RUTGERS
Ernest Mario School of Pharmacy

ID Therapeutics Syllabus
30:725:475
Spring 2015

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Course materials will be posted on Sakai and can be found at https://sakai.rutgers.edu

Ability Based Outcomes:

I. Pharmaceutical care
   a. Provide patient-centered care: design, implement, monitor, evaluate, and adjust pharmaceutical care plans that are patient-specific and evidence-based.
      i. Identify, obtain and evaluate patient information including medication, laboratory, and disease state histories.
      ii. Identify and/or use instruments and techniques related to patient assessment and diagnosis.
      iii. Identify and define the terminology, signs, and symptoms associated with diseases and medical conditions.
      iv. Identify and evaluate patient factors, genetic factors, biosocial factors, and concurrent drug therapy that influence the maintenance of wellness and the prevention or treatment of a disease or medical condition.
      v. Identify specific mechanisms of action, uses, and indications for drug products.
      vi. Evaluate drug therapy for the presence of pharmacotherapeutic duplications and interactions with other drugs, food, diagnostic tests, and monitoring procedures.
      vii. Identify contraindications, warnings, and precautions associated with a drug product's active and inactive ingredients.
      viii. Identify physicochemical properties of drug substances that affect their solubility, pharmacodynamic and pharmacokinetic properties, pharmacologic actions and stability.
      ix. Interpret and apply pharmacodynamic and pharmacokinetic principles to calculate and determine appropriate drug dosing regimens.
      x. Identify pharmacotherapeutic outcomes and endpoints.
      xi. Assess and evaluate patient signs and symptoms and results of monitoring tests to determine achievement of desired outcomes and to assess for adverse reactions and recommend appropriate pharmacotherapeutic alternatives.

Office Hours:

Note that all course instructors have clinical practice sites that are distant from the school of pharmacy. In addition to teaching responsibilities, these faculty have patient-care responsibilities at those sites and are therefore not often on campus. Meeting times may be arranged by appointment with course faculty if needed. Questions regarding course material should be submitted to the Class Liaison before contacting individual faculty.

Required Textbooks:

Pharmacotherapy: A Pathophysiologic Approach, 9th Edition
JT DiPiro, et al. Editors
McGraw-Hill Education (2014)
Access online through AccessPharmacy or through Rutgers Library

Recommended Textbook:

Antibiotics Simplified, 3rd Edition
Gallagher JC, MacDougall C.
Jones & Bartlett Learning (2014)

Other Course Materials:

Lecture handouts will be posted a few days prior to class on the course website. The student should print the handout and bring it to class. Additional handouts will not be available during class.

Lecturers may post additional material on Sakai.

Guidelines from which most lectures are based off of can be found at http://www.idsociety.org or http://aidsinfo.nih.gov/

Examinations and Grading:

During the semester, there will be four examinations, each worth 100 points. Exam content is described on the course schedule. The number of questions that each lecturer has will be proportional to the number of hours that he or she lectures. Questions will be machine-gradable, and many of them will be case-based.

The final exam will be given during finals week but is not cumulative per se. Please note, however, that the **concepts developed earlier in the semester serve as the foundation for subsequent lectures**, and students will be expected to apply these concepts on all later exams. In particular, adverse effects, drug interactions, spectrums of activity, and other fundamental drug characteristics are important in the context of treating any relevant infections.

The following examination policy will be utilized in this course:

Any **absence from an exam** must be **approved by the course coordinator**, either verbally or in writing, **prior to the exam** time and must be for a valid documented reason. Leaving a phone message or e-mail, without a response from the course coordinator, does **NOT** constitute approval for the absence. Exams missed due to illness must be accompanied by a physician's note. Make-up exams are not offered except in the rarest of circumstances. **If a make-up exam is allowed/available, a single, CUMULATIVE make-up examination will be given at the end of the semester (regardless of the reason for absence). This exam may consist of multiple question formats, some machine-gradable, some open-ended.**

Students are expected to arrive on time for examinations. Students will not be allowed admittance to an exam after any other student has completed the exam and left the exam room. This will be considered an unexcused absence.

A seating chart may be used for exams. The seating will vary from exam to exam, so check the chart posted outside the classroom prior to each exam. A student may be moved to a different seat at any time during the exam at the discretion of the proctors. Students must refrain from talking from the time they enter the examination room until they have left the room AND are out of hearing range. Talking about the exam inside or outside the room is unacceptable at any time.

These additional restrictions will be implemented for all ID Therapeutics exams:

1. No separate erasers beyond the ones on your pencils. This includes those large pink or white erasers, and those long erasers that come in the pen-like clicker. If you have erasing needs that cannot be met by your pencil eraser, there will be some large ones in the front of the class that you can use (off to the side) when you hand in your exam.

2. All beverages must be in a **clear container** with no labels OR a regular aluminum can with no plastic label. For example, a see-through Nalgene bottle is fine. A clear plastic water bottle with the label taken off is fine. A gatorade bottle with the label taken off is fine. A Monster energy drink or soda in a can is fine. A stainless steel water bottle is NOT fine.

