

The University Of Toledo

New Graduate Course Proposal

* denotes required fields

1. College*:
- Department*:
2. Contact Person*: Phone: (xxx - xxxx) Email:
3. Alpha/Numeric Code (Subject area - number)*: -
4. Proposed title*: Proposed effective term*: (e.g. 201140 for 2011 Fall)
5. Is the course cross-listed with another academic unit? Yes No
- Approval of other academic unit (signature and title)
- Is the course offered at more than one level? Yes No
- If yes, an undergraduate course proposal form must also be submitted. If the undergraduate course is new, complete the [New Undergraduate Course Proposal](#); if the undergraduate course is existing, submit an [Undergraduate Course Modification Proposal](#).
6. Credit hours*: Fixed: or Variable:
- to
7. Delivery Mode:
- | | Primary* | Secondary | Tertiary |
|---------------------------|--------------------------------------|---|---|
| a. Activity Type * | <input type="text" value="Lecture"/> | <input type="text" value="--SelectType--"/> | <input type="text" value="--SelectType--"/> |
| b. Minimum Credit Hours * | <input type="text" value="1"/> | <input type="text"/> | <input type="text"/> |
| Maximum Credit Hours * | <input type="text" value="1"/> | <input type="text"/> | <input type="text"/> |
| c. Weekly Contact Hours * | <input type="text" value="1"/> | <input type="text"/> | <input type="text"/> |
8. Terms offered: Fall Spring Summer
- Years offered: Every Alternate

Year Years

9. Are students permitted to register for more than one section during a term? No Yes

May the courses be repeated for credit?

No Yes

Maximum Hours

10. Grading System*:
- Normal Grading (A-F, S/U, WP/WF, PR, I)
 - Satisfactory/Unsatisfactory (A-C, less than C)
 - Grade Only (A-F, WP/WF, PR, I)
 - Audit Only
 - No Grade

11. Prerequisites (must be taken **before**): i.e. C or higher in (BIOE 4500 or BIOE 5500) and C or higher in MATH 4200

none

PIN (Permission From Instructor)

PDP (Permission From Department)

Co-requisites (must be taken **together**):

none

12. Catalog Description* (**75 words Maximum**)

This course allows students to gain and expand their knowledge base in areas such as application of pharmacoeconomic and effectiveness measures to the practice of health care.

13. Attach a syllabus - a syllabus template is available from the University Teaching Center. Click [here](#) for the Center's template.

File Type	View File
Syllabus	View

14. Comments/Notes:

New PharmD Program

15. Rationale:

New PharmD Program was developed to meet new accreditation standards (Standards 2016) set out by the Accreditation Council for Pharmacy Education.

Course Approval:

Department Curriculum Authority:	Mariann D Churchwell	Date	2017/02/15
Department Chairperson:	Diane Cappelletty	Date	2017/02/15
College Curriculum Authority or Chair:	Frederick E. Williams	Date	2017/02/17
College Dean:	Laurie S. Mauro	Date	2017/02/20
Graduate Council:	Constance schall, GC mtg 4/18/17	Date	2017/04/19
Dean of Graduate Studies:	Amanda C. Bryant-Friedrich	Date	2017/05/01
Office of the Provost :		Date	

print

Administrative Use Only

Effective Date:  (YYYY/MM/DD)

CIP Code:

Subsidy Taxonomy:

Program Code:

Instructional Level:

Registrar's Office Use Only

Processed in Banner on: 

Processed in Banner by:

Banner Subject Code:

Banner Course Number:

Banner Term Code:

Banner Course Title:



Pharmacoeconomics and Outcomes Research

The University of Toledo
College of Pharmacy & Pharmaceutical Sciences
PHPR 6220

Coordinator:	TBD	Class Location:	TBD
Email:	TBD	Class Day/Time:	TBD
Office Hours:	By appointment	Credit Hours:	1 credit hour
Office Location:	TBD	Term:	Fall
Office Phone:	TBD		

Course/Catalog Description

This course allows students to gain and expand their knowledge base in areas such as application of pharmacoeconomic and effectiveness measures to the practice of health care.

UTCP Ability Based Outcomes

Domain 1 – Foundational Knowledge

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

Domain 2 – Essentials for Practice and Care

2.1. Patient-centered care (Caregiver) Provide *patient-centered care* as the medication expert (collect and interpret evidence, prioritize, formulate assessments and recommendations, implement, monitor and adjust plans, and document activities).

