PHA5782C: Patient Care 2 Introduction to Infectious Disease and Oncology

Fall 2023

6 Credit Hours – [A-E Grading]

Second of an eight-course sequence that prepares the student to provide patient-centered care by serving as a collaborative interprofessional team-member who is an authority on pharmacotherapy. Learning occurs through team-based learning. The content in this course will lay the foundation for the subsequent patient care series where the pharmacology and medicinal chemistry of anti-infective and oncology agents and pharmacotherapy of infectious diseases and oncology will be learned and applied to optimize patient-centered care. Learners will develop, integrate, and apply knowledge from the foundational disciplines (i.e., pharmaceutical, social/behavioral/administrative, and clinical sciences) and apply the Pharmacists' Patient Care Process in solving case-based scenarios of patients with infectious diseases, hematologic and oncology disorders.

Teaching Partnership Leaders

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- Office Hours: See Canvas course site for posted office hours

See Appendix A. for Course Directory of Faculty and Staff Contact Information.

Entrustable Professional Activities

This course will prepare you to perform the following activities which the public entrusts a Pharmacist to perform:

- 2. Analyze information to determine the effects of medication therapy, identify medication-related problems, and prioritize health-related needs.
 - ST2.3. Interpret laboratory test results
 - ST 2.3b. Interpret data related to personalized medicine.
- 3. Establish patient-centered goals and create a care plan for a patient in collaboration with the patient, caregiver(s), and other health professionals that is evidence-based and cost-effective
 - ST3.1. Follow an evidence-based disease management protocol.
 - ST3.2. Develop a treatment plan with a patient. (including recommend therapeutic alternatives and generic substitution)

• ST3.4. Select monitoring parameters to determine the therapeutic and adverse effects related to the treatment plan.

- 6. Collaborate as a member of an interprofessional team.
 - ST6.3. Communicate a patient's medication-related problem(s) to another health professional.
- 9. Maximize the appropriate use of medications in a population.
 - ST9.2. Apply cost-benefit, formulary, and/or epidemiology principles to medication- related decisions.
- 11. Educate patients and professional colleagues regarding the appropriate use of medications.

 ST11.1. Lead a discussion regarding a recently published research manuscript and its application to patient care

Course-Level Objectives

Upon completion of this course, the student will be able to:

- Associate the role of the normal human microbiota with the prevention of disease.
- Describe the pathogenesis of bacterial and viral infections.
- Interpret microbiological, immunological, and virological laboratory data in the context of a patient's clinical presentation and findings.
- Given a case of a patient with infectious disease and/or oncology disorders/pharmacotherapy needs,
 integrate knowledge and use clinical reasoning skills in accomplishing the following steps when
 managing a patient with the disease state:
- i. **Collect:** Gather subjective and objective information and analyze the data in order to understand the relevant medical/medication history and clinical status of the patient.
 - Subjective and objective information is collected through comprehensive medication review with the patient, medical record review, pharmacy profile review, and communication with other members of the health care team.
 - 2. A holistic view is initiated during collection in order to consider physiological, psychological, and sociological variables of the patient and this view is maintained throughout the patient care process.
- ii. **Assess:** Assess the information collected and formulate a problem list consisting of the patient's active medical problems and medication therapy problems in order to prioritize medication therapy recommendations to achieve the patient's overall health goals.
 - 1. Assess the patient's active medical conditions taking into account clinical and patient goals of therapy.
 - 2. Assess the indication, effectiveness, safety, adherence and convenience (administration, access, affordability) of each medication the patient is taking.
 - 3. Include in the assessment an evaluation of risk factors, relevant psychosocial issues, and the need for preventative care or for referral to another healthcare practitioner for further evaluation

4. Formulate a medication therapy problem list, classifying the patient's medication therapy problems based on indication, effectiveness, safety, and compliance.

- 5. Prioritize the patient's medication therapy problems.
- iii. **Plan:** Develop an individualized patient-centered care plan in collaboration with other health care professionals and the patient/caregiver that is evidence-based and as affordable as possible.
 - 1. For each problem, create patient-centered goal(s) in collaboration with the patient/caregiver and other members of the healthcare team
 - 2. Develop a care plan to manage the patient's active medical conditions and resolve the identified medication therapy problems.
 - 3. Identify monitoring parameters to assess effectiveness, safety, adherence, and quality of life.
- iv. **Implement:** Implement the care plan in collaboration with other health care professionals and the patient/caregiver.
 - For each condition and associated recommended strategy for resolving identified MTPs, provide the medication order in its entirety, including full drug name, dose, dosage form, route of administration, dosing interval, duration of therapy
 - a. Discuss the care plan with the patient.
 - b. Educate the patient on his/her medications (which may include explanations of medication action, the regimen or its proper discontinuation, proper medication use and storage, expected results and when to expect them, possible adverse effects, and when and how to follow-up or seek additional care.
 - 2. Where appropriate, contribute to coordination of care by providing documentation to other providers using an evidence-based method of communication, such as SBAR (Situation, Background, Assessment, Recommendation) or SOAP (Subjective, Objective, Assessment, Plan)
- v. **Follow-up with the Patient:** Monitor and evaluate the effectiveness of the care plan and modify the plan in collaboration with other health care professionals and the patient/caregiver.

Course Pre-requisites

1. Completion of all Year 1 Pharm.D. program coursework including milestones.

Course Co-requisites

1. PHA 5163L Professional Practice Skills Lab III

Course Outline

See Appendix. Please routinely check your campus calendar and the Canvas course site for any messages about changes in the schedule including meeting dates/times, deadlines, and room changes.

