

History of Pharmacy
PHRD 5073
CRN# 44745

I. Contact Information

Course Coordinator:

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Office Location: SHV Office 125
Office Hours: M-Th 8:00-9:00 AM and 1:00-2:00 PM (by appointment only)
Preferred Method of Communication: Email

Course Instructors:

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*Guest Speakers (TBD)

II. Course Pre-requisites/Co-requisites

Enrollment in the College of Pharmacy

III. Course Description

2 cr. This course is designed to provide the student with an overview of the history of pharmacy, ranging from prehistoric to the 21st century. There will be an emphasis on the origins and growth of the pharmacy profession, as well as the development of pharmacy industry, associations, and education.

IV. Curricular Objectives and Outcomes

Domain 1 – Foundational Knowledge

1.1. Learner (Learner) - Develop, integrate, and apply knowledge from the foundational sciences (i.e., *pharmaceutical, social/behavioral/administrative, and clinical sciences*) to evaluate the scientific literature, explain drug action, solve therapeutic problems, and advance population health and *patient-centered care*.

Appendix 1 Required Element:

History of Pharmacy: Exploration of the evolution of pharmacy as a distinct profession, the transition from a focus on the drug to a focus on the patient and the drug (including pharmacist-provided patient care), and major milestones and contributors in the evolution of pharmacy.

V. Course Specific Objectives and Outcomes

At the conclusion of this course, students should be able to:

- Describe the development of medications and pharmacy from ancient history through the present time.
- Describe the evolution of pharmacy practice from prehistoric times through the present time.
- Discuss the evolution of hospital and retail pharmacy to the clinical pharmacy profession.
- Describe the development of pharmacy associations and education.

VI. Course Topics

Evolution of Pharmacy Practice: Role of drugs and medicines in ancient civilizations, pharmacy in the Middle Ages, apothecary shop practice in colonial America, in-shop manufacturing of ingredients and preparations, rise of the classic American drug store, World War II and pharmacy, development and growth of hospital pharmacy specialty, development of the chain drug industry, clinical pharmacy era, medication therapy management, and provider status.

Pharmacy Education: Training through apprenticeship, development of institutional pharmacy education, development of residency training.

Pharmacy associations: Pharmacy guilds in Europe, establishment of the American Pharmaceutical Association, creation of American Society of Hospital Pharmacists, creation of specialty national pharmacy associations.

VII. Instructional Methods and Activities

Instructional methods may include: online lectures, traditional lectures, distance learning, and individual projects or assignments. Moodle may be utilized for lecture delivery and discussion board participation. Students are required to have Internet access for lectures and assignments.

VIII. Evaluation and Grade Assignment

There will be online quizzes, mandatory discussion board participation, a writing assignment, and mandatory attendance at guest speaker lectures.

| | |
|---|---|
| Quizzes: 90 points | (3 quizzes at 25 points each; 1 quiz at 15 points each) |
| Discussion Boards: 60 points | (6 discussion boards at 10 points each) |
| Writing Assignment: 50 points | (1 writing assignment at 50 points each) |
| Drawing Assignment: 50 points | (1 drawing assignment at 50 points each) |
| Participation: 50 points | (1 Live Zoom session at 50 points each) |
| Total points for the course*: 300 points | |

**Quizzes/assignments will be given as deemed necessary by each faculty member. The points available from these quizzes and assignments will be added into the denominator for the total number of points available from the course, and course grade determined accordingly. Grades will be posted within 2 weeks of the due date.*

- *Quiz dates are scheduled in the course syllabus and will only be changed in the event of University closure.*
- *Quizzes may be multiple-choice, fill-in-the-blank, short-answer, case- or scenario-based discussion, essay, or any other format deemed necessary by the faculty members and Course Coordinators.*
- *Quizzes may cover material (readings, outside assignments) not covered in class.*
- *Quizzes will NOT be returned to the student. All instructors will have copies of the quiz and students' results, and students may view their quiz results (inc. right/wrong) in instructors' offices (or by virtual means), at times convenient for all involved. At this time, they may also discuss quiz questions with the instructors who wrote them; however, any official "challenges" of questions must be done in writing. (See below)*

