

Integrated Pharmacy 2 (IP-2) PHAR 7702 Fall Semester 2015	
Course Description:	<p>Preamble: The integrated pharmacy (IP) courses are designed to optimize contextual learning and promote analytical reasoning. This will afford the student the knowledge, skill set and resources necessary to successfully participate as an integral member of a healthcare team. The primary goal of the integrated curriculum is to foster high level critical thinking which will allow the student to appreciate the relevance and interconnectedness of the basic and clinical sciences when delivering patient-centered care and applying principles of optimal drug therapy.</p> <p>This course focuses on the basic scientific and clinical concepts related to the self-care treatment of pain and inflammation, fever and headache, and cough and cold. Topics include principles of drug action; drugs' interactions with the body's nervous system; preparation and evaluation of solution, suspension and emulsion dosage forms; and development of self-care plans</p>
Course credit:	7
Pre-Requisite courses:	PHAR 7701, PHAR 7141, PHAR 7161
Co-requisite	Completion or current enrollment in PHAR 7142 and PHAR 7162, 7163, or 7164
Class Meeting Days/Time:	Monday-Friday: 2:00-5:00pm
Class Location	W.T. Brookshire Hall 137
Contact information Course Coordinator	<p>Course Coordinator Dr. Jody K. Takemoto Office location: WTB 349 Phone number: (903) 566-6108 E-mail: jtakemoto@uttyler.edu Preferred method of contact: email Office hours: Tuesday – Thursday 8:00 am – 9:00 am and by appointment.</p>
Required Materials:	<p>Textbooks: All of the course required materials are available through the Robert R. Muntz Library. These materials are available either online* (http://library.uttyler.edu/) or on reserve.</p> <ol style="list-style-type: none"> *Handbook of Nonprescription Drugs, An Interactive Approach to Self-Care. 17th ed. Daniel L. Krinsky et.al. American Pharmacist Association. ISBN: 978-1-58212-160-4 *Basic and Clinical Pharmacology 13th Edition; Katzung BG, Masters, SB, Trevor AJ. B.; McGraw-Hill Education (c) 2015; ISBN: 978-0-07-182505-4 *Goodman & Gilman's The Pharmacological Basis of Therapeutics, 12e; Brunton LL, Chabner BA, Knollmann BC. McGraw-Hill Education (c)2011; ISBN 978-0-07-162442-8 *Drug Information: A Guide for Pharmacists, 5e; Malone PM, Kier KL, Stanovich JE, Malone MJ. McGraw-Hill Education © 2014. ISBN: 978-0-07-180434-9 *Harper's Illustrated Biochemistry, 30e; Rodwell VW, Bender DA, Botham KM, Kennelly PJ, Weil PJ. The McGraw-Hill Education. © 2015. ISBN 97-0-07-182534-4 *Pharmacotherapy: A Pathophysiologic Approach, 9e; DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM. McGraw-Hill Education. © 2014. ISBN 978-0-07-180053-2

	Other required materials will be available on the classes' Blackboard site. The site can be found at: https://blackboard.uttyler.edu/webapps/login/ .
Recommended Materials:	<ol style="list-style-type: none"> 1. An Introduction to Medicinal Chemistry 5th ed. Graham Patrick. Oxford University Press. © 2013. ISBN: 978-0-19-969739-7 2. Ansel's Pharmaceutical Dosage Forms and Drug Delivery Systems. 10th ed. Lloyd Allen et. Al. Wolters Kluwer Health. © 2010. ISBN: 978-0-7817-7934-0 3. *Applied Biopharmaceutics & Pharmacokinetics, 6e; Leon Shargel, Susanna Wu-Pong, Andrew B.C. Yu; McGraw-Hill Education (c) 2012. ISBN: 978-0-07-160393-5 4. *Pathophysiology of Disease –An Introduction to Clinical Medicine. 7th ed. Gary D. Hammer and Stephen J. McPhee. Lange-McGraw Hill. © 2014. ISBN: 978-0-07-180600-8.
Notice of Permission / Non-Permission	All course materials (audio, visual, print and electronic) are copyrighted. External distribution outside of Blackboard or for purposes other than classroom use is prohibited without permission. For additional information regarding the use of copyrighted materials, please refer to the Handbook of Operating Procedures, 2.3.1. http://www.uttyler.edu/ohr/hop/documents/2.3.1CopyrightedMaterials.pdf
Course Website	Faculty use Blackboard course management tools (https://blackboard.uttyler.edu/webapps/login/) to facilitate communication and to provide access to materials, assessment scores, and other resources. Materials will be posted to the website before formal student engagement and readiness assessment tests.
Communication and Response	Course faculty strive to have open communication with students both in and outside of the classroom. Students are encouraged to contact faculty to discuss questions or other issues related to the course. Responses to phone or email messages will be transmitted during regular working hours. If you do not have a response within a reasonable time, please check to assure you have used the correct email address or phone number and follow up if with course faculty if needed. Faculty will respond to student questions received during evenings and weekends once they are back in the office during regular business hours. Communications from faculty and course coordinators to students, regarding the course, will be made via the Blackboard website and/or UT Tyler email.
Course Format	The course may include, but are not limited to, the following activities: <ol style="list-style-type: none"> 1. Independent study of selected readings 2. Individual readiness assessment tests (iRAT) 3. Team-based learning, active learning strategies: <ol style="list-style-type: none"> a. Team application of content and concepts b. Team readiness assessment tests (tRAT) 4. Discussion
Course Objectives (SLOs)	Upon completion of this course each student will be able to: <ol style="list-style-type: none"> 1. Recommend suitable self-care treatment plans for pain, fever, nasal congestion and inflammation, and cough and cold. 2. Determine the pathophysiological cause of pain, fever, nasal congestion and inflammation, and cough and cold based on patient assessment. 3. Select the most effective self-care treatment for pain, fever, nasal congestion and inflammation, and cough and cold based on drug properties and physiological characteristics of patients. 4. Identify the most appropriate drug formulation for the self-care treatment of pain, fever, nasal congestion and inflammation, and cough and cold.