Required Textbooks/Readings

- 1. Karen C. Carroll, Stephen A. Morse, Timothy Mietzner, Steve Miller. Jawetz, Melnick, & Adelberg's Medical Microbiology, McGraw-Hill, 28th edition, 2019, ISBN 978-1-260-01202-6.
 - Available via HSC Library Access Pharmacy
- 2. Brunton L, Hilal-Dandan R, Knollmann BC, eds. Goodman and Gilman's The Pharmacological Basis of Therapeutics, McGraw-Hill Professional, New York, NY, 14th Edition, 2023.
 - Available via HSC Library Access Pharmacy
- 3. Dipiro JT, Yee GC, Posey LM, Haines ST, Nolin TD, Ellingrod V. Pharmacotherapy A Pathophysiologic Approach. McGraw-Hill Professional, New York, NY, 12th Edition, 2023
 - Available via HSC Library Access Pharmacy
- 4. Primary literature readings will be posted in Canvas.

Use UF VPN to access UF Libraries Resources when off-campus.

The UF HSC library staff can assist you with questions or issues related to accessing online library materials. For assistance contact your College of Pharmacy librarian or visit the HSC Library Website at this URL: http://www.library.health.ufl.edu/

Suggested Textbooks/Readings

Suggested readings will be posted on Canvas.

Other Required Learning Resources

EHR Go

- EHR Go is an educational EHR used throughout the PharmD curriculum. Students will be expected to purchase a subscription to this program.
- Create your EHR Go account by going to: https://ehrgo.com/ Select Subscribe in the upper, right corner and enter the following Pharmacy Student Program Key: S96Y29
- Follow the on-screen instructions to create your account and apply your subscription. Refer to the Skills Labs Canvas site for more detailed information.

NOTE:

- o 1PDs are encouraged to purchase a 3-year Student Subscription
- 2PDs are encouraged to purchase a 2-year Student Subscription
- o 3PDs are encouraged to purchase an Academic Year Student Subscription

Materials & Supplies Fees

None

Student Evaluation & Grading

Evaluation Methods and How Grades are calculated.

[The Canvas© gradebook will be set-up using the percentages below to compute the grade.]

Table 1.1 Evaluation and Grading

Table 1:1 Evaluation and Grading	
Assessment Item	Grade
	Percentage
iRAT (n=9; single lowest score dropped; 1% each	8%
after drop)	
tRAT (n=9; 0.88% each)	8%
	C0/
Skin/Soft Tissue In-Class Individual Assignment	6%
Capstone (See Appendix C)	8%
Exam 1 (Modules 1 & 2)	21%
Exam 2 (Modules 3 & 4)	21%
Exam 3 (Cumulative; focus on Modules 5 & 6)	28%
Total	100%

^{*}Grades are final 1 week after all grading in module has been completed.

Table 1.2 Grading Scale

Percentage	Letter Grade
92.50-100%	Α
89.50-92.49%	A-
86.50-89.49%	B+
82.50-86.49%	В
79.50-82.49%	B-
76.50-79.49%	C+
72.50-76.49%	С
69.50-72.49%	C-
66.50-69.49%	D+
62.50-66.49%	D
59.50-62.49%	D-
< 59.50%	E

Rounding of grades:

Final grades in Canvas will be rounded to the 2nd decimal place. If the decimal is X.495 or higher, Canvas will round the grade to X.50. The above scale depicts this policy and grades are determined accordingly. Grade assignment is made using this policy and <u>NO EXCEPTIONS</u> will be made in situations where a student's grade is "close."

Assignment Descriptions

Individual Assignment: Skin/Soft Tissue in ALS#4

Incorporating knowledge from modules 1-3, students will complete an assignment prior to and during ALS 4. Details will follow at the time of the session. An opportunity of practice will be given during ALS #2 on UTI. The assignment will be due at the end of the session.

Individual Self-Assessments

Students are encouraged to complete individual self-assessments in Canvas for each module. The questions are quiz-level and authored by the course faculty.

Facilitated Case Discussion

In this introductory facilitated case discussion session that is ungraded, students will be divided into groups, each with a designated faculty facilitator. Before the session, students will receive a patient case with related questions to complete. During the discussion, the facilitator will ask individual students questions related to the case, both the questions provided before the session as well as others, encouraging active participation and critical thinking. There will be more facilitated case discussions in upcoming patient care courses that will count for a portion of the final grade.

Educational Technology Use

The following technology below will be used during the course and the student must have the appropriate technology and software.

- 1. ExamSoft™ Testing Platform
- 2. Canvas™ Learning Management System
- 3. Perusall (available within Canvas)
- 4. PlayPosit (available within Canvas)

For technical support, navigate to <u>Educational Technology and IT Support Contact Information</u> at this URL: http://curriculum.pharmacy.ufl.edu/current-students/technical-help/

Artificial Intelligence Use

The use of artificial intelligence (AI) text generators such as ChatGPT on assignments, projects, quizzes, and exams is prohibited in this course. Use of AI text generators is considered evidence of academic dishonesty. If a student is uncertain about the use of AI technology, it is the student's responsibility to ask the instructor prior to beginning the assignment or assessment.

Pharm.D. Course Policies

The Policies in the following link apply to this course. Review the General <u>Pharm.D. Course Policies</u> carefully, at this URL: http://curriculum.pharmacy.ufl.edu/current-students/course-policies/

Attendance Policy

Attendance is mandatory for active learning sessions such as team-based learning sessions, case discussions, laboratory sessions, and other activities that the instructor designates as required. This course has 12 required sessions. A student who misses greater than 3 sessions (25% of the required active learning sessions/activities) or laboratory sessions for this course will receive an incomplete in the course and will retake the course during the next offering, resulting in delayed graduation.

Makeup Assignments

Makeup assignments may be required for excused absences from all Active Learning Sessions. Students will be required to complete the makeup assignment within one week of the missed session.

Late Assignments

Late submissions of assignments will **not** be accepted.

