

**Independent Study**  
**PHAR 7299**  
Spring Semester 2020

**Course Description**

Independent study in specific areas of pharmacology and drug induced cell stress (stress biology).

**Additional Information on the Course**

This course introduces the students to different research methods used in the drug evaluation for cytotoxicity and drug induced cell stress (stress biology). Several techniques will be covered including cell culture, drug testing, IC50 evaluations, antioxidant level assays, calcium assays and DNA damage response assays in drug treated cells.

**Course Credit**

2 credit hours

**Pre-Requisites:** None

**Co-Requisites:** None

**Class Meeting Days, Time & Location:** TBD

**Course Coordinator**

Joseph S. Glavy, PhD

W.T. Brookshire Hall Room 364

Phone number: 903.566.6217

Email: [jglavy@uttyler.edu](mailto:jglavy@uttyler.edu)

Office hours: Friday 10:30 am - 1:30 pm and by appointment

Preferred method of contact: Email

**Required Materials**

Course required materials are available through the Robert R. Muntz Library and PubMed. These materials are available either online (<http://library.uttyler.edu/>) or on reserve. Other required materials will be posted on the classes' Canvas site. The site address is: [uttyler.edu/canvas](http://uttyler.edu/canvas).

**Recommended Materials:** None

**Course Format**

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

1. Independent study of selected readings
2. Term project: Project includes designing, and execution of cell-based assays.
3. Data Analysis

**Course Learning Outcomes (CLOs)**

1. Basic Sterile technique related to cell culture.
2. Compare different types of cancer cell lines.
3. Measurement of IC50s, calcium induction, GSH levels and DNA damage through microtiter plates.

**Course Assessment Methods**

	Assessment Method	Description
1	Four assignments	<i>Execution of small related lab-based protocols or research assignments including video methods presentation.</i>
2	Final project overall results	<i>Short written final report and/or presentation on achieved outcomes</i>

**Grading Policy & Grade Calculation**

Grades will be determined based on evaluation of performance and results in executing small related lab-based protocols that form a multistep protocol for designing a construct, expressing the protein of interest, purifying it and testing for activity/functionality.

**Standard Grade Calculation\***

<b>Assignment</b>	<b>75%</b>
Cell Culture Methods	25%
Experimental design	25%
Test for Drug isolation, Cytotoxicity and Stress response	25%
<b>Final Project</b>	<b>25%</b>
Performance assessment	15%
Project Results	10%
<b>Total</b>	<b>100%</b>

***\*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 7299 Course Schedule**

Week	TOPIC	Instructor	CLO
1/20	Cell Culture- Sterile Techniques	Glavy	1
1/27	Cell Culture- Sterile Techniques	Glavy	1
2/3	Cell Culture/ IC 50 evaluations	Glavy	1,2
2/10	IC 50 evaluations/ DNA damage response assay	Glavy	1,2,3
2/17	IC 50 evaluations/ DNA damage response assay	Glavy	1,2,3
2/24	IC 50 evaluations/ DNA damage response assay/GSH assays	Glavy	1,2,3
3/2	DNA damage response assay/GSH assays/ Calcium assays	Glavy	1,2,3

3/16	DNA damage response assay/GSH assays/ Calcium assays	Glavy	1,2,3
3/23	HPLC Training	Glavy	,1,2,3
3/30	HPLC Training	Glavy	2,3
4/6	HPLC training	Glavy	2,3
4/13	Select Drugs DNA damage response assay/GSH assays/ Calcium assays	Glavy	2,3
4/20	Select Drugs DNA damage response assay/GSH assays/ Calcium assays	Glavy	2,3
4/27	Select Drug DNA damage response assay/GSH assays/ Calcium assays	Glavy	2,3
5/4	Final report	Glavy	3

## **College of Pharmacy Policies**

### **Appeals Policy**

All grading related appeals for a particular project or assignment must be submitted IN WRITING to the course coordinator within TWO (2) business days of the publication of that grade on Canvas. All appeals must be defended with relevant evidence from appropriate current textbooks and primary literature, and must be properly referenced.

A student can file an appeal if there is a disagreement with a final course grade. The appeal must be submitted within TWO (2) business days of online posting of final course grades. The student must initiate a formal grade appeal process by completing the Course Grade Appeal form available on the College web page and by submitting this form to the course coordinator.

