**Overview and Objectives:**

- At the completion of this course, participants will have demonstrated through class participation and written assignments:
  - Knowledge of current research and theory on the adult learner and adult learning as they relate to the practice of adult education.
  - Understanding of theoretical basis of clinical reasoning and concepts of expertise.
  - Skill in the selection and use of theoretical foundation of learning as it applies to the context of medical education practice.

**Course Requirements and Responsibilities:**

- All students will be expected to:
  
  **Complete readings** prior to each class and participate actively in class and on-line discussions. Each week create 1 discussion question from your reading. Post this discussion question to the Web-based forum discussion. Respond at least 1 time to a colleague’s posting each week.

  **Complete Web based discussions**

  These are minimum **Web-based participation requirements**; feel free to participate more often as you wish. Within the Web course material, there is a discussion area for each class. Post your topical discussion in the appropriate area. During the semester, there will be times that face-to-face meeting times will be decreased and you will have specific Web-based assignments to complete instead.

  **Create 1 concept map and one final Adult learning paper**

  These two activities can be done in teams. Each team will be expected to conduct a self evaluation of the process that the team used in completing its work and the contribution of each of the team members. Team self-evaluations will be disturbed at the beginning of the semester and the team self-evaluation will be factored into the team grade.

  **ADULT LEARNING PAPER**

  Write a paper, not to exceed 12 pages (double-spaced, printed), which examines two of the major theoretical approaches to understanding adult learning. Your paper should include:
  
  (a) a discussion of the strengths and limitations of each approach and the assumptions upon which it is based;
  
  (b) a listing of four appropriate guidelines for teaching adults from the perspective of each approach and a discussion of the implications of each guideline for practice; and
  
  (c) a statement of your own perspective or philosophy regarding the purpose, methodology, and roles of the learner and leader in the adult learning process. The paper
should be based primarily on the text and preparatory readings from this course. Make sure to include at least 5 other citations of course readings, besides your textbook.

**Attendance Policy:**

- Attendance is expected for each class session. Emergencies are the only acceptable excuse for missing class and in that case you must contact the instructors so we can make arrangements for you to make up the work you will miss.
- Students are expected to sign-in to each class (computer provided in suite lobby). If a problem is encountered with the sign-in system, please contact the course instructor(s) as well as Lauren Talotta (talottals@upmc.edu) immediately.

**Course Grading Scale:**

- Normal graduate course grading will be used, with A indicating strong performance and B indicating clearly acceptable performance.

**Required Textbook(s):**


**Website resources:**

- You will need concept mapping software. We recommend the program called CMAP, which is available for free from [cmap.ihmc.us/download](http://cmap.ihmc.us/download)

**Academic Integrity:**

Students in this course will be expected to comply with the University of Pittsburgh's Policy on Academic Integrity ([http://www.provost.pitt.edu/info/ai1.html](http://www.provost.pitt.edu/info/ai1.html)). Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. This may include, but is not limited to, the confiscation of the examination of any individual suspected of violating University Policy. Furthermore, no student may bring any unauthorized materials to an exam, including dictionaries and programmable calculators. In team assignments, it is expected that all team members will participate substantially. In all assignments, it is expected that any work of others will be appropriately cited.
Course Schedule

**Session 1: Course Introduction**

At the conclusion of this session, the student will:

1. Have a sense of the overall landscape of research that supports optimal learning and teaching.
2. Understand how the course will operate and what tasks are required.

**Topics:**

Dyads: Introduction of Participants
Lecture/Discussion:
   - Introduction to the Syllabus
   - Introduction to media resources

**Required Reading(s):**


**Session 2: Context and Analysis of Learning Opportunities**

At the conclusion of this session, the student will be able to:

1. Understand the needs of adult learners and begin to understand how best to teach them.

**Topics:** Who is the Adult Learner? What is Adult Education?

**Required Reading(s):**


**Sessions 3 & 4: Traditional learning theories: Framework and applications in medical education**

At the conclusion of this session, the student will be able to:

1. Understand the general principles of what is known about learning and, more specifically, be aware of the 25 essential principles that support evidence-based approaches to teaching.

**Topics:**

1. The basic principles of learning, as derived from laboratory research.
Required Reading(s):


Due for each of the two sessions:

1. At least one question posted at least a day in advance of each of the two classes about how the principles you have been reading about might apply to a specific medical education problem you face.

Session 5: Andragogy and Self-directed Learning

At the conclusion of this lecture, the student will be able to:

1. Make use of the understanding of self-directed behavior in adult learners

Topics:

1. Self-directed learning

Required Reading(s):


Session 6: Analysis and Design of Instruction for Complex Performances: concept maps and task analyses, supporting high-level learning

At the conclusion of this lecture, the student will be able to:

1. Use a concept mapping tool to clarify the points to be covered in a teaching effort

Topics:

1. Concept mapping and task analysis

Required Reading(s):

1. Read the material available on cmap.ihmce.us
Homework assignment(s):

1. Begin work on your concept map, which should be for a real medical education problem you face.

Due Today:

1. At least one day prior to class, post at least one question about how to do concept mapping for a particular small topic.

Session 7: Expertise in Problem Solving: basics of expertise, expertise and error, tying expertise to the basics of learning

At the conclusion of this lecture, the student will be able to:

1. Understand basic principles of expertise
2. Have a sense of the potential and the difficulties in deploying new technologies that can teach complex problem solving efficiently

Topics:
1. The nature of expertise
2. The practical issues in building expertise using intelligent systems technologies

Required Reading(s):

1. Reread Pp. 31-50 in How People Learn

Homework assignment(s):

1. Using the basic principles and concepts of expertise, be prepared to describe, in class, the expected differences between novices, mid-level (journeymen), and expert performances in a medical capability that you are involved in teaching.

Session 8: Reflection and Transfer

At the conclusion of this lecture, the student will be able to:

1. Recognize the transfer goals for any learning activity
2. Develop reflection opportunities to promote transfer, as part of learning activities

Topics:

1. The nature of transfer
2. The role of reflection in promoting transfer

**Required Reading(s):**


**Homework assignment(s):**

1. Be working on the final paper,