

APPROVED

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JAN 16 2013

COLLEGE OF GRADUATE STUDIES

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="Independent Study"/>	<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="15"/>	<input type="text"/>	<input type="text"/>
c. Weekly Contact	<input type="text" value="1"/>	<input type="text"/>	<input type="text"/>

Hours *

8.

Terms offered: Fall Spring Summer

Years offered: Every Year Alternate 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, PS/NC, PR, I) Passing Grade/No Credit (A-C, NC) Credit/No Credit Grade Only (A-F, 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

PIN (Permission From Instructor) PDP (Permission From Department)

Co-requisites (must be taken together):

12. Catalog Description* (75 words Maximum)

The course entails laboratory and/or clinical research focused on the development of experimental therapeutics directed toward human diseases. Students engaged in Ph.D. dissertation research will identify a significant research problem and develop a strategy for addressing an area of unmet need. Together with the major advisor and dissertation committee members, the student will develop a research plan that addresses major questions in the chosen field using an hypothesis driven approach.

13. Attach a syllabus and an electronic copy of a complete outline of the major topics covered. Click [here](#) for template.

File Type	View File
Syllabus	View

Course Approval:

Department Curriculum Authority: Date

Department Chairperson: Date

College Curriculum Authority or Chair: Date


College Dean: Date

Graduate Council: Date

Dean of Graduate Studies: Date

Office of the Provost : Date

Administrative Use Only

Effective Date:  (YYYY/MM/DD)

CIP Code:

Subsidy Taxonomy:

Program Code:

Instructional Level:

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PHCL 8960
Ph.D. Dissertation Research in Experimental Therapeutics
Course Syllabus Fall 2014
1-15 Credit Hours

Instructor(s): Graduate Faculty in the Department of Pharmacology
Office/Office Hours: HEB , TBA
Phone: 419-383-1958
Contact email: william.messer@utoledo.edu

Class Time and Location: TBA

Primary Communication Method: Laboratory and/or clinical research

Course Description: The course entails laboratory and/or clinical research focused on the development of experimental therapeutics directed toward human diseases. Students engaged in Ph.D. dissertation research will identify a significant research problem and develop a strategy for addressing an area of unmet need. Together with the major advisor and dissertation committee members, the student will develop a research plan that addresses major questions in the chosen field using an hypothesis driven approach. Experiments will be designed and conducted to test hypotheses and identify new treatments for human disease.

Course Objectives:

- 1) At the beginning of the semester, the student will identify two or three questions that can be answered through experimentation.
- 2) Students will develop two or three hypotheses, and design and conduct experiments to test the hypotheses.
- 3) By the end of the semester, students will complete and analyze the results from two to three sets of experiments.
- 4) Students also will be able to identify current approaches toward studying human disease and/or developing new therapies.
- 5) Students also will assess whether the experimental results raise new questions that must be addressed in subsequent semesters, or whether the results of experiments provide a body of evidence leading to significant advancements in the field.
- 6) Students will be expected to keep good laboratory notebooks, document and describe the results of experiments in summary form, and develop independent research papers suitable for presentation at national and/or international meetings, and ultimately in manuscripts submitted to peer reviewed journals.

Required/Recommended Texts: Readings may be identified from the current literature.

Course Policies:

General- Students will meet regularly with the instructor throughout the semester.

Academic Dishonesty Statement- Cheating on exams and other forms of academic dishonesty will not be tolerated. Students guilty of cheating or plagiarism will be prosecuted according to College and University policies.

Students with Disabilities - The University of Toledo abides by the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973. If you have a disability and are in need of academic accommodations but have not yet registered with the Office of Accessibility (Rocket Hall 1820; 419.530.4981; officeofaccessibility@utoledo.edu) please contact the office as soon as possible to initiate the process. Students with disabilities receiving accommodations through OA are encouraged to discuss these with course instructors, after class or during office hours, so that we may be better informed on how to assist you during the semester.

Course Grade: Final course grades will be determined on the basis of successful design and conduct of experiments and the quality of the results (including raw data, laboratory notebooks, graphs, tables and figures) and research papers.

Grading Scale: The following grading scale will be used:

Letter Grade	Numerical average (%)	Quality points
A	90.0-100	4.0
A-	88.5-89.9	3.67
B+	86.5-88.4	3.33
B	80.0-86.4	3.0
B-	78.5-79.9	2.67
C+	76.5-78.4	2.33
C	68.5-76.4	2.0
D+	66.5-68.4	1.33
D	60.0-66.4	1.0
D-	58.5-59.9	0.67
F	0-58.4	0

List of Potential Topics:

The development of new treatments for:

- Alzheimer's disease
- Alcohol abuse
- Rheumatoid arthritis
- Polycystic kidney disease
- Cardiovascular disease
- Autoimmune disease
- Diabetes

Major advancements in:

- Molecular biology of human disease
- Pharmacogenomics
- Receptor structure
- Determining ADME properties of drugs
- In vivo testing of drug efficacy
- In silico drug design
- Animal models for human disease