PHAR 7219: Drug Information Retrieval and Literature Evaluation

Fall 2025

Course Description

Students will learn how to critically evaluate and utilize the medical literature to impact pharmacy practice.

Additional Course Information

Content coverage includes the use of primary, secondary, and tertiary literature in pharmacy practice and strategies used to evaluate literature and information resources. The content will build upon drug information, biostatistics, and clinical research concepts learned in prior coursework. Students will develop the skills necessary to critically evaluate literature and other resources to competently respond to medication-related questions. Lastly, students will appreciate the necessity of timely and rigorously analyzed literature as an essential component of formulating and implementing optimal medication management.

Course Credit: 2 credit hours

Pre-Requisites:

- P2 Standing
- PHAR 7274: Biostatistics & Clinical Research Methods

Co-Requisites: Completion or current enrollment in:

- PHAR 7481 Integrated Pharmacotherapy 1: Respiratory & Renal
- PHAR 7582 Integrated Pharmacotherapy 2: Infectious Diseases

Class Meeting Days, Time and Location:

- Mondays, 10:00 AM – 11:50 AM; W.T. Brookshire Hall Room 235
- Supplemental Instruction (Optional): Select Wednesdays, 9-10 am, details in Canvas

Course Coordinator:

Amy H Schwartz, PharmD, BCPS
W.T. Brookshire Hall Room 239
Email: aschwartz@uttyler.edu
Phone: 903-566-7168

Office hours:

- By appointment: Mondays, 1-3 PM and Wednesdays, 1-3 PM (virtual or in-person)
- Contact directly if other days/times are necessary
- Preferred method of contact: email

Fisch College of Pharmacy (FCOP) and UT Tyler Policies

This is Part 1 of the syllabus. Part 2 contains UT Tyler and the FCOP course policies and procedures. For experiential courses (i.e., IPPE and/or APPE), the Experiential Manual contains additional policies and instructions that supplement the Syllabus Part 1 and 2. Please note, the Experiential Manual may contain policies with different deadlines and/or instructions. The Manual should be followed in these cases.

Required Incoming Knowledge and Skills

Course content will build on and apply the knowledge and skills learned in PHAR 7274. In the schedule below PHAR 7274 prerequisite knowledge and skills related to a PHAR 7219 class session is noted. Students are responsible for maintaining awareness and understanding of PHAR 7274 course content in preparation for PHAR 7219 class sessions.

Required Materials

Course materials are available through the Robert R. Muntz Library or in the class Canvas site. Textbooks are available either online (http://library.uttyler.edu/) or on reserve.

1. Malone PM, Witt BA, Malone MJ, Peterson DM. Drug Information: A Guide for Pharmacists, Seventh Edition. McGraw-Hill Education, 2022. ISBN: 978-1-260-46030-8. Available in Access Pharmacy (log in with UT Tyler credentials)
2. Aparasu RR, Bentley JP. *Principles of Research Design and Drug Literature Evaluation*, Second Edition. McGraw-Hill Education, 2020. ISBN: 978-1-260-44178-9. Available in Access Pharmacy (log in with UT Tyler credentials)
3. Canvas course website: **uttyler.edu/canvas**

Course Format

The course may include, but is not limited to, the following:

- Independent study of selected readings
- Individual activities and quizzes
- Individual assignments

Course Learning Outcomes (CLO)