3. All food items should be in a **clear plastic bag**. Like a sandwich bag. If it's a power bar of some sort, take it out of the wrapper and put it in a ziplock-type sandwich bag.

4. NO pencil cases. You can use a clear plastic bag (like a ziplock-type sandwich bag) if you'd like.

5. Proctors will be doing spot checks of any items on your desk besides your exam.

6. Proctors will entertain non-content based questions. Please remember to construct your questions wisely. An example of a bad question is: "In your notes you said that efavirenz in a CYP3A4 inducer, is that what this question is asking?". This question is poor because it is announcing the right (or wrong) answer to anyone within an audible range. Also, it is nonspecific in addition to being a content-related question.

7. Calculations on exams will be limited to simple arithmetic; therefore, calculators of any kind should not be brought to any of the exams. Calculators will not be allowed on any desk during an exam.

8. Students must leave coats, books, bags, hats, and any other belongings at the front or back of the examination room. The only items allowed on the desk are those that are essential to completion of the exam. Other than the examination itself, papers of any kind are not allowed on the desk. Cellular phones, pagers, and other text or voice messaging devices should be left home or in the student's bag. Finding a text or voice-messaging device on a student's person during an exam will be considered presumptive evidence of cheating.

9. Students should be prepared to present picture identification (i.e., student ID or driver's license) if requested by the exam proctors during the exam and when they hand in the exam.

10. Students who want to keep track of the time during the exam should wear a simple **analog** watch. Exam proctors will also provide periodic updates on the time remaining. Cellular phones, personal digital assistants (PDAs), MP3 players, etc, are not acceptable timepieces and will not be allowed on the desk.

11. Students wearing baseball caps or similar hats with lids must turn the hat around so that the lid does not cover the eyes, or should leave them with their belongings on the side of the room.

12. For multiple-choice questions, students **must not** write their answers in big block letters in the margin of the exam. Don't tempt your classmates. Scantron sheets should be **turned over** with selected answers facing down or be **kept covered** when not in use.

13. Bathroom breaks are **NOT** allowed during the exams since they are only 1.5 hours. If you have a medical condition requiring use of the restroom at intervals more frequent than 1.5 hours, you must contact the course coordinator at least one week prior to the exam, with an official physician's note.

Students are required to be familiar with the universities Policy on Academic Integrity (see http://cat.rutgers.edu/integrity/policy.html). Violation of academic integrity is a separable offense under the University Code of Student Conduct. Violations of academic integrity occurring during exams will be either level three or four violations. The recommended sanction for level three violations is suspension from the university for one or more terms with a notation of "academic disciplinary suspension" placed on the student's transcript for the period of suspension and a failing grade in the course. The recommended sanction for level four violations is expulsion from the university and a permanent notation on the student's transcript. Any student who is aware of academic misconduct by another student is obligated to notify a faculty member; failure to do so is also a violation of the Policy on Academic Integrity. Any violations of academic integrity relating to this course will be handled by the student disciplinary process as outlined in the University Code of Student Conduct.

In addition to exams, there will be five "homework" assignments, each worth 10 points. Assignments will cover important concepts from the assigned readings and/or lectures. Each student is to work independently on the assignments. Each assignment will be posted on the course website approximately one week in advance of its due date. Students are required to complete the assignment by the expiration date and time on Sakai. Students are expected to leave ample time between completion and the expiration date and time to account for any technical difficulties. **ASSIGNMENTS WILL NOT BE ACCEPTED AFTER THE SET DATE AND TIME**. The assignment schedule is as follows:

Topic	**Professor**	**Due Date**
Beta-lactams	Mattappallil	1/28/15
Endocarditis	Wynd	2/19/15
Lyme Disease	Narayanan	3/25/15
Opportunistic Infections	McCoy	4/8/15
STDs	Awad	4/29/15

Final grades will be **determined by the students' percentages of total possible points (450)** for the semester, as shown on the scale below. A curve will **not** be applied, nor will grades be rounded up (e.g., An 89.9% will be considered a B+). Students should not expect extra credit points.

Percentage	**Grade**

90 – 100	A
86 – 89	B+
80 – 85`	B
76 – 79	C+
70 – 75	C
60 – 69	D
Less than or equal to 59	F

Grades will be posted online after each exam using the Sakai website: https://sakai.rutgers.edu. Students will be given the opportunity to review exams I, II, and III during office hours (dates/times to be determined). It is the responsibility of the student to review the exam during posted exam-review office hours. Review for exam IV or make-up exams will be by request only (must make an appointment). Please note that during the exam review session, one student (per version) at a time will be allowed to enter the office to review their scantron/key. The original exam document/packet is NOT available to review. Exams should not leave the professor's office or sight during review. During exam review, using recording devices of any kind (phone, camera, etc.), note taking, picture taking, and other such duplication of exam questions constitutes a breach of academic integrity and will be dealt with as such. A time limit of **two weeks** will be allowed for students to contest any grades once scores have been posted. Challenges to grades will not be considered after this time.

