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Medical Sciences M620: Pedagogical Methods in the Health Sciences
Spring 2013

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Class days/times: Fridays, 1:30-4:30

Classroom: JH 102 (Alumni Room)

Credit Hours: 3

Course Description: This course is for biomedical sciences graduate students who want to be excellent instructors and classroom researchers. Students will learn about pedagogical methods, student learning styles and methods of instructional delivery. Students also will learn about the scholarship of teaching and develop a foundation for implementing classroom research and assessment.

Learning Goals: Students in this course will achieve the following learning goals and objectives:

- ❖ Learn how to construct a syllabus and choose appropriate course readings
- ❖ Examine the different student learning styles and how an individual can tailor your instruction so as to help students of all learning styles
- ❖ Learn how to present instructional material in a clear manner (microteaching)
- ❖ Compare and contrast different instructional methods, such as lecture format, discussion, collaborative and group learning, etc, and determine which methods may be most beneficial in a course.
- ❖ Learn the basics of classroom research and the assessment techniques used in such research.
- ❖ Become familiar with the Scholarship of Teaching and classroom research literature that is most related to the issues you want to explore.
- ❖ Prepare a statement of teaching philosophy that may be used for future academic job interviews
- ❖ Prepare a course or teaching portfolio that documents assessment, reflection and analysis of one's teaching

Reading Assignments: In addition to the journal articles listed in the syllabus below and on reserve at the Life Sciences Library, the following text is required:

1. McKeachie, W.J. (2010). Teaching tips: strategies, research and theory for college and university teachers. 13th edition. Boston, MA: Houghton Mifflin Company

Recommended texts include:

2. Angelo, TA and Cross, KP (1993) Classroom Assessment Techniques; San Francisco, CA: Jossey Bass Publishers.
3. National Research Council. (2001) How People Learn: Brain, Mind, Experience and School, Washington, D.C.: National Academy Press (entire book is online at: <http://www.nap.edu/openbook.php?isbn=0309070368>)

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Website: M620 has an accompanying website where you may find the assigned readings, a copy of the syllabus, and a listing of the assignments by week. Please refer to this site frequently: <http://medsci.indiana.edu/m620/start.html> (The password for the readings is ‘m620readings’ – all lower case, no quotes around the phrase.)

For Distance Learners: Students from other campuses (e.g., Indianapolis, West Lafayette) have the option of participating via Polycom. The Polycom connection for Jordan Hall 102 is listed in the directory, under “bl-msci-jh-102”. If you are having difficulty connecting to our polycom system, pls call VICOPS at 812-856-2020. Distance learners are expected to be active participants in classroom discussion. Selected sessions may require in person attendance – the instructors will notify the students of this well in advance.

Course Requirements and Assessment: Students will be graded based on the successful and timely completion of the following items:

1. Participation – is based on the following: (25% of grade)
 - a. Class attendance
 - b. Active participant in discussions
 - c. Peer analyst for microteaching sessions
 - d. Presentation of one microteaching session
 - e. Presentation of the course syllabus and description
 - f. Presentation of teaching portfolio or mock classroom research grant
 - g. Completion of a beginning-of- semester and end-of-semester survey about your thoughts on teaching and learning
2. Two (2) teaching observations of two health sciences instructors of your choice (15% of grade)
 - a. Students must request participation to sit in on each class, and fill out a personal analysis for each observation (template for analysis to be distributed during M620)
3. Preparation of a sample course syllabus and description (15%)
 - a. This course must be a NEW course that you would hope to teach in the future. You must construct the syllabus, determine the appropriate assignments, and choose appropriate readings.
 - b. Students must present their sample syllabus and description to the class (a.k.a. the “review board”) and justify its creation.
4. Preparation of a teaching philosophy statement (10%)
5. Teaching Portfolio (35% of grade)

Students are encouraged to seek assistance from CITL (Center for Innovative Teaching and Learning) and the instructors about developing a basic teaching portfolio for a course they’ve already taught. See: <http://www.indiana.edu/~teaching/> for contact information and <http://citl.indiana.edu/consultations/portfolios/index.php> for specific information about portfolios