- Quizzes will be issued using Exam Soft or Moodle; If Exam Soft is used, all students are required to download the quizzes prior to the date of the scheduled quiz. If a student cannot take the quiz on the scheduled date the student must reverse download the quiz to Exam Soft. Under no circumstances should a student open a quiz, except during the scheduled time and at the scheduled location.
- Students wishing to review their quizzes with the course coordinators or with a specific faculty member must do so within 2 weeks of when the quiz scores are posted.
- Problems or issues with a question should be first directed, via e-mail, to the person who wrote it. The course coordinator(s) should be copied on this email, but it is the responsibility of the question's author to address the concern(s). If the student is unsure which faculty member wrote a specific question, then he or she may ask the course coordinator. In the written challenge, the student is expected to include references or rationale to support their challenge of the question. The challenge will be reviewed by the faculty member, and his or her decision will be shared with the course coordinator(s). Discussion of a dispute will occur only after the written query is submitted. Challenges of test questions for the quizzes will only be considered within 2 weeks of when the test scores are posted.
- In the event that there is an issue with a particular test question, adjustments to scores will be made based on discussions between the test question writer and the course coordinator.
- Mid-term grades will be posted on-line for students to view via Banner. Mid-term grades indicate a student's status at mid-semester only and do not indicate the final performance outcome of a student.
- Assignments submitted after the due date will not be accepted and will result in a score of zero.

Grading Scale:

| | |
|---------------|---|
| 89.5 – 100% | A |
| 79.5 – 89.49% | B |
| 69.5 – 79.49% | C |
| 59.5 – 69.49% | D |
| ≤59.49% | F |

Student Success Policy: <http://www.ulm.edu/pharmacy/currents.html>

Remediation Policy: <http://www.ulm.edu/pharmacy/currents.html>

IX. Class Policies and Procedures

At a minimum, all policies stated in the current ULM *Student Policy Manual & Organizational Handbook* should be followed (see <http://www.ulm.edu/studentpolicy/>). Additional class policies include:

- Textbooks (required):** None (Required reading material may be posted on Moodle by course instructors).
- Attendance Policy:** Class attendance is regarded as an obligation as well as a privilege, and students are expected to know attendance regulations and to attend regularly and punctually at classes in which they are enrolled. Failure to do so may: (1) prevent access to the classroom during regularly scheduled times; (2) jeopardize a student's scholastic standing; and (3) lead to suspension from the School or University. Students must submit excuses for class absences to course coordinators within three class days after returning to classes.

Professors shall accept an official University excuse. With the following exceptions, professors are to determine whether absences are excused or unexcused: 1) Absences arising from authorized trips away from the University or from special duties at the University shall be excused. 2) Absences arising from a student's confinement in a hospital or other in-patient facility or doctor's excused absences shall be excused. Students are responsible for verifying providing documentation to the faculty, which will be verified. 3) Absences arising from a death in the immediate family shall be

excused. The immediate family is defined as spouse, child, step-child, mother, father, sister, brother, grandmother, grandfather, step-mother, step-father, step-brother, step-sister, aunt, uncle, mother-in-law or father-in-law.

- c. **Make-up Policy:** Each student is expected to attend each exam at the date and time specified. If a student cannot attend an exam due to valid University excuse, he/she must speak directly with the course coordinator, as soon as possible. The course coordinator must be notified **prior** to an examination if a student misses an exam. The ULM SOP Excused Absence Policy must be followed. Please refer to the official document for details. In case of emergency, the course coordinator must be notified within 48 hours of the emergency. Failure to do so will result in a zero (0) grade for that exam. Make-up exams will be prepared at the same or higher level than the original exam. The format of the make-up exam may be written or oral. Failure to attend a scheduled make-up exam will result in a zero (0) grade for that exam. *Students missing an exam due to a University approved excuse will take the make-up exam during the week of finals, or as determined by the course coordinator.*
<http://www.ulm.edu/pharmacy/currents.html>
- d. **Academic Integrity:** Faculty and students must observe the ULM published policy on Academic Dishonesty (see Page 4 of the ULM *Student Policy Manual* - <http://www.ulm.edu/studentpolicy/>). All professional students will adhere to the standards set forth in the School of Pharmacy's Code of Conduct (<http://www.ulm.edu/pharmacy/currents.html>).

