

MIDSTATE COLLEGE
411 W. NORTHMOOR RD. PEORIA, IL 61614
(309) 692-4092 (800) 251-4299

Spring 2019

HI210 Pathopharmacology

Credit: 4 Quarter Hours

Method of Delivery: flex learning

Course Description: This course combines pathophysiology and pharmacology concepts. There is a focus on the pathologic causes, physiological effects, prevention, and basic treatments of diseases. These aspects of the disease processes are combined with pharmacologic treatments which may be applied to disease processes.

Prerequisite: BIO 110, HI 100, and successful completion or concurrent enrollment in BIO 120.

Text(s) & Manual(s): Introduction to Pharmacology (12th Ed.)

Author(s): Asperheim, M.K., Favaro, J. (2012).

Publisher: Elsevier.

ISBN: 978-1-4377-1706-8

Text(s) & Manual(s): Nursing 2019 Drug Handbook, 39th Ed.

Author(s): Lippincott

ISBN: 9781496384072

Materials needed for this course:

1. Access to [Drugs. Com](http://www.drugs.com) and/or drug reference book (Text)
2. Hardware/Software and Equipment
3. Access to computer for companion website.

Topics:

1. Introduction to Pharmacology
2. Drug Legislation and Standards
3. Substance Abuse
4. Herbal Therapies and Herbal-Drug Interactions
5. Drug Interactions
6. Antibiotics and Antifungal, Antiviral, and Antiparasitic Agents
7. Antihistamines
8. Drugs that Affect the Skin and Mucous Membranes
9. Drugs that Affect the Respiratory System
10. Drugs that Affect the Circulatory System
11. Drugs that Affect the Central Nervous System
12. Pain Medications
13. Tranquilizers and Antidepressants
14. Prostaglandins and Prostaglandin Inhibitors

Spring 2019

15. Drugs That Affect the Autonomic Nervous System
16. Drugs That Affect the Digestive System
17. The Endocrine Glands and Hormones
18. Diuretics and Other Drugs that Affect the Urinary System
19. Immunizing Agents and Immunosuppressive Agents
20. Antineoplastic Drugs
21. Molecular and Targeted Therapies
22. Special Populations and Drug Therapies

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

1. Review basic drug facts related to drug administration, acceptable abbreviations, methods of administration, and legal considerations related drug administration.
2. Distinguish between local and systemic use, therapeutic uses of drugs, and allergic reactions vs. side effects of drugs.
3. Identify commonly prescribed medications by their trade and generic names and drug classifications.
4. Use current drug references to access information related to commonly used medications to treated diseases of the body systems.
5. Correlate pathophysiology of each body system to common signs and symptoms for each disease process.
6. Define terms specific to pathophysiology i.e. mechanisms of disease, cellular adaptation, prognosis, immune deficiency disorders on completion of lecture material and web based activities.
7. Recognize which common lab testing and medical imaging are utilized in diagnosis of diseases of the body systems.
8. Link commonly prescribed medications to the pathological processes that they treat.
9. Discuss the legal and ethical responsibilities of workers in the healthcare industry related to drug safety including patient teaching and reduction of drug errors including the use to e-prescribing.
10. Correlate signs, symptoms, and cost of substance abuse on the individual, the family, and the community.

MIDSTATE COLLEGE
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Spring 2019

Midstate Grading scale:

90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
0 - 59	F

Academic Integrity:

Academic integrity is a basic principle of the College's function. Midstate College students are expected to maintain a high level of academic honesty. Contrary actions may result in penalties such as failure of the assignment(s), a lesser grade on assignment(s), failure of the course and/or suspension from the College. The course instructor will review all submitted documents and supporting evidence in connection to the infraction. The course instructor will also review the student's personal file for other notifications of academic dishonesty before determining the level of action to be applied. The course instructor will complete the Academic Dishonesty Report form to document and describe the incident and actions taken, then kept on file. The student may appeal the decision to administration, whose decision will be final.

The following (**plagiarism, cheating, deception, sabotage, computer misuse and copyright infringement**) are included in the actions Midstate College considers behavior contrary to the academic integrity policy; however, the policy is not limited to these examples. Further discussion of consequences regarding academic dishonesty are addressed in the Student Handbook.

