

From: [Smith, Randy](#)
To: [Fuchs, James](#); [Mostafavifar, Lisa](#)
Cc: [Williams, Valarie](#); [Smith, Randy](#); [Griffiths, Rob](#); [Reed, Katie](#); [Duffy, Lisa](#); [Hunt, Ryan](#); [Kwiek, Nicole](#); [Kroetz, Deanna](#); [Bittner, Brandi](#); [Lemon, Jason](#)
Subject: Proposal to establish an online 3a Graduate Certificate in Pharmacy Management
Date: Thursday, September 3, 2026 11:23:38 AM
Attachments: [image001.png](#)

Jim and Lisa:

The proposal from the College of Pharmacy to establish an online 3a Graduate Certificate in Pharmacy Management was approved by the Council on Academic Affairs at its meeting on September 2, 2026. Thank you for attending the meeting to respond to questions/comments.

No additional level of internal review/approval is necessary. This action will be included in the Council's next Annual Activities Report to the University Senate (July 2027).

The Office of the University Registrar will work with on any implementation issues.

Please keep a copy of this message for your file on the proposal and I will do the same for the file in the Office of Academic Affairs.

If you have any questions please contact the Chair of the Council, Professor Val Williams (.1415), or me.

I wish you success with this important program development.

Randy



W. Randy Smith, Ph.D.

Vice Provost for Academic Programs

Office of Academic Affairs

University Square South, 15 E. 15th Avenue, Columbus, OH 43201

614-292-5881 Office

smith.70@osu.edu

Assisted by:

Katie Reed

Executive Assistant

(614) 292-5672



TO: Randy Smith, Vice Provost for Academic Programs

FROM: Graduate School Curriculum Services

DATE: May 8, 2026

RE: Proposal to establish an online 3A Graduate Certificate in Pharmacy Management in the College of Pharmacy

The College of Pharmacy is proposing to establish a online 3A Graduate Certificate in Pharmacy Management

The proposed 14-credit, for-credit certificate is designed to address documented workforce demands for formally trained pharmacy leaders in hospitals, health systems, and specialty pharmacy organizations. The certificate is built entirely from existing graduate courses within the Master of Science in Pharmaceutical Sciences with a specialization in Health System Pharmacy Administration and Leadership (MS-HSPAL) program. It provides a 12-month pathway for pharmacists to gain foundational competencies in finance, operations management, medication safety, supply chain management, informatics, and enterprise assessment. All credits earned in the certificate will apply directly toward the MS-HSPAL degree.

The proposal was received by the Graduate School on April 15, 2026. The combined GS/CAA subcommittee first reviewed the proposal on April 29, 2026, and supported its review by the Council on Academic Affairs.



THE OHIO STATE
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Curriculum Proposal Checklist

Title of Program:

Effective term: Autumn 2027 College:

New/Establish: ☒ Secondary Major Eligible: ☐ Academic Unit:

Revise: ☐ 50% Revision: ☐ Mark Up: ☐ Program Contact: Lisa Mostafavifar

Terminate: ☐ Suspend: ☐ Certificate Category*:

Degree/Credential:

Program of Study : Certificate Title:

Code:

Program Focus*:

Credit hours to degree/credential: Is this a change to the current total? ☐ Yes ☐ No

Program offered only online? ☒ Yes ☐ No If yes, is there a signed MOU with ODEE? ☒ Yes ☐ No

Campus(es) where offered: ☒ Columbus ☐ ATI ☐ Lima ☐ Mansfield ☐ Marion ☐ Newark

Rationale: The proposed 14-credit, for-credit certificate is designed to address documented workforce demands for formally trained pharmacy leaders in hospitals, health systems, and specialty pharmacy organizations. The certificate is built entirely from existing graduate courses within the Master of Science in Pharmaceutical Sciences with a specialization in Health System Pharmacy Administration and Leadership (MS-HSPAL) program. It provides a 12-month pathway for pharmacists to gain foundational competencies in finance, operations management, medication safety, supply chain management, informatics, and enterprise assessment. All credits earned in the certificate will apply directly toward the MS-HSPAL degree.

Student Curriculum Sheet Required: ☒

Four Year (or appropriate) Plan: ☐

Academic Unit Curriculum Committee approval date:

College Curriculum Committee approval date:

Graduate School Council approval date*:

Regional Campus approval date*:

Council on Academic Affairs approval date:

University Senate approval date*:

Board of Trustees approval date*:

ODHE approval date*:

* If applicable

Vice Provost W. Randy Smith

Council on Academic Affairs
Office of Academic Affairs
University Square South
15 E. 15th Ave.
Columbus, OH 43201

Dear Vice Provost Smith,

On behalf of the College of Pharmacy, we respectfully submit this proposal for the creation of a new graduate-level certificate: **Online Certificate in Pharmacy Management.**

The proposed 14-credit, for-credit certificate is designed to address documented workforce demands for formally trained pharmacy leaders in hospitals, health systems, and specialty pharmacy organizations. The certificate is built entirely from existing graduate courses within the Master of Science in Pharmaceutical Sciences with a specialization in Health System Pharmacy Administration and Leadership (MS-HSPAL) program. It provides a 12-month pathway for pharmacists to gain foundational competencies in finance, operations management, medication safety, supply chain management, informatics, and enterprise assessment. All credits earned in the certificate will apply directly toward the MS-HSPAL degree.

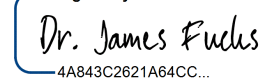
This proposal was reviewed and approved by the College of Pharmacy Graduate and Research Studies Committee on 3/11/2026. We respectfully request review and approval by the Council on Academic Affairs.

Sincerely,



Lisa Glance Mostafavifar, PharmD, MS, BCPS, BCNSP
Associate Professor – Clinical | Pharmacy Practice and Science Division
Director, Master of Science in Health-System Pharmacy Administration and Leadership Program
The Ohio State University College of Pharmacy
206 Parks Hall | 500 West 12th Ave Columbus, OH 43210
mostafavifar.2@osu.edu

Signed by:



4A843C2621A64CC...

James Fuchs, PhD

Professor of Medicinal Chemistry & Pharmacognosy
Associate Dean for Research and Graduate Studies
College of Pharmacy, The Ohio State University
500 W. 12th Ave., Parks Hall, Columbus, OH 43210

Proposal

Online Certificate in Pharmacy Management

I. Executive Summary

- a. The College of Pharmacy proposes the creation of a 14-credit graduate certificate titled the Online Certificate in Pharmacy Management, to be delivered fully online beginning Autumn 2027. This certificate is designed to meet a documented and growing workforce demand for trained pharmacy leaders. It provides graduate-level preparation in financial management, operations, medication safety, supply chain management, informatics, and enterprise assessment. The program may be completed in 12 months (two semesters), and all credits are stackable into the existing MS-HSPAL degree. No new courses are required for implementation. The certificate is composed exclusively of existing MS-HSPAL courses with the structure, curriculum, mode of delivery, and learning outcomes noted below.
- b. Certificate Proposal Structure
 - i. For-credit graduate certificate
 - ii. 10 courses
 - iii. 14 total credits (7 credits per semester)
 - iv. Completed in 12 months
- c. Curriculum
 - i. Fall Semester (7 credits)
 1. Session 1
 - a. PHR 8100: Health System Pharmacy Finance I: Principles of Accounting (1.5)
 - b. PHR 8160: Operations Management in Health System Pharmacy (1.5)
 2. Session 2
 - a. PHR 8105: Health System Pharmacy Finance II: Applications and Budget (1.5)
 - b. PHR 8150: Systems Issues with Medication Safety (1.5)
 3. Full Semester
 - a. PHR 8884: Health System Pharmacy Administration and Leadership Seminar (1)
 - ii. Spring Semester (7 credits)
 1. Session 1
 - a. PHR 8250: Pharmaceutical Supply Chain Principles for Health Systems (1.5)
 - b. PHR 8200: Operational Assessment of the Pharmacy Enterprise I (1.5)
 2. Session 2
 - a. PHR 8120: Information Systems in Health System Pharmacy (1.5)
 - b. PHR 8205: Operational Assessment of the Pharmacy Enterprise II (1.5)
 3. Full Semester
 - a. PHR 8884: Health System Pharmacy Administration and Leadership Seminar (1)
- d. Mode of Delivery
 - i. The program will be delivered fully online, with:
 1. Asynchronous content
 2. Required virtual synchronous sessions on Mondays from 4:10-6:30PM

- e. Learning Outcomes (upon completion of the certificate, learners will be able to):
 - i. Apply foundational financial and accounting principles to support budgeting, resource allocation, and fiscal decision-making in health-system pharmacy.
 - ii. Manage and evaluate core pharmacy operations, including workflow, staffing, and medication-use processes.
 - iii. Incorporate medication safety and systems-thinking principles to improve quality and reduce risk across the medication-use system.
 - iv. Apply supply chain and operational assessment concepts to support efficient, data-driven pharmacy services.
 - v. Use pharmacy information systems and operational data to inform decisions and communicate analyses and recommendations to leaders and stakeholders.
- f. Assessment of Learning Outcomes
 - i. Learning outcomes will be assessed across all ten courses.
 - ii. Because the courses align directly with the certificate learning outcomes, final course grades reflect competency attainment.
 - iii. Students must earn a grade of 80% or higher in each course to receive the certificate.
 - iv. Assessment results will be used to:
 - 1. Monitor student achievement
 - 2. Identify curricular improvement opportunities
 - 3. Inform instructional adjustments
- g. Timeline
 - i. Implementation of assessment plan: Autumn 2027
 - ii. Ongoing review: Each academic year

II. **Background and Rationale**

- a. Workforce Demand
 - i. A significant workforce need exists for formally trained pharmacy leaders.
 - ii. The ASHP Foundation Pharmacy Forecast 2023 predicted that at least 25% of seasoned pharmacy leaders may leave their positions earlier than expected, creating substantial leadership gaps in hospitals and health systems (DiPiro JT, Nesbit TW, Reuland C, et al., 2023). The same report noted that some health systems may need to fill leadership roles with non-pharmacists due to shortages, which may compromise profession-specific expertise.
 - iii. Additionally, Boswell et al. (2025) highlighted the increasing expectation that pharmacist's step into unexpected leadership roles, further reinforcing the need for structured leadership development pathways.
 - iv. Despite workforce pressures, Chen et al. (2025) found that pharmacy executives and mid-level managers report high job satisfaction and would choose leadership again, indicating a sustained interest in leadership careers if appropriate development pathways are available.
 - v. Together, these data support the need for scalable, graduate-level leadership preparation.
- b. Employer Collaboration
 - i. The College of Pharmacy has been approached by Option Care Health to serve as the academic partner for a fellowship program launching in 2027. Option Care Health has expressed interest in enrolling up to three fellows per year in a one-year certificate aligned with health-system pharmacy administration and leadership competencies.

Given this fellowship is only 1-year, the existing 2-year MS HSPAL program is not a viable for option for them.

1. Option Care Health verbalized that if a certificate was available and they chose to partner, that their company would reimburse 100% for the certificate.
- ii. The College of Pharmacy currently partners with The Ohio State University Wexner Medical Center, OhioHealth, Nationwide Children's Hospital, and Comprehensive Pharmacy Solutions as an academic partner for residents. This certificate would be another option for their working professional staff to consider before committing to the full MS-HSPAL program that can be completed faster and is more affordable.
 1. Working professionals are encouraged at all of these organizations to use and maximize their employer tuition assistance program
 - a. The Ohio State University Wexner Medical Center (100% based on 25-26 tuition rates)
 - b. OhioHealth, Nationwide Children's Hospital, and Comprehensive Pharmacy Solutions
 - i. ~\$5250 per calendar year (50% reimbursement based on 25-26 tuition rates)
- c. Intended Audience
 - i. The certificate is designed for:
 1. Pharmacists in first-line management or supervisory roles.
 2. Experienced pharmacists aspiring to become leaders who prefer a shorter credential prior to committing to a full master's program.
 3. Fellows in health-system or specialty pharmacy organizations, including Option Care Health.
 4. PGY2 pharmacy administration residents or residency sites without an established combined master's program.
- d. Value to Learners
 - i. The certificate provides focused graduate-level preparation in:
 1. Financial and accounting principles
 2. Health-system operations and enterprise assessment
 3. Medication safety and systems thinking
 4. Supply chain management
 5. Pharmacy information systems
 - ii. The fully online, asynchronous format with synchronous engagement allows working professionals nationwide to participate without geographic constraints.
 - iii. Stackable Pathway
 1. All 14 credits apply directly toward the MS-HSPAL degree, allowing learners to:
 - a. Earn a meaningful graduate credential in one year
 - b. Evaluate readiness for a full master's degree
 - c. Transition seamlessly into the MS-HSPAL program without loss of credit
- e. Value to Employers
 - i. The certificate provides:
 1. Accelerated leadership preparation
 2. Standardized, graduate-level training aligned with national workforce projections
 3. A cost-effective workforce development option
 4. A structured pipeline into advanced graduate education

III. Comparative Data

- a. A competitive analysis conducted by Ohio State Online in 2025 identified:
- i. University of North Carolina (UNC) and University of Cincinnati (UC) as greatest competitors in terms of the pharmacy administration and leadership market, with UNC outpacing UC and OSU with MS-HSPAL enrollment.
 1. University of North Carolina – Offers a master’s program but does not currently offer a corresponding graduate certificate.
 2. University of Cincinnati – Offers a stackable Pharmacy Leadership Graduate Certificate aligned with its master’s program.
 - b. The development of this certificate would position the College of Pharmacy competitively within the marketplace and would align with peer institutions offering stackable credentials towards an MS degree.
 - c. Ohio State Online also gathered data from current organizations offering pharmacy leadership/management certificates and incorporated into a chart listed below.

Institution	The Ohio State University (OSU)	University of Cincinnati (UC)	American Society of Health System Pharmacists (ASHP)	National Pharmacy Technician Association (NPTA)
Program Name	Online Certificate in Pharmacy Management	Online Certificate in Pharmacy Leadership	Pharmacy Leadership Certificate: Beyond the Basics for Advancing Managers	The Pharmacy Leadership & Management Bootcamp (Receive a certificate of completion)
Credit Hours	14	15	Non-credit (19.5 CE contact hours)	Non-credit (20 CE credits)
Cost (not including employer assistance)	\$12,259 ((\$828.75/credit instructional fee + \$32.63/credit general fee)*14 credits) + (\$100/semester Distance Learning Fee * 2 semesters)	\$11,745 (\$783 per credit hour)	\$460 for members \$560 for non-members	\$995 for pharmacists
Stackable with MS HSPAL?	Yes	Yes	No	No
Duration	12 months	12 months	Self-paced	13 weeks
Course structure	Online, synchronous	Online, asynchronous	Online	Online, asynchronous
Admission Requirements	BS in Pharmacy or PharmD, 3.0 GPA	BS in Pharmacy or PharmD, 3.0 GPA	No prerequisites	No prerequisites

Audience	Current or aspiring pharmacy leaders.	Current or aspiring pharmacy leaders.	Pharmacist professionals in entry-to-mid-level leadership positions.	Pharmacy professionals looking to expand leadership and management skills.
Start terms	2 (SP, AU)	3 (SP, SU, AU)	Self-paced	"Coming Soon"

IV. Specific Actions from Implementation

- a. How will the proposal affect specific groups/constituencies (faculty, graduate/undergraduate students, staff, alumni, accrediting organizations, etc.)?
 - i. This proposal may affect faculty and staff from a class size perspective; however, class sizes are currently small (~10 students) and we are actively trying to increase enrollment (goal ~30 students). We project the certificate could generate between 3-5 students per year.
 - ii. This proposal will positively affect graduate students, allowing more opportunities to interact with students within health system pharmacy.
 - iii. This proposal will not affect undergraduate students since this certificate applies to graduate school students only.
 - iv. This proposal will not affect alumni.
 - v. This proposal is not affected by accrediting organizations since our MS HSPAL program has no accrediting body.
- b. What programmatic changes will take place internally?
 - i. An enrollment option will need to be added for certificate students.
 - ii. Students completing the certificate will not be eligible for any of the available MS HSPAL alumni donor funds. Full enrollment in the MS HSPAL program is required.
- c. How will the proposal affect students, faculty, and staff outside the proposing unit?
 - i. This proposal has no affect on students, faculty, and staff outside the proposing unit.
- d. Does the content of the proposal overlap in scope or substance with the interests of other units? If so, the concurrence of those units must be sought;
 - i. No, the content does not overlap and is specific to pharmacists only.

V. Approvals and Consultations

- a. Approved by:
 - i. Graduate and Research Studies Committee on 3/11/2026
 - ii. NOTE: If this proposal is for distance delivery (with 50% or more of program activities occurring online) please contact the Office of Distance Education and eLearning at osuonline@osu.edu for assistance completing your proposal.
 1. Completed: MOU signatures in process
- b. Consultations conducted with:
 - i. Option Care Health in 12/2025 and 2/2026
 - ii. College of Pharmacy Faculty
 1. Bella Mehta, PharmD, FAPhA- Professor, Clinical Pharmacy & Chair, Pharmacy Practice and Science

2. Nicole Kwiek, PhD, FAAPE - Senior Associate Dean for Academic Affairs and Educational Innovation
 3. James Fuchs, PhD - Associate Dean for Research and Graduate Studies
 4. Deanna Kroetz, BS Pharm, PhD – Dean, College of Pharmacy
- c. Supporting documentation attached:
- i. Curriculum with proposed courses highlighted
 1. Course Syllabi attached via individual pdf documents
 - ii. Option Care Meeting Minutes from 2/13/2026
 - iii. Graduate and Research Studies Committee Meeting Minutes from 3/11/2026

VI. Resources and Fiscal Impact

- a. This program draws exclusively on existing courses within the MS-HSPAL curriculum
- i. No new faculty lines required
 - ii. No new course development costs
 - iii. Marginal instructional cost is minimal

VII. References

Boswell E, Ivey MF, Vest TA, Woods M, Yourich BE. Stepping up to unexpected leadership opportunities. *American Journal of Health-System Pharmacy*. 2025.

Chen D, Amerine LB, Kernan W. Pharmacy executive and mid-level manager perceptions of leadership in contemporary health-system pharmacy. *American Journal of Health-System Pharmacy*. 2025.

DiPiro JT, Nesbit TW, Reuland C, et al. ASHP Foundation Pharmacy Forecast 2023: Strategic planning guidance for pharmacy departments in hospitals and health systems. *American Journal of Health-System Pharmacy*. 2023;80(2):10–35.