Censures (Penalties)

Academic dishonesty will result in a referral to the Committee on Ethical and Professional Standards with a recommendation for a grade of "F" for the course and expulsion from the School of Pharmacy. Academic dishonesty includes, but is not limited to, the use of information taken from others' work or ideas, the provision of help to others on non-collaborative evaluations (tests, quizzes, etc.), collaboration on take home exams, or the use of unapproved information or electronic devices to assist in obtaining an answer to the question

- e. **Course Evaluation Policy:** At a minimum, students are expected to complete the online course evaluation.
- f. **Student Services:** Information concerning student services in the School of Pharmacy can be found in the School of Pharmacy Student Handbook. In particular, students should pay special attention to the University's technical standards and policies concerning students with special needs (<http://www.ulm.edu/studentpolicy/studentpolicy.pdf>). ULM student services, such as the Student Success Center (<http://ulm.edu/cass/>), Counseling Center (<http://ulm.edu/counselingcenter/>), and Student Health Services, is available at the following Student Services web site <http://ulm.edu/studentaffairs/>. Students with special needs requiring accommodations MUST follow the process described at <http://rxweb.ulm.edu/pharmacy/student/specialneeds.pdf>.

Mental Wellness on the ULM Campus

If you are having problems with emotional, social, and/or behavioral issues please call any of the mental health clinics on the ULM campus to make an appointment. All services are free to ULM students, staff, and faculty, and are strictly confidential.

- COP Office of Student and Professional Affairs: 342-3800
- ULM Counseling Center: 342-5220
- Marriage and Family Therapy Clinic: 342-5678
- Community Counseling Center: 342-1263
- ULM HELPS (Helping Educators and Learners Prevent Suicide) Project Office: 342-1335

The University of Louisiana at Monroe strives to serve students with special needs through compliance with Sections 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. These laws mandate that postsecondary institutions provide equal access to programs and services for students with disabilities without creating changes to the essential elements of the

curriculum. While students with special needs are expected to meet our institution's academic standards, they are given the opportunity to fulfill learner outcomes in alternative ways. Examples of accommodations may include, but are not limited to, testing accommodations (oral testing, extended time for exams), interpreters, relocation of inaccessible classrooms, permission to audiotape lectures, note-taking assistance, and course substitutions.

Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds, including federal loans and grants. Furthermore, Title IX prohibits sex discrimination to include sexual misconduct, sexual violence, sexual harassment and retaliation. If you encounter unlawful sexual harassment or gender-based discrimination, please contact Student Services at 318-342-5230 or to file a complaint, visit www.ulm.edu/titleix.