Plagiarism:

Plagiarism is using another person's words, either by paraphrase or direct quotation, without giving credit to the author(s). Plagiarism can also consist of cutting and pasting material from electronic sources by submitting all or a portion of work for assignment credit. This includes papers, computer programs, music, sculptures, paintings, photographs, etc. authored by another person without explicitly citing the original source(s). These actions violate the trust

MIDSTATE COLLEGE
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Spring 2019

and honesty expected in academic work. Plagiarism is strictly against the academic policy of Midstate College. Its seriousness requires a measured, forceful response which includes consequences for inappropriate and/or no citation.

In courses containing writing assignments, the College promotes the use of Turnitin which compares the student's writing against previously submitted papers, journals, periodicals, books, and web pages. Students and instructors can use this service to reduce the incidence of plagiarism. This electronic resource has been found to conform to legal requirements for fair use and student confidentiality. It is able to provide a report to the student indicating the parts of the assignment that match.

Student Success and Tutoring:

Contact Student Success: Room 110; (309) 692-4092, ext. 1100; studentsuccess@midstate.edu;

The Office of Student Success offers help in the following areas:

- Tutoring: Tutoring is encouraged for students who are doing their best to complete assignments yet still are experiencing difficulty in this course. Tutoring may be provided by the instructor outside of scheduled class times or through the office of Student Success.
- Writing assignment assistance: This may include learning how to conduct research; using proofreading tools such as Turnitin; outlining a topic; and applying MLA/APA standards.
- Math, accounting, and computer skills (including file management).
- Test-taking techniques.
- Note-taking skills development.
- Study skills development.
- Time management

Spring 2019

Instructor: Margaret Markley

Room/phone: 204/692-4092

Midstate email: [Margaret Markley Email](#)
Office Hours: 5-6 pm Mon, Tues, and Wed.

Policies and Procedures:

1. This course is being administered as flex learning. Flex courses are taught both on-campus and through eLearning. Flex courses offer personalized learning where students can choose each week whether they want to attend on-campus, via eLearning, or a combination of both. The schedule will state what day and time the classroom component will be, as it would be with a regular classroom course, while eLearning is available at all times. If you plan to attend in the classroom, please let the instructor know at least one day prior to the date of the classroom meeting time so that an adequate number of classroom materials can be printed.
2. All work is to be submitted on time unless unusual circumstances occur. If you miss class, you are expected to use your course outline to determine what you missed. You will have seven days to make arrangements to make up the missed work without penalty. The grade will drop 10% for each week you delay in completing material following the seven day grace period. **Late work will NOT be accepted without prior approval from the instructor.** This includes homework and quizzes.
3. If you attend the classroom component, you are expected to be on time. If you must arrive late, or leave early during class, please let the instructor know ahead of time and enter or leave the classroom quietly to avoid disturbing others.
4. **Academic dishonesty is never tolerated and will be referred to the dean.**
5. **If you are in the classroom, cell phone ringers must be silenced and absolutely no texting or taking calls will be allowed during class aside from classroom discussion.**
6. The final exam **must** be completed. Failure to do so will result in failure of the course.
7. In order to maintain equal work in both online and classroom components of this course, **all** students, both classroom and eLearning, must complete weekly reflections. The weekly reflections must be submitted electronically since we are using Turnitin for detection of plagiarism. The weekly quiz will also be done online and can be done at home or at the conclusion of the in-class session.
8. If you are attending the course via eLearning, discussion responses must be posted by Sunday night at the end of the week. In order to receive full credit for online discussion, you must also respond to at least one other student in a ***meaningful*** manner with either a value-added comment or an insightful question about the posting of your classmate. Students attending in the classroom must come prepared to discuss the assigned question and must actively participate in discussion in the classroom in order to receive full credit.
9. **Attendance is expected, not suggested.** Class is like having a job. Excessive absence will hurt your performance and your ability to pass this class. Excessive absence is 3 or more weeks of online classes.
10. Academic integrity is important at Midstate College, as stated in the catalog and student handbook. This not only includes prevention of cheating on exams and written research

