

1. Course Title:	Advanced Topics in Biochemistry (1907.431)(CHEM 07431)
Sponsor:	Cathy F. Yang & Richard W. Frazee, Department of Chemistry and Biochemistry
Credit Hours:	3 s.h.
Course Level:	Junior and senior
Curricular Effect:	Restricted Elective
Prerequisites:	Permission of Instructor
Time of Implementation:	Spring, 2007, offered alternate semesters
Adequacy of Resources:	Present faculty, facilities and library holdings will be adequate by the time of implementation.

2. Rationale:

Scientific understanding of the molecular nature of life is growing at an astounding rate. Naturally, society is the prime beneficiary of this increased understanding. Cures for diseases, better public health, remediation of environmental pollution, and the development of more specific and safer natural products are just a few practical results of this knowledge. Understanding these advances and their associated implications on the field of biochemistry requires not only a firm foundation in basic biochemistry, but also focused examination of the special topics and emerging technologies leading to advances in these areas.

Although a special topics course in chemistry is currently offered, biochemistry topics are the focus approximately once in a three year period. In addition, our biochemistry majors have difficulty in many of the special topics covered in the chemistry course because they lack the necessary advanced organic/inorganic coursework necessary to fully appreciate these topics. In order to better serve our biochemistry majors, a biochemistry special topics course is proposed as an upper level Biochemistry course added to the Biochemistry program. Topics at the interface between chemistry and biology combined with biotechnology are anticipated. This course is therefore highly interdisciplinary which can provide strong preparation for students who will choose biochemical and biomedical careers.

3. Essence of the Course:

a. Objectives:

At the end of this course, students will:

1. gain advanced insight into biochemical principles and their application in a variety of biochemical fields.
2. be required to conduct an in-depth review of the literature regarding a topic within the topic area covered in the course.

b. Topical Outline :

This will be decided by the professional contracted to teach the course in conjunction with the biochemistry faculty. The department will generally solicit visiting scientists to conduct a course centered on their career work.

c. Evaluation Procedures:

Students will be evaluated by class participation, exams, and tests. A research paper on a topic relevant to the course selected by the student and approved by the instructor may also be required.

d. Course Evaluations:

The departmental course evaluation form will be used at the end of the course.

4. Consultations:

None required

5. Possible Course Texts

This will be the choice of the professional contracted to teach the course.

Catalog Description:

Advanced Topics in Biochemistry (1907.431) (CHEM 07431)

3 s.h.

(Prerequisite: Permission of Instructor)

This course covers special topics in individual areas of biochemistry. Specific prerequisites are determined by the nature of the course when it is announced.

This form **MUST BE COMPLETED FOR NEW COURSE or PROGRAM PROPOSALS, and EXTENSIVE CHANGES TO A COURSE or PROGRAM.**

The purpose of this form is to provide a channel of communication between the Campbell Librarians and faculty when submitting new course or program proposals, or making extensive changes to existing courses or programs. The information will be used to assess the resources available in the library, and to identify resources the library should acquire to support the new courses/programs, or extensive changes to same. The information will also provide the rationale for institutional support for library acquisitions. This form should be completed in a coordinated effort between the course sponsor(s) and the academic department liaison librarian.

Note: Sponsor(s) complete parts A & B
If assistance is required to complete, please notify the librarian liaison.
Forward this form to the librarian who will complete parts C, D & E

When form is completed, attach to the original curriculum proposal before submitting to the Senate office.

A. College: LAS

Department: Chemistry and Biochemistry

Proposed by: C. Yang & R. Frazee

Date: 1/11/2006

COURSE TITLE: Advanced Topics in Biochemistry

Anticipated Date for Course/Program Offering: Spring 2007

B. List specific resources that should be acquired to support this course.

When a faculty member is selected to teach this course, he or she should provide the library a list of books needed to support it.

C. Describe the resources available in the library to support this course/program, including reference, monographic, electronic databases, audio-visual materials, etc. A summary statement is sufficient.

The library has a large collection of circulating books in biochemistry which could benefit from updating with some newer titles. Only nine of the 76 titles listed under Biochemistry were published since 1995. We have online access to ScienceDirect, American Chemical Society Web Editions, SciFinder Scholar, Biomedical Reference Collection, MEDLINE, all the Nature journals, and the Wiley InterScience collection.

D. List key periodicals available in the library to support this course/program.

Key periodicals available in print or online at Campbell Library include Biochemistry, Bioorganic Chemistry, Journal of Biological Chemistry, Journal of Medicinal Chemistry, and Journal of Molecular Biology.

E. Librarian comments & recommendations:

The library has a good general collection of resources in biochemistry, but we should supplement it with some newer books in specific topics related to the course once it is determined what those topics are. Additional periodical subscriptions are probably not needed given the wealth of online resources currently available.

LIBRARIAN LIAISON: Denise Brush

Signature: 

Subject: AdvTopix Biochem curric proposal
Date: Monday, January 23, 2006 6:46 PM
From: Gregory Hecht <hecht@rowan.edu>
To: Robert Newland Newland@rowan.edu
Conversation: AdvTopix Biochem curric proposal
Category: Chairs

MEMO TO: Robert Newland
From: Gregory Hecht

Re: Advanced Topics in Biochemistry curriculum proposal

Bob –

Thank you for consulting with the Biological Sciences Dept regarding your curricular proposal entitled "Advanced Topics in Biochemistry."

An upper-level course such as this is long overdue. As we have discussed previously, such a course should also open up opportunities for BS Biology majors to take additional courses from the Chemistry Dept.

We fully and enthusiastically support the proposal.

Sincerely,

Gregory B. Hecht, Ph.D.
Interim Chairperson
Associate Professor of Microbiology
& Molecular Biology
Department of Biological Sciences
Rowan University
201 Mullica Hill Road
Glassboro, NJ 08028
Office: Science Hall 130D
Laboratory: Science Hall 221
(856) 256-4834 (office, phone mail)
(856) 256-4500 x3577 (phone mail only)
x3024 (lab)
Fax: (856) 256-4478
hecht@rowan.edu
<http://users.rowan.edu/~hecht>
<http://www.rowan.edu/biology>

ROWAN UNIVERSITY SENATE
COLLEGE CURRICULUM COMMITTEE WORKSHEET

PART I: INFORMATION								
COLLEGE NAME (circle one)	BUS	COM	ED	ENG	FPA	LAS-HUM	LAS-M/S X	LAS-SBS
Date of Hearing	3 March 2006							
Type of Hearing (circle one)	OPEN X	CLOSED						
SCC Proposal #	05 – 06 – 832							
Proposal Title	Advanced Topics in Biochemistry							
Sponsor(s) in Attendance	Newland, Yang, Frazee							

PART II: COMMON PROBLEMS REVIEWED	Sponsor's Initials	College Chairperson's Initials
Consultation letters attached		DRK
Library form completed by librarian (not sponsor)		DRK
Prerequisites consistent (initial page and catalog description)		DRK
Course title consistent throughout proposal		DRK
Catalog description – on separate page – complete with HEGIS, credits, and prereqs (with HEGIS)		DRK
All courses throughout proposal identified with correct title and HEGIS numbers		

PART III: COMMITTEE DECISION

- _____ Pass with NO CHANGES
- X Passed – Return to Sponsor for MINOR CHANGES
- _____ Tabled w/SUGGESTED MINOR CHANGES
- _____ NOT APPROVED

HEARING SUMMARY:

Need to assign HEGIS numbers to course.
