate courses emphasizing management of orthopedic conditions through clinical problem solving, differential diagnosis, applied movement sciences, and application of orthopedic physical therapy tests and measures, and procedural interventions.

The Graduate Certificate in Orthopedic Physical Therapy (GCO) serves as one of the clinical components of the MS and DScPT programs. The faculty, library, space and financial resources have been addressed in the DPT and DScPT proposal. The certificate program will provide greater flexibility for students and will be complementary to the existing programs currently offered by the program.

### III Program Plan

#### A. Admissions Criteria

Admission requirements for Oakland University's Graduate Certificate in Orthopedics include the following:

1. Graduation from an APTA accredited entry-level program or equivalent bachelors' degree with a 3.0 cumulative GPA.
2. Completion of Oakland University's graduate admissions application.
3. Two years of clinical experience as a physical therapist. The graduate PT Admissions Committee, consisting of 3-faculty teaching in the graduate program, may waive the two-year requirement under special circumstances.
4. Eligibility to practice in Michigan as a licensed physical therapist.
5. Foreign educated therapists must have an equivalency of a BS degree as evaluated by a credential service and meet all university and proficiency in English language requirements. This includes the GRE.
6. Two letters of recommendation: one letter from an employer and one from a previous professor in their professional program.

Students pursuing the MS in physical therapy degree will be required to present their GRE scores at the time of application to the MS program.

#### B. Graduate Certificate Requirements

The proposed graduate certificate consists of 17 credits of practical, clinical and theoretical coursework, as follows:

PT 502	Evidence-based Clinical Practice	(2)
PT 510	Advanced Orthopedics I	(3)
PT 511	Advanced Orthopedics II	(3)
PT 601	Clinical Internship I	(2)
PT 611	Applied Movement Sciences	(2)
PT 677	Advanced Differential Diagnosis	(2)
	Electives	(3)

## C. Course Descriptions

### **PT 502 Evidence-based Clinical Practice (2)**

This course will provide an overview of evidence-based practice and its application to examination, evaluation, diagnosis, prognosis, and intervention in physical therapy. The course will also include a review of frameworks for clinical decision making, qualitative and quantitative research designs, and method of assessing professional literature related to approaches used by health care professionals.

### **PT 510 Advanced Orthopedics I (3)**

This course is designed to introduce basic orthopedic science, orthopedic practice principles, and treatment techniques required in the day to day management of patients with movement impairments, functional limitations, and disabilities due to musculoskeletal pathologies *of the extremities*. Clinically related orthopedic sciences including anatomy, biomechanics, pathology and radiology will serve as the foundation for technique application and overall patient management. Practice principles will include evidence based practice, clinical decision making skills, clinical hypothesis building, treatment planning and progression. The technique portion includes physical examination and interventions for the *extremities* including advanced active and passive motion examination including translational motion analysis. Soft tissue, articular, and therapeutic exercise interventions for the extremities will be emphasized.

### **PT 511 Advanced Orthopedics II (3)**

Building upon the basic science, practice principles and treatment techniques introduced in PT 510 this course will address the day to day management of patients with movement impairments, functional limitations, and disabilities due to musculoskeletal pathologies *of the spinal column*. In PT 511 patient management principles and technique application will be based upon clinically related orthopedic sciences including anatomy, biomechanics, pathology and radiology. Practice principles will include evidence based practice, clinical decision making skills, clinical hypothesis building, treatment planning and progression. The technique portion of PT 511 will include comprehensive active and passive motion testing, neurologic examination, and differential assessment. Soft tissue, articular, and therapeutic exercise interventions for the spine will be emphasized.

### **PT 601 Clinical Internship I (2)**

This course is designed to provide supervised clinical practice in an orthopedic physical therapy setting. Students will actively apply principles and techniques taught in PT 510 & 511 to manage patients with impairments, functional limitations, and disabilities due to musculoskeletal pathologies. Additional instruction in aspects of orthopedic physical therapy intervention will include coordination, communication, documentation, and patient/client-related instruction. The student will take an active role in the interpretation of and progression of selected patient cases.

### **PT 611 Applied Movement Sciences (2)**

This course is designed to educate students in principles related to applied physiology and biomechanics. Course content will include topics relating to connective tissue and joint mechanics, motor skill development, and tissue response to exercise.

### **PT 677 Advanced Differential Diagnosis (2)**

This course is designed to facilitate the student in synthesizing examination skills in physical therapy with differential diagnosis skills; to develop screening strategies for patients presenting in a direct access environment; to refine the student's knowledge of referral systems and other professionals from whom the PT receives referrals; and to develop prognostic skills using algorithms and clinical decision trees.

### **Electives (3)**

**C. Recruitment and Retention Plans**

Students will be recruited from within Michigan. Courses will be taught in a distance format through the use of WebCT and will include laboratory components scheduled on weekends and evenings to meet the needs of professionals. The proposed GCO will be advertised statewide and nationally using publications of the Michigan Physical Therapy Association, American Physical Therapy Association (APTA), direct mailings to licensed physical therapists, and through the OU PT website. At the present time there is no similar degree or non-degree program available in Michigan. It is anticipated that the GCO program will meet the requirements necessary for credentialing by the APTA.

Efforts to retain students include the assignment of a faculty advisor upon admission to the program and completion of an initial Plan of Study. Students are required to meet at least once per semester with their advisor to review progress in the Plan of Study. Use of web-based instruction as well as flexibility in scheduling of courses will aid in the retention of students.

**D. Planned Enrollment Levels**

Enrollment of 4-6 student per year is anticipated.

**IV. Needs and Costs of the Program**

The proposed certificate program is an outgrowth of the existing DScPT. None of the proposed courses will be taught for the first time. Existing physical therapy faculty will teach the courses and no major equipment purchases are anticipated for this certificate. Students may take electives from the other certificate programs as well as electives that are being developed.

**Tentative Budget for this Certificate Program:**

<u>Year 1</u>	<u>Income</u>	<u>Expenses</u>
<b>5 students taking 17 credits each</b>	<b>\$30,280.00</b>	
Lab Assistants		\$21,180.00
Marketing		\$ 4,000.00
Supplies		\$ 5,100.00
<b>TOTAL</b>	<b>\$30,280.00</b>	<b>\$30,280.00</b>

**Program Impact**

Oakland's current GCOMPT has a strong reputation for excellence and attracts therapists from around the state. The proposed program will further strengthen our standing in the community by offering a broader complement of classes in orthopedics.

**V. Implementation**

The implementation of this program will parallel the current Graduate Certificate in Orthopedic Manual Physical Therapy. Courses between these programs will overlap from September through the end of April. Electives necessary for program completion will be available in the May and June. Courses for the program will be offered on a yearly cycle.

## Program Calendar

### Graduate Certificate in Orthopedic Physical Therapy

Month	Registration	Credits
Sept	PT 510, 601, 677	7
Oct		
Nov		
Dec		
Jan	PT 511, 611	5
Feb		
March		
April		
May-	PT 502	2
June	Electives	3

## Faculty

The program will utilize the current faculty involved in the teaching of the Graduate Certificate in Orthopedic Manual Physical Therapy (GCOMPT). Lecturers and lab assistants will be hired on an as needed basis which is the process already in place for the GCOMPT program.

## VI. Reviews and Approvals

The GCO was reviewed and approved by the faculty in the Program in Physical Therapy in May, 2002.

This Certificate was reviewed and approved by the School of Health Sciences Assembly in October, 2002.