Spring 2019

papers, but also discussion forum postings. **Discussion postings must be in your own words and references must be cited.**

11. The policy for eLearning is that course materials are available to students at noon each Monday and that students have until 7:59 a.m. Monday morning to complete the previous week's material. However, students are advised against waiting until the last minute or last day to submit their work for a variety of reasons. If you work on your eLearning course early in the week and experience computer problems, you have more time to find an alternate computer. Also, the discussion forums can be very beneficial learning tools in eLearning if utilized to their greatest potential. It is difficult to have an effective and meaningful "discussion" if nobody posts until the last minute.

12. Read the online Weekly Assignment List for all weekly activities and assignments. These will be different based on the material scheduled for the week.

13. Flex courses are taught both on-campus and through eLearning. Flex courses offer personalized learning where students can choose each week whether they want to attend on-campus, via eLearning, or both.

- On-campus = If a student attends an on-campus course, he or she will be counted as present.
- eLearning = To be considered in attendance for an eLearning course, the student must participate each week by submitting substantial, gradable work.

Methods of Evaluating Student Performance and Instructor's Grading Scale: All assignments, quizzes, discussions, summaries, and the final examination must be completed. If all required elements are not done, the student will not pass this course. A course average grade of C or better is required to be considered passing for this course.

Discussions	20%
Summaries	20%
Assignments	25%
Professionalism	5%
<u>Quizzes & Final Exam</u>	<u>30%</u>
Total	100%

MIDSTATE COLLEGE
411 W. NORTHMOOR RD. PEORIA, IL 61614
(309) 692-4092 (800) 251-4299

Spring 2019

HEALTH INFORMATION TECHNOLOGY/MEDICAL CODING/MEDICAL TRANSCRIPTION
PROFESSIONALISM COMPETENCY EVALUATION FORM

Category One – Attendance													
The student must attend at least 75% of the classes in order to pass this category. This means for a course that meets twice a week, the student cannot be absent more than 6 classes, and courses that meet once a week the student cannot be absent for more than 3 classes. Tardiness or leaving early will result in reduction of credit for attendance for that day.													
P=Present A=Absent	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12	
Course meeting twice a week	/	/	/	/	/	/	/	/	/	/	/	/	/
Course meeting once a week													
TOTALS	Total number of class sessions				Total number of sessions attended				Percent of class sessions attended				
Category Two – Professional Behavior and Work Ethic													
The student is expected to exhibit a professional work ethic that will be evaluated on the following: Students must earn 75% of available points in order to pass this category.													
S = Satisfactory – 2 pts	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12	
N = Needs Improvement - 1 pt													
U = Unsatisfactory – 0 pts													
Exhibits professional written communication (i.e. presentation, language, grammar etc.) on all assignments submitted													
Provides instructor with all assignments as outlined in the course syllabus (i.e. meets due dates, make-ups turned in within a week, etc.)													
Adheres to specific course policies as outlined in the syllabus													
Projects professional behavior (i.e. self control, positive attitude, motivation, academic integrity)													
Exhibits professional communication at all times (respectful, tactful, etc.)													
Keeps cell phone ringer silenced and refrains from texting or taking phone calls during class (classroom only)													
WEEKLY TOTALS													

MIDSTATE COLLEGE
 411 W. NORTHMOOR RD. PEORIA, IL 61614
 (309) 692-4092 (800) 251-4299

Spring 2019

TOTALS	Total points available		Total points earned		Percent of points earned
Grading Summary					
<p><u>Midterm:</u> Points earned _____ / Points available _____ x 100 = _____ %</p> <p>Comments:</p> <hr/>	<p><u>Final:</u> Points earned _____ / Points available _____ x 100 = _____ %</p> <p>Comments:</p> <hr/>				

MIDSTATE COLLEGE
411 W. NORTHMOOR RD. PEORIA, IL 61614
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Spring 2019

