

PHAR 7219: Drug Information Retrieval, Literature Evaluation, & Informatics

Fall Semester 2021

Course Description

This course focuses on the critical evaluation and use of medical literature in pharmacy practice as well as the clinical application of pharmacy informatics.

Additional Course Information

This course focuses on the use of primary, secondary, and tertiary literature in pharmacy practice and strategies used to evaluate literature and information resources. It is designed to build upon drug information, biostatistics, and clinical research concepts learned in previous coursework. During this course, students will develop the skills necessary to critically evaluate medical literature and competently respond to questions related to drug therapy. The course will also include an introduction to the evaluation and application of informatics to pharmacy practice. At the end of this course the student should have an appreciation of the role of timely and rigorously analyzed healthcare literature as an essential component of formulating and implementing optimal drug therapy plans. *****PLEASE NOTE***** For Fall 2021, pharmacy informatics topics previously covered in this course have been moved to PHAR 7276: Social-Behavioral Pharmacy and Practice Management. These changes are not reflected in the official course title and course description listed above.

Course Credit: 2 credit hours

Pre-Requisites:

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

Class Meeting Days, Time & Location: Fridays, 10:00 AM – 11:50 AM, in WTB 137 *****UPDATE*****

Information for Classrooms and Laboratories: Students are expected to wear face masks covering their nose and mouth in public settings (including classrooms and laboratories). The UT Tyler community of Patriots views adoption of these practices consistent with its [Honor Code](#) and a sign of good citizenship and respectful care of fellow classmates, faculty, and staff.

Students who are feeling ill or experiencing symptoms such as sneezing, coughing, digestive issues (e.g. nausea, diarrhea), or a higher than normal temperature should stay at home and are encouraged to use the [UT Tyler COVID-19 Information and Procedures](#) website to review protocols, check symptoms, and report possible exposure. Students needing additional accommodations may contact the Office of Student Accessibility and Resources at University Center 3150, or call (903) 566-7079 or email saroffice@uttyler.edu.

Course Coordinator:

Winter J. Smith, Pharm.D., BCPS

Email: wsmith@uttyler.edu

Office hours:

- **MUST** make appointment: Tuesdays, 12-1 PM and Fridays, 12-2 PM (may be in person, via phone, or Zoom)
- Other days/times (via phone or Zoom) by appointment
- 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. These are available as a PDF at <https://www.uttyler.edu/pharmacy/academic-affairs/files/fcop-syllabus-policies-part2-2021.pdf>. 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 Materials

Most course required materials are available through the Robert R. Muntz Library. These materials are available either online* (<http://library.uttyler.edu/>) or on reserve.

1. *Malone PM, Malone MJ, Park SK. *Drug Information; A Guide for Pharmacists*, Sixth Edition. McGraw-Hill Education, 2018. ISBN: 978-1-259-83797-5. Available in Access Pharmacy.
 - a. Direct textbook link (must log in with UT Tyler credentials to access):
<https://ezproxy.uttyler.edu/login?url=https://accesspharmacy.mhmedical.com/Book.aspx?bookid=2275>
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.
 - a. Direct textbook link (must log in with UT Tyler credentials to access):
<https://ezproxy.uttyler.edu/login?url=https://accesspharmacy.mhmedical.com/Book.aspx?bookid=2733>
3. Other required materials will be posted on the class Canvas site. The site address is: uttyler.edu/canvas.

Course Format

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

1. Independent study of selected readings
2. Individual readiness assessment tests (iRATs)
3. Individual assignments, applications, and projects
4. Team assignments, applications, projects, and verbal presentation
5. Team-based learning, active learning strategies:
 - a. Team readiness assessment tests (tRATs)
 - b. Team application of content and concepts

Course Learning Outcomes (CLOs)

CLOs	PLO(s) Assessed for this CLO (1-15)	EPAs (1.1-6.1)	Assessment Methods	Grading Method	ACPE Std. 11 & 12 (1-4)
1. Discuss the legal and ethical aspects surrounding the provision of drug information.	7	4.2	4	ES	N/A
2. Describe the benefits and limitations of primary, secondary, and tertiary drug information sources, including print and electronic.	1,7	1.2, 4.2	4	ES	N/A
3. Identify appropriate sources for the information needed to address specific drug information questions in an efficient manner.	1,7	1.1, 4.2	1, 2, 3, 4	ES, RUB	N/A
4. Evaluate the quality and applicability of drug information within a source.	1,7	1.2	1, 2, 3, 4	ES, RUB	N/A
5. Develop a professional drug information question response.	1,7	1.2, 1.3, 1.4, 4.1, 4.2	1	ES, RUB	1
6. Communicate drug information with clarity and accuracy at a level appropriate for the audience.	7,11	1.4, 4.1, 4.2	1, 2	ES, RUB	1

