



# A Model Description for the Transition from Multiprofessional to Interprofessional Courses

John Vitale MHS, PA (ASCP)<sup>cm</sup>

Reed Brooks MS, PA (ASCP)<sup>cm</sup>

# Rosalind Franklin University

## Mission

To serve the nation through the **interprofessional education** of health and biomedical professionals and the discovery of knowledge dedicated to improving the health of its people.

# Interprofessional Curriculum Committee (IPCC)

- Multi-professional to Interprofessional Subcommittee
- Recommendations for courses to change from MP to IP:
  - Form an IP advisory group
  - Review course objectives (relevant for all professions)
  - Revise Syllabus to reflect IP nature
  - Participation in the course by faculty from each of the professional programs represented
  - IP lectures and exams
  - IP student groups (small groups/lab groups)
  - IP course evaluations (additional surveys, pre/post-tests)
  - Assessment of IP advisory group (wrap-up)

# Current Courses Undergoing MP to IP Shift in PA Curriculum

- Structure and Function (Podiatry School)
- Clinical Anatomy (Graduate School)
- Professional Issues & Ethics (College of Health Professions)
- Pathology (Medical School)
- Leadership in the Healthcare Environment (College of Health Professions)
- **Neuroscience** (Podiatry School)

# Course Faculty and IP Advisory Group

## Instructional Staff:

Dr. Marjorie Ariano\*

Dr. John Becker\*

Mr. Reed Brooks

Dr. Beth Jarrett

Dr. Bruce Manion\*

Dr. Alex Markovic

Dr. Fred Sierles

Dr. Rosanne Thomas\*

Mr. John Vitale\*

Dr. K. Michael Welch

## Interprofessional Advisory Group:

Indicated by the \*

**Neuro**

Search Neuro

Arranged By: Date    Newest on top

Vitale, John Edward	5/18/2011	<input type="checkbox"/>	<input type="checkbox"/>
RE: Neuroscience Final Exam			
Bareither, Daniel J.	5/18/2011	<input type="checkbox"/>	<input type="checkbox"/>
Neuroscience Final Exam			
Bareither, Daniel J.	5/10/2011	<input type="checkbox"/>	<input type="checkbox"/>
RE: Pre-Test			
Thomas, Rosanne	5/10/2011	<input type="checkbox"/>	<input type="checkbox"/>
RE: Pre-Test			
Vitale, John Edward	5/10/2011	<input type="checkbox"/>	<input type="checkbox"/>
FW: Pre-Test			
Thomas, Rosanne	5/10/2011	<input type="checkbox"/>	<input type="checkbox"/>
FW: Neuro lecture 50			
<b>Older</b>			
Brooks, Reed	4/15/2011	<input type="checkbox"/>	<input type="checkbox"/>
neursci lecture			
Bareither, Daniel J.	4/14/2011	<input type="checkbox"/>	<input type="checkbox"/>
RE: Neuro lecture 50			
Thomas, Rosanne	4/14/2011	<input type="checkbox"/>	<input type="checkbox"/>
RE: Neuro lecture 50			
Bareither, Daniel J.	4/14/2011	<input type="checkbox"/>	<input type="checkbox"/>
RE: Neuro lecture 50			
Bareither, Daniel J.	4/8/2011	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Neuroscience			
Bareither, Daniel J.	3/23/2011	<input type="checkbox"/>	<input type="checkbox"/>
Neuroscience Demonstratio...			
Bareither, Daniel J.	3/23/2011	<input type="checkbox"/>	<input type="checkbox"/>

**RE: Neuro lecture 50**

Bareither, Daniel J.

You replied on 4/15/2011 8:42 AM.

Sent: Thu 4/14/2011 12:58 PM  
 To: Vitale, John Edward; Brooks, Reed  
 Cc: Thomas, Rosanne

John and Reed: Let me know if you are going to do the suggested revisions because if you are I will wait to post the revised version.

Dan

**From:** Thomas, Rosanne  
**Sent:** Thursday, April 14, 2011 9:09 AM  
**To:** Vitale, John Edward; Bareither, Daniel J.  
**Cc:** Brooks, Reed  
**Subject:** RE: Neuro lecture 50

Nice lecture. Especially good to view while eating lunch. I have a few comments/questions. Slide 17 – spell out Glioblastoma Multiforma at least the first time introduced. Slides 22 and 23 – could you add a picture illustrating the herniations? Also, know that Margie Ariano also went over those herniations. I find your font choice hard to read, especially slides 40 to the end. For the D2L posting, students greatly prefer white background for printing ease.

So JT dies of what? A GBM or testicular mets or a car accident?????

