The University Of Toledo

Existing Graduate Course Modification Form

* denotes required fields

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Present	Proposed
Supply all information asked for in this column.(Supply core, research intensive and transfer module info if applicable)	Fill in appropriate blanks only where entry differs from first column.
College*: College Pharmacy, Pharm Sciences	**College**: College Pharmacy, Pharm Sciences
Dept/Academic Unit*: Medicinal and Biological Chemistry	**Dept/Academic Unit**: Medicinal and Biological Chemistry
Course Alpha/Numeric*: MBC - 6310	**Course Alpha/Numeric:** MBC - 6310
Course Title: Biomedicinal Chemistry Laboratory II	**Course Title:** Biomedicinal Chemistry Laboratory II
Credit hours: Fixed: 4 or Variable: to	**Credit Hours:** Fixed: 3 or Variable: to
CrossListings: Insert To add a course, type in course ID and click the Insert button. To remove a course, select the course on left and click the Remove button. Remove	**CrossListings:** Insert To add a course, type in course ID and click the Insert button. To remove a course, select the course on left and click the Remove button. Remove
Prerequisite(s)(if longer than 50 characters, please place it in Catalog Description):	**Prerequisite(s)**(if longer than 50 characters, please place it in Catalog Description):
Corequisite(s)(if longer than 50 characters, please place it in Catalog Description):	**Corequisite(s)**(if longer than 50 characters, please place it in Catalog Description):

Catalog Description (*only if changed*) 75 words max:

Catalog Description (*only if changed*) 75 words max:

Has course content changed? ○ Yes ◉ No

If course content is changed, give a brief topical outline of the revised course below(less than 200 words)

Proposed effective term*: 201640 (e.g. 201140 for 2011 Fall)

File Type	View File
Syllabus	View
Attachment	View

List any course or courses to be deleted. Effective Date:

Effective Date:

Comments/Notes:

The number of credit hours will be reduced from 4 to 3.

Explanation:
a. This course is a second laboratory rotation, usually taken in the summer.
b. We have added a course to the summer semester that was previously taken in the Spring, reducing the time for research. Therefore, the reduction in hours is appropriate.
The proposed curriculum change, including the change to MBC6310/8310 had been drafted at an MBC Graduate Affairs Committee meeting on November 3, 2015 and was discussed at length at MBC departmental meetings on November 12, 2015 and January 21, 2016. The changes were approved by the College Curriculum Committee on March 3, 2016.

Rationale:

The proposed change of MBC 6310/8310 Biomedicinal Chemistry Lab II is part of an overall revision of the Medicinal Chemistry Doctoral Program that was necessary to reduce the time to graduation and the number of credits required for graduation as demanded by the State of Ohio.

Approval:

Department Curriculum Authority:	James T Slama, Ph.D., Professor	Date	2016/03/09
Department Chairperson:	Katherine A Wall	Date	2016/04/05
College Curriculum Authority or Chair:	Frederick E. Williams	Date	2016/12/09
College Dean:	Laurie S. Mauro	Date	2016/12/29
Graduate Council:	Constance Schall (GC 1.24.2017)	Date	2017/01/26
Dean of Graduate Studies:	Amanda Bryant-Friedrich	Date	2017/01/31
Office of the Provost :	marcia king-blandford	Date	2017/01/31

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Administrative Use Only

Effective Date:	2017/05/17	(YYYY/MM/DD)
CIP Code:		
Subsidy Taxonomy:		

Program Code:	
Instructional Level:	

Registrar's Office Use Only

Processed in Banner on:	2016/09/01
Processed in Banner by:	Tasha Woodson
Banner Subject Code:	MBC
Banner Course Number:	6310
Banner Term Code:	201710
Banner Course Title:	Biomedicinal Chemistry Laboratory II

Biomedicinal Chemistry Laboratory II

The University of Toledo
Medicinal and Biological Chemistry, College of Pharmacy and Pharmaceutical Sciences
MBC 6310/8310, sections 001-008, 010-011, 043

Instructor: Drs. Bryant-Friedrich, Erhardt, von Grafenstein, Peseckis, Shah, Slama, Tillekeratne, Wall, McInerney, Schiefer, and Sari

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Isaac.Schiefer@utoledo.edu
Youssef.Sari@utoledo.edu

Office Hours: Students can meet at any time when the instructor is available. Meetings may be scheduled by e-mail between the student and the instructor.

Office Location and Phone:

Dr. Amanda Bryant-Friedrich, WO 2217	419-530-1940
Dr. Paul Erhardt, WO 2206B	419-530-2167
Dr. Hermann von Grafenstein, BO 2833	419-530-1981
Dr. Steven Peseckis, MK 2000D	419-530-6039
Dr. Zahoor Shah, HEB 294A	419-383-1587
Dr. James Slama, HEB 274E	419-383-1925
Dr. Viranga Tillekeratne, WO 2203	419-530-1983
Dr. Katherine Wall, HEB 284A	419-383-1943
Dr. Marcia McInerney, HEB 145F	419-383-1905
Dr. Isaac Schiefer, HEB 284C	419-383-1935
Dr. Youssef Sari, HEB 282G	419-383-1507

Term: Fall, Spring, and Summer 2014-15

Class Location: Instructor's lab

Class Day/Time: NA

Lab Location: Instructor's labs Wolfe Center, Health Science Campus or Wolfe Hall, Main Campus

Lab Day/Time: NA

Credit Hours: 3

COURSE/CATALOG DESCRIPTION

Additional experimental research problems in biomedicinal chemistry.

