

PHAR 7288
Hematology and Oncology
Fall Semester 2022

Course Description

This course integrates knowledge of pathophysiology, pharmacology, and pharmacotherapy to make appropriate treatment recommendations for specific hematological and oncological disease processes.

Additional information about the course

Additionally this course reviews the medicinal chemistry and pharmacology of the agents used to treat cancer and used in supportive care. An overview of the application of surgery and radiation therapies used to treat specific cancers is reviewed at a topical level. The course also looks at psychosocial dynamics that can complicate treatment. It is expected that students will be able to seamlessly integrate knowledge attained in previous courses when presented complex problems.

Course Credit

2 credit hours

Pre-requisites / Co-requisites

None

Class meeting days, time, and location

Didactic- Thursday's

2:00-3:50 p.m.

W.T. Brookshire Hall #133 (additional rooms TBD)

Seminar- Friday's (2 sessions)

Group A- 8:00-9:50 a.m.

Group B- 10:00-11:50 a.m.

Room TBD

Course Coordinator

Bradley J. Brazill, BS Pharm, Pharm.D.

W.T. Brookshire Hall, Office # 232

Phone Number: 903-566-6100

E-mail: bbrazill@uttyler.edu (preferred method of contact)

Office hours: Mondays and Wednesday's, 12:30 pm - 1:30 pm or by appointment.

Instructors

May Abdelaziz, BPharm, MS, Ph.D.

W.T. Brookshire Hall, Office #368

Phone Number: 903-566-6231

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Office hours: TBD

or by appointment.

Grace A. Loreda, Ph.D., CCRP

Director, HOPE Center for Cancer Research

Updated October 20, 2022 -only change was to the schedule to reflect the change to exam 2

Phone Number: 903-566-6212

E-mail: glredo@uttyler.edu (preferred method of contact).

Office hours: By appointment only.

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.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. DiPiro JT, Yee GC, Posey L, Haines ST, Nolin TD, Ellingrod V. eds. *Pharmacotherapy: A Pathophysiologic Approach*, 11th edition. McGraw-Hill, 2020.
2. Graham P. *An introduction to Medicinal Chemistry*, 6th edition. Oxford University Press, 2020.
3. Katzung BG, Vanderah TW. eds. *Basic & Clinical Pharmacology*, 15e. McGraw Hill; 2021
4. Bruton LL, Hilal-Dandan R, Knollmann BC. eds. *Goodman & Gillman's: The Pharmacological Basis of Therapeutics*, 13th edition. McGraw-Hill, 2018.
5. Jameson J, Fauci AS, Kasper DL, Hauser SL, Longo DL, Loscalzo J. eds. *Harrison's Principles of Internal Medicine*, 20e. McGraw-Hill, 2018.
6. Primary literature, when required, will be available to the student as a PDF located on the CANVAS site for this course.

Recommended materials

The course recommended materials are on reserve at the Robert R. Muntz Library.

1. Oncologic Drugs. In: Pelletier-Dattu CE. eds. *Lange Smart Charts: Pharmacology*, 2e. McGraw-Hill; Accessed February 21, 2021. <https://accesspharmacy-mhmedical-com.ezproxy.uttyler.edu/content.aspx?bookid=1549§ionid=93439038>

Course format

The delivery of the course material is determined by the content expert and may include, but not limited to, the following activities:

1. Lecture.
2. Seminar
3. Independent study of selected readings.
4. Individual readiness assessment tests (iRATs).

| Course Learning Outcomes (CLOs) | | | | | | |
|---|----------------|---------------------------------|--------------------|----------------|------------------------------|------------------------|
| CLOs | Related PLO(s) | EPAs | Assessment Methods | Grading Method | PPCP Skill(s) Assessed (1-5) | AACP Std 11 & 12 (1-4) |
| 1. Select appropriate medication therapy for hematological and oncological conditions based on principles of physiology, pathophysiology, and pharmacology. | 1,2 | 1.1 1.2 | 1,2 | ES, RUB | 1,2,3 | 4 |
| 2. Formulate patient-and disease-specific care plans for pharmacotherapeutic regimens in hematological and oncological disorders. | 1,2,4 | 1.1 1.2 1.3 1.4 4.2 | 1,2 | ES, RUB | 1,2,3,4 | 4 |
| 3. Design monitoring plans for efficacy, toxicity and adverse effects for pharmacotherapeutic regimens in hematological and oncological disorders. | 1,2,6 | 1.5 3.2 | 1,2 | ES, RUB | 3,4,5 | 4 |

| Course assessment methods | | |
|---------------------------|----------------------------------|--|
| | Assessment | Description |
| 1 | Midsemester Examinations 1 and 2 | Short answer, essay, standard MCQ, T/F, matching, and select all that apply, handwritten calculations. |
| 2 | Final Examination | Short answer, essay, standard MCQ, T/F, matching, and select all that apply, handwritten calculations. |

Attendance

To **receive full credit** a student **must attend all class session**, each unapproved absence may result in a 5% reduction in a student's individual component of the course grade. Students can request an excused absence, see the **Attendance and Make-up Policy** (beginning page 2) <https://www.uttler.edu/pharmacy/academic-affairs/files/fcop-syllabus-policies.pdf>

Phones

Students are required to have computers and/or tablets which will be used to complete and submit assignments, phones are not required and shall not be used during class time and shall be stored in the students' backpack/bag.