Exam Reminder

Emails following the exam regarding exam appeals/rebuttals are **not** permitted. The faculty will review all exam results, interpret statistical reports, evaluate exam sheets/ExamSoft™ feedback and provide information on final grading once exam statistics are available.

Accessibility and Belonging Statement

The University of Florida College of Pharmacy strives to stimulate a culture that promotes diversity and inclusion within an exceptional community of students, faculty, and staff. It is our intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit.

We intend to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let us know ways to improve the course's effectiveness for you personally or for other students or student groups.

If any of our class meetings conflict with any of your religious events, an excused absence will be provided when requested using the standard UF COP process as detailed in the <u>UF COP Course policies</u>.

If you feel that you have experienced or witnessed any bias/treatment that falls short of these expectations, you may submit a report through the UF <u>COP Student Mistreatment Report</u>.

Course Evaluation Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in

a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

Appendix A. Course Directory

Teaching Partnership Leader/Course Director(s):

Anthony M. Casapao, Pharm.D., MPH

• Email: Casapao@cop.ufl.edu

• Office: Jacksonville Campus Tower II

• Phone: 904-244-9129

• Office Hours: See Canvas course site for posted office hours

David DeRemer, Pharm.D., BCOP, FCCP, FHOPA

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Office: GNV HPNP 3308

• Office Hours: See Canvas course site for posted office hours

Questions to Ask:

Concerns about performance

Guidance when there are performance problems (failing grades)

General questions about content

Other Teaching Partnership Faculty Members:

Ashley Brown, Ph.D.

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Instructional Designer:

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• Phone: 352-273-5719

Academic Coordinator Gainesville Campus:

Hanna Stallard

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Phone: 352 – 273 - 6312

2PD Absent Request Ticket

(Visit the course policy site for further instructions)

Educational Coordinators

Katie Orben

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 Office: Jacksonville Campus

Jessica Linares

Email: TBD

Office: Orlando Campus

Phone: TBD

Questions to Ask:

- Issues related to course policies (absences, make up exams, missed attendance)
- Absence/tardy requests (Only the Academic Coordinator handles absence requests)
- Questions about dates, deadlines, meeting place
- Availability of handouts and other course materials
- Assignment directions
- Questions about grade entries in gradebook (missing grades, incorrect grade)
- Assistance with ExamSoft® (Distance campus students may contact the Educational Coordinator for use of Examplify and assistance during exams. The Academic Coordinator is the contact person for issues related to grading and posting of ExamSoft grades.)

Appendix B: Course Outline:

Date / Time [Recommended for Independent Study] 08/14/23	Mod #	Activity Optional/Sup plemental	Activity Title Patient Care 2 Introduction	Contact Time (hr)	Responsible Anthony Casapao, David DeRemer
	1	Module	Module 1: Laboratory Diagnostics and Introduction to Infectious Diseases		Veena Venugopalan
	1.1	Unit	Introduction to Medical Microbiology		Kayihura Manigaba, Veena Venugopalan
08/14/23	1.1.1	Lecture Video	Watch: Introduction to Microbiology (Part 1 and Part 2)	0.75	Veena Venugopalan
08/14/23	1.1.2	Lecture Video	Watch: Diagnosing Bacterial Infections – Blood Cultures	0.75	Veena Venugopalan
08/14/23	1.1.3	Lecture Video	Watch: Diagnosing Bacterial Infections – Respiratory	0.75	Veena Venugopalan
08/14/23	1.1.4	Lecture Video	Watch: Diagnosing Bacterial Infections – Urine Cultures	0.75	Veena Venugopalan
08/14/23	1.1.5	Lecture Video	Watch: Diagnosing Bacterial Infections – Wound	0.75	Veena Venugopalan
08/14/23	1.1.6	Lecture Video	Watch: Interpreting Bacterial Susceptibilities	0.75	Veena Venugopalan
08/14/23	1.1.7	Lecture Video	Watch: Rapid Diagnostics: Immunoassays	0.75	Kayihura Manigaba
08/14/23	1.1.8	Lecture Video	Watch: Rapid Diagnostics: Nucleic Acid Testing	0.75	Kayihura Manigaba
	1.2	Unit	Introduction to Infectious Diseases and Pharmacokinetics/Pharmacodynamics		Anthony Casapao, Nicole Maranchick
08/14/23	1.2.1	Lecture Video	Watch: Introduction to Infectious Diseases	0.50	Kayihura Manigaba
08/14/23	1.2.2	Lecture Video	Watch: Principles of Antimicrobial Therapy	0.50	Kayihura Manigaba
08/14/23	1.2.3	Lecture Video	Watch: Antimicrobial Pharmacodynamics Definitions	0.25	Kayihura Manigaba
08/14/23	1.2.4	Lecture Video	Watch: Antimicrobial Stewardship	0.63	Kayihura Manigaba
08/15/23	1.2.5	Lecture Video	Watch: Introduction to Pharmacokinetics and Pharmacodynamics	0.75	Nicole Maranchick
	1	Optional/Sup plemental	Module 1 Self-Assessment Questions (Word)		Anthony Casapao
	2	Module	Module 2: Principles of Important Gram Negative Bacteria and Antimicrobials		Anthony Casapao
	2.1	Unit	Principles of Gram Negative Bacteria I		Anthony Casapao