Grading Policy	All students must demonstrate minimal individual competency. Therefore, students earning an overall individual component score <70.0% will not have team component scores added to their individual scores and the team component scores will not be calculated into the final course grade. If a student’s individual component score is <65.0% at the end of the course, the student will receive a letter grade of ‘F’. During the time the course is in progress, students whose cumulative course percentage falls below 70.0% may receive an academic alert and may 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.			
	Grades will be determined based on evaluation of individual and team readiness assessment tests (iRAT, tRAT), individual and team cumulative assessment tests (iCAT, tCAT), examinations, graded application assignments, participation in team-based group projects, peer evaluation among other assessment methods. Examinations, RATs and CATs may consist of multiple choice, true/false, short-answer, essay, and problem-based questions.			
	All examinations, tests, and assignments, including the final examination, may be cumulative . 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.			
	Standard Grade Calculation		Calculation if Individual Component < 70%	
	Individual Component	70%	Individual Component	100%
	iRATs	14%	iRATs	20%
	iCATs	24%	iCATs	34%
	Final Written Exam	28%	Final Written Exam	40%
	Peer Evaluation	4%	Peer Evaluation	<u>6%</u>
			Total	100%
	Team Component	30%		
	tRATs	13%		
	tCATs	7.5%		
	Team Application(s)	<u>9.5%</u>		
	Total	100%		
Course Grade:	A	90-100%		
	B	80-89.9%		
	C	70-79.9%		
	D	65.0 to 69.9%		
	F	< 65.0%		
	*OSCE = Objective Structured Clinical Examination			