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Date	Topic(s)	Readings (<i>do prior to class</i>)	Assignments (<i>due the following week</i>)
Jan 11 (week 1)	INTRODUCTION Reviewing syllabi Profiles of the Typical Undergraduate Diversity in the Student Body Instructional Observation Directions What makes a good instructor? What makes a good course? Beginning-of-semester Teaching/Learning Survey Video: Testing Bias (http://www.theonion.com/video/in-the-know-are-tests-biased-against-students-who,17966/)	Godfrey: Training the Trainers Leoni: Fish is Fish How People Learn, Ch 1 (intro) McKeachie, Ch 1 (intro) Trophy Generation	Write title and think about “fantasy course” (to be used throughout semester)
Block 1: STUDENT LEARNING STYLES			
Jan 18 (week 2)	Expert vs. Novice Learner Personal Learning Assessments Perry’s scheme of Intellectual Development Microteaching instructions	How People Learn, Ch 2 and 3 McKeachie, Ch 2 (countdown) Ross, the Expert Mind <i>(for reference only)</i> Perry Table 1.1, Intro, Glossary Microteaching form & directions	Prepare Microteaching Session http://www.vark-learn.com/english/page.asp?p=questionnaire Take VARK test, print out your results Prepare list of student stumbling blocks
Jan 25 (week 3)	VARK Learning Styles Theory of Multiple Intelligences Students Pet Theories & Naïve Misconceptions in the Health Sciences Merrill 5 Star * Microteaching presentations	Fleming: VARK Savion: Pet Theories Merrill: 5 star Sarasin: Learning Style Perspectives	Revisit stumbling blocks list, write up ways to help students with these blocks
Block 2: TEACHING STYLES AND DELIVERY			
Feb 1 (week 4)	Lecture Format: Pros and Cons How to deliver an effective Lecture PowerPoint Dos and Don’ts Use of Discussion in the Classroom Discussing emotionally charged subjects * Microteaching presentations	McKeachie Chs 5, 6 Cantillion: Teaching Large Groups Craig: PowerPoint & Teaching Huston and DiPietro: In the Eye of the Storm Pace: Controlled Fission Buchholz: 12 commandments for Ppt	Write up 1 st instructor observation. (use form on web)

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Feb 8 (week 5)	Instructor-Student Interactions Dealing with student complaints and problems Requests for Student Recommendations – how to draft a good recommendation letter Teaching with Technology Teaching philosophy statement <u>Presentation by Katie Kearns, CITL:</u> (1.5 hrs) How to write an effective teaching philosophy * Microteaching presentations *1st teacher observation write-up due!	McKeachie Chs. 16, 17, 19 Adams: Dead Grandmother synd. Teaching Philosophy Worksheets Novak: Just in Time Teaching Zhu: use of laptops in classroom Coppola: teaching philosophy	Do a short Myers-Briggs analysis (bring results to class next week) http://www.teamtechnology.co.uk/mmdi-re/mmdi-re.htm
Feb 15 (week 6)	Collaborative Learning, Active Learning And other alternatives to Lecture Problem Based Learning (PBL) Team Based Learning (TBL) Myers-Briggs/Student Learning style assessment In forming collaborative groups <u>Presentation by Carolyn Hayes, UME at IUSM:</u> Concept Mapping * Microteaching presentations	McKeachie Chs 10, 13, 14, 18 Daley & Torre: Concept Mapping Cantillon/Wood: Prob Based Learning Michaelsen: Team Based learning defined Parmellee: 12 Tips for TBL Smith & Tanner: Concept Inventories	
Block 3: COURSE CONSTRUCTION AND MECHANICS			
Feb 22 (week 7)	How to prepare a good syllabus How to select appropriate readings Bloom's and Anderson's Taxonomies <u>Presentation by Lisa Kurz, CITL:</u> Syllabus construction, Writing Course Goals and Course Objectives (1.5-2 hrs) Evaluating and Selecting Texts/readings for a course * Microteaching presentations	McKeachie Chs. 3, 4, 21 Anderson & Bloom: Taxonomy for Learning (<i>for reference only</i>)	Write up 2 nd instructor observation (use form on web) Write up a couple of sample Mult choice questions that use lower & higher ends of Bloom's taxonomy
Mar 1 (week 8)	Assessment of Students Formative vs. Summative Assessment Bloom and Anderson (continued) How to write a good multiple choice exam How to assess critical thinking skills	McKeachie Chs. 7, 8, 9, 11 <i>(ref only)</i> Haladyna: Mult Choice Guidelines Andrade: Teaching w/Rubrics	Prepare statement of teaching philosophy