CLASSROOM DISCUSSION QUESTION GRADING GUIDELINES	
Initial response <ul style="list-style-type: none"> • Answers minimal requirements of question without supporting evidence = 10 points <ul style="list-style-type: none"> • Minimal response with supporting evidence = 20 points • Complete response with supporting evidence = 40 points 	4 points
Response to a classmate <ul style="list-style-type: none"> • Simple response lacking insight or adding value = 20 points • Insightful response adding value to the initial response = 40 points 	4 points
Correct spelling and grammar in postings for the week <ul style="list-style-type: none"> • Professional and respectful response = 20 points • Unprofessional or disrespectful response = 0 points 	2 points
Total points per weekly discussion	10 points

ELEARNING DISCUSSION QUESTION GRADING GUIDELINES	
Initial posting <ul style="list-style-type: none"> • Answers the minimal requirements of the question without supporting evidence = 10 point <ul style="list-style-type: none"> • Minimal posting with supporting evidence = 20 points • Complete posting with supporting evidence = 30 points 	3 points
Response to posting of a classmate <ul style="list-style-type: none"> • Posting the minimal requirements without supporting evidence = 10 points <ul style="list-style-type: none"> • Minimal posting with supporting evidence = 20 points • Complete posting with supporting evidence = 30 points 	3 points
Correct spelling and grammar in postings for the week <ul style="list-style-type: none"> • No spelling errors = 20 points • One or two spelling errors = 10 points • More than two spelling errors = 0 points 	2 points
Correct grammar in postings for the week <ul style="list-style-type: none"> • No grammar errors = 20 points • One or two grammar errors = 10 points 	2 points
More than two spelling errors = 0 points	
Total points per weekly discussion	10 points

WEEKLY SUMMARY GRADING GUIDELINES	
<ul style="list-style-type: none"> • Two complete paragraphs with supporting evidence = 40 points • One paragraph with supporting evidence or two minimal paragraphs without supporting evidence = 20 points • Answers the minimal requirements of the question without supporting 	4 points

MIDSTATE COLLEGE
411 W. NORTHMOOR RD. PEORIA, IL 61614
(309) 692-4092 (800) 251-4299

Spring 2019

evidence = 10 points • No posting = no points	
Correct spelling in postings for the week • No spelling errors = 30 points • 1 misspelled word = 20 points • 2-3 misspelled words = 10 point • More than 3 misspelled words = 0 points	3 points
Correct grammar in postings for the week • No grammar/mechanical errors = 30 points • 1 grammar/mechanical error = 20 points • 2-3 grammar/mechanical errors = 10 points • More than 3 misspelled words = 0 points	3 points
Total points per weekly discussion	10 points

WRITING ASSIGNMENT GRADING GUIDELINES			
	-20	-10	-0
Introduction	Does not state objectives clearly	States objectives clearly, plus includes thesis statement	Also includes necessary info for reader's understanding of topic
Paragraph Development	Paragraphs are not well developed, not using minimum number of sentences nor complex sentences	Paragraphs are somewhat developed, using simple sentences, and with the minimum number of sentences	Paragraphs are fully developed, using multiple, complex and compound sentences
Content	Does not cover content appropriately	Major areas of content are included, but lacking sufficient detail	All pertinent content is covered
Mechanics	More than 3 errors	Between 1-3 errors	No errors
Spelling	More than 3 misspelled words	Between 1-3 misspelled words	No misspelled words

Week	Topics	Objectives	Reading Assignments
1	Intro into Pharmacy, Drug Legislation and Standards, Substance Abuse, Herbal Therapies and Herbal-Drug Interactions, Interactions	Review basic drug facts related to drug administration, acceptable abbreviations, methods of	Chapters 2,3,27,28, and 29

Spring 2019

		<p>administration, and legal considerations related drug administration. Correlate signs, symptoms, and cost of substance abuse on the individual, the family, and the community. Distinguish between local and systemic use, therapeutic uses of drugs, and allergic reactions vs. side effects of drugs. Discuss the legal and ethical responsibilities of workers in the healthcare industry related to drug safety including patient teaching and reduction of drug errors including the use to e-prescribing</p>	
2	Antibiotics and Antifungals, Antivirals, Anti-parasitic Agents, Antihistamines, Drugs that affect the Skin and Mucous Membranes	<p>Identify commonly prescribed medications by their trade and generic names and drug classifications. Use current drug references to access information related to commonly</p>	Chapter 7, 8, and 9