2.3. Health and wellness (Promoter) - Design prevention, intervention, and educational strategies for individuals and communities to manage chronic disease and improve health and wellness.

2.4. Population-based care (Provider) - Describe how *population-based care* influences *patient centered care* and influences the development of practice guidelines and evidence-based best practices.

Domain 3 - Approach to Practice and Care

3.1. Problem Solving (Problem Solver) – Identify problems; explore and prioritize potential strategies; and design, implement, and evaluate a viable solution.

3.2. Educator (Educator) – Educate all audiences by determining the most effective and enduring ways to impart information and assess understanding.

3.3. Patient Advocacy (Advocate) - Assure that patients' best interests are represented.

Student Learning Outcomes

ABOs should be incorporated into the SLOs for example:

Conduct an appropriate focused interview based on a patient's presenting question/complaint (ABO 3.6).

1. Understand basic principles of Pharmacoeconomics (PE) and its applications in the context of healthcare



- system. (ABO 1.1)
2. Identify and compare methodological approaches such as Cost effectiveness, cost minimization, cost benefit, cost utility analysis used in PE studies (ABO 2.1, 3.1)
 3. Outline the steps for conducting a pharmacoeconomic analysis. (ABO 2.3, 3.1)
 4. Assess decision modeling used in PE studies and its applications. (ABO 2.4, 3.1)
 5. Critique current PE literature (ABO 1.1, 3.2, 3.3)
 6. Interpret results and conclusions of PE studies in context of pharmacy practice (ABO 2.4, 3.1, 3.2, 3.3)

Teaching Strategies:

This is a lecture/application-based course that informs students about economic aspects and outcomes research in healthcare. The course contains a combination of lectures, knowledge-applying case studies, and homework. It is important for students to understand, critically think, and apply the materials learned from the class, not just memorizing them. Besides scheduled class time, the instructors are more than happy to assist students in the office hour or by appointment.

Prerequisites: None

Corequisites: None

Required Texts and Ancillary Materials

No formal textbook is used for this course. Therefore, it is imperative that students attend class. A study guide will be provided along with supplementary reading material by the instructor.

Technology Requirements

Lecture and guest presentations and other course materials will be posted on Blackboard. Exams will be conducted utilizing ExamSoft. Examsoft link:<http://learn.examsoft.com/exam-software-products/solutions>. Appointments should be made directly with the instructor by email, if possible. Therefore, students should have access to college-provided learning tools (e.g., Blackboard, email, etc.).

University Policies

According to Policy Statement on Non-Discrimination on the basis of Disability (ADA), The University is an equal opportunity educational institution. Please read *The University's Policy Statement on Nondiscrimination on the Basis of Disability Americans with Disability Act Compliance.*

Academic Accommodations

The University of Toledo is committed to providing equal access to education for all students. If you have a documented disability or you believe you have a disability and would like information regarding academic accommodations/adjustments in this course, please contact the *Student Disability Services Office.*

Academic Policies

Academic Dishonesty:

Academic dishonesty will not be tolerated. Among the aims of education are the acquisition of knowledge and development of the skills necessary for success in any profession. Activities inconsistent with these aims will not be permitted. Students are responsible for knowing what constitutes academic dishonesty. If students are uncertain about

what constitutes plagiarism or cheating they should seek the instructor's advice. Examples of academic dishonesty include, but are not limited to:

- Plagiarizing or representing the words, ideas or information of another person as one's own and not offering proper documentation;
- Giving or receiving, prior to an examination, any unauthorized information concerning the content of that examination;
- Referring to or displaying any unauthorized materials inside or outside of the examination room during the course of an examination;
- Communicating during an examination in any manner with any unauthorized person concerning the examination or any part of it;
- Giving or receiving substantive aid during the course of an examination;
- Commencing an examination before the stipulated time or continuing to work on an examination after the announced conclusion of the examination period;
- Taking, converting, concealing, defacing, damaging or destroying any property related to the preparation or completion of assignments, research, or examination;
- Submitting the same written work to fulfill the requirements for more than one course.