VIII. Contact Information

First Name: Lisa

Last Name: Mostafavifar

Ohio State Username (name.#): mostafavifar.2

Unit name: College of Pharmacy

2-Year MS HSPAL Curriculum with Proposed Certificate Courses Highlighted in Yellow**2 – Year MS HSPAL Curricular Plan (Includes Electives)****Year 1**

Fall Session 1	Fall Session 2	Spring Session 1	Spring Session 2
PHR 8130: Foundations of Advanced Leadership (1.5 credits)	PHR 8135: Applications of Advanced Leadership (1.5 credits)	PHR 8140: Research Methodology I (1 credit)	PHR 8145: Research Methodology II (1 credit)
PHR 8160: Operations Management in Health System Pharmacy (1.5 credits)	PHR 8150: Systems Issues with Medication Safety (1.5 credits)	PHR 8250: Pharmaceutical Supply Chain Principles for Health Systems (1.5 credits)	PHR 8120: Information Systems in Health System Pharmacy (1.5 credits)
	PHR 8180: Economic Evaluation of the Pharmacy Enterprise (1 credit)	PHR 8200: Operational Assessment of the Pharmacy Enterprise I (1.5 credits)	PHR 8205: Operational Assessment of the Pharmacy Enterprise II (1.5 credits)
Seminar (1 credit)		Seminar (1 credit)	
8 credits		9 credits	

Year 2

Fall Session 1	Fall Session 2	Spring Session 1	Spring Session 2
PHR 8100: Health Systems Pharmacy Finance I: Principles of Accounting (1.5 credits)	PHR 8105: Health System Pharmacy Finance II: Application and Budget (1.5 credits)	Elective (1.5 credits)	Elective (1.5 credits)
PHR 8190: Outpatient Pharmacy Practice (1.5 credits)	PHR 8170: Planning, Leading, and Managing the Pharmacy Enterprise (1.5 credits)	PHR 8500: Health System Pharmacy Leadership Capstone (2 credits)	
PHR 8210: Supervised Project in Health System Pharmacy (2 credits)		PHR 8220: Supervised Project in Health System Pharmacy (2 credits)	
Seminar (1 credit)		Seminar (1 credit)	
9 credits		8 credits	

PGY1/PGY2 MS HSPAL or SPAL residents are required to complete the 2-Year MS HSPAL Curricular Plan.

MS HSPAL students are required to also take 3 elective credit hours for a degree total of 34 credits. Electives must be master's level courses.

Working Professional students may take PHR 8210 and elective course work during the summer.

Working Professional students are required to take a minimum of 4 credit hours of seminar and must be enrolled in seminar during the final spring semester that coincides with graduation.

Option Care Health Meeting Minutes

Date: 2/13/2026

Attendance: Lisa Mostafavifar, Brynn Steckman, Christopher Roy

Working Name: Online Certificate in Pharmacy Management

General criteria for all graduate certificates – Credit hours

- Graduate certificate programs must consist of at **least 12 credit hours**. Students must achieve a cumulative graduate GPA of at least 3.0 to be considered for the awarding of a certificate. Only grades of “A” through “C-” as well as “S” may be counted toward the completion of the certificate program. Up to 100 percent of relevant credit hours required for the certificate may count towards a degree, upon approval by the degree program.
- These credit hours must be required of all students
- **Q: Retain seminar?**
 - I feel like students find the most value in seminar and feel more as a cohort connecting with one another once a week
 - This does bring credit hrs from 12 to 14 if we retain
 - If we do not retain in certificate and students want to continue to get their MS degree, they would be looking at a 3 year program since 4 credit hrs of seminar are required for graduation
 - Yes, retain seminar to keep them tracking to graduate in 2 years
- **Q: Foundations of Advanced Leadership and Application of Advanced Leadership OR Pharmacy Finance I and II?**
 - Pros to leaving advanced leadership in year 1:
 - Leaving leadership courses will align best with current curriculum structure, although it is NOT a prerequisite course to any future courses and can be moved if needed
 - Retain the collegiality within current class – a lot of interaction in advanced leadership courses since they are hybrid (both of these courses start right after seminar on Monday evenings from 5:10-6:30PM)
 - Easy to swap leadership for finance, if desired
 - Cons to leaving advanced leadership in year 1:
 - May not align with principles you want your fellows to walk away with (missing business/finance)
 - Time students are logged in for synchronous learning on Monday evenings
 - 1 hr (seminar only) vs. 2.5 hrs (seminar + advanced leadership)
 - Finance courses have some synchronous sessions (~ 2 per semester) that will also follow seminar, but much fewer than leadership
 - Add finance courses in place of advanced leadership to proposal
- **Q: OAA Proposal requests an answer to the following question: Explain the evidence of need for the certificate based on market assessment and related data, including any collaboration with employers.**
 - Conducted competitive analysis with “like” MS programs across the country and will be noting ASHP certificates as a competitive option within the proposal
 - What level of commitment could I state in this proposal?
 - Not ready to make a verbal commitment until the certificate is finalized, but noted a certificate would greatly meet their needs and be attractive option for their fellowship program beginning July 2027 – 3 fellows per year.

Next steps:

- Finish Certificate Proposal by end of 2/2026
- Obtain College of Pharmacy Graduate Studies Approval in 3/2026
- Forward to University Graduate Studies for review and approval (late spring)
- Once approved, will go to Office of Academic Affairs agenda for final approval (late spring/summer)
- Go live AU26

– Year MS HSPAL Curricular Plan (Includes Electives)

Year 1

Fall Session 1	Fall Session 2	Spring Session 1	Spring Session 2
PHR 8130: Foundations of Advanced Leadership (1.5 credits)	PHR 8135: Applications of Advanced Leadership (1.5 credits)	PHR 8140: Research Methodology I (1 credit)	PHR 8145: Research Methodology II (1 credit)
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	PHR 8180: Economic Evaluation of the Pharmacy Enterprise (1 credit)	PHR 8200: Operational Assessment of the Pharmacy Enterprise I (1.5 credits)	PHR 8205: Operational Assessment of the Pharmacy Enterprise II (1.5 credits)
Seminar (1 credit)		Seminar (1 credit)	
8 credits		9 credits	

Year 2

Fall Session 1	Fall Session 2	Spring Session 1	Spring Session 2
PHR 8100: Health Systems Pharmacy Finance I: Principles of Accounting (1.5 credits)	PHR 8105: Health System Pharmacy Finance II: Application and Budget (1.5 credits)	Elective (1.5 credits)	Elective (1.5 credits)
PHR 8190: Outpatient Pharmacy Practice (1.5 credits)	PHR 8170: Planning, Leading, and Managing the Pharmacy Enterprise (1.5 credits)	PHR 8500: Health System Pharmacy Leadership Capstone (2 credits)	
PHR 8210: Supervised Project in Health System Pharmacy (2 credits)		PHR 8220: Supervised Project in Health System Pharmacy (2 credits)	
Seminar (1 credit)		Seminar (1 credit)	
9 credits		8 credits	

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Working Professional students may take PHR 8210 and elective course work during the summer.

Working Professional students are required to take a minimum of 4 credit hours of seminar and must be enrolled in seminar during the final spring semester that coincides with graduation.



THE OHIO STATE UNIVERSITY

COLLEGE OF PHARMACY

Research and Graduate Studies Committee Meeting Minutes

March 11, 2026

1:30-2:30pm, Riffe 616

In attendance: Jim Fuchs, Chris Coss, Lisa Mostafavifar, Jessica Costic, Macarius Donneyong, Min Hai

Absent: Tejinder Kaur

Meeting Items

Review February Meeting Minutes

The minutes were reviewed and approved by the committee.

HSPAL Certificate Review and Vote for Approval

Lisa has been working to develop a new 12-month certificate program in Health System Pharmacy Administration Leadership. The certificate would be a 14-credit program focused on finance, operations, medication safety, supply chain management, and informatics, designed for pharmacists looking to advance their career in this field. The program would be asynchronous and online to accommodate national attention, with courses drawn from the existing curriculum. Lisa mentioned already having a potential site interested in partnering with the certificate program. The group unanimously approved of this certificate program with no outstanding questions. Lisa can now work with Nicole Kwiek to proceed with the needed OAA submission and approval to begin offering this certificate in Autumn of 2027.

Review Hui/Gupta/Wu award process - https://osu.az1.qualtrics.com/jfe/form/SV_a2GeJtH1L8dp700

This discussion was a continuation of our last meeting regarding these newly established awards. Jessica put together a Qualtrics survey that students can use to complete the nomination process. Jim provided additional information about each award.

The Gupta award is intended to support a current PhD student in the College of Pharmacy through a competitive application process. The Gupta Award may be used by recipients to launch new lines of inquiry and test new research concepts in collaboration with partners across the university. In addition to their CV and a letter of support from their research advisor, successful applicants will provide a project proposal that explores or integrates medical device technology, artificial intelligence, or machine learning with pharmaceutical research. Recipients are eligible to be awarded funding through the Gupta award

multiple times through the competition. Awardees will also be expected to present their results at a subsequent College of Pharmacy Research Day.

The Jin and Diana Wu Fund is intended to support current PhD students focused on drug discovery and development in the College of Pharmacy. Only one application may be submitted per faculty mentor and preference will be given to post-candidacy applicants based on research accomplishments and strength of recommendation from their advisor. Applicants should include their CV, a research summary, and a letter of support from their advisor.

The James and Nancy Hui Endowed Graduate Student Award was established December 4, 2025, with a gift from Dr. James Hui (PhD 1988) and Nancy Hui; provides support to graduate students who are enrolled in a PhD program in the College of Pharmacy and are engaged in pharmaceutical research. Applicants should include their CV, a research summary, and a letter of support from their advisor.

Jim planned to consult with Dean Kroetz and John Swartz about moving the awards forward.

Alice Mims – Graduate Faculty Request

This request came from the Pharmaceutics and Pharmacology division as Dr. Mims has a specific specialty that would be of use by students in the ECPL. After review by the committee, they agreed to grant the requested category P graduate faculty status. Jessica will process this with graduate school.

Open

This was Tejinder's last meeting (absent) and the committee would like to thank her for the contributions she made during her time with the RGSC.

Health System Pharmacy Finance I: Principles of Accounting Syllabus

[ABC1234] [TERM YEAR]

Course Information

- **Course times and location:** Some required synchronous sessions; all virtual instruction occurs in Carmen each week
- **Credit hours:** 1.5
- **Mode of delivery:** Distance Enhanced

Instructor

- **Name:** Jason Lovero, PharmD, MS, MHA
- **Email:** jason.lovero@cps.com
- **Office location:** virtual
- **Office hours:** by appointment
- **Preferred means of communication:**
 - My preferred method of communication for questions is **email**.
 - My class-wide communications will be sent through the Announcements tool in CarmenCanvas. Please check your [notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to be sure you receive these messages.

Course Prerequisites

None

Course Description

This course covers selected aspects of financial and managerial accounting as it relates to health systems and pharmacy. Learners will be introduced to financial concepts, issues, vocabulary, and tools that are needed by pharmacy leaders in the healthcare industry.



THE OHIO STATE UNIVERSITY

[College of Pharmacy]
[Department]

Learning Outcomes

By the end of this course, students should successfully be able to:

- Explain the foundational principles of financial accounting, financial analysis, and managerial accounting
- Apply foundational principles of financial accounting, financial analysis, and managerial accounting at residency/practice site
- Recognize the role of pharmacy within the broader context of health-system finance
- Distinguish appropriate written and verbal communication styles when conveying financial information to different audiences



How This Online Course Works

Mode of delivery: This course is 100% online. There is at least one required synchronous (real-time) session, which will be defined in the course schedule. The rest of your work is found in Carmen and can be completed around your own schedule during the week

Pace of online activities: This course is divided into **weekly modules** that are released one week ahead of time. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame.

Credit hours and work expectations: This is a 1.5 credit-hour course. According to [Ohio State bylaws on instruction](http://go.osu.edu/credithours) (go.osu.edu/credithours), students should expect around [3] hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to [6] hours of homework (reading and assignment preparation, for example) to receive a grade of [C] average.

Attendance and participation requirements: Research shows regular participation is one of the highest predictors of success. With that in mind, I have the following expectations for everyone's participation:

- **Participating in online activities for attendance: at least once per week**
You are expected to log in to the course in Carmen every week. During most weeks you will probably log in many times. If you have a situation that might cause you to miss an entire week of class, discuss it with me *as soon as possible*.

Course Materials, Fees and Technologies

Required Materials and/or Technologies

- *Financial Analysis in Pharmacy Practice* by Keith N Herist, Brent Rollins and Matthew Perri III (Pharmaceutical Press 2011).

Required Equipment

- **Computer:** current Mac (MacOS) or PC (Windows 10) with high-speed internet connection
- **Webcam:** built-in or external webcam, fully installed and tested
- **Microphone:** built-in laptop or tablet mic or external microphone
- **Other:** a mobile device (smartphone or tablet) to use for BuckeyePass authentication

If you do not have access to the technology you need to succeed in this class, review options for technology and internet access at go.osu.edu/student-tech-access.

Required Software

Microsoft Office 365: All Ohio State students are now eligible for free Microsoft Office 365. Visit the [installing Office 365](https://go.osu.edu/office365help) (go.osu.edu/office365help) help article for full instructions.

CarmenCanvas Access

You will need to use [BuckeyePass](https://buckeyepass.osu.edu) (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you do each of the following:

- Register multiple devices in case something happens to your primary device. Visit the [BuckeyePass - Adding a Device](#) help article for step-by-step instructions.
- [Install the Duo Mobile application](#) on all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.
- Read about options to [authenticate with BuckeyePass](#).

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at [614-688-4357 \(HELP\)](tel:614-688-4357) and IT support staff will work out a solution with you.

Technology Skills Needed for This Course

- Basic computer and web-browsing skills
- [Navigating CarmenCanvas](https://go.osu.edu/canvasstudent) (go.osu.edu/canvasstudent)
- [CarmenZoom virtual meetings](https://go.osu.edu/zoom-meetings) (go.osu.edu/zoom-meetings)



Technology Support

For help with your password, university email, CarmenCanvas, or any other technology issues, questions or requests, contact the IT Service Desk, which offers 24-hour support, seven days a week.

- **Self Service and Chat:** go.osu.edu/it
- **Phone:** [614-688-4357 \(HELP\)](tel:614-688-4357)
- **Email:** servicedesk@osu.edu



Grading and Faculty Response

How Your Grade is Calculated

Assignment Category	Points
Assignments (e.g., Worksheets, Excel Submissions, Video Submissions)	
Participation (e.g., Discussion Boards, Zoom Consultations)	
Quizzes	
Final Exam	
Total	100

See [Course Schedule](#) for due dates.

Descriptions of Major Course Assignments

[Assignment name or category, Example: Written Assignments]

Description: [Place description here.]

Academic integrity and collaboration: [Example: Your written assignments, including discussion posts, should be your own original work. In formal assignments, you should follow [MLA/APA/Chicago etc.] style to cite the ideas and words of your research sources. You are encouraged to ask a trusted person to proofread your assignments before you turn them in but no one else should revise or rewrite your work.]

See example syllabus language below:

- **Quizzes and exams:** You must complete quizzes and final exams yourself, without any external help or communication.

- **Written assignments:** Your written assignments, including discussion posts, should be your own original work. In formal assignments, you should follow **[MLA/APA/Chicago etc.]** style to cite the ideas and words of your research sources. You are encouraged to ask a trusted person to proofread your assignments before you turn them in, but no one else should revise or rewrite your work.
- **Reusing past work:** In general, you are prohibited in university courses from turning in work from a past class to your current class, even if you modify it. If you want to build on past research or revisit a topic you've explored in previous courses, please discuss the situation with me.
- **Falsifying research or results:** All research you will conduct in this course is intended to be a learning experience; you should never feel tempted to make your results or your library research look more successful than it was.
- **Collaboration and informal peer-review:** The course may include opportunities for formal collaboration with your classmates. While study groups and peer-review of major written projects is encouraged, remember that comparing answers on a quiz or assignment is not permitted. If you're unsure about a particular situation, please ask ahead of time.

Late Assignments

Please refer to Carmen for due dates. Due dates are set to help you stay on pace and to allow timely feedback that will help you complete subsequent assignments.

 Example: Due to the collaborative nature of class discussions, I am not able to grade posts submitted after the final weekly deadline for this assignment type.]

Instructor Feedback and Response Time

[Example: I am providing the following list to give you an idea of my intended availability throughout the course. Remember that you can call [614-688-4357 \(HELP\)](tel:614-688-4357) at any time if you have a technical problem.

- **Preferred contact method:** If you have a question, please contact me first through my email address. I will reply to emails within **24 hours on days when class is in session at the university**.
- **Class announcements:** I will send all important class-wide messages through the Announcements tool in CarmenCanvas. Please check [your notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to ensure you receive these messages.
- **Discussion board:** I will check and reply to messages in the discussion boards once mid-week and once at the end of the week.



- **Grading and feedback:** For assignments submitted before the due date, I will try to provide feedback and grades within **seven days**. Assignments submitted after the due date may have reduced feedback, and grades may take longer to be posted.]

Grading Scale

93–100: A
90–92.9: A-
87–89.9: B+
83–86.9: B
80–82.9: B-
77–79.9: C+
73–76.9: C
70–72.9: C-
67–69.9: D+
60–66.9: D
Below 60: E



Other Course Policies

Discussion and Communication Guidelines

[Example: The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.]

- **Writing style:** While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. A more conversational tone is fine for non-academic topics.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online. I will provide specific guidance for discussions on controversial or personal topics.
- **Citing your sources:** When we have academic discussions, please cite your sources to back up what you say. For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.
- **Backing up your work:** Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.
- **Synchronous sessions:** During our Zoom sessions I ask you to use your real name and a clear photo of your face in your Carmen profile. During our full-group lecture time, you may turn your camera off if you choose. When in breakout rooms or other small-group discussions, having cameras and mics on as often as possible will help you get the most out of activities. You are always welcome to use the [free, Ohio State-themed virtual backgrounds](https://go.osu.edu/zoom-backgrounds) (go.osu.edu/zoom-backgrounds). Remember that Zoom and the Zoom chat are our classroom space where respectful interactions are expected.]

Instructor and student expectations

It is expected that all students and faculty involved in this course will conduct themselves in an appropriate, professional manner through their communication, attitude, and treatment of others.

For instructors

This includes but is not limited to: holding students accountable for pre-class work, arriving to class on time, modelling professional behavior, abiding by the Honor System, being very explicit about whether assigned student work is to be individual or team-based, being timely in posting course materials for CarmenCanvas, encouraging students to think independently, practice self-learning techniques and be responsible for their progress in each course, and enforcing the expectations.

For students

This includes but is not limited to: attending classes and workshops, arriving on time and staying for the entirety of class and workshop sessions, being actively engaging in the teaching/learning process, being prepared to participate in class discussions and activities (this includes doing the pre-class work), abiding by the Honor System, integrating self-study and collaboration with classmates into your work habits, providing feedback in a constructive and professional manner, respecting the rights, feelings and confidentiality of all students, faculty and patients participating in the course, and refraining from disruptive behaviors during all class sessions. While differing points of view are encouraged and expected in this course, it is also expected that these points of view will be expressed in a respectful and professional manner. Confrontational or discriminatory behavior will not be tolerated.

The use of electronic devices such as laptops and tablets may be beneficial for use during class, provided its use is focused on classroom content. Checking email/Facebook, shopping and/or texting etc. during class and workshops is not permitted and may result in a decrease in your course grade. Please note that all cell phones and pagers are to be turned to the vibrate mode or off during class and workshop. If a situation arises that you need to communicate via cell phone during class or workshop, please make prior arrangements with instructors.

