

THE ADVANCED APPLICATION COURSE is open only to physical therapists and physicians. The course consists of lectures and related research about movement system impairment (MSI) syndromes of the cervical spine, thoracic spine, shoulder, and elbow. This course provides concentrated lab time supervised by Washington University faculty. Each participant will have the opportunity to examine a patient with a faculty member in a semi-private setting. After completing this four-day course, each participant will be able to conduct a movement-based examination of the upper quarter, determine a MSI diagnosis based on the examination results, and apply movement system concepts to prescribe a treatment program.

NEW THIS YEAR: Participants will receive information applying movement system impairment concepts to the use of exercise equipment and sports or fitness. In addition, guidelines for exercise prescription will be discussed and specific exercise progressions will be practiced.

Day 1 (October 1, 2016)

The course will begin the day with an update on the concepts of the movement system applied to MSI syndromes of the upper quarter. An overview of the scapular and humeral syndromes will be given followed by demonstration and practice of the movement tests of the upper quarter. Finally, sport specific movement analysis and treatment for the upper quarter will be presented.

Day 2 (October 2, 2016)

The focus of the lectures will be on MSI syndromes of the cervical spine. Lab sessions will include practice of specific tests for the neck and complete examinations on individuals with neck or shoulder pain. After the examination, participants will be guided in a discussion regarding the diagnosis and treatment for those individuals. The day will end with a presentation on considerations for using exercise equipment to improve muscle performance of the upper quarter during rehabilitation or to improve fitness.

Day 3 (October 3, 2016)

The focus of the lectures will be on MSI syndromes of the thoracic spine. Lab sessions will include practice of specific tests for the thoracic spine and complete examinations on individuals with cervical, thoracic, or shoulder pain. After the examination, participants will be guided in a discussion regarding the diagnosis and treatment for those individuals. Faculty will also present guidelines for the prescription of exercise to optimize movement of the upper quarter followed by a lab to practice selected exercise progressions.

Day 4 (October 4, 2016)

The focus of the lectures will be on the MSI syndromes of the elbow. Lab sessions will include practice of specific tests for the elbow and complete examinations on individuals with cervical, thoracic, or shoulder pain. After the examination, the participants will be guided in a discussion regarding the diagnosis and treatment for those individuals. Finally, the clinical presentation and management of challenging case studies will be presented by faculty.

Faculty recommend attendees review the relevant chapters in the following books:

- *Movement System Impairment Syndromes of the Extremities, Cervical and Thoracic Spine*, by Shirley Sahrmann and Associates
- *Diagnosis and Treatment of Movement Impairment Syndromes*, by Shirley Sahrmann
- *Muscles: Testing and Function, with Posture and Pain*, by Florence Peterson Kendall and Elizabeth Kendall McCreary (5th edition)



DR. SHIRLEY SAHRMANN LECTURESHIP

Crossroads and Transformation: Maximizing Opportunity of Shoulder Movement System Diagnoses

Paula M. Ludewig, PhD, PT

Professor, Program in Physical Therapy

University of Minnesota

Friday, September 30, 2016

3:00 – 4:30 p.m. Presentation followed by commentary with Dr. Sahrman

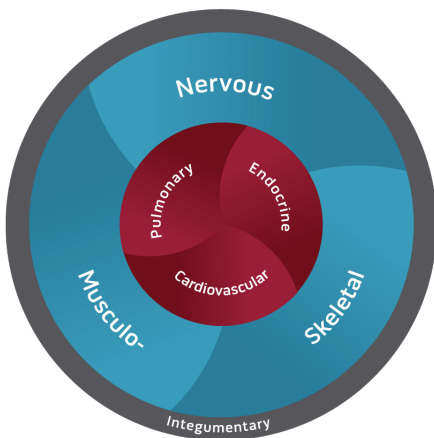
4:30 – 5:00 p.m. Reception

Paula Ludewig, PhD, PT, FAPTA, is a Professor at the University of Minnesota in the Programs in Physical Therapy & Rehabilitation Science. She also holds an affiliate appointment in Orthopaedic Surgery and a graduate faculty appointment in Biomedical Engineering. She received her MA in Physical Therapy and

PhD in Exercise Science from the University of Iowa. Her professional Physical Therapy degree is from the College of St. Scholastica. Her research and teaching interests are in the area of orthopaedic biomechanics, with particular interest in movement related mechanisms of injury and rehabilitation approaches for the shoulder. Dr. Ludewig also serves as an Associate Editor for the Brazilian Journal of Physical Therapy.

