

# PHOL 492 Course Syllabus Spring 2021

## Clinical Reasoning II

Monday 1:00 – 2:30 pm  
Wednesday 1:00 – 2:30 pm & 4:00 – 5:00 pm  
Physiology Zoom Room: 677-256-909

### Course Director

**Dr. Andrea Romani, MD, PhD**

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### Teaching Assistants

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### **Description**

Physicians, scientists, detectives, and mechanics all use deductive reasoning with multiple hypotheses to solve problems. The objective of this course is to teach students how to use their knowledge of basic science to solve clinical problems. The second objective is to develop an overall view of clinical reasoning and improve critical thinking skills. The didactic approach is guided discovery with problem-based learning, a common format in US medical and dental school. The topics in *Clinical Reasoning II* are neurology, gastroenterology and oncology. *Clinical Reasoning I* (PHOL 479), which covers cardiovascular, pulmonary and renal diseases, is not required.

### **Course Outcomes**

We anticipate that you will learn to:

- Recognize physiologic mechanisms underlying abnormal physical findings, laboratory tests and imaging.

- Use signs, symptoms, physical findings, laboratory tests and imaging to generate patient problem lists.
- Develop and refine diagnostic hypotheses, i.e., differential diagnosis.
- Understand the physiological basis of appropriate treatment plans.

### **Prerequisites**

None. Consent of Instructor

**Attendance:** Because effective PBL requires participation, resident students are expected to attend and actively participate in all PBL sessions. For non-resident students taking the course, it is expected that the students read and review the assigned cases prior to each case discussion.

**Academic Policies:** Students are expected to observe the University Academic Integrity Policy as described in the Case Western Reserve University Student Handbook and the Department of Physiology and Biophysics Handbook.

### **Assessment and Grading**

#### **Exams (84% of final grade)**

- 3 Exams (each = 28% of total grade)
- Questions are in USMLE format
- **Exam Policies**
  - All exams will be delivered on-line and proctored through Honor Lock. Students will have to sign in on-line through Canvas. An instructional email will be circulated following final course registration.
  - There will no make-up for exams unless a valid, signed medical note or excuse is presented to Dr. Romani.
  - These arrangements apply to resident and non-resident students.

#### **H&P (16% of final grade)**

- There will be two patient notes (H&Ps) due on the day indicated in the syllabus by 11:59 PM.
- Each H&P assignment accounts for 8% of final grade.
- We will have one non-graded H+P. We recommend you turn this one in to get feedback but it will not count towards your final grade.
- We use rubrics to keep grading consistent and fair.
- **Homework Policies**
  - H + Ps are due at 11:59pm of the due date. If you submit it up to 24 hours after the deadline you can receive a maximum of 4 points. If you submit it between 24-48 hours after the deadline you will receive a maximum of 3 points. If you submit it between 48-72 hour after the deadline you will receive a maximum of 2 points. H + Ps that are submitted after 72 hours will not be graded.

### **Patient Notes (History & Physical, H&P, SOAP Notes)**

- An essential skill to be learned is how to write a H&P, which standardizes medical evaluations, promotes communication between a patient's healthcare team and encourages clinical reasoning. SOAP stands for subjective, objective, assessment and plan. The **Subjective** section contains a description of the patient's symptoms and history of present illness. The **Objective** section contains

signs (as opposed to symptoms), data from physical exam, laboratory results, X-rays and current medications.

- We will use a modified H&P format that promotes reasoning skills for differential diagnosis and integrates medical knowledge and critical thinking. Students will be taught how to write and evaluate patient notes in didactic sessions before the cases begin.
- **H&P RUBRIC = Point Distribution**
- **2P History:**
  - **1 P History**
  - **1 P H Previous Illness (HPI)**
- **3P Physical Exam**
  - **1P Signs**
  - **1P Lab & Functional Tests**
  - **1P Imaging & Invasive Procedures (e.g. Biopsy)**
- **7 P Assessment & Plan**
  - **2 P Correct Diagnosis**
  - **3 P Evidence**
  - **2 Treatment**
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Semester numerical scores will be converted into letter grades according to the following method.

<b>Range of numerical values</b>	<b>Corresponding Letter</b>
85-100	A
70 - 84	B
50 - 69	C
0 - 49	D

**Note:** A valid, signed medical note will be required if a student is unable to take an exam and needs to reschedule. For the academic Spring semester 2021, the make-up day for any missed exam is **May 18, 2021**.

**Course Management System:** We will use CWRU Canvas to communicate the syllabus, learning objectives, reading assignments and clinical cases, and to administered exams. Exams to Non-Resident Students will be administered through HonorLock.