Academic Integrity Policy

See [Descriptions of Major Course Assignments](#) for specific guidelines about collaboration and academic integrity in the context of this online class.

Ohio State's Academic Integrity Policy

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the university's [Code of Student Conduct](http://studentconduct.osu.edu) (studentconduct.osu.edu), and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the university's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the university or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the university's *Code of Student Conduct* is never considered an excuse for academic misconduct, so I recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by university rules to report my suspicions to the Committee on Academic

Misconduct. If COAM determines that you have violated the university's Code of Student Conduct (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the university.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Artificial Intelligence and Academic Integrity

There has been a significant increase in the popularity and availability of a variety of generative artificial intelligence (AI) tools, including ChatGPT, Sudowrite and others. These tools will help shape the future of work, research and technology but when used in the wrong way, they can stand in conflict with academic integrity at Ohio State.

All students have important obligations under the [Code of Student Conduct](#) to complete all academic and scholarly activities with fairness and honesty. Our professional students also have the responsibility to uphold the professional and ethical standards found in their respective academic honor codes. Specifically, students are not to use unauthorized assistance in the laboratory, on field work, in scholarship or on a course assignment unless such assistance has been authorized specifically by the course instructor. In addition, students are not to submit their work without acknowledging any word-for-word use and/or paraphrasing of writing, ideas or other work that is not your own. These requirements apply to all students undergraduate, graduate, and professional.

To maintain a culture of integrity and respect, these generative AI tools should not be used in the completion of course assignments unless an instructor for a given course specifically authorizes their use. Some instructors may approve of using generative AI tools in the academic setting for specific goals. However, these tools should be used only with the explicit and clear permission of each individual instructor, and then only in the ways allowed by the instructor.

Artificial Intelligence Policy for this Course

[Provide your students with specific guidance on how they can or cannot use AI tools in your course. As a reminder, the current University policy states that students are *not* permitted to use AI unless you give them permission to do so. The University has provided the following [survey](#) that offers customizable syllabus statements about students' use of GenAI.]

Copyright for Instructional Materials

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Creating an Environment Free from Harassment, Discrimination, and Sexual Misconduct

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Civil Rights Compliance Office:

1. Online reporting form at civilrights.osu.edu,
2. Call 614-247-5838 or TTY 614-688-8605,
3. Or email civilrights@osu.edu

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Office of Institutional Equity to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

Diversity Statement

The Ohio State University affirms the importance and value of diversity of people and ideas. We believe in creating equitable research opportunities for all students and to providing programs and curricula that allow our students to understand critical societal challenges from diverse perspectives and aspire to use research to promote sustainable solutions for all. We are committed to maintaining an inclusive community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect

among all members; and encourages each individual to strive to reach their own potential. The Ohio State University does not discriminate on the basis of age, ancestry, color, disability, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, race, religion, sex, gender, sexual orientation, pregnancy, protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment.

Religious Accommodations

Ohio State has had a longstanding practice of making reasonable academic accommodations for students' religious beliefs and practices in accordance with applicable law. In 2023, Ohio State updated its practice to align with new state legislation. Under this new provision, students must be in early communication with their instructors regarding any known accommodation requests for religious beliefs and practices, providing notice of specific dates for which they request alternative accommodations within 14 days after the first instructional day of the course. Instructors in turn shall not question the sincerity of a student's religious or spiritual belief system in reviewing such requests and shall keep requests for accommodations confidential.

With sufficient notice, instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements with respect to students' sincerely held religious beliefs and practices by allowing up to three absences each semester for the student to attend or participate in religious activities. Examples of religious accommodations can include, but are not limited to, rescheduling an exam, altering the time of a student's presentation, allowing make-up assignments to substitute for missed class work, or flexibility in due dates or research responsibilities. If concerns arise about a requested accommodation, instructors are to consult their tenure initiating unit head for assistance.

A student's request for time off shall be provided if the student's sincerely held religious belief or practice severely affects the student's ability to take an exam or meet an academic requirement and the student has notified their instructor, in writing during the first 14 days after the course begins, of the date of each absence. Although students are required to provide notice within the first 14 days after a course begins, instructors are strongly encouraged to work with the student to provide a reasonable accommodation if a request is made outside the notice period. A student may not be penalized for an absence approved under this policy.

If students have questions or disputes related to academic accommodations, they should contact their course instructor, and then their department or college office. For questions or to report discrimination or harassment based on religion, individuals should contact the [Civil Rights Compliance Office](#).

Policy: [Religious Holidays, Holy Days and Observances](#).

Your Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing.

If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th floor of the Younkin Success Center and 10th floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at 614-292-5766 and 24-hour emergency help is also available through the 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

College of Pharmacy specific resources

Any College of Pharmacy student may contact Dr. Levstek directly via email (levstek.4@osu.edu), and he will offer you an initial counseling session via Zoom to initiate services. During this meeting he will address your current concerns and mental health needs, in addition to collecting background information and assessing your history of concerns. He will also discuss future treatment options with you, and can connect you with other resources as well, where appropriate. If any students have questions or concerns, please email Dr. Levstek directly.



Disability Statement (with Accommodations for Illness)

Requesting Accommodations

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are ill and need to miss class, including if you are staying home and away from others while experiencing symptoms of a viral infection or fever, please let me know immediately. In cases where illness interacts with an underlying medical condition, please consult with Student Life Disability Services to request reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu.

Accessibility of Course Technology

This course requires use of CarmenCanvas (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations as early as possible.

- [CarmenCanvas accessibility](http://go.osu.edu/canvas-accessibility) (go.osu.edu/canvas-accessibility)
- [CarmenZoom accessibility](http://go.osu.edu/zoom-accessibility) (go.osu.edu/zoom-accessibility)
- The College of Pharmacy uses Echo360 for lecture capture and hosting of recorded lecture content. Echo360 generates transcripts for recorded lecture content through automated speech recognition. If you experience difficulties with these autogenerated transcripts, please contact your instructor
- This course requires the use of the online exam platform, EchoExam. If you encounter an issue with access to this tool, please contact your instructor and the COP digital accessibility team at cop-digitalaccessibility@osu.edu. Accommodation and assistance will be arranged for you to complete any work required with this tool free of penalty.
- This course requires the use of a digital social annotation tool called Hypothes.is. If you encounter an issue with access to this tool, please contact your instructor and cop-digitalaccessibility@osu.edu. Accommodation and assistance will be arranged for you to complete any work required with this tool free of penalty.

- This course requires the use of the online Team-Based Learning platform, Intedashboard. If you encounter an issue with access to this tool, please contact your instructor and cop-digitalaccessibility@osu.edu. Accommodation and assistance will be arranged for you to complete any work required with this tool free of penalty.



Course Schedule

Refer to the CarmenCanvas course for up-to-date due dates.

Week	Topics	Assignments & Due Dates
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
Finals		



SYLLABUS

PHR 8105

Health System Pharmacy Finance II – Application and Budget
Autumn 2025 – Online

COURSE OVERVIEW

Course Director

Instructor: Patrick Helman, PharmD, MS

Email address: pat.helman@ohiohealth.com

Phone number: 614-566-8636 (office) or 440-552-7428 (mobile)

Office hours: By appointment

Course description

This course covers selected aspects of financial and managerial accounting as it relates to health systems and pharmacy. Learners will be introduced to financial concepts, issues, vocabulary, and tools that are needed by pharmacy leaders in the healthcare industry.

Course learning outcomes

By the end of this course, students should successfully be able to:

- Apply foundational principle of financial accounting, financial analysis, and managerial accounting at residency/practice site.
- Recognize the role of pharmacy within the broader context of health-system finance.
- Demonstrate proficiency using spreadsheet tools (e.g., Microsoft Excel) when working with health-system operations finance data.
- Distinguish appropriate written and verbal communication styles when conveying financial information to different audiences.
- Define the basics of operational and financial metrics used in pharmacy.

HOW THIS COURSE WORKS

Mode of delivery: This course is a hybrid of online and in-person. All course assignments will be assigned through Carmen.

Pace of online activities: This course is divided into **weekly modules** that are released one week at a time. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame.

Credit hours and work expectations: This is a **1.5-credit-hour course delivered over 7 weeks**. According to [Ohio State policy](#), students should expect around 2 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 4 hours of homework (reading and assignment preparation, for example) to receive a grade of (C) average.

Attendance and participation requirements: Outside of in-person instruction, your attendance is based on your online activity and participation. The following is a summary of everyone's expected participation:

- **Participating in online activities for attendance: AT LEAST ONCE PER WEEK**
You are expected to log in to the course in Carmen every week. (During most weeks you will probably log in many times.) If you have a situation that might cause you to miss an entire week of class, discuss it with a course instructor *as soon as possible*.
 - For residents: If you are on a rotation external to your residency site and will miss class for a week, that must be approved in advance.
- **Participating in discussion forums: AT LEAST ONCE PER WEEK**
As part of your participation, each week you can expect to post at least twice as part of our substantive class discussion on the week's topics.

COURSE MATERIALS AND TECHNOLOGIES

Course technology

For help with your password, university email, Carmen, or any other technology issues, questions, or requests, contact the OSU IT Service Desk. Standard support hours are available at <https://ocio.osu.edu/help>, and support for urgent issues is available 24/7.

- **Self-Service and Chat support:** <http://ocio.osu.edu/selfservice>
- **Phone:** 614-688-HELP (4357)
- **Email:** 8help@osu.edu
- **TDD:** 614-688-8743

BASELINE TECHNICAL SKILLS FOR ONLINE COURSES

- Basic computer and web-browsing skills
- Navigating Carmen: for questions about specific functionality, see the [Canvas Student Guide](#).

REQUIRED TECHNOLOGY SKILLS SPECIFIC TO THIS COURSE

- [CarmenZoom virtual meetings](#)
- [Recording a slide presentation with audio narration](#)
- [Recording, editing, and uploading video](#)

REQUIRED EQUIPMENT

- Computer: current Mac (OS X) or PC (Windows 7+) with high-speed internet connection
- Webcam: built-in or external webcam, fully installed and tested
- Microphone: built-in laptop or tablet mic or external microphone
- Other: a mobile device (smartphone or tablet) or landline to use for BuckeyePass authentication

REQUIRED SOFTWARE

- [Microsoft Office 365](#): All Ohio State students are now eligible for free Microsoft Office 365 ProPlus through Microsoft's Student Advantage program. Full instructions for downloading and installation can be found [at go.osu.edu/office365help](https://go.osu.edu/office365help).

CARMEN ACCESS

You will need to use [BuckeyePass](#) multi-factor authentication to access your courses in Carmen. To ensure that you are always able to connect to Carmen, it is recommended that you take the following steps:

- Register multiple devices in case something happens to your primary device. Visit the [BuckeyePass - Adding a Device](#) help article for step-by-step instructions.
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click “Enter a Passcode” and then click the “Text me new codes” button that appears. This will text you ten passcodes good for 365 days that can each be used once.
- Download the [Duo Mobile application](#) to all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357 (HELP) and the IT support staff will work out a solution with you.

GRADING AND FACULTY RESPONSE

How your grade is calculated

ASSIGNMENT CATEGORY	PERCENTAGE
Assignments (e.g., Worksheets, Excel Submissions, Video Submissions)	35%
Participation (e.g., Discussion Boards, Zoom Consultations)	20%
Quizzes	20%
Final- Business Plan Project	25%
Total	100%

See course schedule for due dates.

Late assignments

Each assignment or class activity will have specific due dates; the students are responsible for complying with these due dates. Failure to comply with meeting timelines will be dealt with in a progressive manner (e.g., verbal warning, discussion with the MS program director or residency program director, zero scores, etc.). Points may be deducted for late submissions at the instructor’s discretion.

The due dates for some assignments **may change from initial due dates**; this is mainly due to the goal of conducting some “real life” scenarios where pharmacy leaders are often asked to be flexible in changing deadlines and shifting priorities.

Grading scale

93–100: A
90–92.9: A-
87–89.9: B+
83–86.9: B
80–82.9: B-
77–79.9: C+
73–76.9: C
70 –72.9: C-
67 –69.9: D+
60 –66.9: D
Below 60: E

Faculty feedback and response time

We are providing the following list to give you an idea of our intended availability throughout the course. (Remember that you can call **614-688-HELP** at any time if you have a technical problem.)

- **Grading and feedback:** For large weekly assignments, you can generally expect feedback within **7 days**.
- **Email:** In general, we will reply to emails within **24 – 48 hours on days when class is in session at the university**.
- **Discussion board:** We will check and reply to messages in the discussion boards every **24 hours on school days**.

OTHER COURSE POLICIES

Discussion and communication guidelines

The following are expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Writing style:** While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. A more conversational tone is fine for non-academic topics.
- **Tone and civility:** Let us maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm does not always come across online.
- **Citing your sources:** When we have academic discussions, please cite your sources to back up what you say. (For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.)
- **Backing up your work:** Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.

Academic integrity policy

POLICIES FOR THIS ONLINE COURSE

- **Quizzes and exams:** You must complete the midterm and final exams yourself, without any external help or communication.
- **General problem-solving and conflict resolution:** We expect you to resolve your issues with each other around the course, duties, responsibilities, and deadlines. It should only be a rare instance when we should intervene to resolve an issue – again mimicking the “real world” of pharmacy leadership.
- **Written assignments:** Your written assignments, including discussion posts, should be your own original work. In formal assignments, you should follow **AMA Manual of style** by the American Medical Association to cite the ideas and words of your research sources. It is written by the editors of JAMA and the Archives journals and is most recently published by Oxford University Press. You are encouraged to ask a trusted person to proofread your assignments before you turn them in—but no one else should revise or rewrite your work
- **Reusing past work:** In general, you are prohibited in university courses from turning in work from a past class to your current class, even if you modify it. If you want to build on past research or revisit a topic you've explored in previous courses, please discuss the situation with us.
- **Collaboration and informal peer-review:** The course includes many opportunities for formal collaboration with your classmates. While study groups and peer-review of major written projects is encouraged, remember that comparing answers on a quiz or assignment is not permitted. If you're unsure about a particular situation, please feel free just to ask ahead of time.

OHIO STATE'S ACADEMIC INTEGRITY POLICY

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's [*Code of Student Conduct*](#), and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's *Code of Student Conduct* is never considered an excuse for academic misconduct, so we recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

If we suspect that a student has committed academic misconduct in this course, we are obligated by University Rules to report our suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University's *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact us.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- The Committee on Academic Misconduct web pages ([COAM Home](#))
- *Ten Suggestions for Preserving Academic Integrity* ([Ten Suggestions](#))
- *Eight Cardinal Rules of Academic Integrity* (www.northwestern.edu/uacc/8cards.htm)

Artificial Intelligence and Academic Integrity

There has been a significant increase in the popularity and availability of a variety of generative artificial intelligence (AI) tools, including ChatGPT, Sudowrite and others. These tools will help shape the future of work, research and technology but when used in the wrong way, they can stand in conflict with academic integrity at Ohio State.

All students have important obligations under the Code of Student Conduct to complete all academic and scholarly activities with fairness and honesty. Our professional students also

have the responsibility to uphold the professional and ethical standards found in their respective academic honor codes. Specifically, students are not to use unauthorized assistance in the laboratory, on field work, in scholarship or on a course assignment unless such assistance has been authorized specifically by the course instructor. In addition, students are not to submit their work without acknowledging any word-for-word use and/or paraphrasing of writing, ideas or other work that is not your own. These requirements apply to all students undergraduate, graduate, and professional.

To maintain a culture of integrity and respect, these generative AI tools should not be used in the completion of course assignments unless an instructor for a given course specifically authorizes their use. Some instructors may approve of using generative AI tools in the academic setting for specific goals. However, these tools should be used only with the explicit and clear permission of each individual instructor, and then only in the ways allowed by the instructor.

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Some content in this course may involve media that may elicit a traumatic response in some students due to descriptions of and/or scenes depicting acts of violence, acts of war, or sexual violence and its aftermath. If needed, please take care of yourself while watching/reading this material (leaving classroom to take a water/bathroom break, debriefing with a friend, contacting a confidential Sexual Violence Advocate 614-267-7020, or Counseling and Consultation Services at 614-292-5766 and contacting the instructor if needed). Expectations are that we all will be respectful of our classmates while consuming this media and that we will create a safe space for each other. Failure to show respect to each other may result in dismissal from the class.

In addition to the university statement above, the following regional campuses have provided additional information and resources.

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Creating an Environment Free from Harassment, Discrimination, and Sexual Misconduct

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the

basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Civil Rights Compliance Office:

1. Online reporting form at civilrights.osu.edu,
2. Call 614-247-5838 or TTY 614-688-8605,
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- ▶ All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- ▶ The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

Diversity Statement

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any other bases under the law, in its activities, academic programs, admission, and employment.

Religious Accommodations

Ohio State has had a longstanding practice of making reasonable academic accommodations for students' religious beliefs and practices in accordance with applicable law. In 2023, Ohio State updated its practice to align with new state legislation. Under this new provision, students must be in early communication with their instructors regarding any known accommodation requests for religious beliefs and practices, providing notice of specific dates for which they request alternative accommodations within 14 days after the first instructional day of the course. Instructors in turn shall not question the sincerity of a student's religious or spiritual belief system in reviewing such requests and shall keep requests for accommodations confidential.

With sufficient notice, instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements with respect to students' sincerely held religious beliefs and practices by allowing up to three absences each semester for the student to attend or participate in religious activities. Examples of religious accommodations can include, but are not limited to, rescheduling an exam, altering the time of a student's presentation, allowing make-up assignments to substitute for missed class work, or flexibility in due dates or research responsibilities. If concerns arise about a requested accommodation, instructors are to consult their tenure initiating unit head for assistance.

A student's request for time off shall be provided if the student's sincerely held religious belief or practice severely affects the student's ability to take an exam or meet an academic requirement and the student has notified their instructor, in writing during the first 14 days after the course begins, of the date of each absence. Although students are required to provide notice within the first 14 days after a course begins, instructors are strongly encouraged to work with the student to provide a reasonable accommodation if a request is made outside the notice period. A student may not be penalized for an absence approved under this policy.

If students have questions or disputes related to academic accommodations, they should contact their course instructor, and then their department or college office. For questions or to report discrimination or harassment based on religion, individuals should contact the [Civil Rights Compliance Office](#).

Policy: [Religious Holidays, Holy Days and Observances](#).

Religious Accommodations for PharmD Students

It is Ohio State's policy to reasonably accommodate the sincerely held religious beliefs and practices of all students. The policy permits a student to be absent for up to three days each academic semester for reasons of faith or religious or spiritual belief.

Students planning to use religious beliefs or practices accommodations for course requirements must inform the instructor in writing no later than 14 days after the course begins by completing the [PharmD Excused Absence Request form](#). The instructor is then responsible for scheduling an alternative time and date for the course requirement, which may be before or after the original time and date of the course requirement. These alternative accommodations will remain confidential. It is the student's responsibility to ensure that all course assignments are completed.

