BMI 530 The Practice of Healthcare
An Introduction to Clinical Practice

3 credits

Fall 2014

Location: Virtually, at sakai.ohsu.edu; Tangibly, BICC 513 Thursdays 1-3 pm

Prerequisites:

The course is required for masters and doctoral students who are not health professionals (nurse, doctor, etc.). It may be taken in any year of the program. This class can be quite difficult without undergraduate human biology or anatomy. We use an undergraduate nursing Pathophysiology textbook, but students without this prior human biology may find the reading difficult.

Course Description

This course introduces the medical informatics student to the clinical practice of healthcare including

- The underlying biology and manifestations of selected disease states;
- The information gathering and reasoning processes used to detect, understand, and treat diseases;
- The health professionals who provide and support care;
- The clinical settings in which care takes place.

The objective is to enable non-clinicians to understand the context, the vocabulary, and some of the challenges for supporting clinical work in real settings with informatics tools.

Faculty

Course Director Paul Gorman, MD.

Teaching Assistant Deb Woodcock (woodcocd@ohsu.edu) - 503-346-3535

Contact me any time with questions or concerns. Please use the online course system (Sakai) for all questions. Contact me directly only about personal issues, using email (gormanp@ohsu.edu) or voicemail (503-494-4025). Office hours are by appointment either in person (BICC 533) or over the web using Adobe Connect.

Activities, Expectations

Flipped Classroom

We use a "flipped classroom" approach in this class. Cases are presented to stimulate inquiry in support of understanding what is wrong with a particular patient and how we might help them. Readings in the textbook help make sense of the case, supported by online videos from this class and other sources. Then we use discussion and class time to answer questions, explain and discuss complex issues, and solve sample problems that help us see how to apply this knowledge. Projects allow us to explore more material in a learner-centered fashion.

Cases

Cases allow you to experience some of the dilemmas clinicians face daily. You are not expected to "solve" the cases – that's often not the point in clinical practice anyway. You are

expected to use the readings, discussion, lecture, and the web to try to understand what's going on. We encourage the use of library resources (many e-textbooks are available through the OHSU library). Cases include a variety of thinking challenges. Unlike the other activities in the course, cases and homework are graded on a pass/marginal/no pass basis. Performance that fails to meet the basic objectives of the assignment or a second marginally acceptable assignment will result in a failing grade for the assignment. There will be a two percent deduction from the student's overall course grade for each failed assignment.

There is no single correct answer for these clinical cases – often clinicians do not agree on diagnosis, management, or prognosis. Rather, grading is based on the student's demonstration of their thought processes – how they select and organize information, using approaches discussed in class to analyze and interpret information, and show their reasoning and rationale for conclusions or recommendations.

Readings

Reading assignments include chapters from a required textbook, occasional articles or handouts, and independent reading for projects and clinical questions. Once you have looked at the case, the readings will help you make sense of it. Students are responsible for all content in the assigned readings, whether discussed in the lectures or not.

Required

Porth, Carol M. Essentials of Pathophysiology. Third Ed. 2011. Lippincott Williams & Wilkins. Paper. 1256pp. ISBN 978-1-58255-724-3

An undergraduate nursing text - has enough detail about diseases, but you don't need a medical degree to read it. Some find it a challenge at first, but It provides a strong foundation for understanding clinical informatics. A new edition will appear October 2014, but the readings are mapped to the 2011 edition.

Occasional

Bodenheimer T, Grumbach K. Understanding Health Policy. A Clinical Approach Sixth Ed. 2012. Paper. 23pp. ISBN 0071770526

Selected chapters about the US health system will be available online.

Worth a look:

Beers MH, et al. The Merck Manual of Diagnosis and Therapy (18th edition). Merck &Co., Inc.;1999-2006. online at: www. merck.com/mrkshared/mmanual/home.jsp.

The most inclusive source, from obstetrics to geriatrics. If a clinician had no internet and depended on one book to care for people, this would be it.

Discussion

Participation in group discussions is an essential activity that enriches the learning through the diverse experience and perspectives of the students. "Participation" grading is based on the degree to which your participation contributes to the learning of your classmates. You don't have to make an entry to every topic, but you don't get credit for "lurking" without contributing. Jump in and have your say!

Projects

Three projects are to be completed each term, including presentation to the entire class. See Course Materials for details of the projects.

Examinations

A final exam is given the last week of class.