Course Outline (IP-2)			
Week	Date	Topic	Instructors
Module 1: Pain			
1	10/12	IP-2 Course Overview Pain Module Overview Introduction to Drug Information Introduction to Cold and Influenza*	Drs. Takemoto, Adams, Chopra, and Veronin
	10/13	Nature of membranes & why we need receptors*	Dr. Jones
	10/14	Definition & Types of Pain & Pain Receptors	Dr. Coyne
	10/15	Pain Signals	Dr. Coyne
	10/16	Pain Signals	Dr. Coyne
2	10/19	Receptor-ligand interactions *	Dr. Khashan
	10/20	Receptor-ligand interactions	Dr. Jones
	10/21	Dose Response Curves & Pharmacodynamics	Dr. Takemoto
	10/22	Pain sensitivity (up/down regulation)*	Dr. Jones
	10/23	Introduction to pharmacogenomics	Dr. Jones
T	10/26	Enzymes & the Role of COX*	Dr. Pearson
	10/27	NSAIDs & Acetaminophen MOA, SAR	Dr. Khashan
	10/28	Pharmacokinetic Principles	Dr. Takemoto
	10/29	Preformulations*	Dr. Gunaseelan
	10/30	Preformulations	Dr. Gunaseelan
4	11/2	Solutions (pH, buffers, science of solutions)*	Dr. Gunaseelan
	11/3	Solutions	Dr. Gunaseelan
	11/4	Self-Care Treatment of pain & headache*	Dr. Adams
	11/5	Self-Care Treatment of pain & headache	Dr. Adams
	11/6	Self-care treatment of pain & headache	Dr. Adams
5	11/9	iCAT/tCAT	ALL
Module 2: Fever			
5	11/10	Definition of Fever & Thermal Regulation*	Drs. Pearson
	11/11	Overview of Autonomic system & temperature effects (acetylcholine)	Dr. Jones
	11/12	Treatment of fever	Dr. Adams
Module 3: Nasal Congestion & Inflammation			
6	11/13	Definition and biochemistry of inflammation*	Drs. Pearson
	11/16	Autonomic Nervous System - Adrenergic	Dr. Jones
	11/17	Autonomic Nervous System - Adrenergic	Dr. Jones
	11/18	Self-Care Treatment of Nasal Congestion & Inflammation Antihistamines, Nasal Sprays, & Nasal Decongestants*	Drs. Jones and Khashan
	11/19	Self-Care Treatment of Nasal Congestion & Inflammation Antihistamines, Nasal Sprays, & Nasal Decongestants	Drs. Khashan and Adams
Module 4: Cough and Cold			
6	11/20	Pathophysiology and Pharmacology of Cough and Cold Self-Care Treatment Antitussives/Expectorants & Home/Folk Remedies *	Drs. Coyne and Khashan
THANKSGIVING BREAK			
7	11/30	Pathophysiology and Pharmacology of Cough and Cold Self-Care Treatment Antitussives/Expectorants & Home/Folk Remedies *	Dr. Adams
	12/1	The Science and Art of Suspensions & Emulsions*	Dr. Gunaseelan
	12/2	The Science and Art of Suspensions & Emulsions	Dr. Gunaseelan
	12/3	SAS: Perceptions of Illnesses; Federal & State Law of Pseudoephedrine *	Dr. Rosenthal
	12/4	Summarizing/Putting it together – Exam Review	ALL
8	12/7-12/12 EXAM WEEK		

*Indicates intended dates for RATs.

<p>Examination and/or Major Assignment Policies and Procedures:</p>	<p>Examination Policies:</p> <p>The use of the term exam in this document refers to RATs, CATs, the final exam or skills tests (e.g., OSCEs) used for formative or summative student learning outcome assessment and evaluations.</p> <p>All exams will be taken using ExamSoft. It is the students' responsibility to have a device that is compatible and works with ExamSoft under exam conditions.</p> <ul style="list-style-type: none"> • Students will be allowed entry to the classroom after an exam has started ONLY at faculty discretion. • Exam will be distributed at the time class is scheduled to begin. • All personal items, such as Google glasses, purses, books, backpacks, cellphones, pagers, notebooks, and briefcases will be left in the front or back of the room during testing. • Silence will be enforced during exam time. In order to avoid distraction during the exam, no one may enter or leave the room during the exam without the permission of the exam proctor(s). • Students will not share calculators during exams. Calculators will be provided by the college during the exam period if required. • Any student suspected of cheating may be immediately removed from the testing area. Strict enforcement of the college policy on cheating is maintained. • Course exams will not be returned. A review of the exam will be conducted at the discretion of the faculty. Exam review may be scheduled with faculty during office hours and within two business days from the return of the exam grades. • Official notification of exam scores will be posted on Blackboard after faculty analysis and review. Every effort will be made to post the scores in a timely manner. • Any student achieving an exam grade <70% MUST schedule an appointment with the course coordinator within two business days from the official notification of the exam grades. • If an absence for an exam is necessary, the student is responsible for notifying the faculty PRIOR to the exam with an acceptable reason. Failure to meet this requirement may result in denial of opportunity to make up the exam at a later date. Make-up exams will be given at the time designated by the faculty. • Make-up exams will only be given at the discretion of the faculty member and may be in a different format from the original exam. • Exams missed for medical/emergency will require official documentation and the documentation must be given to the coordinator no later than five (5) business days after the exam.
<p>Appeals Policy</p>	<p>All grading related appeals for a particular project or assignment must be submitted IN WRITING to the responsible instructor and course coordinator within two business days of the publication of that grade on Blackboard. All appeals must be defended with relevant evidence from appropriate current textbooks and primary literature, and must be properly referenced.</p> <p>A student can file an appeal if there is a disagreement with a final course grade. The appeal must be submitted within two business days of official notification of final course grades. The student must initiate a formal grade appeal process by completing the Course Grade Appeal form and submitting this form to the course coordinator.</p>
<p>Classroom Behavior Expectations</p>	<p>Overall, students are expected to exhibit professional behaviors as described in the Student Handbook.</p>