For more information about religious accommodations at Ohio State, visit Ohio State's Policy: [Religious Holidays, Holy Days, and Observances](#).

Your Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing.

If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th floor of the Younk Success Center and 10th floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at 614-292-5766 and 24-hour emergency help is also available through the 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

COLLEGE OF PHARMACY SPECIFIC RESOURCES

Any College of Pharmacy student may contact Dr. Levstek directly via email (levstek.4@osu.edu), and he will offer you an initial counseling session via Zoom to initiate services. During this meeting he will address your current concerns and mental health needs, in addition to collecting background information and assessing your history of concerns. He will also discuss future treatment options with you, and can connect you with other resources as well, where appropriate. If any students have questions or concerns, please email Dr. Levstek directly.

DISABILITY STATEMENT (WITH ACCOMMODATIONS FOR ILLNESS)

Requesting Accommodations

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are ill and need to miss class, including if you are staying home and away from others while experiencing symptoms of a viral infection or fever, please let me know immediately. In cases where illness interacts with an underlying medical condition, please consult with Student Life Disability Services to request reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu.

Accessibility of Course Technology

This course requires use of CarmenCanvas (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations as early as possible.

[CarmenCanvas accessibility \(go.osu.edu/canvas-accessibility\)](http://go.osu.edu/canvas-accessibility)

[CarmenZoom accessibility \(go.osu.edu/zoom-accessibility\)](http://go.osu.edu/zoom-accessibility)

- The College of Pharmacy uses Echo360 for lecture capture and hosting of recorded lecture content. Echo360 generates transcripts for recorded lecture content through automated speech recognition. If you experience difficulties with these autogenerated transcripts, please contact your instructor at [instructor name.#].
- This course requires the use of the online exam platform, EchoExam. If you encounter an issue with access to this tool, please contact your instructor at [instructor name.#] and the COP digital accessibility team at cop-digitalaccessibility@osu.edu. Accommodation and assistance will be arranged for you to complete any work required with this tool free of penalty.

- This course requires the use of a digital social annotation tool called Hypothes.is. If you encounter an issue with access to this tool, please contact your instructor at [instructor name.#] and cop-digitalaccessibility@osu.edu. Accommodation and assistance will be arranged for you to complete any work required with this tool free of penalty.
- This course requires the use of the online Team-Based Learning platform, Intedashboard. If you encounter an issue with access to this tool, please contact your instructor at [instructor name.#] and cop-digitalaccessibility@osu.edu. Accommodation and assistance will be arranged for you to complete any work required with this tool free of penalty.

Systems Issues in Medication Safety Syllabus

PHR8150 FALL 2025

Course Information

- **Course times and location:** This course is mostly online with weekly Carmen instruction and assignments with two required LIVE synchronous sessions used for student presentations. ***Synchronous sessions are scheduled for***
 - To be announced
 - To be announced
- **Credit hours:** 1.5
- **Mode of delivery:** Hybrid

Instructor

- **Name:** Shelly Morvay, Pharm D, CPPS
 - **Email:** shelly.morvay@nationwidechildrens.org
 - **Office hours:** By appointment
 - **Preferred means of communication:**
 - My preferred method of communication for questions is **email or text (614-395-4244)**.
 - My class-wide communications will be sent through the Announcements tool in CarmenCanvas. Please check your [notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to be sure you receive these messages
-
- **Name:** Mary Petrovskis, Pharm D, MS, BCPS
 - **Email:** Mary.Petrovskis@osumc.edu
 - **Office hours:** By appointment
 - **Preferred means of communication:**
 - My preferred method of communication for questions is **email**.



- My class-wide communications will be sent through the Announcements tool in CarmenCanvas. Please check your [notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to be sure you receive these messages.

Course Prerequisites

Medication errors are often resulting from pharmacy systems issues; previously completed or concurrent enrollment in PHARM 8160 (Operations management) is required

Course Description

This course enables the student to develop fundamental medication safety skills utilized by pharmacy leaders. Students are exposed to organizations which set standards and provide best practice recommendations for medication safety. Medication safety technology and tools are applied throughout the course.

Learning Outcomes

By the end of this course, students should successfully be able to:

- Understand the importance of a culture of safety as a means to improve patient care
- Explain the components of an effective internal/external system for tracking, trending, and reporting adverse drug events
- Use adverse drug event reports and medication safety tools to improve health-system pharmacy practice

How This Hybrid Course Works

Mode of delivery: This course is mostly online with weekly Carmen instruction and assignments with two required LIVE synchronous sessions used for student presentations.

Synchronous sessions are scheduled for

- To be announced
- To be announced

Pace of online activities: This course is divided into **weekly modules** that are released one week ahead of time. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame.

Credit hours and work expectations: This is a 1.5 credit-hour course. According to [Ohio State bylaws on instruction](https://go.osu.edu/credithours) (go.osu.edu/credithours), students should expect around 1.5 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 3 hours of homework (reading and assignment preparation, for example) to receive a grade of [C] average.

Attendance and participation requirements: Research shows regular participation is one of the highest predictors of success. With that in mind, I have the following expectations for everyone's participation:

- **Participating in online activities for attendance: at least once per week**
You are expected to log in to the course in Carmen every week. During most weeks you will probably log in many times. If you have a situation that might cause you to miss an entire week of class, discuss it with me *as soon as possible*.
- **In person synchronous presentations: Two Sessions**
Two required live synchronous sessions will be scheduled during the course. In-person attendance is required unless otherwise approved by course directors.
- **Zoom meetings and office hours: optional**
All live, scheduled events for the course, including my office hours, are optional. I will post recordings of synchronous sessions for those who cannot attend.
- **Participating in discussion forums: two or more times per week**
As part of your participation, each week you can expect to post at least twice as part of our substantive class discussion on the week's topics.

Course Materials, Fees and Technologies

Required Materials and/or Technologies

- All required materials are provided in Carmen Canvas

Required Equipment

- **Computer:** current Mac (MacOS) or PC (Windows 10) with high-speed internet connection
- **Webcam:** built-in or external webcam, fully installed and tested
- **Microphone:** built-in laptop or tablet mic or external microphone
- **Other:** a mobile device (smartphone or tablet) to use for BuckeyePass authentication

If you do not have access to the technology you need to succeed in this class, review options for technology and internet access at go.osu.edu/student-tech-access.

Required Software

Microsoft Office 365: All Ohio State students are now eligible for free Microsoft Office 365. Visit the [installing Office 365](https://go.osu.edu/office365help) (go.osu.edu/office365help) help article for full instructions.

CarmenCanvas Access

You will need to use [BuckeyePass](https://buckeyepass.osu.edu) (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you do each of the following:

- Register multiple devices in case something happens to your primary device. Visit the [BuckeyePass - Adding a Device](#) help article for step-by-step instructions.
- [Install the Duo Mobile application](#) on all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.
- Read about options to [authenticate with BuckeyePass](#).

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at [614-688-4357 \(HELP\)](tel:614-688-4357) and IT support staff will work out a solution with you.

Technology Skills Needed for This Course

- Basic computer and web-browsing skills
- [Navigating CarmenCanvas](https://go.osu.edu/canvasstudent) (go.osu.edu/canvasstudent)
- [CarmenZoom virtual meetings](https://go.osu.edu/zoom-meetings) (go.osu.edu/zoom-meetings)



Technology Support

For help with your password, university email, CarmenCanvas, or any other technology issues, questions or requests, contact the IT Service Desk, which offers 24-hour support, seven days a week.

- **Self Service and Chat:** go.osu.edu/it
- **Phone:** [614-688-4357 \(HELP\)](tel:614-688-4357)
- **Email:** servicedesk@osu.edu



Grading and Faculty Response

How Your Grade is Calculated

Assignment Category	Points
Quizzes, worksheets and assignments	115
Presentation	50
Final exam	40
Total	205

See [Course Schedule](#) for due dates.

Descriptions of Major Course Assignments

Academic integrity and collaboration: Your written assignments, including discussion posts, should be your own original work. In formal assignments, you should AMA style to cite the ideas and words of your research sources. You are encouraged to ask a trusted person to proofread your assignments before you turn them in but no one else should revise or rewrite your work.

- **Quizzes and exams:** You must complete the final exam yourself, without any external help or communication. Weekly quizzes are included as self-checks without points attached but are still expected to be completed on your own.
- **Written assignments:** Your written assignments, including discussion posts, should be your own original work. In formal assignments, you should follow AMA style to cite the ideas and words of your research sources. You are encouraged to ask a trusted person to proofread your assignments before you turn them in, but no one else should revise or rewrite your work.
- **Reusing past work:** In general, you are prohibited in university courses from turning in work from a past class to your current class, even if you modify it. If you want to build on past research or revisit a topic you've explored in previous courses, please discuss the situation with me.



- **Falsifying research or results:** All research you will conduct in this course is intended to be a learning experience; you should never feel tempted to make your results or your library research look more successful than it was.
- **Collaboration and informal peer-review:** The course includes many opportunities for formal collaboration with your classmates. While study groups and peer-review of major written projects is encouraged, remember that comparing answers on a quiz or assignment is not permitted. If you're unsure about a particular situation, please ask ahead of time.

Late Assignments

Please refer to Carmen for due dates. Due dates are set to help you stay on pace and to allow timely feedback that will help you complete subsequent assignments.

Instructor Feedback and Response Time

I am providing the following list to give you an idea of my intended availability throughout the course. Remember that you can call [614-688-4357 \(HELP\)](tel:614-688-4357) at any time if you have a technical problem.

- **Preferred contact method:** If you have a question, please contact me first through email address. I will reply to emails within **24 hours on days when class is in session at the university**.
- **Class announcements:** I will send all important class-wide messages through the Announcements tool in CarmenCanvas. Please check [your notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to ensure you receive these messages.
- **Discussion board:** I will check and reply to messages in the discussion boards once mid-week and once at the end of the week.
- **Grading and feedback:** For assignments submitted before the due date, I will try to provide feedback and grades within **seven days**. Assignments submitted after the due date may have reduced feedback, and grades may take longer to be posted.

Grading Scale

93–100: A
 90–92.9: A-
 87–89.9: B+
 83–86.9: B
 80–82.9: B-
 77–79.9: C+
 73–76.9: C
 70–72.9: C-

67–69.9: D+
60–66.9: D
Below 60: E



Other Course Policies

Discussion and Communication Guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Writing style:** While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. A more conversational tone is fine for non-academic topics.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online. I will provide specific guidance for discussions on controversial or personal topics.
- **Citing your sources:** When we have academic discussions, please cite your sources to back up what you say. For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.
- **Backing up your work:** Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.
- **Synchronous sessions:** During our Zoom sessions I ask you to use your real name and a clear photo of your face in your Carmen profile. During our full-group lecture time, you may turn your camera off if you choose. When in breakout rooms or other small-group discussions, having cameras and mics on as often as possible will help you get the most out of activities. You are always welcome to use the [free, Ohio State-themed virtual backgrounds](https://go.osu.edu/zoom-backgrounds) (go.osu.edu/zoom-backgrounds). Remember that Zoom and the Zoom chat are our classroom space where respectful interactions are expected.

Academic Integrity Policy

See [Descriptions of Major Course Assignments](#) for specific guidelines about collaboration and academic integrity in the context of this online class.

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To maintain a culture of integrity and respect, these generative AI tools should not be used in the completion of course assignments unless an instructor for a given course specifically authorizes their use. Some instructors may approve of using generative AI tools in the academic setting for specific goals. However, these tools should be used only with the explicit and clear permission of each individual instructor, and then only in the ways allowed by the instructor.

Artificial Intelligence Policy for this Course

Students may use AI tools for clarifying concepts or getting started on projects. Some acceptable uses include:

- Brainstorming ideas
- Creating outlines
- Providing definitions or explanations of complex concepts (e.g., using AI to explain a difficult theory)

Documenting Use of AI It is necessary to document your use of AI in this course, using the following guidelines:

- Clearly identify and cite AI-generated text (e.g., ‘The following paragraph was generated by ChatGPT’)
- Review, edit, and ensure accuracy and originality of final submissions
- AI-generated content should not exceed 10% of the total assignment length

Content warning language

Some content in this course may involve scenarios that may elicit a traumatic response in some students due to descriptions of errors in the healthcare setting and their impacts. If needed, please take care of yourself while watching/reading this material (leaving classroom to take a water/bathroom break, debriefing with a friend or Counseling and Consultation Services at 614-292-5766 and contacting the instructor if needed). Expectations are that we all will be respectful of our classmates and that we will create a safe space for each other. Failure to show respect to each other may result in dismissal from the class.

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academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Civil Rights Compliance Office:

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Religious Accommodations

Ohio State has had a longstanding practice of making reasonable academic accommodations for students' religious beliefs and practices in accordance with applicable law. In 2023, Ohio State updated its practice to align with new state legislation. Under this new provision, students must be in early communication with their instructors regarding any known accommodation requests for religious beliefs and practices, providing notice of specific dates for which they request alternative accommodations within 14 days after the first instructional day of the course. Instructors in turn shall not question the sincerity of a student's religious or spiritual belief system in reviewing such requests and shall keep requests for accommodations confidential.

With sufficient notice, instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements with respect to students' sincerely held religious beliefs and practices by allowing up to three absences each semester for the student to attend or participate in religious activities. Examples of religious accommodations can include, but are not limited to, rescheduling an exam, altering the time of a student's presentation, allowing make-up assignments to substitute for missed class work, or flexibility in due dates or research responsibilities. If concerns arise about a requested accommodation, instructors are to consult their tenure initiating unit head for assistance.

A student's request for time off shall be provided if the student's sincerely held religious belief or practice severely affects the student's ability to take an exam or meet an academic requirement and the student has notified their instructor, in writing during the first 14 days after the course begins, of the date of each absence. Although students are required to provide notice within the first 14 days after a course begins, instructors are strongly encouraged to work with the student to provide a reasonable accommodation if a request is made outside the notice period. A student may not be penalized for an absence approved under this policy.

If students have questions or disputes related to academic accommodations, they should contact their course instructor, and then their department or college office. For questions or to report discrimination or harassment based on religion, individuals should contact the [Civil Rights Compliance Office](#).

Policy: [Religious Holidays, Holy Days and Observances](#).

Your Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing.

If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th floor of the Younkin Success Center and 10th floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at 614-292-5766 and 24-hour emergency help is also available through the 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

College of Pharmacy specific resources

Any College of Pharmacy student may contact Dr. Levstek directly via email (levstek.4@osu.edu), and he will offer you an initial counseling session via Zoom to initiate services. During this meeting he will address your current concerns and mental health needs, in addition to collecting background information and assessing your history of concerns. He will also discuss future treatment options with you, and can connect you with other resources as well, where appropriate. If any students have questions or concerns, please email Dr. Levstek directly.



Disability Statement (with Accommodations for Illness)

Requesting Accommodations

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are ill and need to miss class, including if you are staying home and away from others while experiencing symptoms of a viral infection or fever, please let me know immediately. In cases where illness interacts with an underlying medical condition, please consult with Student Life Disability Services to request reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu.

Accessibility of Course Technology

This course requires use of CarmenCanvas (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations as early as possible.

- [CarmenCanvas accessibility](http://go.osu.edu/canvas-accessibility) (go.osu.edu/canvas-accessibility)
- [CarmenZoom accessibility](http://go.osu.edu/zoom-accessibility) (go.osu.edu/zoom-accessibility)
- The College of Pharmacy uses Echo360 for lecture capture and hosting of recorded lecture content. Echo360 generates transcripts for recorded lecture content through automated speech recognition. If you experience difficulties with these autogenerated transcripts, please contact your instructor at shelly.morvay@nationwidechildrens.org and Mary.Petrovskis@osumc.edu
- This course requires the use of the online exam platform, EchoExam. If you encounter an issue with access to this tool, please contact your instructor at shelly.morvay@nationwidechildrens.org and Mary.Petrovskis@osumc.edu and the COP digital accessibility team at cop-digitalaccessibility@osu.edu. Accommodation and assistance will be arranged for you to complete any work required with this tool free of penalty.

- This course requires the use of a digital social annotation tool called Hypothes.is. If you encounter an issue with access to this tool, please contact your instructor shelly.morvay@nationwidechildrens.org and Mary.Petrovskis@osumc.edu and cop-digitalaccessibility@osu.edu. Accommodation and assistance will be arranged for you to complete any work required with this tool free of penalty.
- This course requires the use of the online Team-Based Learning platform, Intedashboard. If you encounter an issue with access to this tool, please contact your instructor at shelly.morvay@nationwidechildrens.org and Mary.Petrovskis@osumc.edu and cop-digitalaccessibility@osu.edu. Accommodation and assistance will be arranged for you to complete any work required with this tool free of penalty.



Course Schedule

Refer to the CarmenCanvas course for up-to-date due dates.

Week	Topics	Assignments & Due Dates
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
Finals		



Operations Management in Health-System Pharmacy Syllabus

[PHR8160] [AUTUMN 2025]

Course Information

- **Course times and location:** asynchronous (all instruction occurs in Carmen each week) with the exception of two synchronous (live), in-person classes
- **Credit hours:** 1.5 hours
- **Mode of delivery:** Distance Enhanced

Instructor

- **Name:** Jennifer Booth
- **Email:** Jennifer.Booth@osumc.edu
- **Office hours:** By Appointment
- **Preferred means of communication:**
 - My preferred method of communication for questions is **email**.
 - My class-wide communications will be sent through the Announcements tool in CarmenCanvas. Please check your [notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to be sure you receive these messages.

Instructor

- **Name:** Pat Helman
- **Email:** Pat.Helman@ohiohealth.com
- **Office hours:** By Appointment
- **Preferred means of communication:**
 - My preferred method of communication for questions is **email**.
 - My class-wide communications will be sent through the Announcements tool in CarmenCanvas. Please check your [notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to be sure you receive these messages.



Course Prerequisites

None

Course Description

Pharmacy 8160 will prepare students for managing a variety of complex problems in health-system pharmacy operations. Students will develop analytical, problem-solving, decision-making, and communication skills relevant to the health-system pharmacy setting. Topics and cases presented in this course represent real issues facing pharmacy leaders today.

Additionally, this course will prepare students for applicable experiential training as part of a PGY1/PGY2 residency or job responsibilities.

Learning Outcomes

By the end of this course, students should successfully be able to:

- Apply the medication-use system framework to describe the major operational functions of health-system pharmacy.
- Identify and consider the impact of key regulations that govern health-system pharmacy operations.
- Analyze complex issues affecting pharmacy operations using leadership and problem-solving skills.
- Construct a resolution plan that effectively identifies the central issue(s) and communicates viable resolution including rationale.
- Compare and contrast communication styles and methods for varied audiences.



How This Course Works

Mode of delivery: This course is hybrid. We have two required synchronous (live), in-person sessions scheduled. The remainder of your work will take place in Carmen/

Pace of online activities: This course is divided into **weekly modules** that are released one week ahead of time. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame.