Spring 2019

		<p>used medications to treated diseases of the body systems.</p> <p>Correlate pathophysiology of each body system to common signs and symptoms for each disease process.</p> <p>Define terms specific to pathophysiology i.e. mechanisms of disease, cellular adaptation, prognosis, immune deficiency disorders on completion of lecture material and web based activities.</p> <p>Recognize which common lab testing and medical imaging are utilized in diagnosis of diseases of the body systems.</p> <p>Link commonly prescribed medications to the pathological processes that they treat.</p>	
3	Drugs that Affect the Respiratory System	Identify commonly prescribed	Chapter 10

Spring 2019

		<p>medications by their trade and generic names and drug classifications.</p> <p>Use current drug references to access information related to commonly used medications to treated diseases of the body systems.</p> <p>Correlate pathophysiology of each body system to common signs and symptoms for each disease process.</p> <p>Define terms specific to pathophysiology i.e. mechanisms of disease, cellular adaptation, prognosis, immune deficiency disorders on completion of lecture material and web based activities.</p> <p>Recognize which common lab testing and medical imaging are utilized in diagnosis of diseases of the body systems.</p> <p>Link commonly</p>	
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Spring 2019

		prescribed medications to the pathological processes that they treat.	
4	Drugs that Affect the Circulatory System	<p>Identify commonly prescribed medications by their trade and generic names and drug classifications. Use current drug references to access information related to commonly used medications to treated diseases of the body systems.</p> <p>Correlate pathophysiology of each body system to common signs and symptoms for each disease process.</p> <p>Define terms specific to pathophysiology i.e. mechanisms of disease, cellular adaptation, prognosis, immune deficiency disorders on completion of lecture material and web based activities.</p>	Chapter 11

Spring 2019

		<p>Recognize which common lab testing and medical imaging are utilized in diagnosis of diseases of the body systems. Link commonly prescribed medications to the pathological processes that they treat.</p>	
<p>5</p>	<p>Drugs that Affect the Central Nervous System and Pain Medications</p>	<p>Identify commonly prescribed medications by their trade and generic names and drug classifications. Use current drug references to access information related to commonly used medications to treated diseases of the body systems. Correlate pathophysiology of each body system to common signs and symptoms for each disease process. Define terms specific to pathophysiology i.e. mechanisms of</p>	<p>Chapter 12 and 13</p>

Spring 2019

		<p>disease, cellular adaptation, prognosis, immune deficiency disorders on completion of lecture material and web based activities.</p> <p>Recognize which common lab testing and medical imaging are utilized in diagnosis of diseases of the body systems.</p> <p>Link commonly prescribed medications to the pathological processes that they treat.</p>	
<p style="text-align: center;">6</p>	<p style="text-align: center;">Tranquilizers and Antidepressants, Prostaglandins, and Prostaglandin Inhibitors, Drugs that Affect the Autonomic Nervous System</p>	<p>Identify commonly prescribed medications by their trade and generic names and drug classifications.</p> <p>Use current drug references to access information related to commonly used medications to treated diseases of the body systems.</p> <p>Correlate pathophysiology of each body system</p>	<p style="text-align: center;">Chapter 14, 15, and 16</p>

Spring 2019

		<p>to common signs and symptoms for each disease process.</p> <p>Define terms specific to pathophysiology i.e. mechanisms of disease, cellular adaptation, prognosis, immune deficiency disorders on completion of lecture material and web based activities.</p> <p>Recognize which common lab testing and medical imaging are utilized in diagnosis of diseases of the body systems.</p> <p>Link commonly prescribed medications to the pathological processes that they treat.</p>	
7	Vitamins, Minerals, and General Nutrition, Drugs that Affect the Digestive System	<p>Identify commonly prescribed medications by their trade and generic names and drug classifications.</p> <p>Use current drug references to</p>	Chapter 6 and 17