While academic integrity is particularly the responsibility of the student, the faculty members also have a responsibility. Assignments and tests should be constructed and proctored so as to discourage academic dishonesty. Faculty members are expected to inform their students explicitly as to what materials and procedures are authorized for use in the preparation of assignments or in examinations (e.g., the use of calculator, computer, text materials, etc.). Should cases of academic dishonesty be found among students, the instructor may choose to counsel the student, or the following sanctions may be imposed:

- The student may be assigned an F for the work in question.
- The student may be assigned an F for the course. In this case the instructor should inform the Dean and the student of this action. The Dean will make certain that the student receives the F grade and is not permitted to withdraw from the course.
- The student may be placed on probation or suspended for some definite period of time, dismissed or expelled by the Dean if either the seriousness of the offense or a record of repeated offenses warrants it. A notation that such a sanction has been imposed will be made part of the student's permanent record. It is expected that the Dean will consult with the instructor and the student in making such a judgment, and that the Dean will notify the student of the sanction imposed and of the appeals procedure.

A student found to be academically dishonest by a faculty member may appeal according to procedures approved by the respective colleges. The procedures for making a final appeal to the Student Grievance Committee may be found in the Student Handbook.

Classroom Courtesy:

- The University has jurisdiction over any individual student, group of students or student organization alleged to have violated the Student Code of Conduct on the University of Toledo premises.
- Students must conduct themselves in a manner which is conducive to learning for themselves and others. Disruptive behaviors are not acceptable and may affect a student's final grade, or in severe cases result in a student being removed from class.
- Disruption of operations of the University Community. Disruption is an action or combination of actions by an individual or a group, which unreasonably interferes with, hinders, obstructs, or prevents the right of others to freely participate in its programs, services, or academic settings. This may include, but is not limited to a disruption by the use of pagers, cell phones and/or any other communication devices.

- The use of cell phones, pagers, iPods, MP3 players and such will not be permitted in the classroom. No pets are to be brought to the classroom.
- Students may audiotape lectures; otherwise, no A/V equipment or use of telephotoing is permitted.
- For issues pertaining to lecture content, contact the lecturer of the topic. For issues pertaining to grades, tests, lecture schedule, reading assignments, etc., contact either the instructor for the material or the course coordinator.

Course Expectations

Attendance, Absences, and Tardiness:

The University of Toledo Missed Class Policy

This policy provides for basic protections and reasonable accommodations for students who miss class with excused absences. Students are expected to attend every class meeting of courses in which they are registered. Only in specific, unavoidable situations does the University excuse absences from class: 1) personal emergencies, including, but not limited to, illness of the student or of a dependent of the student [as defined by the Board of Trustees' Policy on Family and Medical Leave], or death in the family; 2) religious observances that prevent the student from attending class; 3) participation in University-sponsored activities, approved by the appropriate University authority, such as intercollegiate athletic competitions, activities approved by academic units, including artistic performances, R.O.T.C. functions, academic field trips, and special events connected with coursework; 4) government-required activities, such as military assignments, jury duty, or court appearances; and 5) any other absence that the professor approves.

Students are responsible for complying with the missed class policies of their instructors. Students bear the responsibility of notifying the instructor of a planned absence by one of the methods provided by the instructor. In the event of an emergency or an unavoidably short notice of absence, the student must present the instructor with an approved written excuse upon the student's return to class. Approved written excuses will be at the instructor's discretion, including, but not limited to, doctor's notice, funeral programs, etc. It is strongly recommended that the student use two of the three aforementioned methods (email, writing, or voicemail) to insure that the instructor is properly notified of the planned absence. In the event that the instructor should not receive the student's notification, the student should be prepared to present an alternative excuse. It will be at the instructor's discretion to approve or disapprove of the alternative excuse.

Students are responsible for all material covered in classes they miss, even when their absences are excused as defined above. Students must make arrangements with instructors to complete missed assignments, labs, examinations or other course requirements. In turn, instructors are not to penalize students with excused absences.

Policies on Late Work:

It is up to the instructor as to the acceptance of assignments not completed by the deadline and each case will be evaluated individually.

Drop / Withdrawal:

The university recognizes a student may need to adjust their current schedule of courses to make satisfactory academic progress towards degree completion. The add/drop period for a regularly scheduled academic term will be the first fifteen calendar days of the term.



Any term which varies from a regularly scheduled academic term will have a prorated add/drop period based on the length of term. All add/drop dates are available on the academic calendar. This policy applies to all types of adding and/or dropping including Honors, research intensive, etc. The Treasurer's Office publishes all fees associated with the add/drop periods. Fees are subject to change.