Good job!  
 Rosanne

Rosanne Thomas PT PhD

I

# Podiatry Students

- **INTERPROFESSIONAL ROLE OF NEUROSCIENCE:**

Knowledge of neuroscience is essential for understanding neurological disorders encountered in clerkships, residency training and practice. Podiatric physicians are involved in the: diagnosis of neurological disorders through the history and physical examination process, management of the lower extremity complications of neurological disorders with other health care professionals, and the referral of patients with neurological disorders to the appropriate health care professional.

# Pathologists' Assistant Students

- **INTERPROFESSIONAL ROLE OF NEUROSCIENCE:**

The **clinical-pathological correlation** is the link made between a patient's clinical presentation with regard to their signs and symptoms to underlying anatomic changes. Knowledge of the structure and function of the central and peripheral nervous systems are essential for Pathologists' Assistants to carry out their primary clinical responsibility of making accurate clinical-pathological correlations. These correlations are made in a variety of settings with a variety of tissues from the central and peripheral nervous systems and may include a variety of techniques such as: **intra-operative neurosurgery consultations, frozen sections,** peripheral nerve biopsies, tissue banking, participation in research protocols and performance of autopsies



## **STUDENT LEARNING OUTCOMES AND PROGRAMMATIC**

**OUTCOMES:** This Basic Biomedical Science course is designed to provide the student with a comprehensive knowledge of neuroscience as a foundation for future clinical training in order to assist in the achievement of the following outcomes:

### **Physical Therapy**

1. DPT students will examine patients by selecting and administering appropriate tests and measures to assess:
  - a. Cranial and Peripheral Nerve Integrity
  - b. Central nervous system function especially sensory, motor and cognitive aspects
  - c. Motor Function
  - d. Neuromotor development and sensory integration
  - e. Pain
  - f. Reflex integrity
  - g. Sensory integrity
2. DPT students will be able to determine a diagnosis that guides future patient management for patients with neurological disorders
3. DPT students will be able to integrate basic science knowledge of patient etiology when developing and refining a plan of care.

# Clinical Correlations

## Teaching IP in Lecture

- XX. Clinical Correlates– Injury, Regeneration, and Plasticity**
  - A. Definition and Scope of Neuroplasticity
    - 1. Developmental Brain
    - 2. Intact Adult Brain
    - 3. Injured Adult Brain
  - B. Mechanisms of Plasticity
    - 1. Short-Term Synaptic Plasticity
    - 2. Long-Term Potentiation
    - 3. Use Dependent Cortical Reorganization
  - C. Recovery after Brain Injury
    - 1. Axonal Injury
    - 2. CNS versus PNS
    - 3. Cellular Regeneration
      - a. Axonal Sprouting
      - b. Synaptic Changes
      - c. Neurogenesis
    - 4. Cortical Reorganization after Injury

**METHOD OF EVALUATION:** The course is 5 quarter credit hours. The grading scale and the specific components of the course grade are as follows:

<b>Quizzes</b>	<b>40%</b>	<b>Grading Scale</b>	
<b>Interprofessional Activities</b>	<b>5 %</b>	<b>90 - 100</b>	<b>A</b>
<b>Midterm Exam</b>	<b>25%</b>	<b>80 – Below 90</b>	<b>B</b>
<b>Final Exam</b>	<b>30%</b>	<b>70 – Below 80</b>	<b>C</b>
<b>Total</b>	<b>100%</b>	<b>Below 70</b>	<b>F</b>

The interprofessional activities consist of three assignments. All quizzes and Exams will consist of multiple choice questions. The Quizzes are 25 questions, the Midterm Exam is 50 questions and the Final Exam is 75 questions and is comprehensive.