Credit hours and work expectations: This is a **1.5 credit-hour course**. According to [Ohio State bylaws on instruction](http://go.osu.edu/credithours) (go.osu.edu/credithours), students should expect around 1.5 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 3 hours of homework (reading and assignment preparation, for example) to receive a grade of [C] average.

Attendance and participation requirements: Research shows regular participation is one of the highest predictors of success. With that in mind, I have the following expectations for everyone's participation:

- **Participating in online activities for attendance: at least once per week**
You are expected to log in to the course in Carmen every week. During most weeks you will probably log in many times. If you have a situation that might cause you to miss an entire week of class, discuss it with me *as soon as possible*.
 - *For residents: If you are on a rotation external to your residency site and will miss class for a week, that must be approved well in advance.*
- **In-person, synchronous (live) meetings: required**
You are expected to attend synchronous sessions *in-person*. If you have a situation that might cause you to miss a synchronous session, discuss it with me *as soon as possible*.
- **Office hours: optional (by appointment)**
- **Participating in discussion forums: module-specific**
As part of your participation, each module will define the initial and response expectations for class discussion on the week's topics, when applicable.



Course Materials, Fees and Technologies

Required Materials and/or Technologies

- None. Course readings will be provided on Carmen.

Required Equipment

- **Computer:** current Mac (MacOS) or PC (Windows 10) with high-speed internet connection
- **Webcam:** built-in or external webcam, fully installed and tested
- **Microphone:** built-in laptop or tablet mic or external microphone
- **Other:** a mobile device (smartphone or tablet) to use for BuckeyePass authentication

If you do not have access to the technology you need to succeed in this class, review options for technology and internet access at go.osu.edu/student-tech-access.

Required Software

Microsoft Office 365: All Ohio State students are now eligible for free Microsoft Office 365. Visit the [installing Office 365](https://go.osu.edu/office365help) (go.osu.edu/office365help) help article for full instructions.

CarmenCanvas Access

You will need to use [BuckeyePass](https://buckeyepass.osu.edu) (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you do each of the following:

- Register multiple devices in case something happens to your primary device. Visit the [BuckeyePass - Adding a Device](#) help article for step-by-step instructions.
- [Install the Duo Mobile application](#) on all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.
- Read about options to [authenticate with BuckeyePass](#).

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at [614-688-4357 \(HELP\)](tel:614-688-4357) and IT support staff will work out a solution with you.

Technology Skills Needed for This Course

- Basic computer and web-browsing skills
- [Navigating CarmenCanvas](https://go.osu.edu/canvasstudent) (go.osu.edu/canvasstudent)
- [CarmenZoom virtual meetings](https://go.osu.edu/zoom-meetings) (go.osu.edu/zoom-meetings)



Technology Support

For help with your password, university email, CarmenCanvas, or any other technology issues, questions or requests, contact the IT Service Desk, which offers 24-hour support, seven days a week.

- **Self Service and Chat:** go.osu.edu/it
- **Phone:** [614-688-4357 \(HELP\)](tel:614-688-4357)
- **Email:** servicedesk@osu.edu

Grading and Faculty Response

How Your Grade is Calculated

Assignment Category	Points
Assignments (e.g. Worksheets, Excel/Video Submissions)	35%
Participation (e.g. Discussion Boards)	20%
Quizzes	20%
Final Project/Presentation	25%
Total	100%

See [Course Schedule](#) for due dates.

Descriptions of Major Course Assignments

Written Assignments

Academic integrity and collaboration:

Your written assignments, including discussion posts, should be your own original work. In formal assignments, you should follow **AMA Manual of Style** to cite the ideas and words of your research sources. You are encouraged to ask a trusted person to proofread your assignments before you turn them in, but no one else should revise or rewrite your work.

Quizzes

Academic integrity and collaboration:

You must complete quizzes yourself, without any external help or communication. Weekly quizzes are included as self-checks without points attached but are still expected to be completed on your own.

Group Projects

Academic integrity and collaboration:

This course includes group projects, which can be stressful for students when it comes to dividing work, taking credit, and receiving grades and feedback. I have attempted to make the guidelines for group work as clear as possible for each activity and assignment, but please let me know if you have any questions.



Reusing Past Work

Academic integrity and collaboration:

In general, you are prohibited in university courses from turning in work from a past class to your current class, even if you modify it. If you want to build on past research or revisit a topic you've explored in previous courses, please discuss the situation with me.

Collaboration and Informal Peer Review

Academic integrity and collaboration:

The course includes many opportunities for formal collaboration with your classmates. While study groups and peer-review of group projects is encouraged, remember that comparing answers on a quiz or assignment is not permitted. If you're unsure about a particular situation, please ask ahead of time.

Late Assignments

Each assignment or class activity will have specific due dates; the students are responsible for complying with these due dates. Missing assignments will be assigned **0 points** and late assignments will have an **automatic 20% deduction per day** according to the submission time logged in Carmen. For the calculation of the Late Penalty, days late will be rounded up to the next whole number. For example, if a student submits 1.3 days late, the Late Penalty will treat the student as 2 days late. Please refer to Carmen for due dates.

Instructor Feedback and Response Time

We are providing the following list to give you an idea of our intended availability throughout the course. Remember that you can call [614-688-4357 \(HELP\)](tel:614-688-4357) at any time if you have a technical problem.

- **Preferred contact method:** If you have a question, please contact me first through my Ohio State email address. I will reply to emails within **24-48 hours on days when class is in session at the university**.
- **Class announcements:** I will send all important class-wide messages through the Announcements tool in CarmenCanvas. Please check [your notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to ensure you receive these messages.
- **Discussion board:** I will check and reply to messages in the discussion boards once mid-week and once at the end of the week.
- **Grading and feedback:** For assignments submitted before the due date, I will try to provide feedback and grades within **seven days**. Assignments submitted after the due date may have reduced feedback, and grades may take longer to be posted.



Graduate Grading Scale

93–100: A
90–92.9: A-
87–89.9: B+
83–86.9: B
80–82.9: B-
77–79.9: C+
73–76.9: C
70–72.9: C-
67–69.9: D+
60–66.9: D
Below 60: E



Other Course Policies

Discussion and Communication Guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Writing style:** While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. A more conversational tone is fine for non-academic topics.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online. I will provide specific guidance for discussions on controversial or personal topics.
- **Citing your sources:** When we have academic discussions, please cite your sources to back up what you say. For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.
- **Backing up your work:** Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.

Academic Integrity Policy

See [Descriptions of Major Course Assignments](#) for specific guidelines about collaboration and academic integrity in the context of this online class.

Ohio State's Academic Integrity Policy

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the university's [Code of Student Conduct](http://studentconduct.osu.edu) (studentconduct.osu.edu), and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the university's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the university or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the university's *Code of Student Conduct* is never considered an excuse for academic misconduct,

so I recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by university rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the university's Code of Student Conduct (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the university.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Artificial Intelligence and Academic Integrity

There has been a significant increase in the popularity and availability of a variety of generative artificial intelligence (AI) tools, including ChatGPT, Sudowrite and others. These tools will help shape the future of work, research and technology but when used in the wrong way, they can stand in conflict with academic integrity at Ohio State.

All students have important obligations under the [Code of Student Conduct](#) to complete all academic and scholarly activities with fairness and honesty. Our professional students also have the responsibility to uphold the professional and ethical standards found in their respective academic honor codes. Specifically, students are not to use unauthorized assistance in the laboratory, on field work, in scholarship or on a course assignment unless such assistance has been authorized specifically by the course instructor. In addition, students are not to submit their work without acknowledging any word-for-word use and/or paraphrasing of writing, ideas or other work that is not your own. These requirements apply to all students undergraduate, graduate, and professional.

To maintain a culture of integrity and respect, these generative AI tools should not be used in the completion of course assignments unless an instructor for a given course specifically authorizes their use. Some instructors may approve of using generative AI tools in the academic setting for specific goals. However, these tools should be used only with the explicit and clear permission of each individual instructor, and then only in the ways allowed by the instructor.

Artificial Intelligence Policy for this Course

Students are *not* permitted to use AI for any assignments, discussions, quizzes, or projects.

Copyright for Instructional Materials

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Creating an Environment Free from Harassment, Discrimination, and Sexual Misconduct

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Civil Rights Compliance Office:

1. Online reporting form at civilrights.osu.edu,
2. Call 614-247-5838 or TTY 614-688-8605,
3. Or email civilrights@osu.edu

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Office of Institutional Equity to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

Intellectual Diversity

Ohio State is committed to fostering a culture of open inquiry and intellectual diversity within the classroom. This course will cover a range of information and may include discussions or debates about controversial issues, beliefs, or policies. Any such discussions and debates are intended to support understanding of the approved curriculum and relevant course objectives rather than promote any specific point of view. Students will be assessed on principles applicable to the field of study and the content covered in the course. Preparing students for

citizenship includes helping them develop critical thinking skills that will allow them to reach their own conclusions regarding complex or controversial matters.

Religious Accommodations

Ohio State has had a longstanding practice of making reasonable academic accommodations for students' religious beliefs and practices in accordance with applicable law. In 2023, Ohio State updated its practice to align with new state legislation. Under this new provision, students must be in early communication with their instructors regarding any known accommodation requests for religious beliefs and practices, providing notice of specific dates for which they request alternative accommodations within 14 days after the first instructional day of the course. Instructors in turn shall not question the sincerity of a student's religious or spiritual belief system in reviewing such requests and shall keep requests for accommodations confidential.

With sufficient notice, instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements with respect to students' sincerely held religious beliefs and practices by allowing up to three absences each semester for the student to attend or participate in religious activities. Examples of religious accommodations can include, but are not limited to, rescheduling an exam, altering the time of a student's presentation, allowing make-up assignments to substitute for missed class work, or flexibility in due dates or research responsibilities. If concerns arise about a requested accommodation, instructors are to consult their tenure initiating unit head for assistance.

A student's request for time off shall be provided if the student's sincerely held religious belief or practice severely affects the student's ability to take an exam or meet an academic requirement **and** the student has notified their instructor, in writing during the first 14 days after the course begins, of the date of each absence. Although students are required to provide notice within the first 14 days after a course begins, instructors are strongly encouraged to work with the student to provide a reasonable accommodation if a request is made outside the notice period. A student may not be penalized for an absence approved under this policy.

If students have questions or disputes related to academic accommodations, they should contact their course instructor, and then their department or college office. For questions or to report discrimination or harassment based on religion, individuals should contact the [Civil Rights Compliance Office](#).

Policy: [Religious Holidays, Holy Days and Observances](#).

Counseling and Consultation Service and Mental Health Statement

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may

lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing.

If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th floor of the Younkin Success Center and 10th floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at 614-292-5766 and 24-hour emergency help is also available through the 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

College of Pharmacy specific resources

Any College of Pharmacy student may contact Dr. Levstek directly via email (levstek.4@osu.edu), and he will offer you an initial counseling session via Zoom to initiate services. During this meeting he will address your current concerns and mental health needs, in addition to collecting background information and assessing your history of concerns. He will also discuss future treatment options with you, and can connect you with other resources as well, where appropriate. If any students have questions or concerns, please email Dr. Levstek directly.

Disability Statement (with Accommodations for Illness)

Requesting Accommodations

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are ill and need to miss class, including if you are staying home and away from others while experiencing symptoms of a viral infection or fever, please let me know immediately. In cases where illness interacts with an underlying medical condition, please consult with Student Life Disability Services to request reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu.

Accessibility of Course Technology

This course requires use of CarmenCanvas (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations as early as possible.

- [CarmenCanvas accessibility](https://go.osu.edu/canvas-accessibility) (go.osu.edu/canvas-accessibility)
- [CarmenZoom accessibility](https://go.osu.edu/zoom-accessibility) (go.osu.edu/zoom-accessibility)
- The College of Pharmacy uses EchoVideo for lecture capture and hosting of recorded lecture content. EchoVideo generates transcripts for recorded lecture content through automated speech recognition. If you experience difficulties with these autogenerated transcripts, please contact your instructor (see 1st page for contact information).

Grievances and solving problems

A student who encounters a problem related to his/her educational program has a variety of avenues available to seek resolution. (Note: the procedures for grade grievances are explicitly covered in the faculty rules) Typically, a student is advised to resolve any dispute, disagreement, or grievance as directly as possible, engaging with the person or persons most closely involved. The faculty and staff of the departments and colleges are available to work with students in this regard. If this step does not produce acceptable results, the student should follow a logical stepwise progression to address the academic concerns.

According to University Policies, if you have a problem with this class, you should seek to resolve the grievance concerning a grade or academic practice by speaking first with the instructor or professor. Then, if necessary, take your case to the department chairperson, college dean or associate dean, and to the provost, in that order. Specific procedures are outlined in Faculty Rule 3335-8-23. Grievances against graduate, research, and teaching assistants should be submitted first to the supervising instructor, then to the chairperson of the assistant's department.

Operational Assessment of the Pharmacy Enterprise Syllabus

[PHR8200] [SP 2026]

Course Information

- **Course times and location:** No required schedule meetings; all instruction occurs in Carmen each week
- **Credit hours:** 1.5
- **Mode of delivery:** Distance Learning

Instructor

- **Name:** Mitch Dorn
- **Email:** Mitchell.dorn@osumc.edu
- **Office location:** James C150D
- **Office phone:** 614-293-6508
- **Preferred means of communication:**
 - My preferred method of communication for questions is **email**.
 - My class-wide communications will be sent through the Announcements tool in CarmenCanvas. Please check your [notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to be sure you receive these messages.

Instructor

- **Name:** TBD
- **Email:** TBD
- **Office location:**
- **Office phone:**
- **Preferred means of communication:**
 - My preferred method of communication for questions is **email**.
 - My class-wide communications will be sent through the Announcements tool in CarmenCanvas. Please check your [notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to be sure you receive these messages.



Course Prerequisites

PHR 8160, or permission of instructor(s).

Course Description

The purpose of this course is to equip students with skills and resources that will enable them to effectively assess and improve the operations of a pharmacy enterprise. Through an approach of simulation, readings and recorded lectures, students will learn and apply the tools necessary to determine efficiency and effectiveness of pharmacy systems. The project assigned in this course will also demonstrate improvement in a specific area of pharmacy operations in the enterprise.

Learning Outcomes

By the end of this course, students should successfully be able to:

- Summarize pharmacy systems most commonly used in the pharmacy enterprise along with their impact on medication safety and efficiency
- Describe, demonstrate and differentiate the use of appropriate tools and methods in conducting an operational assessment of the pharmacy enterprise (e.g., Lean Six Sigma, DMAIC)
- Select appropriate measures for determining the effectiveness of pharmacy enterprise operations
- Develop a minimum proficiency in completing a clear, simple and convincing proposal to improve the effectiveness of pharmacy enterprise operations
- Refine skills in project management by designing assessment timelines and tasks that are realistic and actionable



How This Online Course Works

Mode of delivery: This course is a fully on-line asynchronous offering. There are no required sessions when you must be logged in to Carmen at a scheduled time – however based on the needs of the class some optional recitations may be scheduled.

Pace of online activities: This course is divided into **weekly modules** that are generally released one week ahead of time. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame.

Credit hours and work expectations: This is a 1.5 credit-hour course. According to [Ohio State bylaws on instruction](http://go.osu.edu/credithours) (go.osu.edu/credithours), students should expect around 2 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 3 hours of homework (reading and assignment preparation, for example) to receive a grade of B average.



Course Materials, Fees and Technologies

Required Materials and/or Technologies

- Links to some required readings will be provided on the CarmenCanvas site.
- There is no required textbook for this course.

Required Equipment

- **Computer:** current Mac (MacOS) or PC (Windows 10) with high-speed internet connection
- **Webcam:** built-in or external webcam, fully installed and tested
- **Microphone:** built-in laptop or tablet mic or external microphone
- **Other:** a mobile device (smartphone or tablet) to use for BuckeyePass authentication

If you do not have access to the technology you need to succeed in this class, review options for technology and internet access at go.osu.edu/student-tech-access.

Required Software

Microsoft Office 365: All Ohio State students are now eligible for free Microsoft Office 365. Visit the [installing Office 365](https://go.osu.edu/office365help) (go.osu.edu/office365help) help article for full instructions.

CarmenCanvas Access

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Technology Skills Needed for This Course

- Basic computer and web-browsing skills
- [Navigating CarmenCanvas](https://go.osu.edu/canvasstudent) (go.osu.edu/canvasstudent)



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Assignment Category	Points
Assignments and discussion boards	70%
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See [Course Schedule](#) for due dates.

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Academic integrity and collaboration: Your written assignments, including discussion posts, should be your own original work. In formal assignments, you should follow **AMA Manual of style** by the American Medical Association to cite the ideas and words of your research sources, if applicable. It is written by the editors of JAMA and the Archives journals and is most recently published by Oxford University Press. You are encouraged to ask a trusted person to proofread your assignments before you turn them in—but no one else should revise or rewrite your work.



Late Assignments

Each assignment or class activity will have specific due dates; students are responsible for complying with these due dates. Failure to comply with meeting timelines will be dealt with in a progressive manner (e.g., verbal warning, discussion with the MS program director or residency program director, zero scores, etc.).

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All students have important obligations under the [Code of Student Conduct](#) to complete all academic and scholarly activities with fairness and honesty. Our professional students also have the responsibility to uphold the professional and ethical standards found in their respective academic honor codes. Specifically, students are not to use unauthorized assistance in the laboratory, on field work, in scholarship or on a course assignment unless such assistance has been authorized specifically by the course instructor. In addition, students are not to submit their work without acknowledging any word-for-word use and/or paraphrasing of writing, ideas or other work that is not your own. These requirements apply to all students undergraduate, graduate, and professional.

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Creating an Environment Free from Harassment, Discrimination, and Sexual Misconduct

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To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Civil Rights Compliance Office:

1. Online reporting form at civilrights.osu.edu,
2. Call 614-247-5838 or TTY 614-688-8605,
3. Or email civilrights@osu.edu

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Office of Institutional Equity to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

Diversity Statement

The Ohio State University affirms the importance and value of diversity of people and ideas. We believe in creating equitable research opportunities for all students and to providing programs and curricula that allow our students to understand critical societal challenges from diverse perspectives and aspire to use research to promote sustainable solutions for all. We are committed to maintaining an inclusive community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect

among all members; and encourages each individual to strive to reach their own potential. The Ohio State University does not discriminate on the basis of age, ancestry, color, disability, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, race, religion, sex, gender, sexual orientation, pregnancy, protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment.

Religious Accommodations

Ohio State has had a longstanding practice of making reasonable academic accommodations for students' religious beliefs and practices in accordance with applicable law. In 2023, Ohio State updated its practice to align with new state legislation. Under this new provision, students must be in early communication with their instructors regarding any known accommodation requests for religious beliefs and practices, providing notice of specific dates for which they request alternative accommodations within 14 days after the first instructional day of the course. Instructors in turn shall not question the sincerity of a student's religious or spiritual belief system in reviewing such requests and shall keep requests for accommodations confidential.