	PLO (1-12)	ACPE Appendix 1	NAPLEX (1-5)	MPJE (1-4)	Assessment Methods (1-13)	Grading Method
1. Discuss the legal and ethical aspects surrounding the provision of drug information.	3	1, 4	1, 4	2.3	1, 4	ES
2. Describe the benefits and limitations of primary, secondary, and tertiary drug information sources, including print and electronic formats.	1, 3	4	1	2.3	1, 4	ES
3. Understand the fundamental concepts of artificial intelligence (AI) and its applications in drug information practice, including AI benefits, risks, and appropriate use.	1	4	1	2.3	1, 3, 4	ES
4. Identify appropriate sources for the information needed to address specific drug information questions in an efficient manner.	1, 3	4	1	2.3	1, 3, 4, 7	ES, RUB
5. Evaluate the quality and applicability of drug information within a source.	1, 3	4	1	2.3	1, 3, 4, 8	ES, RUB
6. Develop a professional drug information question response.	1, 3	1	1, 3	2.3	1, 3, 7	ES, RUB
7. Communicate drug information with clarity and accuracy at a level appropriate for the audience.	3	1	1, 3	2.3	1, 3, 4, 7, 8	ES, RUB

ES = ExamSoft; RUB = Rubric

Course Assessment Methods

	Assessment Method	Description
1	Midterm and Final Exam - Multiple Choice or Multiple Select Question(s)	Standard multiple choice and select all that apply questions
2	Midterm and Final Exam - Open Ended Questions	Calculations using drug information resources Clinical question development Writing sample evaluation Critical evaluation of primary literature, including interpreting results Application of clinical practice guidelines
3	Projects	Drug information question response (DIQR): Individual drug information question response
		Journal Club (JC): Individual evaluation of primary literature and handout development
4	Oral Presentation	Journal Club verbal presentation

Grading Policy and Grade Calculation
Grades will be determined from student performance on assignments, quizzes, midterm exam, final exam, and other activities. Evaluative processes may encompass multiple-choice, fill in the blank, short-answer, essay, or problem-based questions.

Exams, quizzes, and assignments are cumulative, and course material builds on a trajectory**.** Students are responsible for material learned during prior courses. The grading scale is noted below. The final course grade will be assigned according to the calculated percentage, which will not be rounded. For additional information, see Part 2 of the syllabus.

During the time the course is in progress, students who obtain less than 75% on any summative assessment or a total course grade of less than 75% during a particular semester will receive an academic alert from the course coordinator and the Office of Academic Affairs and be subject to weekly in-course remediation with the course instructor(s).

Class Attendance and Punctuality Expectations
Students are expected to be on time (start of class and breaks) and attend all class sessions, other course activities, and exams. Certain class activities (e.g. exams) may require arrival earlier than the scheduled start time. Students who are tardy or absent from class, or do not submit a graded activity by stated deadline (quiz, exam, or other assignment) with an acceptable excuse may not be afforded make-up, resulting in a zero grade. See the FCOP Syllabus, Part 2, for details of the attendance and examination policies.

Artificial Intelligence
UT Tyler is committed to exploring and using artificial intelligence (AI) tools as appropriate for the discipline and task(s) undertaken. Discussions are encouraged regarding the ethical, societal, philosophical, and disciplinary implications of AI. All use of AI should be acknowledged to align with the University commitment to honor and integrity, as noted in UT Tyler Honor Code. Faculty and students must not use protected information, data, or copyrighted materials when using an AI tool.

Additionally, users should be aware that AI tools utilize predictive modeling to generate content. All results should be reviewed for accuracy/correctness, to avoid distribution of incomplete, inaccurate, taken without attribution from other sources, and/or biased information.

An AI tool should not be considered a substitute for traditional approaches to completing assignments or research. Faculty and students are ultimately responsible for the quality and content of the information shared and/or submitted. Misuse of AI that violates course requirements (see below) is considered a breach of academic integrity and the student will be subject to disciplinary action as outlined in UT Tyler Academic Integrity Policy.

For this course, AI is permitted for specific assignments or situations only. The course includes assignments where artificial intelligence (AI) tools (such as ChatGPT, Copilot or Gemini) are permitted and encouraged. When AI use is permissible it will be clearly stated in assignment directions and must be appropriately acknowledged and cited. Contact the coordinator or instructor if the use of AI is not stated or unclear.