Attendees of the Advanced Application course can attend Dr. Ludewig's lecture at no cost.

WASHINGTON UNIVERSITY PHYSICAL THERAPY



The Program in Physical Therapy at Washington University School of Medicine in St. Louis is one of the top ranked physical therapy programs in the United States. A primary focus of our faculty is on the advancement of diagnoses related to movement dysfunction as a basis for choosing among management options. Our vision is to transform our professional identity by promoting the human movement system as the foundation of physical therapy. The human movement system is a system of physiological organ systems that interact to produce and support movement of the body and its parts. Physical therapists are movement system experts.

REGISTER BY SEPTEMBER 5

To Register: <http://pt.wustl.edu>
Look under Announcements.

Registration Fee:
\$700 per person/\$600 for 3 or more
from same employer.

Event Location:

Washington University Physical Therapy
4444 Forest Park Avenue
St. Louis, MO 63108

Questions:

PTEvents@wusm.wustl.edu
(314) 286-1400

DIAGNOSIS AND TREATMENT OF MOVEMENT SYSTEM IMPAIRMENT SYNDROMES OF THE UPPER QUARTER

DAILY SCHEDULE

SATURDAY, OCTOBER 1, 2016

8:00 – 8:30 a.m.	Continental breakfast
8:30 – 10:00 a.m.	Update on Movement System Concepts
10:00 – 10:45 a.m.	LAB: Standing alignment of the cervical and thoracic spine, scapula and humerus
10:45 – 11:00 a.m.	Break
11:00 a.m. – Noon	Overview of Scapular Movement System Impairment (MSI) Syndromes
12:00 – 12:45 p.m.	Lunch
12:45 – 1:30 p.m.	Overview of Humeral MSI Syndromes
1:30 – 3:00 p.m.	LAB: Demonstration and practice of exam with faculty supervision
3:00 – 3:15 p.m.	Break
3:15 – 4:30 p.m.	Demonstration of shoulder exam. Participants develop a diagnosis and treatment program
4:30 – 5:15 p.m.	Sport specific movement analysis and treatment for the upper quarter

SUNDAY, OCTOBER 2, 2016

8:30 – 9:00 a.m.	Continental breakfast
9:00 – 10:00 a.m.	Cervical MSI Syndromes
10:00 – 10:15 a.m.	Break
10:15 – 11:00 a.m.	LAB: Demonstration and practice tests for Cervical MSI syndromes
11:00 a.m. – Noon	Demonstration of cervical exam. Participants develop a diagnosis and treatment program
12:00 – 12:45 p.m.	Lunch
12:45 – 2:15 p.m.	LAB: Practice a shoulder exam in groups or in pairs with faculty supervision
2:15 – 2:30 p.m.	Break
2:30 – 4:00 p.m.	LAB: Practice a cervical or shoulder exam in groups or in pairs with faculty supervision
4:00 – 5:00 p.m.	NEW: Exercise equipment: Application of movement analysis and muscle performance

MONDAY, OCTOBER 3, 2016

8:30 – 9:00 a.m.	Continental breakfast
9:00 – 10:00 a.m.	Thoracic MSI Syndromes
10:00 – 10:45 a.m.	LAB: Demonstration and practice of selected tests of thoracic spine
10:45 – 11:00 a.m.	Break
11:00 a.m. – 12:30 p.m.	LAB: Practice a cervical, thoracic, or shoulder exam in groups or in pairs with faculty supervision
12:30 – 1:15 p.m.	Lunch
1:15 – 2:45 p.m.	LAB: Practice a cervical, thoracic, or shoulder exam in groups or in pairs with faculty supervision
2:45 – 3:00 p.m.	Break
3:00 – 4:15 p.m.	Exercise prescription guidelines for optimizing movement of the upper quarter
4:15 – 5:00 p.m.	NEW LAB: Practice exercise progressions

TUESDAY, OCTOBER 4, 2016

8:00 – 8:30 a.m.	Continental breakfast
8:30 – 10:00 a.m.	LAB: Practice a cervical, thoracic, or shoulder exam in groups or in pairs with faculty supervision
10:00 – 10:15 a.m.	Break
10:15 – 11:15 a.m.	Elbow MSI Syndromes
11:15 a.m. – 12:15 p.m.	LAB: Demonstration and practice tests of the elbow
12:15 – 1:00 p.m.	Lunch
1:00 – 2:00 p.m.	Integration of manual therapy and movement in assessment and treatment for neck pain
2:00 – 3:15 p.m.	Case studies and discussion
3:15 – 3:30 p.m.	Wrap up