With sufficient notice, instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements with respect to students' sincerely held religious beliefs and practices by allowing up to three absences each semester for the student to attend or participate in religious activities. Examples of religious accommodations can include, but are not limited to, rescheduling an exam, altering the time of a student's presentation, allowing make-up assignments to substitute for missed class work, or flexibility in due dates or research responsibilities. If concerns arise about a requested accommodation, instructors are to consult their tenure initiating unit head for assistance.

A student's request for time off shall be provided if the student's sincerely held religious belief or practice severely affects the student's ability to take an exam or meet an academic requirement and the student has notified their instructor, in writing during the first 14 days after the course begins, of the date of each absence. Although students are required to provide notice within the first 14 days after a course begins, instructors are strongly encouraged to work with the student to provide a reasonable accommodation if a request is made outside the notice period. A student may not be penalized for an absence approved under this policy.

If students have questions or disputes related to academic accommodations, they should contact their course instructor, and then their department or college office. For questions or to report discrimination or harassment based on religion, individuals should contact the [Civil Rights Compliance Office](#).

Policy: [Religious Holidays, Holy Days and Observances](#).

Your Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing.

If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th floor of the Younkin Success Center and 10th floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at 614-292-5766 and 24-hour emergency help is also available through the 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

College of Pharmacy specific resources

Any College of Pharmacy student may contact Dr. Levstek directly via email (levstek.4@osu.edu), and he will offer you an initial counseling session via Zoom to initiate services. During this meeting he will address your current concerns and mental health needs, in addition to collecting background information and assessing your history of concerns. He will also discuss future treatment options with you, and can connect you with other resources as well, where appropriate. If any students have questions or concerns, please email Dr. Levstek directly.

Disability Statement (with Accommodations for Illness)

Requesting Accommodations

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are ill and need to miss class, including if you are staying home and away from others while experiencing symptoms of a viral infection or fever, please let me know immediately. In cases where illness interacts with an underlying medical condition, please consult with Student Life Disability Services to request reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu.

Accessibility of Course Technology

This course requires use of CarmenCanvas (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations as early as possible.

- [CarmenCanvas accessibility](http://go.osu.edu/canvas-accessibility) (go.osu.edu/canvas-accessibility)
- [CarmenZoom accessibility](http://go.osu.edu/zoom-accessibility) (go.osu.edu/zoom-accessibility)
- The College of Pharmacy uses Echo360 for lecture capture and hosting of recorded lecture content. Echo360 generates transcripts for recorded lecture content through automated speech recognition. If you experience difficulties with these autogenerated transcripts, please contact your instructor at Mitchell.dorn@osumc.edu.

Course Schedule

Refer to the CarmenCanvas course for up-to-date due dates.

Module	Weeks	Dates	Topics, Readings, and Assignments
1	1,2		Topic: Pharmacy enterprise systems overview Readings/Lectures: • Complete assigned readings articles on enterprise pharmacy systems and operations and complete associated assignment(s). • View recorded lecture on an overview of pharmacy enterprise systems; introduction to Six Sigma, DMAIC and its application to health-system pharmacy • Recorded explanation / overview of major project Assignments: • Week 1: Discussion board: An operational element from your practice site that you think needs improvement. • Week 2: Discussion board: LSS/DMAIC health care case study search • Week 2: Optional Survey: Beginning of Term
2	3,4		Topic: Defining problems in pharmacy enterprise systems Readings/Lectures: • Recorded lecture: “Define” phase; project scoping Assignments: • Week 3: Finalize longitudinal project selection and complete problem statement assignment • Week 3: Upload evidence of support for your longitudinal project selection from a preceptor, supervisor, RPD, etc. from your practice site • Week 4: SIPOC and Project Charter • Review longitudinal project milestones
3	5,6		Topic: Measuring pharmacy enterprise systems



Module	Weeks	Dates	Topics, Readings, and Assignments
			Readings/Lectures: - Recorded lecture: “Measure” phase; data collection Assignments: - Week 5: Complete case study; develop current state process diagram for your project - Week 6: Take quiz; review assigned peer’s answer to the case study; develop data collection plan for your project
4	7		Topic: Analyzing pharmacy enterprise systems Readings/Lectures: - Recorded lecture: Root causes; Fishbone diagram; 5W2H; Assignments: - Week 7: Create a fishbone diagram for your longitudinal project (due week 8 but encouraged to complete during week 7) - Final exam: Graphically present data from your own project

Operational Assessment of the Pharmacy Enterprise Syllabus

[PHR8205] [SP 2026]

Course Information

- **Course times and location:** Two synchronous sessions at the end of the semester; all instruction occurs in Carmen each week
- **Credit hours:** 1.5
- **Mode of delivery:** Distance Learning Enhanced

Instructor

- **Name:** Mitch Dorn
- **Email:** Mitchell.dorn@osumc.edu
- **Office location:** James C150D
- **Office phone:** 614-293-6508
- **Preferred means of communication:**
 - My preferred method of communication for questions is **email**.
 - My class-wide communications will be sent through the Announcements tool in CarmenCanvas. Please check your [notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to be sure you receive these messages.

Instructor

- **Name:** TBD
- **Email:** TBD
- **Office location:**
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Course Prerequisites

PHR 8200 first session.

Course Description

The purpose of this course is to equip students with skills and resources that will enable them to effectively assess and improve the operations of a pharmacy enterprise. Through an approach of simulation, readings and recorded lectures, students will learn and apply the tools necessary to determine efficiency and effectiveness of pharmacy systems. The project assigned in this course will also demonstrate improvement in a specific area of pharmacy operations in the enterprise.

Learning Outcomes

By the end of this course, students should successfully be able to:

- Summarize pharmacy systems most commonly used in the pharmacy enterprise along with their impact on medication safety and efficiency
- Describe, demonstrate and differentiate the use of appropriate tools and methods in conducting an operational assessment of the pharmacy enterprise (e.g., Lean Six Sigma, DMAIC)
- Select appropriate measures for determining the effectiveness of pharmacy enterprise operations
- Develop a minimum proficiency in completing a clear, simple and convincing proposal to improve the effectiveness of pharmacy enterprise operations
- Refine skills in project management by designing assessment timelines and tasks that are realistic and actionable



How This Online Course Works

Mode of delivery: This course is an on-line asynchronous offering with two synchronous sessions at the end of the semester. There are no required sessions when you must be logged in to Carmen at a scheduled time – however based on the needs of the class some optional recitations may be scheduled.

Pace of online activities: This course is divided into **weekly modules** that are generally released one week ahead of time. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame.

Credit hours and work expectations: This is a 1.5 credit-hour course. According to [Ohio State bylaws on instruction](http://go.osu.edu/credithours) (go.osu.edu/credithours), students should expect around 2 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 3 hours of homework (reading and assignment preparation, for example) to receive a grade of B average.



Course Materials, Fees and Technologies

Required Materials and/or Technologies

- Links to some required readings will be provided on the CarmenCanvas site.
- There is no required textbook for this course.

Required Equipment

- **Computer:** current Mac (MacOS) or PC (Windows 10) with high-speed internet connection
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2. Call 614-247-5838 or TTY 614-688-8605,
3. Or email civilrights@osu.edu

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Office of Institutional Equity to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

Diversity Statement

The Ohio State University affirms the importance and value of diversity of people and ideas. We believe in creating equitable research opportunities for all students and to providing programs and curricula that allow our students to understand critical societal challenges from diverse perspectives and aspire to use research to promote sustainable solutions for all. We are committed to maintaining an inclusive community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect

among all members; and encourages each individual to strive to reach their own potential. The Ohio State University does not discriminate on the basis of age, ancestry, color, disability, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, race, religion, sex, gender, sexual orientation, pregnancy, protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment.

Religious Accommodations

Ohio State has had a longstanding practice of making reasonable academic accommodations for students' religious beliefs and practices in accordance with applicable law. In 2023, Ohio State updated its practice to align with new state legislation. Under this new provision, students must be in early communication with their instructors regarding any known accommodation requests for religious beliefs and practices, providing notice of specific dates for which they request alternative accommodations within 14 days after the first instructional day of the course. Instructors in turn shall not question the sincerity of a student's religious or spiritual belief system in reviewing such requests and shall keep requests for accommodations confidential.

With sufficient notice, instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements with respect to students' sincerely held religious beliefs and practices by allowing up to three absences each semester for the student to attend or participate in religious activities. Examples of religious accommodations can include, but are not limited to, rescheduling an exam, altering the time of a student's presentation, allowing make-up assignments to substitute for missed class work, or flexibility in due dates or research responsibilities. If concerns arise about a requested accommodation, instructors are to consult their tenure initiating unit head for assistance.

A student's request for time off shall be provided if the student's sincerely held religious belief or practice severely affects the student's ability to take an exam or meet an academic requirement and the student has notified their instructor, in writing during the first 14 days after the course begins, of the date of each absence. Although students are required to provide notice within the first 14 days after a course begins, instructors are strongly encouraged to work with the student to provide a reasonable accommodation if a request is made outside the notice period. A student may not be penalized for an absence approved under this policy.

If students have questions or disputes related to academic accommodations, they should contact their course instructor, and then their department or college office. For questions or to report discrimination or harassment based on religion, individuals should contact the [Civil Rights Compliance Office](#).

Policy: [Religious Holidays, Holy Days and Observances](#).

Your Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing.

If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th floor of the Younkin Success Center and 10th floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at 614-292-5766 and 24-hour emergency help is also available through the 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

College of Pharmacy specific resources

Any College of Pharmacy student may contact Dr. Levstek directly via email (levstek.4@osu.edu), and he will offer you an initial counseling session via Zoom to initiate services. During this meeting he will address your current concerns and mental health needs, in addition to collecting background information and assessing your history of concerns. He will also discuss future treatment options with you, and can connect you with other resources as well, where appropriate. If any students have questions or concerns, please email Dr. Levstek directly.

Disability Statement (with Accommodations for Illness)

Requesting Accommodations

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are ill and need to miss class, including if you are staying home and away from others while experiencing symptoms of a viral infection or fever, please let me know immediately. In cases where illness interacts with an underlying medical condition, please consult with Student Life Disability Services to request reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu.

Accessibility of Course Technology

This course requires use of CarmenCanvas (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations as early as possible.

- [CarmenCanvas accessibility](http://go.osu.edu/canvas-accessibility) (go.osu.edu/canvas-accessibility)
- [CarmenZoom accessibility](http://go.osu.edu/zoom-accessibility) (go.osu.edu/zoom-accessibility)
- The College of Pharmacy uses Echo360 for lecture capture and hosting of recorded lecture content. Echo360 generates transcripts for recorded lecture content through automated speech recognition. If you experience difficulties with these autogenerated transcripts, please contact your instructor at Mitchell.dorn@osumc.edu.

Course Schedule

Refer to the CarmenCanvas course for up-to-date due dates.

Module	Weeks	Dates	Topics, Readings, and Assignments
1	1,2 (Spring Break 3/16-3/20)		Topic: Improving pharmacy enterprise systems Readings/Lectures: - Recorded lecture: impact/effort matrix, Poka Yoke / 5S; pilot implementation. Assignments: - Week 1: Complete case study; prepare for pilot implementation of your longitudinal project - Week 2: Spring Break
2	3,4		Topic: Pharmacy enterprise systems: control Readings/Lectures: - Recorded lecture: Statistical process control; control charts Assignments: - Week 3: Complete control plan assignment - Week 4: Complete control chart assignment
3	5,6		Week 5 Topic: Leading change; Executing a project: summary presentations Readings/Lectures: - Recorded lecture: Leadership and change management Week 6: SYNCHRONOUS SESSION, xxxxxxxxxx Location: Parks Hall, Room 200 and Zoom - Half the class will present a summary of your project and answer questions from the class. Attendance is required.



4	7	Week 7: SYNCHRONOUS SESSION, 4/xx/26 xxxx-xxxx Location: Parks Hall, Room 200 and Zoom • The other half of the class will present a summary of your project and answer questions from the class. • Attendance is required. Readings/Lectures: None Assignments: • Optional bonus assignment: end of course reflection
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SYLLABUS

PHR 8250

Pharmaceutical Supply Chain Principles for Health System Pharmacy
Spring 2025 – Online

COURSE OVERVIEW

Instructor

Kriss Petrovskis, PharmD, MS
368 Doan Hall
410 W. 10th Avenue
Columbus, OH 43210
Phone: (614) 293-3165
E-mail: kriss.petrovskis@osumc.edu

Course description

Exposure to the key stakeholders in the pharmaceutical supply chain and factors affecting its integrity. Basic concepts in contract negotiations, regulatory compliance, drug procurement, and inventory control.

Course learning outcomes

By the end of this course, students should successfully be able to:

- Describe individual components/stakeholders involved with the pharmaceutical supply chain
- Analyze variables/issues that impact the integrity of the pharmaceutical supply chain
- Apply the regulatory environment impacting the Pharmaceutical Supply Chain to real world scenarios
- Compare regulatory standards to current practice at an assigned health system
- Assemble recommendations to improve the integrity, safety, and security of the pharmaceutical supply chain at an assigned health system
- Summarize and distill vast information about the pharmaceutical supply chain in both written and visual forms so that it is simple and clear to the audience

- Demonstrate confidence in your area of expertise and anticipate questions so that you can skillfully respond to live questions from an audience

HOW THIS COURSE WORKS

Mode of delivery: A majority of this course is delivered online in an asynchronous format. There are two required sessions that are synchronous for project presentations. Local residents must attend these in person while working professionals are expected to join via Zoom.

- Monday, February 17, 2025 5:10pm – 6:05pm
- Tuesday, February 18, 2025 5:10pm – 6:05pm

Pace of online activities: This course is divided into **weekly modules** that are released one week ahead of time. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame.

Credit hours and work expectations: This is a **1.5-credit-hour course**. According to [Ohio State policy](#), students should expect on average 4.5 hours per week of time spent on course activities to earn the average grade of “C”.

Attendance and participation requirements: Because this is an online course, your attendance is based on your online activity and participation. The following is a summary of everyone's expected participation:

- **Participating in online activities for attendance: AT LEAST ONCE PER WEEK**
You are expected to log in to the course in Carmen every week. (During most weeks you will probably log in many times.) If you have a situation that might cause you to miss an entire week of class, discuss it with me *as soon as possible*.
- **Live sessions: REQUIRED**
All live, scheduled events for the course are required.
- **Participating in discussion forums: AT LEAST ONCE PER WEEK**
As part of your participation, each week you can expect to post at least twice as part of our substantive class discussion on the week's topics.

COURSE MATERIALS AND TECHNOLOGIES

Course technology

For help with your password, university email, Carmen, or any other technology issues, questions, or requests, contact the Ohio State IT Service Desk. Standard support hours are available at ocio.osu.edu/help/hours, and support for urgent issues is available 24/7.

- **Self-Service and Chat support:** ocio.osu.edu/help
- **Phone:** 614-688-4357(HELP)
- **Email:** servicedesk@osu.edu
- **TDD:** 614-688-8743

BASELINE TECHNICAL SKILLS FOR ONLINE COURSES

- Basic computer and web-browsing skills
- Navigating Carmen: for questions about specific functionality, see the [Canvas Student Guide](#).

REQUIRED TECHNOLOGY SKILLS SPECIFIC TO THIS COURSE

- [CarmenZoom virtual meetings](#)
- [Recording, editing, and uploading video](#)

REQUIRED EQUIPMENT

- Computer: current Mac (OS X) or PC (Windows 7+) with high-speed internet connection
- Webcam: built-in or external webcam, fully installed and tested
- Microphone: built-in laptop or tablet mic or external microphone
- Other: a mobile device (smartphone or tablet) or landline to use for BuckeyePass authentication

REQUIRED SOFTWARE

- [Microsoft Office 365](#): All Ohio State students are now eligible for free Microsoft Office 365 ProPlus through Microsoft's Student Advantage program. Full instructions for downloading and installation can be found [at go.osu.edu/office365help](https://go.osu.edu/office365help).

CARMEN ACCESS

You will need to use [BuckeyePass](#) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you take the following steps:

- Register multiple devices in case something happens to your primary device. Visit the [BuckeyePass - Adding a Device](#) help article for step-by-step instructions.
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click **Enter a Passcode** and then click the **Text me new codes** button that appears. This will text you ten passcodes good for 365 days that can each be used once.
- Download the [Duo Mobile application](#) to all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357 (HELP) and IT support staff will work out a solution with you.

GRADING AND FACULTY RESPONSE

How your grade is calculated

ASSIGNMENT CATEGORY	PERCENT OF FINAL GRADE
Final Project / Presentation	40%
Weekly Assignments	25%
Weekly Discussion Board	25%
Draft project / Peer review	10%
Total	100%

See Carmen for due dates.

Late assignments

Each assignment or class activity will have specific due dates; the students are responsible for complying with these due dates. Failure to comply with meeting timelines will be dealt with in a progressive manner (verbal warning, discussion with the MS program director or residency program director, zero scores, etc.). Missing assignments will be assigned 0 points and late assignments will have an automatic 20% deduction per day according to the submission time logged in Carmen. For the calculation of the Late Penalty, days late will be rounded up to the next whole number. For example, if a student submits 1.3 days late, the Late Penalty will treat the student as 2 days late. Please refer to Carmen for due dates.

Grading scale

93–100: A
90–92.9: A-
87–89.9: B+
83–86.9: B
80–82.9: B-
77–79.9: C+
73–76.9: C
70–72.9: C-
67–69.9: D+
60–66.9: D
Below 60: E

Instructor feedback and response time

I am providing the following list to give you an idea of my intended availability throughout the course. (Remember that you can call **614-688-HELP** at any time if you have a technical problem.)

- **Grading and feedback:** For large weekly assignments, you can generally expect feedback within **7 days**.
- **Email:** I will reply to emails within **24 hours on days when class is in session at the university**.
- **Discussion board:** I will check and reply to messages in the discussion boards every **24 hours on school days**.

OTHER COURSE POLICIES

Discussion and communication guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Writing style:** While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. A more conversational tone is fine for non-academic topics.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online.
- **Citing your sources:** When we have academic discussions, please cite your sources to back up what you say. For course materials, list at least the title and page numbers. For online sources, include a link.
- **Backing up your work:** Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.

Academic integrity policy

POLICIES FOR THIS ONLINE COURSE

- **Reusing past work:** In general, you are prohibited in university courses from turning in work from a past class to your current class, even if you modify it. If you want to build on past research or revisit a topic you've explored in previous courses, please discuss the situation with me.
- **Falsifying research or results:** All research you will conduct in this course is intended to be a learning experience; you should never feel tempted to make your results or your library research look more successful than it was.
- **Collaboration and informal peer-review:** The course includes many opportunities for formal collaboration with your classmates. While study groups and peer-review of major written projects is encouraged, remember that comparing answers on a quiz or assignment is not permitted. If you're unsure about a particular situation, please feel free just to ask ahead of time.
- **General problem-solving and conflict resolution:** We expect you to resolve your issues with each other around the course, duties, responsibilities, and deadlines. It should only be a rare instance when we should intervene to resolve an issue – again mimicking the “real world” of pharmacy leadership.
- **Written assignments:** Your written assignments, including discussion posts, should be your own original work. In formal assignments, you should follow AMA Manual of style by the American Medical Association to cite the ideas and words of your research

sources. It is written by the editors of JAMA and the Archives journals and is most recently published by Oxford University Press. You are encouraged to ask a trusted person to proofread your assignments before you turn them in—but no one else should revise or rewrite your work.