Standard Grade Calculation	
Activities and Quizzes	5%
Drug Information Question Response (DIQR)	15%
Journal Club (JC)	10%
Midterm Exam	25%
Cumulative Final Exam	45%
Total	**100%**

The final course letter grade will be determined according to the following grading scheme:

A	90 - 100 %
B	80 - 89.999 %
C	70 - 79.999 %
D	65.0 - 69.999 %
F	< 65.0 %

PHAR 7219 Fall 2025 Course Schedule

Please note that dates, topics, and assignments are subject to change. In the event of a change, ample notification will be provided.

WEEK	DAY	TOPIC	PHAR 7274 PREREQUISITE KNOWLEDGE & SKILLS	INSTRUCTOR	CLO(S)	DISEASE STATE
1	8/25/25	Course Overview Ethical and Legal Aspects of DI Practice	N/A	A Schwartz	1	S20.99
2	9/1/2025	**NO CLASS – Labor Day Holiday**				
3	9/8/25	Types of Biomedical Resources Electronic Resources Using Tertiary Resources for Adult and Pediatric Drug Dosing	Fundamentals of Clinical Research	A Schwartz	2, 4, 5	S20.99
	9/10/25 9-10 AM	Supplemental Instruction (Optional)				
4	9/15/25	Primary Literature Article Anatomy Systematic Approach to Developing Clinical Questions	Fundamentals of Clinical Research	A. Schwartz	2, 4	S20.99
	9/17/25 9-10 AM	Supplemental Instruction (Optional)				
5	9/22/25	Introduction to Artificial Intelligence and its Application in DI practice Writing Styles, Referencing, and Plagiarism; Writing Professional Drug Information Responses; DIQR Assignment Instructions	Fundamentals of Clinical Research	A Schwartz	3, 4, 5, 6, 7	S20.99
	9/24/24 9-10 AM	Supplemental Instruction (Optional)				
6	9/29/25	Navigating Library Resources, Article Citation Anatomy, and Literature Search Strategies Selecting Appropriate Resources for Drug Information Question Responses	N/A	J LaMott A Schwartz	4, 5	S20.99
7	**10/6/25 10-11:30 AM**	**Midterm Exam**	• W. Smith	1-7	S20.99	
8	10/13/25	Evaluating Randomized Controlled Trials (RCTs)	Descriptive Statistics Hypothesis Testing Power and Sample Size Randomized-Controlled Trials	W Marsh A Schwartz	5	S20.99

WEEK	DAY	TOPIC	PHAR 7274 PREREQUISITE KNOWLEDGE & SKILLS	INSTRUCTOR	CLO(S)	DISEASE STATE
	10/15/25 9-10 AM	Supplemental Instruction (Optional)				
9	10/20/25	Evaluating RCTs continued, and Journal Club Assignment Instructions	• Comparing Proportions • Comparing Means • Statistical versus Clinical Significance	W Marsh A. Schwartz	5	S20.99
10	10/27/25	DIQR First Draft Evaluating Non-inferiority RCTs and Review Articles	• Equivalence and Noninferiority Trials • Systematic Reviews and Meta-Analysis	W Marsh A. Schwartz	5	S20.99
	10/29/25 9-10 AM	Supplemental Instruction (Optional)				
11	11/3/25	Faculty Assistance with DIQR and JC Preparations	N/A	W Marsh A. Schwartz	5, 6, 7	S20.99
12	11/10/25	Journal Club Presentations	N/A	A Schwartz W Marsh F Yu W Smith	5, 7	S20.99
13	11/17/25	DIQR Final Submission Interpreting Clinical Practice Guidelines Evaluating Direct-to-Consumer Advertising, Pharmaceutical Rep Info, and Patient Health Information Resources	N/A	A Schwartz	2, 5, 7	S20.99
	11/19/25 9-10 AM	Supplemental Instruction (Optional)				
14	11/24/25	**NO CLASS - Thanksgiving Holiday**				
15	12/1/25	**Cumulative Final Exam**		A Schwartz	1-7	S20.99