Course Number  
PTA 205  

Course Title  
Motor Development  

Credits  
1  

Hours: lecture/Lab/Other  
1/0/0  

Pre-requisite  
PTA 101, PTA 105, PTA 112  

Co-requisite:  
PTA 213  

Implementation  
Spring  

Catalog description:  
Introduces developmental milestones for normal human motor development. Topics include hereditary, congenital, and acquired disorders with special emphasis on abnormalities of structure and function that impact human motor development.

Required texts/other materials:  

<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Ed</th>
<th>Publisher</th>
<th>Date</th>
<th>ISBN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Martin S</td>
<td>Neurologic Intervention for PTA</td>
<td>4th</td>
<td>Elsevier/Saunders</td>
<td>2007</td>
<td>0-7216-0427-7</td>
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</tbody>
</table>

Revision date:  
Fall 2016  
Course coordinator:  
Holly Kaiser, 609-570-3478, Kaiserh@mccc.edu

Information resources:  
This course makes use of the required texts for the course and in addition, uses the resources of the Web.

Course Competencies/Goals:  
Following the successful completion of this course with a grade of C+ or higher, the learner will be able to:
1. Recognize that there is interaction among multiple body systems in the performance of movement to accomplish specific functions.
2. Explain the changes that occur within the motor system across the lifespan and the variability of motor performance between individuals.
3. Discuss how genetic, congenital, and acquired disorders can impact the development of motor skills in children.
4. Discuss the physical therapy approaches to interventions with the child with neuron-motor deficits.

Course-specific General Education Knowledge Goals and Core Skills.  

MCCC Course Outline; Approved by the Curriculum Committee 12/6/07
General Education Knowledge Goals

Goal 1. Communication. Students will communicate effectively in both speech and writing.

Goal 4. Technology. Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.

Goal 5. Social Science. Students will use social science theories and concepts to analyze human behavior and social and political institutions and to act as responsible citizens.

Goal 8. Diversity. Students will understand the importance of a global perspective and culturally diverse peoples.


MCCC Core Skills

Goal A. Written and Oral Communication in English. Students will communicate effectively in speech and writing, and demonstrate proficiency in reading.

Goal B. Critical Thinking and Problem-solving. Students will use critical thinking and problem solving skills in analyzing information.

Goal C. Ethical Decision-Making. Students will recognize, analyze and assess ethical issues and situations.

Goal D. Information Literacy. Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college level work.

Goal E. Computer Literacy. Students will use computers to access, analyze or present information, solve problems, and communicate with others.

Goal F. Collaboration and Cooperation. Students will develop the interpersonal skills required for effective performance in group situations.

Goal G. Intra-Cultural and Inter-Cultural Responsibility. Students will demonstrate an awareness of the responsibilities of intelligent citizenship in a diverse and pluralistic society, and will demonstrate cultural, global, and environmental awareness.

Units of study in detail:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Goals: 1, 4, 5, 8, A, B, D, E, F, G</th>
<th>Learning Objectives</th>
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</thead>
<tbody>
<tr>
<td>Unit 1</td>
<td>Motor Development</td>
<td>C1, C3, P5, A1, A2, A3, A4</td>
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<tr>
<td>Unit 2</td>
<td>Reflexes</td>
<td>C1, C4, C5, C9, C10, A1, A2, A3, A4</td>
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<tr>
<td>Unit 6</td>
<td>Adaptive Equipment, Positioning and Handling</td>
<td>P1, P2, P3, P4, A1, A2, A3, A4</td>
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<tr>
<td>Unit 5</td>
<td>Treatment Approaches</td>
<td>P2, P3, P4, P5, A1, A2, A3, A4</td>
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<tr>
<td>Unit 3</td>
<td>Motor Learning</td>
<td>C3, C6, C7, A1, A2, A3, A4</td>
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<tr>
<td>Unit 4</td>
<td>Motor Control</td>
<td>C3, C6, C7, A1, A2, A3, A4</td>
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<tr>
<td>Unit 7</td>
<td>Development and Aging</td>
<td>C2, C8, A1, A2, A3, A4</td>
</tr>
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</table>

Learning Objectives have been identified in each of the following domains of learning:
The student will be able to...

Cognitive/Knowledge The student /learner will be able to successfully:
1. Define normal human development in terms of motor milestones
2. Describe the differences between genetic, congenital and acquired disorders
3. Interpret observations of motor development into motor function
4. Describe the purpose of a reflex
5. Differentiate between types of reflexes
6. Differentiate between motor learning and motor control
7. Describe the types and phases of motor learning and the stages of motor control
8. Describe changes that occur with the aging process and outcome measurement tools appropriate for various patient populations
9. Discriminate between normal and abnormal reflex responses from a child and communicate this information to the supervising physical therapist (PT)
10. recognize righting and equilibrium responses and their role in postural control
**Psychomotor** The student /learner will be able to successfully:

1. Indicate positioning and handling challenges throughout the lifespan
2. Indicate the history of and differences between the various theories of neurological rehabilitation and techniques
3. Identify how movements in normal development can be utilized in treatment interventions
4. Correlate a given diagnosis with motor function, positioning needs, and treatment techniques to address the probable impairments and functional limitations
5. Observe normal movements and describe it in terms of initiation, weight shift, direction, sequence, dissociation, and prime movers

**Affective** The student /learner will be able to successfully:

1. Display communication styles utilized in the clinical setting
2. Demonstrate a commitment to learning by attending class consistently and showing up on time
3. Demonstrate a commitment to learning by preparing for each class
4. Demonstrate responsibility and professionalism by completing assignments in a timely manner

**Evaluation of student learning**

<table>
<thead>
<tr>
<th>% of grade</th>
<th>Activity</th>
<th># within course</th>
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</thead>
<tbody>
<tr>
<td>36</td>
<td>Written Exams</td>
<td>3</td>
</tr>
<tr>
<td>NA</td>
<td>Quizzes</td>
<td>0</td>
</tr>
<tr>
<td>NA</td>
<td>Article Reviews</td>
<td>0</td>
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<tr>
<td>39</td>
<td>Assignments</td>
<td>2</td>
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<tr>
<td>20</td>
<td>Presentation(s)</td>
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<tr>
<td>5</td>
<td>Generic Abilities Assessment</td>
<td>Continuous</td>
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<tr>
<td>NA</td>
<td>Practical Exam</td>
<td>0</td>
</tr>
<tr>
<td>NA</td>
<td>Competency Tests</td>
<td>0</td>
</tr>
</tbody>
</table>

**Academic Integrity Statement:** There is a zero tolerance policy for plagiarism. Any work that violates the MCCC Academic Integrity policy will receive a grade of “0” and the learner will be reported to the College’s Academic Integrity Committee consistent with College policies. See [http://mlink.mccc.edu/omb/OMB210.pdf](http://mlink.mccc.edu/omb/OMB210.pdf)