Additional Course Information	
Student Rights and Responsibility:	<p>All students are responsible for reviewing the syllabus and abiding by all that is within it. Students are encouraged to seek clarification within the first week of the course. The student is responsible to know and understand the policies that affect her or his rights and responsibilities as a student at UT Tyler. Please follow this link: http://www2.uttyler.edu/wellness/rightsresponsibilities.php</p>
Attendance and Make-up Policy:	<p>Given the importance of classroom discussion to successful learning in the class, classroom absences will only be excused under exceptional circumstances. In such cases, students are required to make every reasonable effort to contact the course coordinator in advance.</p> <p>Late Arrival: A student may be given credit for classroom participation and contribution if they arrive late and the late arrival was due to circumstances beyond the student's control. In all cases, the decision of the course coordinator is final. Students will not be allowed to enter the room after the beginning of iRATs until after its conclusion.</p> <p>Known Excused Absence: A student may request an excused absence from class/pharmacy practice experiences for known personal, compassionate, professional, or health-related reasons. Known excused absence requests are initiated in writing through the Office of Student Affairs. Generally, <i>known</i> excused absences are for one or two academic days. Known excused absences greater than five academic days in a session may require a student to withdraw from the course. The process for requesting an excused absence is outlined in the Student Handbook.</p> <p>Unexpected Excused Absence: In the event of unexpected circumstances, students are responsible for completing and submitting an Excused Absence Request form to the Office of Student Affairs within three (3) days of the absence. It will be the student's responsibility to contact course coordinators within 24 hours of approval of the excused absence to make arrangements for making up missed assignments and/or examinations. If the assignment and/or examination cannot be made-up, then the missed activity should not count against the student's final grade since the absence is excused. <i>However, this is at the discretion of the course coordinator.</i></p> <p>The course coordinator(s) will determine if a student's absence results in the need for the completion of additional/supplemental work in order to satisfy course requirements. No makeup assignments or exams will be given outside the Excused Absence policy as outlined in the Student Handbook. Assignments not completed within the time frame established by the course coordinator, generally not more than five (5) business days, will receive a score of zero (0).</p> <p>Unexcused Absence: Students will receive a zero (0) for all missed assignments or projects.</p>

Course Withdrawal and Census Date	<p>The last day to withdraw from the course without penalty is October 19th 2015. The last day to withdraw from the course with an automatic grade of “W” is November 16th, 2015. To withdraw from the course, students should initiate withdrawals with the instructor. If you are withdrawing from this course, you are required to withdraw from the Longitudinal Laboratory course (PHAR 7142) and Introductory Pharmacy Practice Experience (PHAR 7162, 7163, or 7164) and vice versa. Your course instructor is not responsible for officially withdrawing you from the class. If you do not withdraw by the official dates you will automatically receive a letter grade of “F”.</p> <p>The Census Date is the deadline for many forms and enrollment actions that students need to be aware of. These include:</p> <ul style="list-style-type: none"> • Requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit; • Receiving 100% refunds for withdrawals. (There is no refund after the Census Date); • Schedule adjustments (section changes, adding a new class, dropping without a “W” grade); • Being reinstated or re-enrolled in classes after being dropped for non-payment; • Completing the process for tuition exemptions or waivers through Financial Aid.
Handling of Student Accommodations:	<p>In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University offers accommodations to students with learning, physical and/or psychiatric disabilities. If you have a disability, including non-visible disabilities such as chronic diseases, learning disabilities, head injury, PTSD or ADHD, or you have a history of modifications or accommodations in a previous educational environment you are encouraged to contact the Student Accessibility and Resources office and schedule an interview with the Accessibility Case Manager/ADA Coordinator, Cynthia Lowery Staples. Please contact the SAR office if you are unsure if the above criteria applies to you and have questions or concerns. For more information or to set up an appointment please visit the SAR office located in the University Center, Room 3150 or call 903-566-7079. You may also send an email to cstaples@uttyler.edu.</p> <p>Students to notify instructors of accommodation needs at least five (5) business days prior to needing the accommodation so that the course coordinator has adequate time to coordinate with the Student Accessibility and Resources. A letter from the Student Accessibility and Resources must accompany this request. Authority for disability accommodation can be found in the Handbook of Operating Procedures, Section 5.14.1 and can be found at: http://www.uttyler.edu/ohr/hop/documents/5.14.1DisabilityAccommodation.pdf.</p>
Holidays and Religious Observations:	<p>Students who anticipate the necessity of being absent from class due to the observation of a major religious observance must provide notice of the date(s) to the instructor, in writing, by the second class meeting. Authority for approved absence policy can be found in the Handbook of Operating Procedures, Section 5.10.1 and can be found at: http://www.uttyler.edu/ohr/hop/documents/5.10.1%20Approved%20Student%20Absences.pdf</p>
Professionalism Expectations / Handling of Academic	<p>In this course students are encourage to study and to prepare for all assessments with other students. However, when completing individual exams and assignments, students are to work alone. Cheating will not be tolerated. The university regulations are very explicit about academic dishonesty and these regulations will be fully</p>