# Interprofessional Activities

1. Neuroscience Demonstration Laboratory
2. Genetic Ataxias
3. Diabetes and Peripheral Neuropathies

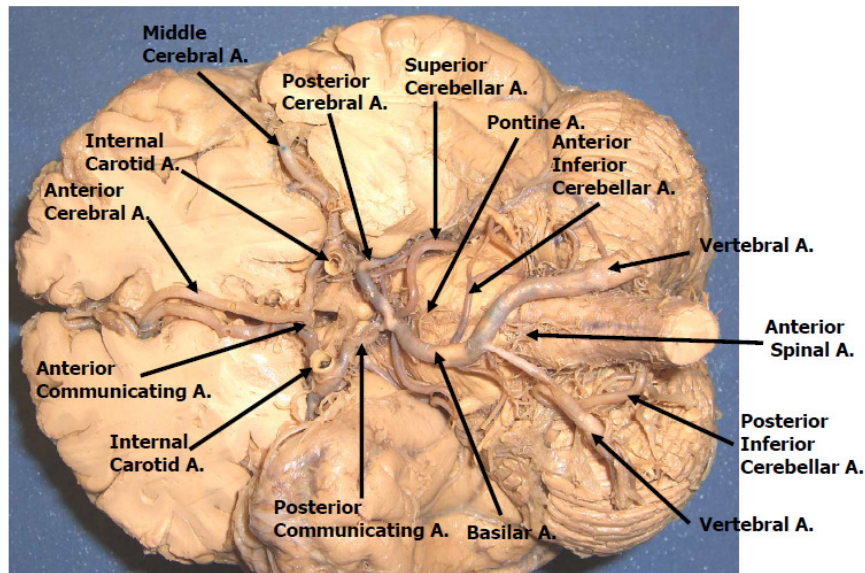
# Interprofessional Teams

<b>Group#</b>	<b>Students</b>			
1	Bera, Szivia	Ableidinger, Nicole	Sikkema, Amanda	Jacobs, Susanna
2	Berry, Justin	Bansberg, James	Stefanou, Leah	James, Rose
3	Brunt, Chirstina	Bierma, Thomas	Tandet, Stacey	Janowak, Elise
4	Charamostajo, Juan	Bond, Justin	Trevor, Alexander	Jarocki, Christine
5	Cheney, Jennifer	Brooke, Trent	Triolo, Ashley	Kacmar-Fedorchak, V
6	Dowell, Angeline	Brown, Natalie	Walsh, Tessa	Kang, Jonathan
7	George, Jamie	Bruck, Jennifer	Zusevics, Eriks	Kapsalis, Andrew
8	Heineck, Samantha	Cook, Emily	Anderson, Kendra	Kiser, Caroline
9	Illingworth, Ashley	Cook, Kendall	Baisch, Rachel	Lam, Nathan
10	Khramtosov, Andre	Cox, Caylin	Barron, Ian	Leonard, Michelle
11	Khramtosov, Ilya	Druja, Gilbert		Lindekugel, Andrew
12	Krasnicki, Barbara	Fasshauer, Lauren	Bivins, Mark	Mathews, Devin

# Demonstration Laboratory

## IP Assignment #1

### Station #4 - VASCULATURE OF THE BRAIN AND SPINAL CORD



### NEUROSCIENCE DEMONSTRATION LABORATORY

#### Station 19 – Gross Pathology and Interprofessional Assignment

##### Gross Pathology

Meningioma  
Cerebral Infarction

##### Interprofessional Assignment

Pickup Interprofessional Assignment #1 -  
Clinicopathologic Correlations

# Genetic Ataxias

## IP Assignment #2

1. Ataxia can be defined as a lack of muscle coordination during voluntary movement. Some ataxias are acquired as a result of injury or metabolic disease and others may be the result of genetic deficits. Select a *specific genetic ataxia* and describe its etiology. (question 2-4 on diagnosis, disease progression and treatment)
5. What is something that each profession might do while interacting with a patient diagnosed with your selected ataxia or their resultant pathology specimen?

# Diabetes and Peripheral Neuropathies

## IP Assignment #3

1. Describe and differentiate the etiology of Diabetes type 1 and type 2? (question 2-4 on diagnosis, disease progression and treatment)
5. What is something that each profession might do while interacting with a patient (or their resultant pathology specimen) diagnosed with diabetes AND peripheral neuropathy?



## Neuroscience Pre-Test

1. I am a:
  - a. Pathologists' Assistant Student
  - b. Physical Therapy Student
  - c. Podiatry Student

For the Statements below Select

- A. Strongly Agree
  - B. Agree
  - C. Disagree
  - D. Strongly Disagree
- 
2. I understand how neuroscience is relevant to my profession.
  3. I understand how neuroscience is relevant to the professions of other students in this course.
  4. I am knowledgeable about the professions of other students in this course.
  5. I will learn more neuroscience by having students from other programs in this course.
  6. I will learn more about the professions of other students by taking this course.
  7. I prefer having courses with only students and faculty from my own program.
  8. I will learn more by having faculty from other programs participate in this course.
  9. I am as well prepared for this course as students from the other programs.

# Analysis of Outcomes Data

1. Students aware of IP from HMTD 500
2. Students expect IP is Good
3. Students lack experience in working in IP groups
4. Students are not adequately equipped early in their schooling to carry out IP work
5. Students really liked the course, but need more experience with IP courses and working in IP groups

# Conclusions

1. Positive Experience for Students & Faculty
2. Increased communication and collaboration amongst faculty
3. Stimulated New MP to IP efforts (CHP – Clinical Anatomy & Leadership in the HealthCare Environment)
4. Quarterly Meetings of the MP to IP subcommittee of the IPCC with IP Course Directors
5. Intra-Net Resource Page in the Works