Academic Honesty

There is no excuse for violating this policy. It is simple – give proper attribution to the source material. Verbatim text from another source must be in quotes with a citation. Paraphrasing content from an outside source must include a citation to the source. Work that is represented as being your own must be just that – your individual, original work. If you have questions, ask me before you submit material. There is no excuse for violating this policy. None.

Grades

Sample problems and discussion	25%
Case comments and discussion	25%
Projects	30%
Final exam part 1	10%
Final exam part 2	10%

This class, like healthcare, requires collaboration and teamwork. You are not competing with one another. If everyone deserves an A, everyone gets an A. Win-win.

Grades are assigned based on the following criteria:

93-100	A
87-90	B+
83-87	B
80-83	B-
77-80	C+
73-77	C
70-73	C-
<70	F

Graduate Studies in the OHSU

School of Medicine is committed to providing grades to students in a timely manner. Course instructors will provide students with information in writing at the beginning of each course that describes the grading policies and procedures including but not limited to evaluation criteria, expected time needed to grade individual student examinations and type of feedback they will provide.

Class grades are due to the Registrar by the Friday following the week of finals. However, on those occasions when a grade has not been submitted by the deadline, the following procedure shall be followed:

1) The Department1 /Program Coordinator2 will immediately contact the Instructor requesting the missing grade, with a copy to the Program Director and Registrar.

2) If the grade is still overdue by the end of next week, the Department[1]/Program Coordinator[2] will email the Department Chair directly, with a copy to the Instructor and Program Director requesting resolution of the missing grade.

3) If, after an additional week the grade is still outstanding, the student or Department[1]/Program Coordinator[2] may petition the Office of Graduate students for final resolution.

1 For courses that are run by a specific department.
2 For the conjoined courses (course number is preceded by CON_ that are run by Graduate Studies.

Changes:

This syllabus gives a good general idea of what we will cover, but we update the course every year based on feedback from students, changes in technology, and possibly current events. So expect changes from week to week as we update materials. We'll give as much advance notice as possible.

Course Overview

This course introduces the student to the clinical practice of healthcare including the underlying biology and manifestations of selected disease states, the information gathering and reasoning processes used to detect, understand, and treat diseases, the health professionals who provide and support care, and the clinical settings in which care occurs.

Cases

Clinical cases are the foundation of the course. Each Unit presents a new case, meant to illustrate selected disease processes and clinical processes. Students are presented the case and given reading assignments to help them think it through. They are not expected to "solve" the case, but thinking through the case through in a structured fashion is meant to help them understand clinical work, clinical reasoning, and clinical judgment.

1	53 Y F with pallor
2	25 Y F cc: dogbite
3	39 Y M: "My ankles are swollen"
4	Middle aged man with chest discomfort
5	A woman who dropped her teacup
6	A man with dyspepsia
7	A middle-aged man with low back pain
8	76 Y F: fever and dyspnea
9	Here to get acquainted
10	77 Y F w/ SOB & Hx Ca

Conditions

To help address the clinical issues presented by the cases, pathophysiology of selected organ systems is covered through readings, an online lecture, a weekly quiz, and online discussion. As students complete these readings, the case usually starts to make sense. Pathophysiology lectures are mainly by fourth year medical students working as teaching assistants:

Case	Topic
2	injury, immunity, inflammation

3	fluid & electrolytes, circulation, hypertension
4	Cardiovascular System
5	nervous system, cerebrovascular disease
6	Gastrointestinal Disease
7	musculoskeletal system and diseases, spinal conditions
8	pulmonary system and infections
9	endocrine system and diseases
10	neoplasia, pleural and mediastinal diseases

Clinical Processes

To help understand clinicians and their work, each Unit includes material on the clinical process: the roles and expectations of clinicians, how clinicians gather and analyze information, how they use this information and clinical judgment to formulate a management plan for their patients. These discussions focus especially on how clinicians select, organize, and interpret information, according to the requirements of different tasks. Another focus of these discussions is the ways that clinicians rearrange information in different representations, again according to the requirements of different tasks. This is illustrated with examples of actual clinical representations such as progress notes, flow sheets, handy pocket “cheat sheets”, whiteboards for collaboration, patient handouts, and the like. In later Units we expand on this “one clinician, one patient, one condition, one visit” paradigm to consider issues such as multidisciplinary care and collaboration, acute vs. chronic patient management, system- based care, and end-of-life care.