Misconduct:	<p>enforced. <i>The Honor Code will apply at all times.</i> Students also are expected to help enforce this code. Students are encouraged to obtain a copy of <i>A Student Guide to Conduct and Discipline at UT Tyler</i>, available in the Office of Student Affairs.</p> <p>Authority for handling of academic misconduct can be found in the Handbook of Operating Procedures, Sections 5.5.1 and 5.5.2 and can be found at: Section 5.5.1 – Student Conduct: http://www.uttyler.edu/ohr/hop/documents/5.5.1StudentConduct.pdf.</p> <p>Section 5.5.2 – Student Conduct Code, Student Disciplinary Hearing and Appeals Procedures: http://www.uttyler.edu/ohr/hop/documents/5.5.2%20Student%20Conduct%20Code%20Student%20Disciplinary%20Hearings%20and%20Appeals%20Procedures.pdf.</p>
Social Security and FERPA Statement	<p>It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act (FERPA). Grades will not be transmitted electronically.</p>
FERPA Statement for Courses That Utilize Plagiarism Detection Software:	<p><i>The University of Texas at Tyler has an account with an automated plagiarism detection service which allows instructors and students to submit student assignments to be checked for plagiarism. Faculty reserve the right to 1) request that assignments be submitted as electronic files and 2) electronically submit assignments to SafeAssign, or 3) ask students to submit their assignments to SafeAssign through the LMS course management program of UT Tyler. Assignments are compared automatically with a database of journal articles, web articles, and previously submitted papers. The instructor receives a report showing exactly how a student's paper was plagiarized. For more information about the University's policies regarding plagiarism, go to Subchapter 8-800-Student Standards of Conduct in the Manual of Policies and Procedures for Student Affairs. It can be found at:</i> http://www.uttyler.edu/mopp/documents/8Student%20Conduct%20and%20Discipline.pdf.</p> <p><i>PLEASE REMOVE YOUR NAME FROM THE BODY OF YOUR PAPER AND REPLACE IT WITH YOUR UT Tyler ID#. ALSO REMOVE YOUR NAME FROM THE FILE NAME AND REPLACE IT WITH YOUR UT Tyler (e.g., "U12345678 Essay 1.docx") BEFORE SUBMITTING IT TO SafeAssign. Pursuant to the provisions of the Family Educational Rights and Privacy Act (FERPA), students are requested to maintain confidentiality as a way to keep their personal contact information (i.e. name, address, telephone) from being disclosed to vendors or other outside agencies. By your submission, you are also agreeing to release your original work for review for academic purposes to SafeAssign. Thank you!</i></p>
Student Absence for University-Sponsored Events and Activities	<p>If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.</p>
Emergency Exit and Evacuation	<p>Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services Emergency</p>

Emergency Preparedness for Academic Continuity:	In the event of an emergency, it may be necessary for UT Tyler to suspend normal operations. During this time, UT Tyler may opt to continue delivery of instruction through methods that include but are not limited to: Blackboard, Skype, and email messaging and/or an alternate schedule. It's the responsibility of the student to monitor Blackboard site for each class for course specific communication, and the main UT Tyler, College, and department websites and emails for important general information.
Syllabus Content Change Disclaimer:	The course coordinator retains the right to make adjustments to the course content, schedule or grading policy as deemed necessary to enhance student learning.
Instructional Technology Assistance	<p>If you experience technical problems or have a technical question about this course, you can obtain assistance by emailing itsupport@patriots.uttyler.edu or call (903)-565-5555.</p> <p>When you email IT Support, be sure to include a complete description of your question or problem including:</p> <ul style="list-style-type: none"> • The title and number of the course • The page in question • If you get an error message, a description and message number • What you were doing at the time you got the error message
Course and Instructor Evaluations	Evaluations are a professional responsibility. Constructive evaluation is a valuable tool utilized by the faculty as a method for quality control of the curriculum. Student evaluations are viewed by the faculty and administration as one method for maintaining high, consistent levels of quality education in the College. As a professional pharmacy student, evaluation requires maturity and objectivity. This evaluation tool is the student's opportunity to participate in the on-going evaluation process. The evaluations will be online and links to the tool will be provided on Blackboard toward the end of the term. Evaluations are collated and presented in a composite format.