ACADEMIC SUPPORT SERVICES

(Insert information on how the institution's academic support services such as the Learning Enhancement Center, the Counseling Center, Disability Services Office, etc. can assist in their academic success. Be sure to include information on how to contact these offices.)

An Example:

The University of Toledo is committed to your academic success and offers a wide array of programs and services to ensure success, here are a few examples of resources available to you:

University Libraries

[University Libraries](#) are your gateway to information at The University of Toledo connecting you with the resources you need for education, research, and patient care.

Tutoring Services

Tutoring support for all UT students is available through the [Learning Enhancement Center](#) located in the Carlson Library. Tutoring Services are offered in an array of subjects, including Writing, Math (Calculus, Statistics, Accounting) Biology, Chemistry, and Anatomy and Physiology.

The Writing Center

[The Writing Center](#) provides free, face-to-face and online tutoring for writers in all disciplines. The staff there can assist you with a variety of writing assignments.

The Counseling Center

Transitioning to college and/or maintaining a healthy well being while attending college can be difficult, if you or a friend ever feel overwhelmed adjusting to college or in need of crisis intervention or mental health services please contact the [Counseling Center](#).

Success Coach

As of Fall 2013, all new students were assigned a Success Coach to help students navigate their college experience by serving as a single point of contact. Your Success Coach can help you build and develop skills, refer you to support services, and aid in your overall success at The University so be sure to stay connected to him/her throughout your academic journey! If you need assistance connecting with your Success Coach send an email to successcoach@utoledo.edu.

SAFETY AND HEALTH SERVICES FOR UT STUDENTS

(Insert information about various safety and health services available to UT students. To add a comprehensive list of these, the following link can be added to your syllabus (<http://www.utoledo.edu/offices/provost/utc/docs/CampusHealthSafetyContacts.pdf>); otherwise, please review the resources and choose specific contacts you wish to add to your syllabus.)

<https://www.utoledo.edu/library/mulford/floorplans/floor5/acadenrich.html>

Resources

Quiz questions will be based solely on lecture notes, guest speaker presentations, discussions and assigned readings.

Assessment

Midterm exams	100 pts
Final Exam	100 pts
Homework/Case studies/class quiz	100 pts

Total Points 300 pts

GRADING SCALE

<u>Grade</u>	<u>Percentage of Total points</u>
90-100%	A
80-89%	B
70-79%	C
65-69%	D
< 65%	F

The grading scale will be followed strictly. Grades will not be “curved”. Students will have ample opportunity to perform well in this course with good attendance and participation.

Communication Guidelines

Students can communicate with the instructors or teaching assistant by phone or email (see page 1). If students require additional assistance (e.g., face-to-face), students are more than welcome to see either instructors or assistants during the office hours or by appointment. Emails will be replied as soon as possible based on first-come-first-served manner.

Student Support Services

The College of Pharmacy and Pharmaceutical Sciences is committed to help students to succeed. The institution provides both academic and student support services and resources that help students to succeed in the course. The services are available through the Office of Student Affairs. Besides the availability of instructors and teaching assistants, students are more than welcome to seek additional help from offered services. Instructors and assistants can provide more information on access of these services per students’ request. All the appropriate links will be provided on the blackboard site for this course.

COURSE SCHEDULE		
Week 1	Pharmacoeconomics basics overview (SLO 1)	Department
Week 2	Types of costs and cost considerations (SLO 1,2)	1 / PHPR
Week 3	Cost effectiveness analysis (SLO 2,3)	1 / PHPR
Week 4	Cost utility analysis: QALY concept (SLO 2)	1 / PHPR
Week 5	CBA research design (SLO 2)	1 / PHPR
Week 6	Decision Analytical modeling – Decision tree (SLO 4)	1 / PHPR
Week 7	Decision Analytical modeling – Markov modeling (SLO 4)	1 / PHPR
Week 8	Midterm exam (Material included until week 7)	1 / PHPR
Week 9	Applications and challenges using PE (SLO 3,6)	1 / PHPR
Week 10	Evaluating PE literature (SLO 5)	1 / PHPR
Week 11	Evaluating PE literature – sample study (SLO 5,6)	1 / PHPR
Week 12	In-class critique (SLO 5,6)	1 / PHPR
Week 13	Applying PE concepts in managed care (SLO 4,6)	1 / PHPR
Week 14	P&T committee and formulary design (SLO 4,6)	1 / PHPR
Week 15	Comprehensive final exam	1 / PHPR