MIDSTATE COLLEGE
411 W. NORTHMOOR RD. PEORIA, IL 61614
(309) 692-4092 (800) 251-4299

Spring 2019

		<p>access information related to commonly used medications to treated diseases of the body systems.</p> <p>Correlate pathophysiology of each body system to common signs and symptoms for each disease process.</p> <p>Define terms specific to pathophysiology i.e. mechanisms of disease, cellular adaptation, prognosis, immune deficiency disorders on completion of lecture material and web based activities.</p> <p>Recognize which common lab testing and medical imaging are utilized in diagnosis of diseases of the body systems. Link commonly prescribed medications to the pathological processes that they treat.</p>	
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Spring 2019

<p>8</p>	<p>The Endocrine Glands and Hormones</p>	<p>Identify commonly prescribed medications by their trade and generic names and drug classifications.</p> <p>Use current drug references to access information related to commonly used medications to treated diseases of the body systems.</p> <p>Correlate pathophysiology of each body system to common signs and symptoms for each disease process.</p> <p>Define terms specific to pathophysiology i.e. mechanisms of disease, cellular adaptation, prognosis, immune deficiency disorders on completion of lecture material and web based activities.</p> <p>Recognize which common lab testing and medical imaging are utilized in diagnosis of diseases of the</p>	<p>Chapter 18</p>
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Spring 2019

		<p>body systems. Link commonly prescribed medications to the pathological processes that they treat.</p>	
9	Drugs that Affect the Urinary System	<p>Identify commonly prescribed medications by their trade and generic names and drug classifications. Use current drug references to access information related to commonly used medications to treated diseases of the body systems. Correlate pathophysiology of each body system to common signs and symptoms for each disease process. Define terms specific to pathophysiology i.e. mechanisms of disease, cellular adaptation, prognosis, immune deficiency disorders on completion of lecture material and</p>	Chapter 19

MIDSTATE COLLEGE
411 W. NORTHMOOR RD. PEORIA, IL 61614
(309) 692-4092 (800) 251-4299

Spring 2019

		<p>web based activities.</p> <p>Recognize which common lab testing and medical imaging are utilized in diagnosis of diseases of the body systems.</p> <p>Link commonly prescribed medications to the pathological processes that they treat.</p>	
<p>10</p>	<p>Immunizing Drugs and Immunosuppressive Drugs, Molecular and Targeted Therapies</p>	<p>Identify commonly prescribed medications by their trade and generic names and drug classifications.</p> <p>Use current drug references to access information related to commonly used medications to treated diseases of the body systems.</p> <p>Correlate pathophysiology of each body system to common signs and symptoms for each disease process.</p> <p>Define terms specific to</p>	<p>Chapter 20, 21, and 22</p>

MIDSTATE COLLEGE
 411 W. NORTHMOOR RD. PEORIA, IL 61614
 (309) 692-4092 (800) 251-4299

Spring 2019

		<p>pathophysiology i.e. mechanisms of disease, cellular adaptation, prognosis, immune deficiency disorders on completion of lecture material and web based activities.</p> <p>Recognize which common lab testing and medical imaging are utilized in diagnosis of diseases of the body systems.</p> <p>Link commonly prescribed medications to the pathological processes that they treat.</p>	
11	<p style="text-align: center;">Special Situations in Pharmacology</p>	<p>Identify commonly prescribed medications by their trade and generic names and drug classifications.</p> <p>Use current drug references to access information related to commonly used medications to treated diseases of the body systems.</p> <p>Correlate</p>	<p style="text-align: center;">Chapter 23,24, 25, and 26</p>

MIDSTATE COLLEGE
 411 W. NORTHMOOR RD. PEORIA, IL 61614
 (309) 692-4092 (800) 251-4299

Spring 2019

		<p>pathophysiology of each body system to common signs and symptoms for each disease process.</p> <p>Define terms specific to pathophysiology i.e. mechanisms of disease, cellular adaptation, prognosis, immune deficiency disorders on completion of lecture material and web based activities.</p> <p>Recognize which common lab testing and medical imaging are utilized in diagnosis of diseases of the body systems.</p> <p>Link commonly prescribed medications to the pathological processes that they treat.</p>	
12	Final Exam		

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Spring 2019