- **Use of AI:** Artificial intelligence (AI) is a rapidly emerging tool with potential application across various industries, including academics. For the purposes of this course, generative AI (such as ChatGPT) may be used to research information for discussion posts, assignments, and similar purposes. Use of generative AI to create deliverables (e.g. presentation slides, written documents) is NOT permitted.

OHIO STATE'S ACADEMIC INTEGRITY POLICY

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the university's *Code of Student Conduct*, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the university's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the university or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the university's *Code of Student Conduct* is never considered an excuse for academic misconduct, so I recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by university rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the university's *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the university.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- The Committee on Academic Misconduct web pages ([COAM Home](#))
- *Ten Suggestions for Preserving Academic Integrity* ([Ten Suggestions](#))
- *Eight Cardinal Rules of Academic Integrity* (www.northwestern.edu/uacc/8cards.htm)

Copyright disclaimer

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Statement on Title IX

All students and employees at Ohio State have the right to work and learn in an environment free from harassment and discrimination based on sex or gender, and the university can arrange interim measures, provide support resources, and explain investigation options, including referral to confidential resources.

If you or someone you know has been harassed or discriminated against based on your sex or gender, including sexual harassment, sexual assault, relationship violence, stalking, or sexual exploitation, you may find information about your rights and options at titleix.osu.edu or by contacting the Ohio State Title IX Coordinator at titleix@osu.edu. Title IX is part of the Office of Institutional Equity (OIE) at Ohio State, which responds to all bias-motivated incidents of harassment and discrimination, such as race, religion, national origin and disability. For more information on OIE, visit equity.osu.edu or email equity@osu.edu.

Your mental health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you find yourself feeling isolated, anxious or overwhelmed, please know that there are resources to help: ccs.osu.edu. You can reach an on-call counselor when CCS is closed at (614) 292-5766 and 24 hour emergency help is also available through the 24/7 National Prevention Hotline at 1-(800)-273-TALK or at suicidepreventionlifeline.org. The Ohio State Wellness app is also a great resource available at go.osu.edu/wellnessapp.

ACCESSIBILITY ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

Requesting accommodations

The university strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability including mental health, chronic or temporary medical conditions, please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. **SLDS contact information:** slds@osu.edu; 614-292-3307; 098 Baker Hall, 113 W. 12th Avenue.

Accessibility of course technology

This online course requires use of Carmen (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with your instructor.

- [CarmenCanvas accessibility](#)
- Streaming audio and video
- [CarmenZoom accessibility](#)
- Collaborative course tools

COURSE SCHEDULE

Week	Date	Unit	Topics
1	1/6/25	1	Course Introduction / Pharmaceutical Supply Chain Overview
		2	Gray Market, Counterfeit Drugs, Drug Supply Chain Security Act
2	1/13/25	1	Group Purchasing Organizations, Class of Trade, Sourcing Channels
		2	Limited Distribution Networks, Specialty Pharmacy, Retail Considerations
3	1/20/25	(1)	<i>MLK Holiday</i>
		2	Contract Negotiations
4	1/27/25	1	Requisition to Remittance / Procure to Pay
		2	Inventory Management, Drug Shortages, Recalls, Reverse Distribution
5	2/3/25	1	PhRMA / Drug Pricing
		2	Value Analysis, Formulary Management, Generics, Biosimilars
6	2/10/25	1	340B Drug Pricing Program, Virtual Inventory
		2	Investigational Drugs, Medication Assistance Programs
7	2/17/25	1	Final Presentations Part 1
	2/18/25	2	Final Presentations Part 2

SYLLABUS

PHARM 8884

Seminar for MS-HSPAL Students
Spring 26 – Hybrid

COURSE INFORMATION

Course Schedule

- Course times and location: Monday from 4:10-5:05PM in-person (Parks 200) for Central Ohio Pharmacy Residents, and via zoom for Working Professionals, residents outside of Central Ohio, and guests
- Credit hours: 1
- Mode of Delivery: Hybrid
 - In-Person (Central Ohio Residents)
 - Live, Synchronous Virtual (Working Professionals, Residents outside of Central Ohio)

Instructor Information

Instructor: Lisa Mostafavifar, PharmD, MS, BCPS, BCNSP

Email: Mostafavifar.2@osu.edu

Preferred method of communication: email

Office hours: Mondays between 3 – 4PM or by appointment

Course Description

The purpose of this course is to provide students with the opportunity to formally present on current topics that impact the way we lead in health system pharmacy. Ideas can be generated from site-based experience or current issues in local, state, and national organizations. Emphasis is placed on presentation skills and ability to confidently lead Q/A sessions and group discussions. Students who are not presenting are required to engage with the presenter by asking questions and participating in group discussion. Students, faculty, and guests will be asked to evaluate each student presenter. Formal feedback will be provided to the presenter. Guest speakers may be invited based on seminar openings and will be selected based on current topics in health systems pharmacy administration and leadership.

Course Prerequisites

None

Course Learning Outcomes

By the end of this course, students should successfully be able to:

- Communicate on current topics and/or projects and results
- Engage in and lead discussions
- Effectively evaluate self and/or peer presentations

HOW THIS COURSE WORKS

Mode of delivery: This course is hybrid with live, in-person requirements for Central Ohio Pharmacy Residents, and live, synchronous virtual for working professional students, residents outside of Central Ohio, and guests.

Credit hours and work expectations: This is a **1-credit-hour course**, completed over the full term of the semester. According to [Ohio State policy](#), students should expect around 1 hour per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 3 hours of homework (reading and assignment preparation, for example) to receive an average grade (in this graduate course it is a B grade).

Attendance and participation requirements:

Research shows regular participation is one of the highest predictors of success. With that in mind, I have the following expectations for everyone's participation:

- Students are expected to attend all class sessions in the designated mode of delivery based on student status. **Any changes to a student's attendance mode must be approved at least 24 hours in advance by the instructor.**
- It is expected students will arrive at least 5 minutes before the scheduled seminar and remain for the duration of the class.
- If you will be absent, contact the instructor as soon as possible. If you plan to be away from seminar because of an external rotation, you will need to request permission from the instructor before finalizing your rotation plans. In the case of an external rotation, the student must attend the seminar remotely via CarmenZoom and complete an evaluation form for the presenter.
- Absence is not permitted except for extenuating circumstances situations such as death in the immediate family, documented appearance in a court of law, serious illness certified by a physician or the health center for the day of your absence. Documentation is preferred, if available.
- Any partial or full absence will result in requesting the student to watch the recorded seminar and provide a 1-page summary and reflection to the course instructor by the end of the week on Sunday at 11:59PM.
- One unexcused absence will result in a meeting with the instructor and student. Two unexcused absences will result in a meeting with the student and respective supervisor (if a resident/graduate assistant) and a reduction of two letter grades.
- It is expected that the student will participate in all class sessions and provide the presenter with constructive feedback on their presentation using the designated evaluation forms.

Seminar format(s):

There are various types of seminar formats included within this course:

Therapeutic Updates: Seminar students or invited guests may present a 30–35-minute overview (15-20 minutes for Q&A) of new developments related to pharmacy practice.

Current Topics: Students may prepare a 30–35-minute presentation (15-20 minutes for Q&A) of a current topic. These may be related to public health, new developments related to the practice of pharmacy, or developments in health systems pharmacy.

MS Research Projects: Final year MS candidates (residents and working professionals) will present their research projects utilizing the presentation guidelines set forth by the Great Lakes Pharmacy

Resident Conference. The presentation should be slightly shorter for this course at 10-15 minutes in length and there will be up to 5 minutes allotted for Q&A.

Presentation Format:

For students presenting a therapeutic update or current topic:

Seminar dates will be determined prior to the start of each semester.

The topic should be approved by the course director before the beginning of each semester and should not repeat content from previous years unless updates are pertinent and relevant to the class and attendees.

The student will work on developing an oral presentation with an accompanying PowerPoint presentation.

Students must adhere to the following timeline set forth by the Continuing Professional Development team to accredit each seminar for Continuing Education (CE) credit.

1. **4 weeks out**
 - a. Conflict of Interest Form from Presenter
 - b. Conflict of Interest Forms from Planning Committee Members (preceptor and any others who have influence on the content of your presentation)
 - c. Short Bio & Headshot
 - d. Gap Analysis and Activity Planning Worksheet
2. CPD team will review your Gap Analysis and Activity Planning Worksheet and provide feedback
3. **3 weeks out**
 - a. Draft of Presentation Slides (optional PPT templates are available in Carmen on the CPD Guidance Documents page)
4. CPD team will review your slides for the CE requirements and provide feedback within 1 week of submission. You will have at least 1 week to turn around any necessary revisions for accreditation
5. **1 week out – Final Slides are due**
 - a. All requested revisions must be made by this date in order to guarantee accreditation of your presentation for CE. If slides are not finalized by this date, you may still present, but the presentation may not be eligible for CE credit.

For students presenting their MS Major Project:

The presentation should be 10-12 minutes in length and there will be up to 5 minutes allotted for Q&A. Students will go through a similar process as described above to get their presentation accredited for CE by the Continuing Professional Development team.

Continuing Professional Education – required for students presenting therapeutic update/current topic/major projects

The student speakers will coordinate with the college's Office of Continuing Professional Development to accredit their presentations for ACPE Continuing Education for Pharmacists. The Office of CPD will provide a presenter/faculty handbook and a timeline for submission of required

components including a Conflict-of-Interest Disclosure and the learning materials which include learning objectives and learning assessments.

COURSE MATERIALS AND TECHNOLOGIES

Textbooks

- None

Required Equipment

Computer: current Mac (MacOS) or PC (Windows 10) with high-speed internet connection

Webcam: built-in or external webcam, fully installed and tested

Microphone: built-in laptop or tablet mic or external microphone

Other: a mobile device (smartphone or tablet) to use for BuckeyePass authentication

If you do not have access to the technology you need to succeed in this class, review options for technology and internet access at go.osu.edu/student-tech-access.

Required Software

Microsoft Office 365: All Ohio State students are now eligible for free Microsoft Office 365. Visit the [installing Office 365](https://go.osu.edu/office365help) (go.osu.edu/office365help) help article for full instructions.

CarmenCanvas Access

You will need to use [BuckeyePass](https://buckeyepass.osu.edu) (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you do each of the following:

- Register multiple devices in case something happens to your primary device. Visit the [BuckeyePass - Adding a Device](#) help article for step-by-step instructions.
- [Install the Duo Mobile application](#) on all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.
- Read about options to [authenticate with BuckeyePass](#).
- If none of these options will meet the needs of your situation, you can contact the IT Service Desk at [614-688-4357 \(HELP\)](tel:614-688-4357) and IT support staff will work out a solution with you.

Technology Skills Needed for This Course

- Basic computer and web-browsing skills
- [Navigating CarmenCanvas](https://go.osu.edu/canvasstudent) (go.osu.edu/canvasstudent)
- [CarmenZoom virtual meetings](https://go.osu.edu/zoom-meetings) (go.osu.edu/zoom-meetings)

Technology Support

For help with your password, university email, CarmenCanvas, or any other technology issues, questions or requests, contact the IT Service Desk, which offers 24-hour support, seven days a week.

- **Self Service and Chat:** go.osu.edu/it
- **Phone:** [614-688-4357 \(HELP\)](tel:614-688-4357)
- **Email:** servicedesk@osu.edu

GRADING AND FACULTY RESPONSE

How your grade is calculated

For students **PRESENTING** during the semester:

Class attendance	20%
Completion of presenter evaluations	10%
Participation in discussion & answering discussion questions (during presentation week)	30%
Presentation evaluation and Self-Reflection	40%

For students **NOT PRESENTING** during the semester:

Class attendance	25%
Completion of presenter evaluations	25%
Participation in discussion in class and/or in discussion posts if time limits in-class Q/A	50%

The standard scale for grading will be used as outlined below:

Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	E
Scale	93-100	90-92	87-89	84-86	80-83	77-79	74-76	70-73	67-69	60-66	59 or below

Faculty Feedback and Response Time

Grading and feedback: For presenters, you can generally expect collated evaluation feedback within **5-7 days**.

E-mail: Instructor(s) will reply to e-mails within **24 hours on school days**.

Discussion board: Instructor(s) will check and reply to messages in the discussion boards every **48 hours on school days**.

Remember that you can call **614-688-HELP** at any time if you have a technical problem.

OTHER COURSE POLICIES

Discussion and Communication Guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful. You are all licensed healthcare providers (Licensed Pharmacists in the State of Ohio) responsible to the citizens of our State; as a result, the instructor(s) hold you to the highest standard of conduct.

- **Writing style:** While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write in the active voice using good grammar, spelling, and punctuation. A more conversational tone is fine for non-academic topics. Writing style in the form of text messaging or other social media jargon, or using emoji characters [e.g., LOL, IMHO, :)] is strictly prohibited.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online.
- **Citing your sources:** When we have academic discussions, please cite your sources to back up what you say. (For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.)

- **Backing up your work:** Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion. You should create a folder in your personal drives that contains all files for this course.

Ohio State's Academic Integrity Policy

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the university's Code of Student Conduct (studentconduct.osu.edu), and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the university's Code of Student Conduct and this syllabus may constitute "Academic Misconduct."

The Ohio State University's Code of Student Conduct (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the university or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the university's Code of Student Conduct is never considered an excuse for academic misconduct, so I recommend that you review the Code of Student Conduct and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by university rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the university's Code of Student Conduct (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the university.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Artificial Intelligence and Academic Integrity

There has been a significant increase in the popularity and availability of a variety of generative artificial intelligence (AI) tools, including ChatGPT, Sudowrite and others. These tools will help shape the future of work, research and technology but when used in the wrong way, they can stand in conflict with academic integrity at Ohio State.

All students have important obligations under the [Code of Student Conduct](#) to complete all academic and scholarly activities with fairness and honesty. Our professional students also have the responsibility to uphold the professional and ethical standards found in their respective academic honor codes. Specifically, students are not to use unauthorized assistance in the laboratory, on field work, in scholarship or on a course assignment unless such assistance has been authorized specifically by the course instructor. In addition, students are not to submit their work without acknowledging any word-for-word use and/or paraphrasing of writing, ideas or other work that is not your own. These requirements apply to all students undergraduate, graduate, and professional.

To maintain a culture of integrity and respect, these generative AI tools should not be used in the completion of course assignments unless an instructor for a given course specifically authorizes their use. Some instructors may approve of using generative AI tools in the academic

setting for specific goals. However, these tools should be used only with the explicit and clear permission of each individual instructor, and then only in the ways allowed by the instructor.

Creating an Environment Free from Harassment, Discrimination, and Sexual Misconduct

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Civil Rights Compliance Office:

1. Online reporting form at civilrights.osu.edu,
2. Call 614-247-5838 or TTY 614-688-8605
3. Or email [civilrights.osu.edu](mailto:civilrights@osu.edu)

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Office of Institutional Equity to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

Intellectual Diversity

Ohio State is committed to fostering a culture of open inquiry and intellectual diversity within the classroom. This course will cover a range of information and may include discussions or debates about controversial issues, beliefs, or policies. Any such discussions and debates are intended to support understanding of the approved curriculum and relevant course objectives rather than promote any specific point of view. Students will be assessed on principles applicable to the field of study and the content covered in the course. Preparing students for citizenship includes helping them develop critical thinking skills that will allow them to reach their own conclusions regarding complex or controversial matters.

Religious Accommodations

Ohio State has had a longstanding practice of making reasonable academic accommodations for students' religious beliefs and practices in accordance with applicable law. In 2023, Ohio State updated its practice to align with new state legislation. Under this new provision, students must be in

early communication with their instructors regarding any known accommodation requests for religious beliefs and practices, providing notice of specific dates for which they request alternative accommodations within 14 days after the first instructional day of the course. Instructors in turn shall not question the sincerity of a student's religious or spiritual belief system in reviewing such requests and shall keep requests for accommodations confidential.

With sufficient notice, instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements with respect to students' sincerely held religious beliefs and practices by allowing up to three absences each semester for the student to attend or participate in religious activities. Examples of religious accommodations can include, but are not limited to, rescheduling an exam, altering the time of a student's presentation, allowing make-up assignments to substitute for missed class work, or flexibility in due dates or research responsibilities. If concerns arise about a requested accommodation, instructors are to consult their tenure initiating unit head for assistance.

A student's request for time off shall be provided if the student's sincerely held religious belief or practice severely affects the student's ability to take an exam or meet an academic requirement and the student has notified their instructor, in writing during the first 14 days after the course begins, of the date of each absence. Although students are required to provide notice within the first 14 days after a course begins, instructors are strongly encouraged to work with the student to provide a reasonable accommodation if a request is made outside the notice period. A student may not be penalized for an absence approved under this policy.

If students have questions or disputes related to academic accommodations, they should contact their course instructor, and then their department or college office. For questions or to report discrimination or harassment based on religion, individuals should contact the [Civil Rights Compliance Office](#).

Policy: [Religious Holidays, Holy Days and Observances](#)

Counseling and Consultation Service and Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing.

If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th floor of the Younkin Success Center and 10th floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at 614-292-5766 and 24-hour emergency help is also available through the 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

College of Pharmacy Specific Resources

Any College of Pharmacy student may contact Dr. Levstek directly via email (levstek.4@osu.edu), and he will offer you an initial counseling session via Zoom to initiate services. During this meeting he

will address your current concerns and mental health needs, in addition to collecting background information and assessing your history of concerns. He will also discuss future treatment options with you, and can connect you with other resources as well, where appropriate. If any students have questions or concerns, please email Dr. Levstek directly.

Requesting Accommodations

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are ill and need to miss class, including if you are staying home and away from others while experiencing symptoms of a viral infection or fever, please let me know immediately. In cases where illness interacts with an underlying medical condition, please consult with Student Life Disability Services to request reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu.

Accessibility of Course Technology

This course requires use of CarmenCanvas (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations as early as possible.

- [CarmenCanvas accessibility](http://go.osu.edu/canvas-accessibility) (go.osu.edu/canvas-accessibility)
- [CarmenZoom accessibility](http://go.osu.edu/zoom-accessibility) (go.osu.edu/zoom-accessibility)

Grievances and solving problems

A student who encounters a problem related to his/her educational program has a variety of avenues available to seek resolution. (Note: the procedures for grade grievances are explicitly covered in the faculty rules) Typically, a student is advised to resolve any dispute, disagreement, or grievance as directly as possible, engaging with the person or persons most closely involved. The faculty and staff of the departments and colleges are available to work with students in this regard. If this step does not produce acceptable results, the student should follow a logical stepwise progression to address the academic concerns.