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Presentation by Jo Ann Vogt, CITL and
Writing Tutorial Services: Developing
Effective Grading Rubrics and how
to develop good science writing (1-1.5 hr)

***2nd instructor observation write-up due!**

*** Microteaching presentations**

Mar 8
(week 9)

Classroom web page basics
Web Based Learning
Course Portfolio vs. Teaching Portfolio
Presentation by Katie Kearns, CITL:
What is a Teaching Portfolio? (1.5 hr)
Evaluations of your teaching

McKeachie Chs. 22, 23
Cantillion: Web Based learning
Hutchings: Course Portfolio
Lewis: Effective Online Teaching

Prepare Course Syllabus
Go to Peer Review of Teaching website
<http://www.courseportfolio.org/peer/pages/index.jsp>
and critique a course portfolio of your choice

Mar 15
(week 10)

Spring Break!

While lounging on the beach, send
instructors postcards.

Block 4: CLASSROOM RESEARCH AND THE SCHOLARSHIP OF TEACHING

Mar 22
(week 11)

What is Classroom Research?
Reviewing the Classroom Research/SOTL
Presentation by Moira Marsh, Wells Librarian:
How to do an Effective online search, Electronic
Databases for educational research,
and using Endnote (2 hrs)
How teaching evaluations may be used as assessment
*** Course Syllabus and description due!**

Boyer, Scholarship Reconsidered
BRING COMPUTER TO CLASS

Download Endnote vers. X6 for FREE
<http://iuware.iu.edu/Windows/Package/1897>

Mar 29
(week 12)

Classroom Assessment Techniques
Intro to Grounded Theory
Formative vs. Summative Assessment
Validity vs. Reliability
Presentation by David Perry, Director of Evaluation &
Testing: Determining Reliability of Exams &
Assessing Teaching Evaluations
Qualitative vs. Quantitative forms of assessment
Basic statistical methods used in Classroom research
Peer review of course syllabi

Kennedy & Linaard: Grounded
Theory
Angelo and Cross, Ch 1, 3, etc

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Apr 5 (week 13)	Review of some of the SOTL literature Who funds classroom research and SOTL endeavors? Students as Human Subjects in SOTL research Presentation by <u>Sara Benken, IRB</u> : How to draft an IRB proposal for classroom research	O'Loughlin, How to SoTL O'Loughlin, JECT article	Prepare draft of Teaching Portfolio http://researchadmin.iu.edu/EO/eo_citi.html Take online human subjects test and bring score to class next week
Apr 12 (week 14)	Critically evaluating classroom Research literature What constitutes "rigorous" classroom research? Presentation by <u>Ken Pimple, Poynter Center</u> : Research Ethics and Human Subjects * ROUGH DRAFT of Teaching Portfolio due! *Peer reviews of teaching portfolios	Carney: Educ. Epidemiology	Review literature, bring in and CRITIQUE classroom research article - email class the abstract
Apr 19 (week 15)	Introduction to Clinical Teaching OSCEs and how they Assess learning Discussion of sample classroom research Articles brought in by students <u>Jackie Cullison</u> : Consent forms and Classroom Research End-of-Semester Teaching/Learning Survey	Abbott: TA training Cantillion/Smee: Skill Based Assessment Searle: Why Invest in Educ. Fellow Program Steinert: Novice to Informed Educator	Prepare FINAL version of teaching portfolio
April 26 (week 16)	What have you learned? What makes a good instructor? How to market yourself as a scholar of teaching in the Academia job market Preparing 'job letters' for educational research And teaching positions *FINAL version of Teaching Portfolio due!	McKeachie Chs. 24, 25, 26 Sternberg: Expert Student Boyle: Mentoring New Faculty Gruppen: Ed Fellow Themes	