Date / Time [Recommended for Independent Study]	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
08/15/23	2.1.1	Lecture	Watch: Interactions of Bacteria with the Immune	1.00	Bin Liu
		Video	System		
08/15/23	2.1.2	Lecture Video	Watch: Enterobacterales Overview	0.25	Anthony Casapao
08/15/23	2.1.3	Lecture Video	Watch: Escherichia	0.25	Anthony Casapao
08/15/23	2.1.4	Lecture Video	Watch: Klebsiella	0.25	Anthony Casapao
08/15/23	2.1.5	Lecture Video	Watch: Enterobacter, Citrobacter, and Serratia	0.25	Anthony Casapao
08/16/23	2.1.6	Lecture Video	Watch: Other Important Enterbacterales	0.25	Anthony Casapao
08/16/23	2.1.7	Lecture Video	Watch: Non-fermenters: Pseudomonas aeruginosa	0.375	Kayihura Manigaba
08/16/23	2.1.8	Lecture Video	Watch: Non-fermenters: Acinetobacter baumannii	0.375	Kayihura Manigaba
08/16/23	2.1.9	Lecture Video	Watch: Non-fermenters: Stenotrophomonas maltophilia; Burkholderia cepacia	0.5	Anthony Casapao
	2.2	Unit	Pharmacology and Medicinal Chemistry of Antimicrobials, Part 1		Veena Venugopalan
08/16/23	2.2.1	Lecture Video	Watch: Natural and Antistaphylococcal Penicillins	0.50	Barbara Santevecchi
08/16/23	2.2.2	Lecture Video	Watch: Extended Spectrum Penicillins	0.33	Barbara Santevecchi
08/16/23	2.2.3	Lecture Video	Watch: 1st, 2nd, and 3rd generation cephalosporins	0.34	Barbara Santevecchi
08/16/23	2.2.4	Lecture Video	Watch: Antipseudomonal and Antistaphylococcal Cephalosporins	0.33	Barbara Santevecchi
08/16/23	2.2.5	Lecture Video	Watch: Carbapenems	0.25	Barbara Santevecchi
08/16/23	2.2.6	Lecture Video	Watch: Monobactams	0.13	Barbara Santevecchi
08/16/23	2.2.7	Lecture Video	Watch: Medicinal Chemistry of Beta-lactams	0.50	Robert W Huigens III
08/16/23	2.2.8	Lecture Video	Watch: Aminoglycosides	0.50	Veena Venugopalan
08/17/23	2.2.9	Lecture Video	Watch: PK of Aminoglycosides	0.75	Veena Venugopalan
08/17/23	2.2.1 0	Lecture Video	Watch: Medicinal Chemistry of Aminoglycosides	0.25	Robert W Huigens III
08/17/23	2.2.1 1	Lecture Video	Watch: Fluoroquinones	0.75	Kayihura Manigaba
08/17/23	2.2.1	Lecture Video	Watch: Medicinal Chemistry of Fluoroquinoline Antibacterial Agents	0.50	Robert W Huigens III
08/17/23	2.2.1	Lecture Video	Watch: Sulfonamides	0.25	Veena Venugopalan

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Date / Time [Recommended for Independent Study]	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
08/17/23	2.2.1	Lecture	Watch: Urinary agents - Fosfomycin	0.25	Kayihura
	4	Video	, ,		Manigaba
08/17/23	2.2.1 5	Lecture Video	Watch: Urinary agents - Nitrofurantoin	0.13	Kayihura Manigaba
08/17/23	2.2.1 6	Lecture Video	Watch: Polymixins	0.50	Kayihura Manigaba
8/18/23 @ 1pm- 2:50pm	1.1- 2.2	Active Learning Session	Active Learning Session 1: Gram Negatives (2 hours)	1	Anthony Casapao, Bin Liu, Veena Venugopalan
08/18/23	1.1- 2.2	Quiz (iRAT/tRAT)	iRAT/tRAT during ALS 1		Anthony Casapao, Veena Venugopalan
	2.3	Unit	Uncomplicated Urinary Tract Infection		Veena Venugopalan
08/18/23	2.3.1	Lecture Video	Watch: UTI	0.50	Veena Venugopalan
	2	Optional/Sup plemental	Module 2 Self-Assessment Questions (Word)		Anthony Casapao
	2	Assignment (Un-Graded)	ALS 2 Pre-Class Aminoglycoside PK Assignment		Veena Venugopalan
8/21/23 @ 10am- 11:50am	1.1- 2.2	Active Learning Session	Active Learning Session 2 Part 1: UTI (2 hours)	1.00	Robert Huigens III, Veena Venugopalan
08/21/23	1.1- 2.3	Quiz (iRAT/tRAT)	iRAT/tRAT during ALS 2 (Part 1)		Anthony Casapao, Veena Venugopalan
8/21/23/ @ 1pm- 2:50pm	1.1- 2.3	Active Learning Session	Active Learning Session 2 Part 2: UTI (2 hours)	1.00	Robert Huigens III, Veena Venugopalan
8/24/23 @ 3pm- 4pm	1-2	Active Learning Session Zoom	Pre-Exam Review (1 hour)		Anthony Casapao, Barbara Santevecchi, Robert Huigens III, Kayihura Manigaba, Veena Venugopalan
8/25/23 @ 10am- 12pm	1-2	Exam	Exam 1: Modules 1-2 (2hr)	2.00	Anthony Casapao
	3	Module	Module 3: Principles of Gram Positive Bacteria with other Gram Negative Bacteria and Antimicrobials		Anthony Casapao
	3.1	Unit	Principles of Gram Positive Bacteria		Veena Venugopalan
08/28/23	3	Reading (Web)	Read: Medical Microbiology Chapter 11: subsections on B. cereus, C. botulinum, C. tetani, and C. difficle	0.5	Veena Venugopalan