Case Studies

Case Studies are a longitudinal supplement intended to reinforce and integrate concepts and skills from the didactic curriculum, P1-P3 inclusive. **Content and concepts from Case Studies will be integrated into team applications for the P3 spring courses.**

Case Studies Format

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

1. Guided discussions

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 for the participating P3 courses. Failure to attend all Case Studies sessions would result in a 2% deduction from the final grade of each of the following courses: PHAR 7487, 7288, 7489, 7296, and 7220. 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 3, would result in 2% final course grade deduction for the above listed courses. At the end of the semester if the student's course grades for PHAR 7487, 7288, 7489, 7296, and 7220 were 91%, 89%, 85%, 90%, and 71% respectively, their final grade would be reduced to 89%, 87%, 83%, 88%, and 69% respectively because of their Case Studies' absences.

Case Study Schedule

Case Studies will be held over three sessions on Fridays from 9AM-12PM. Each session's attendance deduction is assigned to the participating P3 courses. Case content is not limited to the P3 courses and will be integrated into team applications for the P3 spring courses.

| P3 Case Study Schedule | | | | |
|------------------------|------|-----------------------------|-------|------------------------|
| Session | Date | Assigned Course Coordinator | Topic | Instructors |
| 1 | TBD | TBD | TBD | P3 course coordinators |
| 2 | TBD | TBD | TBD | P3 course coordinators |
| 3 | TBD | TBD | TBD | P3 course coordinators |

Examinations

All students are required to take all examinations in WTB Hall or at the testing center. Students may request to take examinations remotely. A written request shall be submitted to the course coordinator, Dr. Brazill, **at least 14 days prior to the assessment/examination date**. A detailed justification for taking the assessment/examination remotely is required and needs to be submitted at the time of the request. Dr. Brazill reserves the right for final determination.

Grading policy & grade calculation

Grades will be determined based on evaluation of the student's individual submissions including but not limited to; readiness assessment quizzes, in-semester examinations (midterms), final examinations, skills assessments, graded assignments, and other assessment methods that may include, but are not limited to those previously mentioned. Examinations and quizzes may consist of, but are not limited to, multiple choice, true/false, fill in the blank, short-answer, essay, and problem-based questions. If Exam Soft is utilized, backwards navigation will not be available on summative assessments.

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, supplemental learning, with the course instructor(s). The student's faculty advisor may receive an academic alert to act upon the student's behalf.

All examinations, tests, and assignments, including the final examination, may be cumulative. Students are responsible for material presented during prior courses and it is the expectation that the student can apply prior knowledge in the context of information presented in this course. 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 the examination/assessment policy below.

| Standard Grade Calculation* | |
|--|-------------|
| Individual component | |
| Readiness Assessment, applications, and/or case day participation/case submission. | 10% |
| Major Assessments | |
| Exam 1 (weeks 1-4) | 25% |
| Exam 2 (weeks 6-10 may include topics from weeks 1-4) | 25% |
| Comprehensive Final Exam | 40% |
| Total | 100% |

| <i>The final course letter grade will be determined according to the following grading scheme:</i> | |
|--|------------|
| A | 90-100% |
| B | 80-89.999% |
| C | 70-79.999% |
| D | 65-69.999% |
| F | <65% |

Remediation: If needed, remediation for PHAR 7288 will occur over 6 consecutive weeks during the summer break, May - August. Students will be required to attend on-site scheduled sessions; a final comprehensive assessment is

required, and the student must score $\geq 70\%$ to successfully complete the remediation. A separate schedule for the course remediation will be issued.

| Fall 2022 Schedule | | | | |
|---------------------------------------|--|-----------------|-------|----------------------------------|
| Week (date) | Topic | Instructor | CLO | Disease States |
| 1 (8/25) | Course Introduction Overview of Cancer as a Disease Overview of Cancer Biology | Brazill | 1,2 | S16.01, S16.06 S16.03, S16.04 |
| 2 (9/1) | Medicinal Chemistry of Antineoplastic Agents | Brazill | 1,2 | S16.01 |
| 3 (9/8) | Pharmacology of Antineoplastic Agents I | Brazill | 1,2 | S16.01 |
| 4 (9/15) | Pharmacology of Antineoplastic Agents II | Brazill | 1,2 | S16.01 |
| 5 (9/19) | Chemotherapy Toxicities | Brazill | 1,2,3 | S16.05 |
| 6 (9/29) | Midsemester Exam-1 (50 minutes) | Brazill | 1,2,3 | S16.05 |
| | Oncologic Emergencies I | | | |
| 7 (10/6) | Oncologic Emergencies II Supportive Care I | Brazill | 1,2,3 | S16.05, S16.16 |
| 8 (10/13) | Supportive Care II | Brazill | 2,3 | S16.01, S16.05 S16.16 |
| (10/14) | Seminar-I: Psychosocial Issues in Cancer Care. | TBD- ACS | | |
| 9 Monday (10/17) | Skin Cancer | Brazill | 1,2,3 | S16.06, S16.14 |
| 10 Monday (10/24) | Lung Cancer | Brazill | 1,2,3 | |
| 11 Monday (10/31) | Exam 2: Review | Brazill | | S16.06, S16.14 |
| Thursday (11-3) | Exam 2: From 2:00 -4:00 pm | Brazill | | |
| 12 (11/7) | Breast Cancer (review on-line material) | Brazill | 1,2,3 | S16.06, S16.14 |
| (11/10) | Seminar-II: Clinical Practice Guidelines and Clinical Trials | Brazill | | |
| 13 (11/17) | Leukemias and Lymphomas This class will be on Thursday the 17 th from 2-4 pm | Brazill | 1,2,3 | S16.18 |
| 14 (11/28) | Final Exam Thursday, December 1, 2022 2:00 – 4:00 pm | Brazill | 1,2,3 | S16.06 |
| 15 (12/9) | | Brazill | | |

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