According to University Policies, if you have a problem with this class, you should seek to resolve the grievance concerning a grade or academic practice by speaking first with the instructor or professor. Then, if necessary, take your case to the department chairperson, college dean or associate dean, and to the provost, in that order. Specific procedures are outlined in Faculty Rule 3335-8-23. Grievances against graduate, research, and teaching assistants should be submitted first to the supervising instructor, then to the chairperson of the assistant's department.

Copyright Disclaimer

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with

the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Spring 2026 Graduate Seminar Schedule

Course Time: Mondays, 4:10 PM – 5:05 PM EST

Location: Parks Hall 200 for resident students or Zoom Link for working professionals

Note: Schedule includes holidays, breaks, and known conference conflicts. Presenter titles may be updated prior to presenting.

Date	Seminar Presenter/Topic
Jan 12	Leah Jones (OSUWMC) Network Outages – Impact on Systems and Preparation Strategies
Jan 19	No Class – Martin Luther King Day
Jan 26	Mark Arthen (OSUWMC) Biosimilars and Recent FDA Decision to End Switching Studies
Feb 2	Christine Prusa (WP) KPIs and Goal Setting – Leading Your Team in One Direction
Feb 9	Jackie Williams (WP) Trajectory of the Pharmacy Technician Profession
Feb 16	Alyssa Rinaldi (WP) Negotiating the Cure: Can Medicare Heal High Drug Prices through the Inflation Reduction Act (IRA)?
Feb 23	David McLean – Guest Speaker
Mar 2	Jacqueline Fisher (OSUWMC) No More Middleman: Direct to Consumer Prescription Drug Products
Mar 9	Bonnie Kirschenbaum – Guest Speaker
Mar 16	No Class – Spring Break
Mar 23	Major Project Presentations (Isaac Schmiesing, Stephanie Godon, and Hanna Iarussi) 10 – 12 minutes per person with 3 – 5 minutes for questions (total = 15 minutes per person)
Mar 30	Corbin Fuschino (OhioHealth – Riverside) Developing a Sustainable Future: Navigating Challenges to Promote Workforce Stability
Apr 6	Major Project Presentations (Adeola Balogun, Becky Volkert, Dylan McWilliams) 10 – 12 minutes per person with 3 – 5 minutes for questions (total = 15 minutes per person)
Apr 13	Faith Whitlock (OhioHealth Grant Medical Center) Initial Impact of the 2026 340B Rebate Model: Organizational Implications for Health Systems
Apr 20	Justin Bramel (WP) Operational Efficiency in Specialty Pharmacy
Apr 27	Kristin Brower (WP) The Price of Precision: Tackling High-Cost Medications in the Operating Room

Information Systems for Health-System Pharmacy Syllabus

PHR8120 SP26

Course Information

- **Course times and location:** No required schedule meetings; all instruction occurs in Carmen each week
- **Credit hours:** 1.5
- **Mode of delivery:** Distance Learning

Instructor

- **Name:** David Wai, PharmD, MS
- **Email:** david.wai@osumc.edu
- **Office hours:** Available upon request
- **Preferred means of communication:**
 - My preferred method of communication for questions is **email**.
 - My class-wide communications will be sent through the Announcements tool in CarmenCanvas. Please check your [notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to be sure you receive these messages.

Course Prerequisites

PHR 8160, and enrollment in MS in Health-System Pharmacy program; or permission of instructor.

Course Description

Pharmacy 8120 will provide an advanced understanding of technology and automation systems used within a health system pharmacy. Students will gain understanding of various uses and benefits of technology and automation in the medication use process as well as challenges with implementing new technology. This course will provide students with knowledge of the main points to consider when comparing new technology or automation and



strategies to develop vendor relationships. Additionally, this course will prepare students for applicable experiential training as part of a PGY1/PGY2 residency or job responsibilities.

Learning Outcomes

By the end of this course, students should successfully be able to:

- Compare and contrast pharmacy informatics organization structures within a health-system
- Demonstrate strategies for managing vendor relationships
- Explain the components of a project plan for the implementation of new technology and automation systems
- Identify and compare technology and automation used in the medication use process at pharmacy healthcare systems
- Explain data's place in healthcare and pharmacists' interactions with data



How This Online Course Works

Mode of delivery: This course is 100% online. There are no required sessions when you must be logged in to Carmen at a scheduled time.

Pace of online activities: This course is divided into **weekly modules** that are released one week ahead of time. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame.

Credit hours and work expectations: This is a 1.5 credit-hour course. According to [Ohio State bylaws on instruction](http://go.osu.edu/credithours) (go.osu.edu/credithours), students should expect around 1.5 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 3 hours of homework (reading and assignment preparation, for example) to receive a grade of C average.

Attendance and participation requirements: Research shows regular participation is one of the highest predictors of success. With that in mind, I have the following expectations for everyone's participation:

- **Participating in online activities for attendance: at least once per week**
You are expected to log in to the course in Carmen every week. During most weeks you will probably log in many times. If you have a situation that might cause you to miss an entire week of class, discuss it with me *as soon as possible*.
- **Participating in discussion forums: one or more times per week**
As part of your participation, some weeks you can expect to post as part of our substantive class discussion on the week's topics. In general, initial discussion posts are due Friday and response posts are due the following Tuesday.



Course Materials, Fees and Technologies

Required Materials and/or Technologies

There is no textbook for this course. Copies of course materials (i.e., Syllabus, Lecture and Reading Assignments) for the class can be found on the OSU Carmen (Canvas) course site (<https://carmen.osu.edu>) and can be downloaded as needed.

Required Equipment

- **Computer:** current Mac (MacOS) or PC (Windows 10) with high-speed internet connection
- **Webcam:** built-in or external webcam, fully installed and tested
- **Microphone:** built-in laptop or tablet mic or external microphone
- **Other:** a mobile device (smartphone or tablet) to use for BuckeyePass authentication

If you do not have access to the technology you need to succeed in this class, review options for technology and internet access at go.osu.edu/student-tech-access.

Required Software

Microsoft Office 365: All Ohio State students are now eligible for free Microsoft Office 365. Visit the [installing Office 365](https://go.osu.edu/office365help) (go.osu.edu/office365help) help article for full instructions.

CarmenCanvas Access

You will need to use [BuckeyePass](https://buckeyepass.osu.edu) (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you do each of the following:

- Register multiple devices in case something happens to your primary device. Visit the [BuckeyePass - Adding a Device](#) help article for step-by-step instructions.
- [Install the Duo Mobile application](#) on all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.
- Read about options to [authenticate with BuckeyePass](#).

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at [614-688-4357 \(HELP\)](tel:614-688-4357) and IT support staff will work out a solution with you.

Technology Skills Needed for This Course

- Basic computer and web-browsing skills
- [Navigating CarmenCanvas](https://go.osu.edu/canvasstudent) (go.osu.edu/canvasstudent)



- [CarmenZoom virtual meetings](https://go.osu.edu/zoom-meetings) (go.osu.edu/zoom-meetings)

Technology Support

For help with your password, university email, CarmenCanvas, or any other technology issues, questions or requests, contact the IT Service Desk, which offers 24-hour support, seven days a week.

- **Self Service and Chat:** go.osu.edu/it
- **Phone:** [614-688-4357 \(HELP\)](tel:614-688-4357)
- **Email:** servicedesk@osu.edu



Grading and Faculty Response

How Your Grade is Calculated

Assignment	Points
Scavenger Hunt Part 1	5
Scavenger Hunt Part 2	5
Reading Assignment 1	3
Reading Assignment 2	3
Quiz 1	3
Quiz 2	3
Quiz 3	3
Quiz 4	3
Quiz 5	3
Discussion Board 1	3
Discussion Board 2	3
Discussion Board 3	3
Midterm Assignment	20
Capstone Paper	20
Final Exam	20
Graded Points	100

See [Course Schedule](#) for due dates.



Descriptions of Major Course Assignments

- **Quizzes and exams:** You must complete the midterm and final exams yourself, without any external help or communication. Weekly quizzes are included as self-checks without points attached but are still expected to be completed on your own.
- **Written assignments:** Your written assignments, including discussion posts, should be your own original work. In formal assignments, you should cite the ideas and words of your research sources. You are encouraged to ask a trusted person to proofread your assignments before you turn them in, but no one else should revise or rewrite your work.
- **Reusing past work:** In general, you are prohibited in university courses from turning in work from a past class to your current class, even if you modify it. If you want to build on past research or revisit a topic you've explored in previous courses, please discuss the situation with me.
- **Falsifying research or results:** All research you will conduct in this course is intended to be a learning experience; you should never feel tempted to make your results or your library research look more successful than it was.
- **Collaboration and informal peer-review:** The course includes many opportunities for formal collaboration with your classmates. While study groups and peer-review of major written projects is encouraged, remember that comparing answers on a quiz or assignment is not permitted. If you're unsure about a particular situation, please ask ahead of time.

Late Assignments

Each assignment or class activity will have specific due dates; the students are responsible for complying with these due dates. Missing assignments will be assigned 0 points and late assignments will have an automatic 20% deduction per day according to the submission time logged in Carmen. For the calculation of the Late Penalty, days late will be rounded up to the next whole number. For example, if a student submits 1.3 days late, the Late Penalty will treat the student as 2 days late. Please refer to Carmen for due dates.

Instructor Feedback and Response Time

The following list is provided to give you an idea of my intended availability throughout the course. Remember that you can call [614-688-4357 \(HELP\)](tel:614-688-4357) at any time if you have a technical problem.



- **Preferred contact method:** If you have a question, please contact me first through my email address. I will reply to emails within **24 hours on days when class is in session at the university**.
- **Class announcements:** I will send all important class-wide messages through the Announcements tool in CarmenCanvas. Please check [your notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to ensure you receive these messages.
- **Discussion board:** I will check and reply to messages in the discussion boards once mid-week and once at the end of the week.
- **Grading and feedback:** For assignments submitted before the due date, I will try to provide feedback and grades within **seven days**. Assignments submitted after the due date may have reduced feedback, and grades may take longer to be posted.

Undergraduate and Graduate Grading Scale

93–100: A
90–92.9: A-
87–89.9: B+
83–86.9: B
80–82.9: B-
77–79.9: C+
73–76.9: C
70–72.9: C-
67–69.9: D+
60–66.9: D
Below 60: E



Other Course Policies

Discussion and Communication Guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Writing style:** While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. A more conversational tone is fine for non-academic topics.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online. I will provide specific guidance for discussions on controversial or personal topics.
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- **Backing up your work:** Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.

Academic Integrity Policy

See [Descriptions of Major Course Assignments](#) for specific guidelines about collaboration and academic integrity in the context of this online class.

Ohio State's Academic Integrity Policy

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All students have important obligations under the [Code of Student Conduct](#) to complete all academic and scholarly activities with fairness and honesty. Our professional students also have the responsibility to uphold the professional and ethical standards found in their respective academic honor codes. Specifically, students are not to use unauthorized assistance in the laboratory, on field work, in scholarship or on a course assignment unless such assistance has been authorized specifically by the course instructor. In addition, students are not to submit their work without acknowledging any word-for-word use and/or paraphrasing of writing, ideas or other work that is not your own. These requirements apply to all students undergraduate, graduate, and professional.

To maintain a culture of integrity and respect, these generative AI tools should not be used in the completion of course assignments unless an instructor for a given course specifically authorizes their use. Some instructors may approve of using generative AI tools in the academic setting for specific goals. However, these tools should be used only with the explicit and clear permission of each individual instructor, and then only in the ways allowed by the instructor.

Artificial Intelligence Policy for this Course

Given that the learning goals of this course is around new technology, students are welcome to explore innovative tools and technologies that support learning, including generative artificial intelligence (GenAI).

Students may use GenAI tools for the following purposes:

- Studying and learning support, including clarification of concepts taught in class
- Research assistance, such as identifying sources or background information to support the development of a paper or presentation



Students may not use GenAI tools for the following purposes:

- Generating a significant portion of any graded or deliverable assignment, including but not limited to papers, discussion board responses, case discussions, or other written submissions
- Assisting with or being referenced during quizzes or exams, for any reason

All written assignments, including discussion board posts, papers, case analyses, and reflections, must represent the student's own original work and understanding. While GenAI may support learning and preparation, the final submitted work must be created by the student and accurately reflect their individual knowledge and skills.

If I suspect that you have used GenAI on an assignment for which it is prohibited, I will ask you to explain your process for completing the assignment in question. Submission of GenAI-generated content as your own original work is considered a violation of Ohio State's Academic Integrity policy and [Code of Student Conduct](#) because the work is not your own. The unauthorized use of GenAI tools will result in referral to the [Committee on Academic Misconduct](#).

Copyright for Instructional Materials

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To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Civil Rights Compliance Office:



1. Online reporting form at civilrights.osu.edu,
2. Call 614-247-5838 or TTY 614-688-8605,
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The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Office of Institutional Equity to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

Intellectual Diversity

Ohio State is committed to fostering a culture of open inquiry and intellectual diversity within the classroom. This course will cover a range of information and may include discussions or debates about controversial issues, beliefs, or policies. Any such discussions and debates are intended to support understanding of the approved curriculum and relevant course objectives rather than promote any specific point of view. Students will be assessed on principles applicable to the field of study and the content covered in the course. Preparing students for citizenship includes helping them develop critical thinking skills that will allow them to reach their own conclusions regarding complex or controversial matters.

Religious Accommodations

Ohio State has had a longstanding practice of making reasonable academic accommodations for students' religious beliefs and practices in accordance with applicable law. In 2023, Ohio State updated its practice to align with new state legislation. Under this new provision, students must be in early communication with their instructors regarding any known accommodation requests for religious beliefs and practices, providing notice of specific dates for which they request alternative accommodations within 14 days after the first instructional day of the course. Instructors in turn shall not question the sincerity of a student's religious or spiritual belief system in reviewing such requests and shall keep requests for accommodations confidential.

With sufficient notice, instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements with respect to



students' sincerely held religious beliefs and practices by allowing up to three absences each semester for the student to attend or participate in religious activities. Examples of religious accommodations can include, but are not limited to, rescheduling an exam, altering the time of a student's presentation, allowing make-up assignments to substitute for missed class work, or flexibility in due dates or research responsibilities. If concerns arise about a requested accommodation, instructors are to consult their tenure initiating unit head for assistance.

A student's request for time off shall be provided if the student's sincerely held religious belief or practice severely affects the student's ability to take an exam or meet an academic requirement **and** the student has notified their instructor, in writing during the first 14 days after the course begins, of the date of each absence. Although students are required to provide notice within the first 14 days after a course begins, instructors are strongly encouraged to work with the student to provide a reasonable accommodation if a request is made outside the notice period. A student may not be penalized for an absence approved under this policy.

If students have questions or disputes related to academic accommodations, they should contact their course instructor, and then their department or college office. For questions or to report discrimination or harassment based on religion, individuals should contact the [Civil Rights Compliance Office](#).

Policy: [Religious Holidays, Holy Days and Observances](#).

Counseling and Consultation Service and Mental Health Statement

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing.

If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th floor of the Younklin Success Center and 10th floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at 614-292-5766 and 24-hour emergency help is also available through the 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

College of Pharmacy specific resources

Any College of Pharmacy student may contact Dr. Levstek directly via email (levstek.4@osu.edu), and he will offer you an initial counseling session via Zoom to initiate services. During this meeting he will address your current concerns and mental health needs, in addition to collecting background information and assessing your history of concerns. He will



also discuss future treatment options with you, and can connect you with other resources as well, where appropriate. If any students have questions or concerns, please email Dr. Levstek directly.

Disability Statement (with Accommodations for Illness)

Requesting Accommodations

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are ill and need to miss class, including if you are staying home and away from others while experiencing symptoms of a viral infection or fever, please let me know immediately. In cases where illness interacts with an underlying medical condition, please consult with Student Life Disability Services to request reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu.

Accessibility of Course Technology

This course requires use of CarmenCanvas (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations as early as possible.

- [CarmenCanvas accessibility](http://go.osu.edu/canvas-accessibility) (go.osu.edu/canvas-accessibility)
- [CarmenZoom accessibility](http://go.osu.edu/zoom-accessibility) (go.osu.edu/zoom-accessibility)
- The College of Pharmacy uses EchoVideo for lecture capture and hosting of recorded lecture content. EchoVideo generates transcripts for recorded lecture content through automated speech recognition. If you experience difficulties with these autogenerated transcripts, please contact your instructor.
- This course requires the use of a digital social annotation tool called Hypothes.is. If you encounter an issue with access to this tool, please contact your instructor and cop-digitalaccessibility@osu.edu. Accommodation and assistance will be arranged for you to complete any work required with this tool free of penalty.



Grievances and solving problems

A student who encounters a problem related to his/her educational program has a variety of avenues available to seek resolution. (Note: the procedures for grade grievances are explicitly covered in the faculty rules) Typically, a student is advised to resolve any dispute, disagreement, or grievance as directly as possible, engaging with the person or persons most closely involved. The faculty and staff of the departments and colleges are available to work with students in this regard. If this step does not produce acceptable results, the student should follow a logical stepwise progression to address the academic concerns.

According to University Policies, if you have a problem with this class, you should seek to resolve the grievance concerning a grade or academic practice by speaking first with the instructor or professor. Then, if necessary, take your case to the department chairperson, college dean or associate dean, and to the provost, in that order. Specific procedures are outlined in Faculty Rule 3335-8-23. Grievances against graduate, research, and teaching assistants should be submitted first to the supervising instructor, then to the chairperson of the assistant's department.



Course Schedule

Refer to the CarmenCanvas course for up-to-date due dates.

Week	Topics	Assignments	Due Date
Week 1 Wednesday, 3/4/26	Pharmacy Informatics Fundamentals Governance Structure Pharmacy Informatics Organizational Structure Panelist Interview	Scavenger Hunt Part 1 Reading Assignment 1	Tuesday, 3/17/26
Week 2 Monday, 3/9/26	Vendor Relationships Project Management Fundamentals	Scavenger Hunt Part 2 Quiz 1	Tuesday, 3/24/26
Week 3 Monday, 3/16/26	SPRING BREAK		
Week 4 Monday, 3/23/26	Introduction to Technology and Automation in the Medication Use Process Perpetual Inventory Systems Drug Supply Chain Security Act 340B	Reading Assignment 2 Quiz 2	Tuesday, 3/31/26
Week 5 Monday, 3/30/26	Technology and Automation in Pharmacy Storage and Dispensing	Discussion Board 1 Mid-Course Reflection	Tuesday, 4/7/26
Week 6 Monday, 4/6/26	Technology and Automation in Prescribing & Order Verification Technology and Automation in Administration Technology and Automation in Monitoring	Quiz 3 Midterm Assignment	Tuesday, 4/14/26
Week 7 Monday, 4/13/26	Technology and Automation in Ambulatory/Retail Pharmacy	Discussion Board 2 Quiz 4	Tuesday, 4/21/26
Week 8 Monday, 4/20/26	Business Intelligence & Reporting AI	Discussion Board 3 Quiz 5	Tuesday, 4/28/26
Week 9 Monday, 4/27/26	Finals Week	Capstone Paper Final Exam End of Course Reflection SSLE	Tuesday, 5/5/26