Date / Time [Recommended for Independent Study]	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
08/28/23	3	Reading (Web)	Read: Medical Microbiology Chapter 12: subsection on "Lipophilic Corynebacteria"	0.25	Veena Venugopalan
08/28/23	3	Reading (Web)	Read: Medical Microbiology Chapter 21: subsections on "physiology and growth conditions for anaerobes", "the polymicrobial nature of anaerobic infections", and "diagnosis of anaerobic infections"	0.25	Veena Venugopalan
08/28/23	3.1.1	Lecture Video	Watch: Staphylococci	0.75	Veena Venugopalan
08/28/23	3.1.2	Lecture Video	Watch: Streptococci Overview	0.15	Anthony Casapao
08/28/23	3.1.3	Lecture Video	Watch: Streptococcus pyogenes	0.15	Anthony Casapao
08/28/23	3.1.4	Lecture Video	Watch: Streptococcus pneumoniae	0.15	Anthony Casapao
08/28/23	3.1.5	Lecture Video	Watch: Other Streptococci species	0.15	Anthony Casapao
08/28/23	3.1.6	Lecture Video	Watch: Enterococcus	0.15	Anthony Casapao
08/28/23	3.1.7	Lecture Video	Watch: Bacillus species	0.25	Anthony Casapao
08/28/23	3.1.8	Lecture Video	Watch: Listeria & Corynebacterium	0.25	Anthony Casapao
08/28/23	3.1.9	Lecture Video	Watch: Clostridium spp	0.75	Veena Venugopalan
00/00/00	3.2	Unit	Principles of Gram Negative Bacteria II	0.05	Veena Venugopalan
08/28/23	3.2.1	Lecture Video	Watch: Pleomorphic bacteria - Haemophilus species	0.25	Barbara Santevecchi
08/28/23	3.2.2	Lecture Video	Watch: Pleomorphic bacteria - Bordetella pertussis	0.25	Barbara Santevecchi
08/28/23		Lecture Video	Watch: Helicobacter pylori	0.25	Barbara Santevecchi
08/28/23	3.2.4	Lecture Video	Watch: Neisseria	0.25	Barbara Santevecchi
08/28/23	3.2.5	Lecture Video	Watch: Chlamydia	0.25	Barbara Santevecchi
08/29/23	3.2.6	Lecture Video	Watch: Mycoplasma	0.25	Barbara Santevecchi
08/29/23	3.2.7	Lecture Video	Watch: Legionella	0.25	Barbara Santevecchi
08/29/23	3.2.8	Lecture Video	Watch: Gram-Negative Anaerobes	0.25	Anthony Casapao
08/29/23	3.2.9	Lecture Video	Watch: Mycobacterium	0.25	Eric Free Egelund
	3.3	Unit	Pharmacology and Medicinal Chemistry of Antimicrobials, Part II		Veena Venugopalan

Date / Time						
[Recommend	hal				Contact	
for Independe		Mod			Time	
Study]	#		Activity	Activity Title	(hr)	Responsible
08/29		3.3.1	Lecture	Watch: Glycopeptides	0.50	Veena
00/2	3,20 0	J.O. 1	Video	Wateri. Olycopopilaco	0.00	Venugopalan
08/29	9/23 3	3.3.2	Lecture	Watch: Glycopeptides PK	0.60	Nicole
			Video	, , ,		Maranchick
08/29	9/23 3	3.3.3	Lecture	Watch: Lipoglycopeptides	0.50	Kayihura
20/0	2/22		Video		0.50	Manigaba
08/30	0/23 3	3.3.4	Lecture Video	Watch: Medicinal Chemistry of Glycopeptide and Lipopeptide Antibiotics	0.50	Robert W Huigens III
08/30	0/23 3	3.3.5	Lecture Video	Watch: Daptomycin	0.75	Veena Venugopalan
08/30	0/23 3	3.3.6	Lecture Video	Watch: Oxazolidinones	0.50	Veena Venugopalan
08/30		3.3.7	Lecture Video	Watch: Tetracyclines	0.50	Kayihura Manigaba
08/30		3.3.8	Lecture Video	Watch: Medicinal Chemistry of Tetracycline Antibiotics	0.50	Robert W Huigens III
08/30		3.3.9	Lecture Video	Watch: Medicinal Chemistry of Macrolide Antibiotics	0.25	Robert W Huigens III
08/30	0		Lecture Video	Watch: Macrolides	0.50	Kayihura Manigaba
08/30	1		Lecture Video	Watch: Clindamycin	0.13	Veena Venugopalan
08/30	2		Lecture Video	Watch: Metronidazole	0.13	Veena Venugopalan
8/31/23 @ 10am		3.1-	Active	Active Learning Session 3: Gram Positives (2 hours)	1	Anthony
11:50am	3	3.3	Learning			Casapao,
			Session			Barbara Santevecchi
08/3	1/23 3	3.1-	Quiz	iRAT/tRAT during ALS 3		Anthony
33,6		3.3	(iRAT/tRAT)			Casapao
	3	3.4	Unit	Acute Bacterial Skin and Skin Structure Infections		Veena Venugopalan
08/3	1/23 3	3.4.1	Lecture	Watch: Acute Bacterial Skin and Skin Structure	0.50	Veena
	2		Video	Infections Rharmonth argue of Councies Broad device		Venugopalan
	3	3.5	Unit	Pharmacotherapy of Surgical Prophylaxis		Bethany Ruth Shoulders
08/3	1/23 3	3.5.1	Lecture Video	Watch: Pharmacotherapy of Surgical Prophylaxis	0.33	Bethany Ruth Shoulders
08/3	1/23 3	3.5.2	Reading (Web)	Read: Clinical Practice Guidelines for Antimicrobial Prophylaxis in Surgery Tables 1 and 2. Pages 197	0.67	Bethany Ruth Shoulders
				- 202 https://www.idsociety.org/Guidelines/Patient Care/ID SA Practice Guidelines/Antimicrobial Agent Use/A ntimicrobial Prophylaxis for Surgery/		
9/1/23 @ 10am- 11:50am		3.1- 3.5	Active Learning Session	Active Learning Session 4 Part 1: Skin/Soft Tissue Infection (2 hours)	1.00	Robert Huigens III, Nicole Maranchick,

