FLORIDA ATLANTIC UNIVERSITY™

Graduate Programs—NEW COURSE PROPOSAL[1]

UGPC APPROVAL _____
UFS APPROVAL _____
SCNS SUBMITTAL _____
CONFIRMED _____
BANNER POSTED _____
CATALOG _____

DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY | **COLLEGE OF SCIENCE**

RECOMMENDED COURSE IDENTIFICATION *(TO OBTAIN A COURSE NUMBER, CONTACT NMALDONADO@FAU.EDU)*

PREFIX ___CHM_____ **COURSE NUMBER** ___6428_____ **LAB CODE** (L or C) _____

COMPLETE COURSE TITLE: MEDICINAL CHEMISTRY

EFFECTIVE DATE
(first term course will be offered)
_____

CREDITS[2]
3

TEXTBOOK INFORMATION
MEDICINAL CHEMISTRY: AN INTRODUCTION (SECOND EDITION)
(GARETH THOMAS) WILEY, 2007 (ISBN 978-0-470-02598-7)

GRADING *(SELECT ONLY ONE GRADING OPTION)*: **REGULAR** __X__ **SATISFACTORY/UNSATISFACTORY** _____

COURSE DESCRIPTION, NO MORE THAN THREE LINES: THIS COURSE WILL PROVIDE A COMPREHENSIVE AND BALANCED INTRODUCTION TO MEDICINAL CHEMISTRY BEGINNING WITH FUNDAMENTAL PRINCIPLES AND PROGRESSING TO PRINCIPAL METHODS USED IN DRUG DESIGN SUCH AS QUANTITATIVE STRUCTURE-ACTIVITY RELATIONSHIPS, COMPUTER-AIDED DRUG DESIGN, AND COMBINATORIAL CHEMISTRY.

PREREQUISITES*	**COREQUISITES***	**REGISTRATION CONTROLS (MAJOR, COLLEGE, LEVEL)***
CHM 2211, BCH 3034, AND CHM 3411 WITH MINIMUM GRADE OF C IN EACH COURSE.		

** PREREQUISITES, COREQUISITES AND REGISTRATION CONTROLS WILL BE ENFORCED FOR ALL COURSE SECTIONS.*

MINIMUM QUALIFICATIONS NEEDED TO TEACH THIS COURSE:
DOCTORATE IN CHEMISTRY WITH FORMAL ACADEMIC TRAINING OR SIGNIFICANT EXPERIENCE IN MEDICINAL CHEMISTRY RESEARCH
MEMBER OF THE GRADUATE FACULTY OF FAU AND HAS A TERMINAL DEGREE IN THE SUBJECT AREA (OR A CLOSELY RELATED FIELD).

Faculty contact, email and complete phone number:	Please consult and list departments that might be affected by the new course and attach comments.[3]
Salvatore D. Lepore Department of Chemistry and Biochemistry slepore@fau.edu and 561-297-0330	

Approved by:	*Date:*
Department Chair: [signature]	8/29/17
College Curriculum Chair: [signature]	8/29/17
College Dean: Dr. Charles Roberts [signature]	8/29/2017
UGPC Chair: [signature]	5/31/17
Graduate College Dean: [signature]	8/31/17
UFS President:	
Provost:	

1. **Syllabus** must be attached; see guidelines for requirements: *www.fau.edu/provost/files/course syllabus.2011.pdf*
2. Review **Provost Memorandum: Definition of a Credit Hour** *www.fau.edu/provost/files/Definition Credit_Hour_Memo_2012.pdf*
3. **Consent** from affected departments (attach if necessary)

Email this form and syllabus to *UGPC@fau.edu* **one week before** the University Graduate Programs Committee meeting.

Medicinal Chemistry

CHM 6428 (CRN 31799), Spring 2016

BU 402, Mondays & Wednesdays 4:00 - 5:20 PM

Instructor: Prof. Salvatore Lepore, S&E 136, 7-0330, *slepore@fau.edu*

Office Hours: To be announced

Text: *Medicinal Chemistry: An Introduction (second edition)* (Gareth Thomas) Wiley, 2007 (ISBN 978-0-470-02598-7). Required

Course Description (3 credit hours)
This course will provide a comprehensive and balanced introduction to medicinal chemistry beginning with fundamental principles and progressing to principal methods used in drug design such as quantitative structure-activity relationships, computer-aided drug design, and combinatorial chemistry. Subsequent discussions of more specialized aspects of medicinal chemistry will involve pharmacokinetics and drug metabolism. These concepts will be discussed using numerous examples of drugs and drug action.

Course Objective
The objectives of the course are to provide chemists with a broad introduction to the background, concepts, and tools of medicinal chemistry. At the end of the course, the students should be able to solve medicinal chemistry-related problems in their principal fields of study.

Homework
While homework will not count towards the course grade, the end-of-chapter exercises are an important preparation for exams given in the course (see grading policy below). It is strongly advised that students thoughtfully work all homework problems and those brought up in lecture.

Assessment (grading)

- Exams 1 and 2 (45% each). There will be no cumulative final exam.
- Case-study project:
  Report (5%) and Presentation (5%)
- The tentative grading scale for the course:

A	93-100	C	73-76
A-	90-92	C-	70-72
B+	87-89	D+	67-69
B	83-86	D	63-66
B-	80-82	D-	60-62
C+	77-79	F	0-59

Tentative Schedule of Lectures

Week	Topic
Jan 11	An introduction to drugs (chapter 1)
Jan 18	MLK Day (Jan 18) – no class
Jan 25	Drug structure and solubility (chapter 2)
Feb 1	SAR (chapter 3); Assignment of Project (case studies)
Feb 8	
Feb 15	Computer-aided drug design (chapter 4)
Feb 22	Combinatorial chemistry (chapter 5)
Feb 29	*Exam 1* (Mar 2)
Mar 7	Spring Break
Mar 14	Biological membranes (chapter 7)
Mar 21	
Mar 28	Receptors and messengers (chapter 8)
Apr 4	Last day to withdraw (Apr 8)
Apr 11	Drug metabolism (chapter 12); Case Studies to be submitted electronically (by noon Apr 13)
Apr 18	Analogues (chapter 15)
Apr 25	Project presentations PowerPoint slides to be submitted electronically (by noon Apr 25)
May 2	*Exam 2* (May 2) from 4:00 – 6:30 PM; note that Exam 2 will not be a cumulative final

Prerequisites
CHM 2211, BCH 3034, and CHM 3411 Minimum grade of C+ in each course.

Withdrawal
Please check the official FAU website regularly for the most up to date information on last day to withdraw without a "W" & last day to withdraw without an "F" dates for this semester.

Incomplete Grade Policy
Please refer to the FAU's graduate Catalog for the policy on "I" grades.

Disability policy statement
In compliance with the Americans with Disabilities Act (ADA), students who require special accommodation due to a disability to properly execute coursework must register with the Office for Student Accessibility Services (SAS) - in Boca Raton, SU 133 (561- 297-3880) – and follow all SAS procedures.

Honor Code policy statement
Students at FAU are expected to maintain the highest ethical standards. Academic dishonesty, including cheating and plagiarism, is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001 at

www.fau.edu/ctl/4.001_Code_of_Academic_Integrity.pdf

Anti-Discrimination and Anti-Harassment Policy
Students, faculty and staff at FAU are expected to abide by the published anti-discrimination and anti-harassment policy:

www.fau.edu/regulations/chapter5/Reg%205.010%206-2015.pdf.