Course Assessment Methods

	Assessment Method	Description
1	Individual Project	<i>Individual drug information question response with feedback and revision</i>
2	Team Project	<i>Team evaluation of primary literature and journal club handout development</i>
3	Verbal Presentation (team)	<i>Team journal club verbal presentation</i>
4	Midterm and Final Exam	<i>Standard multiple choice, select all that apply, fill in the blank, true/false, and/or short answer questions</i>

Case Studies

Case Studies is a longitudinal supplement intended to reinforce and integrate concepts and skills from the P2 fall curriculum. **Content and concepts from Case Studies will be integrated into summative exams for the P2 fall courses.**

Case Studies Format

Case days may include, but are not limited to, the following activities:

1. Guided discussions
2. Individual and team active learning strategies
 - a. Individual and team case application of content and concepts
 - b. Individual and team case presentation of content and concepts
 - c. Individual and team SOAP note(s)

Case Studies Expectations

Attendance and full participation are a student obligation and expectation. Failure to attend each Case Studies session will result in a 2% deduction from the final course grade to which the session is assigned. To ensure equitable distribution among P2 fall courses, each session will have an "Assigned Course" that will house the 2% deduction in the final course grade in the event of an unapproved absence. Failure to attend all Case Studies

sessions would result in a 2% deduction from the final grade of each of the following courses: PHAR 7193, 7302, 7481, 7582, and 7219.

At the discretion of the session’s assigned course coordinator, absences from a case session may be either approved or unapproved. Students are expected to notify the session’s assigned course coordinator *as soon as possible, and no later than 9 AM the morning of the requested absence, with supporting documentation of the absence provided within 3 days of the absence per the College of Pharmacy Policies available in Part 2 of the Syllabus.*

Example. Unapproved absences for sessions 2 and 4, would result in 2% final course grade deduction for both PHAR 7302 and PHAR 7582. At the end of the semester if the student’s course grades for PHAR 7302 were 91% and 71% respectively, their final grade would be reduced to 89% and 69% respectively because of their Case Studies’ absences.

Case Study Schedule

Case Studies will be held over five sessions on Fridays from 2-5 PM. Although each session’s attendance deduction is assigned to a specific course, case content is not limited to that course and will be integrated into summative exams for the P2 fall courses.

P2 Fall 2021 Case Study Schedule					
Session	Date	Assigned Course	Assigned Course Coordinator	Topic	Instructors
1	9/17	PHAR 7193	Dr. Vega	Case Studies Introduction Case Modeling	Drs. Brazill and Rice
2	10/1	PHAR 7302	Dr. Brunner	Case 1	TBD
3	10/8	PHAR 7481	Dr. Dunn	Case 1	TBD
4	11/5	PHAR 7582	Dr. Wilder	Case 2	TBD
5	11/19	PHAR 7219	Dr. Smith	Case 2 Individual Presentation	TBD

Grading Policy & Grade Calculation

Grades will be determined based on evaluation of individual and team readiness assessment tests (iRATs, tRATs), individual and team cumulative assessment tests (iCATs, tCATs), midterm examinations, final written examinations, skills assessments, graded application assignments, participation in team-based projects, peer evaluations and other assessment methods that may include, but not limited to, Objective Structured Clinical Examinations (OSCEs). Examinations, RATs and CATs may consist of, but not limited to, multiple-choice, true/false, fill in the blank, short-answer, essay, and problem-based questions.

During the time the course is in progress, students whose cumulative course percentage falls below 70.0% may receive an academic alert and be subject to periodic course content review in special sessions with the course instructor(s). The student’s faculty advisor may receive an academic alert to act upon on the student’s behalf.

All examinations, tests, and assignments, including the final examination, may be **cumulative**. Please note that assignments turned in after the due date (late) will receive a points deduction, unless permission is granted by the course coordinator for extenuating circumstances. Students are responsible for material presented during the prior courses.