		Γ			
Date / Time [Recommended for Independent Study]	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
					Veena Venugopalan
09/01/23	3.1- 3.5	Quiz (iRAT/tRAT)	iRAT/tRAT during ALS 4 (Part 1)		Anthony Casapao
	1-2	Assignment (Graded)	In-Class Individual Assignment		Veena Venugopalan
9/1/23 @ 1pm- 2:50pm	3.1- 3.5	Active Learning Session	Active Learning Session 4 Part 2: Skin/Soft Tissue Infection - Surgical Prophylaxis (2 hours)	1.00	Bethany Ruth Shoulders, Robert Huigens III, Nicole Maranchick, Veena Venugopalan
9/1/23 @ 3pm- 3:30pm	1-2	Exam Review	Exam 1 Review		
	3.6	Unit	Community-acquired Pneumonia		Kalen Manasco
09/01/23	3.6.1	Lecture Video	Watch: Community Acquired Pneumonia	0.50	Kalen Manasco
	3	Optional/Sup plemental	Module 3 Self-Assessment Questions (Word)		Anthony Casapao
9/6/23 @ 10am- 11:50am	3.1- 3.6	Active Learning Session	Active Learning Session 5 Part 1: Community- Acquired Pneumonia (2 hours)	1.00	Robert Huigens III, Kalen Manasco
09/06/23	3.1- 3.6	Quiz (iRAT/tRAT)	iRAT/tRAT during ALS 5 (Part 1)		Anthony Casapao
9/6/23 @ 1pm- 2:50pm	3.1- 3.6	Active Learning Session	Active Learning Session 5 Part 2: Community-Acquired Pneumonia (2 hours)	1.00	Robert Huigens III, Kalen Manasco
	4	Module	Module 4: Virology and Antivirals		Lindsey Marie Childs-Kean
	4.1	Unit	Virology		Lindsey Marie Childs-Kean
09/05/23	4.1.1	Video Other	Watch: How Influenza Pandemics Occur (Youtube) https://youtu.be/DdFCx8jbesQ?list=PL9rasaw- kjnzq6gz7bkMg8TQPMVKv7Bjl	0.25	Lindsey Marie Childs-Kean
09/05/23	4.1.2	Lecture Video	Watch: Virology Basics	0.83	Ashley Brown
09/05/23	4.1.3	Lecture Video	Watch: Interaction of Viruses with the Immune System	1	Bin Liu
09/05/23	4.1.4	Lecture Video	Watch: Influenza	0.75	Ashley Brown
09/05/23	4.1.5	Lecture Video	Watch: HIV	0.3	Lindsey Marie Childs-Kean
09/05/23	4.1.6	Lecture Video	Watch: Hepatitis A, B, and C	0.6	Lindsey Marie Childs-Kean
09/06/23	4.1.7	Lecture Video	Watch: Herpesviruses: Varicella/Zoster, HSV, CMV, Epstein-Barr	0.67	Lindsey Marie Childs-Kean

Date / Time [Recommended for Independent Study]	Mod # 4.1.8	Activity Lecture	Activity Title Watch: Coronaviruses	Contact Time (hr)	Responsible Ashley Brown
09/07/23	4	Video Reading (Web)	Read: Medical Microbiology, Chapter 38 (see Canvas for sections)	1.75	Lindsey Marie Childs-Kean
09/07/23	4	Reading (Web)	Read: Medical Microbiology, Chapter 37 (see Canvas for sections)	0.25	Lindsey Marie Childs-Kean
09/07/23	4	Reading (Web)	Read: Medical Microbiology, Chapter 36 (see Canvas for sections)	0.5	Lindsey Marie Childs-Kean
09/07/23	4	Reading (Web)	Read: Medical Microbiology, Chapter 40 (see Canvas for sections)	1	Lindsey Marie Childs-Kean
09/07/23	4	Reading (Web)	Read: West Nile virus Clinical Evaluation & Disease https://www.cdc.gov/westnile/healthcareproviders/healthCareProviders-ClinLabEval.html	0.25	Lindsey Marie Childs-Kean
09/07/23	4	Reading (Web)	Read: West Nile virus Prevention https://www.cdc.gov/westnile/healthcareproviders/healthCareProviders-TreatmentPrevention.html	0.25	Lindsey Marie Childs-Kean
09/07/23	4	Optional/Sup plemental	"General Properties of Viruses." Jawetz, Melnick, & Adelberg's Medical Microbiology, 28e Eds. Stefan Riedel, et al. McGraw Hill, 2019, https://accesspharmacy.mhmedical.com/content.asp x?bookid=2629§ionid=217773472. [Available in Access Pharmacy]		Lindsey Marie Childs-Kean
09/07/23	4	Optional/Sup plemental	"Pathogenesis and Control of Viral Diseases." Jawetz, Melnick, & Adelberg's Medical Microbiology, 28e Eds. Stefan Riedel, et al. McGraw Hill, 2019, https://accesspharmacy.mhmedical.com/content.asp x?bookid=2629§ionid=217773739. [Available in Access Pharmacy]		Lindsey Marie Childs-Kean
9/8/23 @ 1pm- 2:50pm	4.1.1- 4.1.8 and readi ngs	Active Learning Session	Active Learning Session 6: Virology (2 hours)	1	Ashley Brown, Bin Liu, Lindsey Marie Childs- Kean
09/08/23	4.1.1- 4.1.8 and readi ngs	Quiz (iRAT/tRAT)	iRAT/tRAT during ALS 6		Lindsey Marie Childs-Kean
	4.2	Unit	Antivirals		Lindsey Marie Childs-Kean
09/08/23	4.2.1. 1	Lecture Video	Watch: Pharmacology of Antivirals Part 1: Anti- Herpesvirus	0.50	Kalen Manasco