Course and Instructor Evaluations:

Forms will be provided at the end of the semester to evaluate the overall course and the individual instructors. Additional student comments are welcome at any time during the semester. These comments are greatly appreciated and will be used to modify the course for future offerings.

Other:

Professional behavior is expected of all students in this course. Tardiness to class, talking or sleeping during class, or similar behavior will not be tolerated and may result in removal from class.

Students are encouraged to study together, including discussing general strategies for approaching assignments. However, all work submitted for this course, including take-home assignments, is to be completed individually. The Policy on Academic Integrity, as described above, defines all forms of cheating and the procedures for dealing with violations. Cheating of any kind will be penalized to the fullest extent allowed. Any student who is aware of academic misconduct by another student is obligated to notify the course coordinators or another faculty member.

The course coordinators reserve the right to change any course policy or procedure at their discretion and as circumstances may dictate. Any issues not specifically addressed in this syllabus will be resolved at the sole discretion of the course coordinators.

Infectious Diseases Therapeutics
Lecture Schedule
30:725:475
Spring 2015
ARC 103

Date	Day	Time	Topic	Lecture	Chapter
Jan 21	Wed	9:40-11:40	Introduction to ID: Clinical Diagnostics, Microbiology, and PK/PD	Mattappallil	83
Jan 22	Thurs	12:15-1:10	Quinolones, Macrolides, Tetracyclines, & Derivatives	Chaudhry	
Jan 28	Wed	9:40-11:40	Beta-lactams: Allergy, Penicillins, Cephalosporins, Carbapenems, Monobactams ***(Homework I Due)***	Mattappallil	
Jan 29	Thurs	12:15-1:10	AGs, Vanco, & Misc	Chaudhry	
Feb 4	Wed	9:40-11:40	AGs, Vanco, & Misc (Chloram, Clinda, TMP/SMX, Dapto, Linezolid, Syncercid, Metro, Rifamycins, Nitro, Polymyxins) /Antimicrobial Resistance	Chaudhry	
Feb 5	Thurs	12:15-1:10	Antifungals: Topicals, Nystatin, AMB, Azoles, Echinos	McCoy	
Feb 11	**Wed**	**10-11:30**	**Exam I: Intro to ID though Antifungals**		
Feb 12	Thurs	12:15-1:10	Infectious Diarrhea	McCoy	91
Feb 18	Wed	9:40-11:40	Pneumonia (CAP, HAP, HCAP)	Dixit	85
Feb 19	Thurs	12:15-1:10	Endocarditis ***(Homework II Due)***	Wynd	89
Feb 25	Wed	9:40-11:40	Endocarditis/Sepsis & Septic Shock	Wynd	89, 97
Feb 26	Thurs	12:15-1:10	Skin/Skin Structure Infections	Das	88
Mar 4	Wed	9:40-11:40	CNS Infections: Meningitis and Encephalitis	Hardeo	84
Mar 5	Thurs	12:15-1:10	Surgical Prophylaxis	Abazia	101
Mar 11	**Wed**	**10-11:30**	**Exam II: Infectious Diarrhea through CNS Infections**		
Mar 12	Thurs	12:15-1:10	Urinary Tract Infections	Chaudhry	94
Mar 18	Wed	SPRING BREAK			
Mar 19	Thurs				
Mar 25	Wed	9:40-11:40	Misc Infections: Lyme Disease, Influenza, Parasites ***(Homework III Due)***	Narayanan	87, 93
Mar 26	Thurs	12:15-	Misc Infections: Fungal Infections	McCoy	98, 99, 100

		1:10			
Apr 1	Wed	9:40-11:40	HIV: Management (Treatment Guidelines, Medications, Drug Interactions)	Chaudhry	103
Apr 2	Thurs	12:15-1:10	HIV: Post-Exposure Prophylaxis & Perinatal	Chaudhry	103
Apr 8	Wed	9:40-11:40	HIV: Opportunistic Infections (PCP, Toxo, MAC, Crypto, CMV)/Tuberculosis ***(Homework IV Due)***	McCoy	99, 100, 103
Apr 9	Thurs	12:15-1:10	Tuberculosis	McCoy	90
Apr 15	**Wed**	**10-11:30**	**Exam III: Surgical Prophylaxis through HIV: OIs**		
Apr 16	Thurs	12:15-1:10	Intra-Abdominal Infections	McCoy	92
Apr 22	Wed	9:40-11:40	Immunizations (Pediatric and Adult)	Robinson	102
Apr 23	Thurs	12:15-1:10	Pediatric Infectious Diseases	Meyers	86
Apr 29	Wed	9:40-11:40	Sexually Transmitted Diseases (***Homework V Due***)	Faley	95
Apr 30	Thurs	12:15-1:10	Bone and Joint Infections	Narayanan	96
May 8	**Fri**	**12-1:30**	**Exam IV: Tuberculosis through Bone and Joint Infections**		