The grading scale for all graded material is below. The final course grade will be assigned according to the calculated percentage and the percentages will not be rounded upward or downward. For additional information, see examination/assessment policy below.

PHAR 7219 Grade Calculation*

<u>Individual Component</u>	<u>95%</u>
iRATs and Individual Applications	20%
Drug Information Question Response (DIQR)	20%
Journal Club (JC)	10%
Midterm Exam	20%
<u>Cumulative</u> Final Exam	25%
<u>Team Component</u>	<u>5%</u>
tRATs and Team Applications	5%
<u>Total</u>	<u>100%</u>

**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 Course Schedule

WEEK	DAY	TOPIC	INSTRUCTOR	CLO(s)	DISEASE STATES
1	F 8/27/21 10-11:50 AM	<ul style="list-style-type: none"> Course Overview Drug Information: Ethical and Legal Aspects of DI Practice 	W. Smith	1	S20.99
2	F 9/3/21 10-11:50 AM	<ul style="list-style-type: none"> Drug Information: Types of Biomedical Resources Drug Information: Electronic Resources 	W. Smith	2, 3	S20.99
3	F 9/10/21 10-11:50 AM	<ul style="list-style-type: none"> Drug Information: Types of Primary Literature Drug Information: Article Anatomy 	W. Smith	2, 3	S20.99
4	F 9/17/21 10-11:50 AM	<ul style="list-style-type: none"> Drug Information: Systematic Approach to Developing Clinical Questions Communication: Writing Styles, Referencing, and Plagiarism 	W. Smith	3, 5, 6	S20.99
	F 9/17/21 2-5 PM	Case Studies			
5	F 9/24/21 10-11:50 AM	<ul style="list-style-type: none"> Drug Information: Navigating Library Resources, Article Citation Anatomy, and Literature Search Strategies 	M. Skinner W. Smith	3	S20.99
6	F 10/1/21 10-11:50 AM	<ul style="list-style-type: none"> Drug Information: Selecting Appropriate Resources for Drug Information Question Responses Drug Information: Writing Professional Drug Information Responses and DI Question Response (DIQR) Instructions 	W. Smith	3, 5	S20.99
	F 10/1/21 2-5 PM	Case Studies			
7	F 10/8/21 10-11:30 AM	Midterm Exam	W. Smith	1-3, 6	S20.99
	F 10/8/21 2-5 PM	Case Studies			

WEEK	DAY	TOPIC	INSTRUCTOR	CLO(s)	DISEASE STATES
8	F 10/15/21 10-11:50 AM	Drug Information: Evaluating Randomized Controlled Trials (RCTs)	W. Smith	4	\$20.99
9	F 10/22/21 10-11:50 AM	<ul style="list-style-type: none"> • Drug Information: Evaluating RCTs, continued • Drug Information: Journal Club Purpose/Overview and Journal Club (JC) Instructions 	W. Smith	3, 4	\$20.99
10	F 10/29/21 10-11:50 AM	Drug Information: Evaluating Other Primary Literature Study Designs	W. Smith	4	\$20.99
11	F 11/5/21 10-11:50 AM	<p>*** DIQR first draft due by 8 am (Canvas)***</p> <ul style="list-style-type: none"> • Drug Information: Interpreting Clinical Practice Guidelines • Drug Information: Evaluating Direct-to-Consumer Advertising, Pharmaceutical Rep Info, and Patient Resources 	H. Smith W. Smith	2, 4, 6	\$20.99
	F 11/5/21 2-5 PM	Case Studies			
12	F 11/12/21 10-11:50 AM	<p>*** Team Journal Club Handout due by 8 am (Canvas)***</p> Communication: Team Journal Club Presentations	W. Smith	4, 6	\$20.99
13	F 11/19/21 10-11:50 AM	<p>*** DIQR final version due by 8 am (Canvas)***</p> Communication: Team Journal Club Presentations	W. Smith	4, 6	\$20.99
	F 11/19/21 12-1 PM	Final Exam Review (Optional)			
	F 11/19/21 2-5 PM	Case Studies			
14	F 11/26/21	NO CLASS - Thanksgiving Holiday			
15	F <u>12/3/21</u> <u>10 AM-12 PM</u>	Cumulative Final Exam		W. Smith	1-6 \$20.99

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