Date / Time [Recommended for Independent	Mod			Contact Time	
Study]	#	Activity	Activity Title	(hr)	Responsible
09/08/23	4.2.1.	Lecture Video	Watch: Pharmacology of Antivirals Part 2: Anti- Influenza Agents	0.50	Kalen Manasco
09/08/23	4.2.2	Lecture Video	Watch: Medicinal Chemistry of Antivirals	1.00	Yousong Ding
09/08/23	4.2.3	Lecture Video	Watch: Therapeutics of Antivirals	1.00	Lindsey Marie Childs-Kean
	4	Optional/Sup plemental	Module 4 Self-Assessment Questions (Word)		Lindsey Marie Childs-Kean
9/11/23 @ 10am- 11am	4.2.1- 4.2.3	Active Learning Session	Active Learning Session 7 Part 1: Antivirals (1 hour)	0.5	Kalen Manasco, Lindsey Marie Childs-Kean, Yousong Ding
09/11/23	4.2.1- 4.2.3	Quiz (iRAT/tRAT)	iRAT/tRAT during ALS 7 Part 1		Lindsey Marie Childs-Kean
9/11/23 @ 2pm- 3pm	4.1.1- 4.2.3	Facilitated Case Discussion	Active Learning Session 7 Part 2: Antivirals - Small Group Case Discussion (1 hour) via Zoom	0.50	Anthony Casapao, Barbara Santevecchi, Kalen Manasco, Kayihura Manigaba, Lindsey Marie Childs-Kean, Veena Venugopalan
9/11/23 @ 3pm- 4pm	3-4	Active Learning Session Zoom	Pre-Exam Review (Zoom 1 hour)		Anthony Casapao, Ashley Brown, Lindsey Marie Childs-Kean, Veena Venugopalan
9/14/23 @ 2pm- 4pm	3-4	Exam	Exam 2: Modules 3-4 (2hr)	2.00	David DeRemer
	5	Module	Module 5: Antifungals		Lindsey Marie Childs-Kean
09/14/23	5.1	Lecture Video	Watch: Candida spp	0.25	Barbara Santevecchi
09/14/23	5.2	Lecture Video	Watch: Candida diagnositics	0.25	Veena Venugopalan
09/14/23	5.3	Lecture Video	Watch: Pharmacology of Antifungals	1.00	Lindsey Marie Childs-Kean
09/14/23	5.4	Lecture Video	Watch: Medicinal Chemistry of Antifungals	1.00	Yousong Ding
09/14/23	5.5	Lecture Video	Watch: Therapeutics of Antifungals	0.75	Lindsey Marie Childs-Kean
	5	Optional/Sup plemental	Module 5 Self-Assessment Questions (Word)		Lindsey Marie Childs-Kean

Date / Time [Recommended for Independent Study]	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
9/18/23 @ 8am-	5.1 -	Active	Active Learning Session 8: Antifungals (2 hours)	1	Lindsey Marie
9:50am	5.5	Learning			Childs-Kean,
		Session			Yousong Ding
09/18/23	5.1 -	Quiz	iRAT/tRAT during ALS 8		Lindsey Marie
	5.5 6	(iRAT/tRAT) Module	Module 6: Basic Principles of Cancer Treatment		Childs-Kean David DeRemer
			·		
	6.1	Unit	Introduction to Cancer Care		David DeRemer
09/18/23	6.1	Lecture Video	Watch: Principles of Oncology	1.00	David DeRemer
	6.2	Unit	Pharmacology of Anticancer Therapeutics, Part I		David DeRemer
09/18/23	6.2	Lecture Video	Watch: Pharmacology of Anticancer Therapeutics Part 1	1.00	David DeRemer
	6.3	Unit	Pharmacology of Anticancer Therapeutics, Part II		David DeRemer
09/18/23	6.3.1	Lecture Video	Watch: Small Molecule Inhibitors/Monoclonal Antibodies	0.50	David DeRemer
09/18/23	6.3.2	Lecture Video	Watch: Cancer Immunotherapy	1.00	David DeRemer
	6.4	Unit	Medicinal Chemistry of Oncology Drugs		Mohamed Osman Radwan
09/19/23	6.4.1	Lecture Video	Watch: Medicinal Chemistry of Oncology Drugs, Part 1	1.00	Hendrik Luesch, Mohamed Osman Radwan
09/19/23	6.4.2	Lecture Video	Watch: Medicinal Chemistry of Oncology Drugs, Part 2	1.00	Hendrik Luesch, Mohamed Osman Radwan
	6.5	Unit	Personalized Medicine on Oncology		Jatinder Lamba
09/19/23	6.5	Lecture Video	Transcending Concept - Personalized Medicine: Oncology	1.00	Jatinder Lamba
	6.6	Unit	Transcending Concept - Evidence-based Practice: Superiority RCTs and PROs,		Priti Patel
09/19/23	6.6	Lecture Video	Watch: Oncology Trials	0.50	Priti Patel
	6.7	Unit	Lymphomas		David DeRemer
09/19/23	6.7.1	Lecture Video	Watch: Non-Hodgkin Lymphoma	1.00	David DeRemer
09/19/23	6.7.2	Lecture Video	Watch: Hodgkin Lymphoma	0.50	David DeRemer
	6.8	Unit	Medicinal Chemistry of Antiemetics		Guangrong Zheng
09/20/23	6.8.1	Lecture Video	Watch: Medicinal Chemistry of Antiemetics, Part I	0.50	Guangrong Zheng
09/20/23	6.8.2	Lecture Video	Watch: Medicinal Chemistry of Antiemetics, Part II	0.50	Guangrong Zheng
	6.9	Unit	Therapeutics of Antiemetics		David DeRemer
09/20/23	6.9	Lecture Video	Watch: Chemotherapy-Induced Nausea and Vomiting (CINV)	1.00	David DeRemer