COURSE OVERVIEW

This is an individualized research course/ project planned by the faculty member in each of the sections. It requires the student to work with the instructor for 3h/week for each registered credit. It is designed to be a second research rotation prior to assignment of each new graduate student to a research mentor.

STUDENT LEARNING OUTCOMES

1. Interpret and critically evaluate the literature in the respective discipline and identify gaps in current knowledge.
2. Design, implement, and analyze the results of, an independent research project in the respective discipline.
3. Effectively communicate and defend research findings orally and in writing
4. Describe and comply with standards of ethical conduct of research
5. Effectively work in a team of colleagues within the discipline

PREREQUISITES AND COREQUISITES

MBC 6190/8190 for level graduate with a minimum grade of D- and MBC 6550/8550 for level graduate with a minimum grade of D-.

REQUIRED TEXTS AND ANCILLARY MATERIALS

Reviewing scientific literature based on the problem to be researched using Pubmed and other online search engines.

TECHNOLOGY REQUIREMENTS

None

UNIVERSITY POLICIES

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

Follow general program policies.

COURSE EXPECTATIONS

See MBC Graduate Student Manual.

GRADING

No exams are required during the semester. A final grade is used, with a certain % assigned by individual faculty, taking into consideration the student's performance in the lab and the outcome/ results on the project. Letter grades (A-F) will be used, according to the following grading scale:

Letter Grade	Numerical Average (%)	Quality Points
A	90-100	4
A^-	88.5-89.9	3.67
B^+	86.5-88.4	3.33
B	80-86.4	3
B^-	78.5-79.9	2.67
C^+	76.5-78.4	2.33
C	70-76.4	2
C^-	68.5-69.9	1.67
D^+	66.5-68.4	1.33
D	60-66.4	1
D^-	58.5-59.9	0.67
F	<58.5	0

COURSE SCHEDULE

No fixed schedule. The day/time is planned and agreed upon by the student and the instructor.

Proposed changes to the Medicinal Chemistry PhD program

Due to recent changes in the way that the state of Ohio funds higher education, the state universities in Ohio must reduce the time to degree. For all students, this means that we must pay attention to the total credits earned before graduation. For PhD students this is 90 credits and 4 to possibly 5 years. So that our students do not have to self-fund at the end of their allowed tuition waiver amount, we must change our graduate curricula. At the same time, we are updating and coordinating our content to improve outcomes.

The proposals presented here had been drafted at an MBC Graduate Affairs Committee meeting on November 3, 2015 and were discussed at length at MBC departmental meetings on November 12, 2015 and January 21, 2016. The changes were approved by the College Curriculum Committee on March 3, 2016.

A comparison of the current curriculum and the proposed changes are summarized in the attached spreadsheet for the Medicinal Chemistry PhD program and are detailed here.

<u>Changes to the PhD program that require approval</u>:

1. There is no change to the total number of credits required for the PhD degree. The new program more closely meets the total of 90 credits than the previous program, which resulted in students taking many more credits than required in order to finish.
2. MBC 6300/8300 Biomedicinal Chemistry Lab I reduced from 4 to 1 credit hour
    a. This course is a laboratory rotation to introduce the student to a potential lab for dissertation research.
    b. The students have a large course load this semester and do not have time to devote so many hours to research. They do not yet have sufficient research background to be productive.
    c. The new credit hour will be more appropriate to the time that can be devoted to this course, 3 hours of laboratory work per week.
3. MBC 6310/8310 Biomedicinal Chemistry Lab II will be reduced from 4 to 3 credit hours.
    a. This course is a second laboratory rotation, usually taken in the summer.
    b. We have added a course to the summer semester that was previously taken in the Spring, reducing the time for research. Therefore, the reduction in hours is appropriate.
4. MBC 5620/7620 Biochemical Techniques (2 credits) will be eliminated as a required course and its content combined with MBC 6200/8200 Biomedicinal Chemistry (4 credits unchanged).

a. We will adjust the content of MBC 6200/8200 so that it incorporates the essential elements of Biochemical Techniques, but in a more coherent way and combined with essential elements of Biomedicinal Chemistry. Some techniques will be taught in a different context, such as UT training courses or in research labs.

5. MBC 5100/7100 Research Practices is moved from spring year 1 to summer year 1. The course will be renamed “Ethical Conduct of Research.”
   a. The course currently teaches ethical conduct along with introducing the regulatory requirements with regard to research with animals, humans, and biohazards.
   b. The University provides training on many of the technicalities of working with animals, humans, and biohazards.
   c. The NIH requires that students supported on grants be trained in ethical conduct.
   d. Therefore, we will focus on ethical conduct of research and make use of UT provided training in other areas. The students will take the UT training when they begin research, and will not have to wait for this course.
   e. The catalog description of the course is unchanged. “Consideration of the scientific, ethical and legal obligations of the graduate student researcher.”