### **Course Remediation and Reassessment Policy**

Please see the Student Handbook (<https://www.utt Tyler.edu/pharmacy/student-handbook/index.php>).

### **Classroom/Laboratory Behavior Expectations**

Overall, students are expected to exhibit professional behaviors as described in the Student Handbook.

**Appropriate personal protective equipment** should be used during laboratory work and all **safety requirement and procedure** followed strictly.

## **UT Tyler Policies and Further Information**

### **Student Rights and Responsibility**

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.utt Tyler.edu/wellness/rightsresponsibilities.php>.

### **Course Website**

Course coordinator will use Canvas course management tools ([uttyler.edu/canvas](http://uttyler.edu/canvas)) 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.

### **Coordinator 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 Canvas website and/or UT Tyler email.

### **Attendance and Make-up Policy**

Given the importance of meeting laboratory assignments in the course, absences will only be excused under exceptional circumstances. In such cases, students are required to make every reasonable effort to notify the course coordinator in advance.

**Late Arrival:** A student may be given credit for participation and contribution if they arrive late and the late arrival was due to circumstances beyond the student's control. Arrangements should be made with the course coordinator to finish the assigned experiments in a timely manner. In all cases, the decision of the course coordinator is final.

**Known Excused Absence:** A student may request an excused absence from class for known personal, compassionate, professional, or health-related reasons. Known excused absence requests are initiated in writing to the course coordinator. Generally, *known* 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. Students will be required to present appropriate documentation to support a request for a known excused absence. ***The decision to grant a known excused absence is at the discretion of the course coordinator and is final.***

**Unexpected Excused Absence:** In the event of unexpected circumstances, students are responsible for submitting a request to the course coordinator requesting the unexpected absence be considered excused within three (3) days of the absence. Students will be required to present appropriate documentation to support a request for an unexpected excused absence. It will be the student's responsibility to plan for making up missed assignments and/or examinations after consulting with the course coordinator. ***The decision to grant an unexpected excused absence is at the discretion of the course coordinator and is final.***

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. Students will receive a score of zero (0) for assignments not completed within the time frame established by the course coordinator, generally not more than 5 days (including weekends).

**Unexcused Absence:** Students will receive a ZERO (0) for all missed assignments or projects.

### **Course Withdrawal and Census Date**

The last day to withdraw from the course without academic or financial penalty is **September 10, 2018** (Census Date). The last day to withdraw from the course with an automatic grade of "W" is **November 5, 2018**. The course coordinator 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".

The Census Date is the deadline for many forms and enrollment actions that students need to be aware of. These include:

- 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**

In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University of Texas at Tyler offers accommodations to students with learning, physical and/or psychological disabilities. If you have a disability, including non-visible a diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or you have a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <https://hood.accessiblelearning.com/UTTyler> and fill out the New Student application. The **Student Accessibility and Resources (SAR)** office will contact you when your application has been submitted and an appointment with Cynthia Lowery, Assistant Director Student Services/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at <http://www.uttyler.edu/disabilityservices>, the SAR office located in the University Center, # 3150 or call 903.566.7079.

Students with disabilities must register with the Student Accessibility and Resources office to receive accommodations under ADA(AA) provisions. Students are encouraged to submit application for services 3 weeks prior to need so that eligibility, notification of coordinator, possible exam scheduling, and other accommodations can be effectively coordinated. Once approved, exams should be scheduled no less than three (3) days prior to test date. Authority for disability accommodation can be found in the Handbook of Operating Procedures, Section 5.14.1 and can be found at: <http://uttyler.smartcatalogiq.com/en/UTTyler/2015-2016-HOP/Series-500-Student-Affairs/5-14-1-Disability-Accommodation>.

### **Notice of Permission / Non-Permission**

All course materials (including but not limited to; audio, visual, print and electronic) are copyrighted. External distribution outside of Canvas or for purposes other than classroom use is prohibited without first gaining permission. For additional information regarding the use of copyrighted materials, please refer to the Handbook of Operating Procedures, 2.3.1. Copyrighted materials <http://uttyler.smartcatalogiq.com/en/UTTyler/2015-2016-HOP/Series-200-General-Policies-and-Procedures/2-3-1-Copyrighted-Materials>.