Date / Time [Recommended for Independent Study]	Mod # 6.10.	Activity Unit	Activity Title Transcending Concept - Self-Care 1: Herbal & Dietary Supplements for the Immune System,	Contact Time (hr)	Responsible Oliver Grundmann
09/20/23	6.10.	Lecture Video	Watch: Self-care: Herbal and Dietary Supplements for the Immune System	1.00	Oliver Grundmann
	6.11	Unit	Transcending Concepts - Social (cultural sensitivity, health related beliefs, etc)		Monika Trejos Kweyete
09/20/23	6.11	Lecture Video	Watch: Health Disparities in Cancer Care	0.50	Monika Trejos Kweyete
9/20/23 @ 3pm- 4:30pm	6.1- 6.11	Active Learning Session	Oncology Q&A Session (1.5 hours)	1.00	David DeRemer
	6.1- 6.11	Optional/Sup plemental	Module 6 Self-Assessment Questions (Word)		David DeRemer
9/22/23 @ 10am- 11:50am	6.1- 6.11	Active Learning Session	Active Learning Session 9A: Lymphoma, Nausea, and Vomiting in the Cancer Patient (2 hours)	1.00	David DeRemer, Guangrong Zheng, Mohamed Osman Radwan, Oliver Grundmann, Priti Patel, Yousong Ding
09/22/23		Quiz (iRAT/tRAT)	iRAT/tRAT during ALS 9		David DeRemer
9/22/23 @ 1pm- 2:50pm	6.1- 6.11	Active Learning Session	Active Learning Session 9B: Lymphoma, Nausea, and Vomiting in the Cancer Patient (2 hours)	1.00	David DeRemer, Guangrong Zheng, Mohamed Osman Radwan, Oliver Grundmann, Priti Patel, Yousong Ding
9/22/23 @ 3pm- 3:30pm		Course Evaluation	Patient Care 2: Course Evaluation		
9/22/23 @ 3:30pm- 4pm	3-4	Exam Review	Exam 2 Revew		
09/25/23 at 7:30am		Assignment (Graded)	Capstone Assignment Part 1: Perusall Annotations	1.30	
09/25/23 at 7:30am		Assignment (Graded)	Capstone Assignment Part 2: Critical Literature Appraisal (Team Submission in Canvas: PPT)		
9/25/23 @ 8am- 12pm	1-6	Active Learning Session	Capstone (4 hours)	2.00	Anthony Casapao, Lindsey Marie Childs-Kean, Veena Venugopalan

Date / Time [Recommended for Independent Study]	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
9/26/23 @ 3pm- 4pm	5-6	Active Learning Session Zoom	Pre-Exam Review (1 hour)		David DeRemer, Guangrong Zheng, Hendrik Luesch, Jatinder Lamba, Oliver Grundmann, Priti Patel
9/27/23 @ 9am- 11:30am	1-6	Exam	Final Exam: Comprehensive (2.5 hours)		David DeRemer
10/4/23 @ 4:30pm- 5pm	1-6	Exam Review	Final Exam Review		
			Total Course Hours	81.35	

Appendix C: Capstone

Description

This assignment covers antifungals, antivirals, CAP, SSTI and UTI. Each of these categories will have one (1) journal article that is an original research publication. There is an individual graded portion through Perusall (a social annotation tool; this will be accessed through Canvas) and a team graded portion (critical literature appraisal) that will be assessed through a PowerPoint presentation in class. More details will be available in Canvas.

Rubric for Perusall [individual portion] (max of 10 pts)

	Rubric for Perusali [individual portion] (max of 10 pts)						
Category	Yes	No					
Annotation content: The content of the comments that students post. A comment should spark a discussion with	One comment was posted in the article (3 pts).	No comments (0 pts given).					
your peers (point of clarification or highlighting why it is important). Comments must be original and were the	Two comments were posted in the article (6 points).						
initial comment for the discussion. Replies to other team members' comments do not count.	Three comments were posted in the article (9 points)						
(max of 9 points)							
Reading the entire document	Must access each page or	Did NOT access each page or					
(max of 1 point)	section of the article (1 pt).	section of the article (0 pts).					
Extra points are allowed IF full points were not allotted from above.							
Active engagement time:	The time spent actively	Did NOT meet the minimum					
Spending time reading tables,	engaged with the assignment	time to actively engage with					
figures, body text, and comments from peers. Using 67 words per minute	and article (1 pt)	the content. (0 pts)					
reading speed as a rule of context.							
	Your original comment(s) elicited responses from your peers. (1 pt)	Original comment(s) did NOT elicit responses from your peers. (0 pts)					

Rubric for Critical Literature Appraisal [team portion] (10 pts total)

	Satisfactory	Acceptable		Unsatisfactory	
	5 pts	4 pts	3 pts	2 pts	0 pts
Format	The presentation	The	The	The	The
	includes all of the	presentation	presentation	presentation	presentation of
	following: incorporates	lacked ONE of	lacked TWO to	lacked FOUR of	ALL of the
	all provided details:	the items in	THREE of the	the items in	slides was
	purpose/background,	detail	items in	detail	incorrect
	methodology, results,		detail		
	and				
	critique/application				
Content	The critique and	The critique	The critique	The critique	The critique
	application slide were	and	and	and application	and/or
	applicable and	application	application	slide lacked	application
	plausible. Identify one	slide lacked	slide lacked	THREE of the	were/was
	strength and one	ONE of the	TWO of the	required	missing
	weakness of the	required	required	contents	
	study. Applied the	contents	contents		
	findings to patient				
	care.				