**Testing for Students with Accommodation:** Students with test accommodations should make arrangements with the University Testing Center Manager, Rachel Inman, at [exams@case.edu](mailto:exams@case.edu) or call 216.368.5230 at least five days in advance.

**Textbook:** The required textbook is *Step-Up To Medicine, 5<sup>th</sup> Edition*, by Steven Agabegi and Elizabeth Agabegi. Please purchase the textbook to obtain online access to additional features and practice test questions. Supplemental readings for specific diseases will be posted on-line in Canvas, or the students will be directed to *Up-to-Date* (available through Clinical Key for all CWRU Students).

## SCHEDULE

Course Dates: February 1<sup>st</sup> - May 2021

DATE	TOPIC/ASSINGMENT
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### Block 1: Diagnostic and Therapeutic Reasoning

Mon, Feb. 1	Course Introduction: The Process of Clinical Reasoning	Sniderman et al. The Necessity for Clinical Reasoning in the Era of Evidence-Based Medicine. <i>Mayo Clin Proc</i> 88: 1108 – 1114, 2013
		Sifferlin A. Diagnostic Mistakes are the Most Common Type of Medical Mistake. <i>Time</i> , 2013
	Diagnostic and Therapeutic Reasoning Writing a History & Physical	Collier J Sensitivity, specificity and diagnosing purple mange. <i>J Am Acad Nurse Prac</i> 22: 205-209, 2010 and Akobeng AK, Communicating the benefits and harms of treatments. <i>Arch Dis Child</i> 93: 710-713, 2008
		Handout

### Block 2: Diseases of Central and Peripheral Nervous System

Wed. 02/03	Approach to Patient with Neurological Disease	Step Up, pp. 239 – 243 and 510
Mon. 02/08	Altered Mental Status, Delirium and Dementia	Step Up, pp 220 – 223, 217 – 219, 238.
Wed. 02/10	Cerebrovascular Disease	Step Up, pp 207 - 214
Mon, 02/15	Demyelinating Disease	Step Up, pp. 444-447, 461-464
Wed, 02/17	Headache and Back Pain Release first H+P after class	Step Up, pp. 223 -226
Mon. 02/22	Sleep Disorders	Step Up, pp. 478 – 479
Wed, 02/24	<b>Demyelinating Disease</b>	
Sun, 02/28	H+P I (ungraded) due at 11:59pm	
Mon, 03/01	H+P Review	
Wed, 03/03	Exam Review	
<b>Mon, 03/08</b>	<b>Exam 1</b>	

### Block 3: Diseases of the Gastrointestinal Tract

Wed, 03/10	Approach to Patient with GI Disease + Gastrointestinal Bleeding	Step Up, pp. 451-461 Step Up, pp. 144 – 148
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Mon, 03/15	Diseases of Esophagus and Stomach	Step Up, pp. 149 – 151, p 153, pp 154 - 157
Wed, 03/17	Hepatitis and Cirrhosis	Step Up, pp. 120 - 123
Mon, 03/22	Pancreatitis & Diabetes Part-1	Step Up, pp. 139 - 143
Wed, 03/24	Diabetes Part-2 and Obesity	???
Mon. 03/29	Diseases of Small Intestine & Inflammatory Bowel Disease	Step Up, pp 159 - 162 Step Up, pp. 162 – 165
Wed. 03/31	Disease of the Colon Release H+P 2	Step Up, pp 116 – 120
Sun, 04/04	H+P II Due at 11:59pm	
Mon, 04/05	H+P II Review	
Wed, 04/07	Exam Review	
Mon, 04/12	Exam 2	

#### Block 4: Oncology

Wed, 04/14	Approach to Patient with Cancer	Step Up, pp. 352-353
Mon, 04/19	Colorectal Cancer HCC	Step Up, pp 113 – 116 ???
Wed, 04/21	Lung Cancer	Step Up, pp. 77 - 81
Mon, 04/26	Breast Cancer	Step Up, p. 354
Wed, 04/28	Lymphoma and Leukemia	Step Up, pp 356 – 359, 360 - 363
Mon, 05/03	Brain Cancer Melanoma	???
Wed, 05/05	Prostate Cancer Release H+P 3	
Sun, 05/09	H+P III Due at 11:59pm	
Mon, 05/10	H+P III Review Review of Clinical Reasoning	Release PowerPoint
Wed, 05/12	Exam Review	
Mon, 05/17	Exam 3	
Wed, 05/19	Make-up day for missing Exams	
Thur, May 9	Finalize Grade and Qs challenges	
Fri. 05/21	FINAL GRADES DUE 11:00 am	

Mon 05/24	<b>Release of Case for TA interview</b>	
May 26 and 27	TA interview for Summer/Fall/Spring	12:00 to 2:00 pm

**Grades are Due May 21<sup>th</sup> at 11:00 am**