- g. Emergency Procedures:** Please review the emergency escape plan in the classrooms and hallways of the Bienville building. Move quickly and in an orderly manner to the appropriate stairwell and exit the building. The meeting place for this class will be the far end of the north parking lot between the Bienville building and Broadmoor Blvd. Under no circumstances is the elevator to be used for emergency evacuation. Any student needing assistance should notify the professor immediately. For emergencies, to contact University Police, call **1-911** from landlines and **342-5350** from cell phones. **The course coordinators reserve the right to adjust the syllabus or schedule, in accordance with University and School policies and procedures.**
- h. COVID-19:** The University's policies and protocols for responding to the COVID-19 pandemic are focused on maintaining a safe and healthy campus environment. The plans align with federal, state and local guidelines. Safety requirements include good hygiene, including frequent hand-washing, maintaining 6-feet social distancing and wearing a face mask or covering inside all campus buildings and in any area where social distancing is not feasible. The University expects all employees and students to comply with these protocols. Failure to comply with these safety requirements can result in disciplinary action and students may be removed from class and redirected to online instruction.
- i.** Federal Regulations require determination and verification of every students' physical location while enrolled in classes (where they are physically located while taking classes), regardless of the delivery method (on campus, online). At the beginning of every semester and whenever physical location changes, students must update or verify their current location through banner <https://ssb-prod.ec.ulm.edu/PROD/bwgkogad.P.SelectAtypUpdate>. Students should do this by the end of the first week of classes.
- j.** This course may be/is a major requirement for the PharmD degree in Pharmacy. Completion of degree requirements leads to eligibility for professional licensure and/or certification in Louisiana upon graduation. Federal Regulations require universities to provide information to students about the alignment between Louisiana's requirements and those of other states. ULM has created a web page with discipline-specific information containing hyperlinks to Licensure Boards in the United States <https://www.ulm.edu/professional-licensure-disclosures/index.html>. Program Directors and/or faculty will discuss this information with you during advising or other program meetings but is also available to answer questions and address any concerns you might have. It is also important to note that licensure or certification requirements are subject to change. Although ULM Program Directors annually review and update licensure information for every state, the faculty recommends that before enrolling in a program and throughout enrollment, students communicate with the applicable state board to confirm understanding and whether upon completion of ULM's program, they will meet requirements.

X. Course Schedule*

Online lectures will be pre-recorded and available for viewing on Moodle during the scheduled week (unless stated otherwise by Course Coordinator).

Students will be required to attend Live Zoom meetings as specified below.

Live Zoom lecture will take place online from 1:00-2:40 PM on scheduled date

| Week | Date | Lecture | Method | Assignment(s) |
|------|----------|--|--------------------------|--|
| 1 | 8/16/21 | Introduction (Est time: 15 minutes) | In Class (Rm 340) | None |
| | | Prehistoric to Ancient Rome | Online | |
| 2 | 8/23/21 | Medieval Pharmacy | Online | Discussion Board #1 |
| 3 | 8/30/21 | Renaissance Pharmacy | Online | Online Quiz #1 (Weeks 1, 2, 3) |
| 4 | 9/6/21 | No Class – Labor Day Holiday | | |
| 5 | 9/13/21 | Colonial and Early American Pharmacy | Online | Discussion Board #2 |
| 6 | 9/20/21 | Medicine During the Civil War | Online | Discussion Board #3 |
| 7 | 9/27/21 | Pharmacists in World War II Dedicated Time for Writing Assignment | Online | Online Quiz #2 (Weeks 5, 6, 7) |
| 8 | 10/4/21 | Guest Speaker (Dr. Megan Undeberg) | Live Zoom | None |
| 9 | 10/11/21 | The Rise of Clinical Pharmacy | Online | Writing Assignment Due[†] Discussion Board #4 |
| 10 | 10/18/21 | Pharmaceutical Industry | Online | Discussion Board #5 |
| 11 | 10/25/21 | Development of Pharmacy Education and Associations | Online | Online Quiz #3 (Weeks 9, 10, 11) |
| 12 | 11/1/21 | No Class – Fall Break | | |
| 13 | 11/8/21 | Drug Containers and Labels | Online | Discussion Board #6 |
| 14 | 11/15/21 | Alternative Methods of Treatment in America | Online | Online Quiz #4 (Weeks 13, 14) |
| 15 | 11/22/21 | Dedicated Time for Drawing Assignment | N/A | Drawing Assignment Due[§] |
| 16 | 11/29/21 | No Class – Finals Week | N/A | |

*Subject to change at the discretion of the Course Coordinator

[†]The writing assignment must be submitted in Moodle by 10/17/21 at 9:00 PM

[§]The drawing assignment must be submitted in Moodle by 11/28/21 at 9:00 PM