### **Holidays and Religious Observations**

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 coordinator, 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:

## **Professionalism Expectations / Handling of Academic Misconduct**

### **Academic Misconduct and Consequences**

- The University policies regarding academic misconduct will be strictly enforced. Student suspected of cheating during a quiz or examination will receive zero points for the assessment and will be reported to the College's Office of Academic Affairs and/or the University of Texas at Tyler Office of Judicial Affairs for further sanctions. (See Examination and/or Major Assignment Policies and Procedures). Upon confirmation of academic misconduct in these circumstances of serious disregard for academic integrity, course faculty may recommend sanctions including that the student be awarded a failing grade in the course.
- Course faculty will adhere to a no tolerance policy for cheating and expect students to abide by university, college and program policies. ***The Honor Code will apply at all times.*** Students also are expected to help enforce this code.
- Students are expected to work independently on all individual assignments, quizzes and exams. Group projects will be clearly identified. The use of any resources other than the student's own recollection and reasoning ability on an individual assignment, paper, quiz, or exam is cheating. Inappropriate use of electronic or wireless technology (e.g., cellular telephone, pagers, PDA's, laptops) during quizzes or examinations is considered academic misconduct. Students must be honest when reporting on work completed within the course. Putting a student's name on a report that he/she did not actually contribute to in a meaningful way is dishonest and is considered cheating. Both the student whose name is placed on the report or assignment and the student(s) doing so will be sanctioned.
- Plagiarism, another form of cheating that occurs when another person's work is used or copied without proper acknowledgement, is not condoned and will not be allowed.
- Students may be asked to move during an examination if proctors believe a student is knowingly committing or unknowingly contributing to academic misconduct.

Students are encouraged to obtain a copy of *A Student Guide to Conduct and Discipline at UT Tyler*, available in the Office of Student Affairs.

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://uttyler.smartcatalogiq.com/en/UTTyler/2015-2016-HOP/Series-500-Student-Affairs>.

Section 5.5.2 – Student Conduct Code, Student Disciplinary Hearing and Appeals Procedures:

<http://uttyler.smartcatalogiq.com/en/UTTyler/2015-2016-HOP/Series-500-Student-Affairs/5-5-2-Student-Conduct-Code-Student-Disciplinary-Hearings-and-Appeals>.

### **Social Security and FERPA Statement**

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; grades will not be transmitted electronically.

#### **FERPA Statement for Courses That Utilize Plagiarism Detection Software**

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:  
<http://www.uttyler.edu/mopp/documents/8Student%20Conduct%20and%20Discipline.pdf>.

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 ID# (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.

### **Student Absence for University-Sponsored Events and Activities**

If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the coordinator at least two weeks prior to the date of the planned absence. At that time, the coordinator will set a date and time when make-up assignments will be completed.

### **Emergency Exit and Evacuation**

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 the course coordinator 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 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: Canvas, Skype, and email messaging and/or an alternate schedule. It's the responsibility of the student to monitor Canvas 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**

If you experience technical problems or have a technical question about this course, you can obtain assistance by emailing [itsupport@patriots.uttyler.edu](mailto:itsupport@patriots.uttyler.edu) or call 903.565.5555.

When you email IT Support, be sure to include a complete description of your question or problem including:

- 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

**Netiquette Guide**

"Netiquette" is network etiquette, the do's and don'ts of online communication. Netiquette covers both common courtesy online and informal "rules of the road" of cyberspace. Review and familiarize yourself with the guidelines provided. (<http://www.learnthenet.com/learn-about/netiquette/index.php>)

**Course and Coordinator 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 Canvas toward the end of the term. Evaluations are collated and presented in a composite format after final grades are submitted to the Registrar's Office.

**Dress Code**

Please refer to the Student Handbook

**Handgun Policy**

We respect the right and privacy of students who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at <http://www.uttyler.edu/about/campus-carry/index.php>.

**Tobacco-Free University**

All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors.

Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products.

There are several cessation programs available to students looking to quit smoking, including counseling, quit lines, and group support. For more information on cessation programs please visit [www.uttyler.edu/tobacco-free](http://www.uttyler.edu/tobacco-free).