The schedule includes:

Case	Topic
2	Clinical Process, Clinical Reasoning, Clinical Information
3	Gathering Data
4	Analyzing Findings
4	Making a Diagnosis
5	Choosing Treatment and Integrating Information
6	Physician Assistant Roles and Clinical Process
7	Clinical Practice in Pharmacy
8	The How of Care
9	Managing the Patient: Ongoing Care
10	End of Life Care

COPYRIGHT INFORMATION

Every reasonable effort has been made to protect the copyright requirements of materials used in this course. Class participants are warned not to copy, audio, or videotape in violation of copyright laws. Journal articles will be kept on reserve at the library or online for student access. Copyright law does allow for making one personal copy of each article from the original article. This limit also applies to electronic sources.

To comply with the fair use fair use doctrine of the US copyright law, Sakai course sites close three weeks after grades are posted with the Registrar. Please be sure to download all course material you wish to keep before this time as you will have no further access to your courses.

DMICE COMMUNICATION POLICY

1. If the syllabus directs the student to contact the TA before contacting the instructor, the student should do so. Otherwise, the student should contact the instructor and allow 2 business days (not including weekends) for a response.
2. If the student does not receive a response from the instructor within 2 business days, s/he should contact the TA (if there is one). When contacting the TA s/he should cc the instructor and Diane Doctor at doctord@ohsu.edu.
3. If a student does not receive a response from the TA within 1 business day (not including weekends), s/he should contact Diane Doctor at doctord@ohsu.edu and cc the instructor and the TA.
4. If Diane does not reply within 1 business day (not including weekends), the student should contact Andrea Ilg at ilgan@ohsu.edu.
5. Students having difficulties with Sakai should contact the Sakai Help Desk at sakai@ohsu.edu or at (877) 972-5249. Sakai help is available M-F from 8am to 10-pm and weekends from Noon to 5pm. Do not contact the instructor.

STUDENT ACCESS

OHSU is committed to providing equal access to qualified students with disabilities. Student Access determines and facilitates reasonable accommodations, including academic adjustments and auxiliary aids, for students with documented disabilities. A qualified student with a disability is a person who meets the academic and technical standards requisite to admission or participation in a particular program of study. As defined by the Americans with Disability Act (ADA), a person with a disability has a physical or mental impairment that substantially limits one or more major life activities of the individual. This may include, but is not limited to, physical conditions, chronic health issues, sensory impairments, mental health conditions, learning disabilities and ADHD. Student Access works with students with disabilities from all of OHSU's educational programs and at each campus.

Each school has an assigned Program Accommodation Liaison (PAL), who acts as an "in-house" resource for students and faculty concerning access issues for students with disabilities. The PAL works in collaboration with Student Access to implement recommended accommodations for students with disabilities.

It is recommended that you contact Student Access to consult about possible accommodations if you a) received disability accommodations in the past, b) begin experiencing academic difficulties, and/or c) are given a new diagnosis from your healthcare provider.

Learn more about Student Access:
Phone: 503 494-0082
Email: studentaccess@ohsu.edu
Website: www.ohsu.edu/student-access

ACADEMIC HONESTY

Course participants are expected to maintain academic honesty in their course work. Participants should refrain from seeking past published solutions to any assignments. Literature and resources (including Internet resources) employed in fulfilling assignments must be cited. See http://www.ohsu.edu/xd/education/library/research-assistance/plagiarism.cfm?WT_rank=1# for information on code of conduct for OHSU and

http://www.ohsu.edu/xd/education/teaching-and-learning-center/for-students/index.cfm for more information on citing sources and recognizing plagiarism.

In an effort to uphold the principles and practice of academic honesty, faculty members at OHSU may use originality checking systems such as Turnitin to compare a student's submitted work against multiple sources.

To protect student privacy in this process, it will be necessary to remove all personal information, i.e. student name, email address, student u-number, or any other personal information, from documents BEFORE submission.

USE OF SAKAI

This course will have an online component, which can be accessed through Sakai, OHSU's online course management system. For any technical questions or if you need help logging in, please contact the Sakai Help Desk.

Hours: Sakai Help Desk is available Mon – Fri, 8 am – 10 pm and weekends and holidays 12 pm – 5 pm

Contact Information:

(Toll-free) 877-972-5249

(Web) http://atech.ohsu.edu/help

(Email) sakai@ohsu.edu