CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

COURSE MODIFICATION PROPOSAL

Courses must be submitted by October 15, 2013, and finalized by the end of the fall semester to make the next catalog (2014-15) production

DATE (CHANGE DATE EACH TIME REVISED): 10/13/13; REV 11.5.13

PROGRAM AREA(S) : BIOL

Directions: All of sections of this form must be completed for course modifications. Use YELLOWED areas to enter data. All documents are stand alone sources of course information.

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1. Indicate Changes and Justification for Each. *[Mark an X by all change areas that apply then please follow-up your X's with justification(s) for each marked item. Be as brief as possible but, use as much space as necessary.]*

- Course title
- Prefix/suffix
- Course number
- Units
- Staffing formula and enrollment limits
- Prerequisites/Corequisites
- X Catalog description
- Mode of Instruction
- Course Content
- Course Learning Outcomes
- X References
- GE
- X Other REMOVAL of GWAR attribute
- Reactivate Course

Justification: We request removal of GWAR attribute from BIOL 504. This course is no longer taught with sufficient required writing to merit GWAR designation. Another required course in the MS Biotechnology program (BINF 500) will be modified to meet GWAR requirement. In preparing this course modification, two reference texts are updated to newest editions. No other changes are requested.

2. Course Information.

[Follow accepted catalog format.] ***(Add additional prefixes i f cross-listed)***

OLD

Prefix BIOL Course# 504
Title MOLECULAR CELL BIOLOGY Units (3)
3 hours lecture per week
hours blank per week

X Prerequisites: BIOL 300 and 400 or 501
X Consent of Instructor Required for Enrollment
Corequisites:
Catalog Description (Do not use any symbols):
Examines molecular and mechanistic aspects of cell biology. Topics include: cell biochemistry and biosynthesis, cell signaling, regulation of the cell cycle and membrane trafficking.
General Education Categories:
Grading Scheme (Select one below):
x A – F
Credit/No Credit
Optional (Student's Choice)
Repeatable for up to units
Total Completions
Multiple Enrollment in Same Semester Y/N
Course Level:
Undergraduate
Post-Baccalaureate
x Graduate

NEW

Prefix BIOL Course# 504
Title MOLECULAR CELL BIOLOGY Units (3)
3 hours lecture per week
hours blank per week

X Prerequisites: BIOL 300 and 400 or 501
X Consent of Instructor Required for Enrollment
Corequisites:
Catalog Description (Do not use any symbols)**:**
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Repeatable for up to units
Total Completions
Multiple Enrollment in Same Semester Y/N
Course Level:
Undergraduate
Post-Baccalaureate
x Graduate

3. Mode of Instruction (Hours per Unit are defaulted) **Hegis Code(s)**_____
(Provided by the Provost Office)

Existing

	Units	Hours Per Unit	Default Section Size	Graded
Lecture	3	1	30	X
Seminar		1		
Lab		3		
Activity		2		
Field Studies				
Indep Study				
Other blank				
Online				

Proposed

	Units	Hours Per Unit	Default Section Size	Graded	CS No. (filled out by Provost Office)
Lecture	3	1	30	X	
Seminar		1			
Lab		3			
Activity		2			
Field Studies					
Indep Study					
Other blank					
Online					

4. Course Attributes:

General Education Categories: All courses with GE category notations (including deletions) must be submitted to the GE website: http://summit.csuci.edu/geapproval. Upon completion, the GE Committee will forward your documents to the Curriculum Committee for further processing.

A (English Language, Communication, Critical Thinking)
- A-1 Oral Communication
- A-2 English Writing
- A-3 Critical Thinking

B (Mathematics, Sciences & Technology)
- B-1 Physical Sciences
- B-2 Life Sciences – Biology
- B-3 Mathematics – Mathematics and Applications
- B-4 Computers and Information Technology

C (Fine Arts, Literature, Languages & Cultures)
- C-1 Art
- C-2 Literature Courses
- C-3a Language
- C-3b Multicultural

D (Social Perspectives)

E (Human Psychological and Physiological Perspectives)

UDIGE/INTD Interdisciplinary

Meets University Writing Requirement (Graduation Writing Assessment Requirement)

Meets University Language Requirement

American Institutions, Title V Section 40404: Government US Constitution US History
Regarding Exec Order 405, for more information: http://senate.csuci.edu/comm/curriculum/resources.htm

Service Learning Course (Approval from the Center for Community Engagement must be received before you can request this course attribute).

Online Course (Answer YES if the course is ALWAYS delivered online).

5. Justification and Requirements for the Course. *[Make a brief statement to justify the need for the course]*

OLD
Molecular Cell Biology is a required course for graduate students in the Professional Master of Science Degree Program in Biotechnology and Bioinformatics.

x Requirement for the Major/Minor
Elective for the Major/Minor
Free Elective

NEW
Molecular Cell Biology is a required course for graduate students in the Professional Master of Science Degree Program in Biotechnology and Bioinformatics.

x Requirement for the Major/Minor
Elective for the Major/Minor
Free Elective

Submit Program Modification if this course changes your program.

6. Student Learning Outcomes. (List in numerical order. Please refer to the Curriculum Committee's "Learning Outcomes" guideline for measurable outcomes that reflect elements of Bloom's Taxonomy: *http://senate.csuci.edu/comm/curriculum/resources.htm*. The committee recommends 4 to 8 student learning outcomes, unless governed by an external agency (e.g., Nursing).

Upon completion of the course, the student will be able to:

OLD
Explain how extracellular signals are transduced into intracellular signals
• Describe mechanisms involved in regulation of the eucaryotic cell cycle
• Define the chemical components of cells and explain biosynthetic pathways
• Explain how proteins and lipids are transported into organelles, membranes and to the extracellular surface

Upon completion of the course, the student will be able to:

NEW
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• Describe mechanisms involved in regulation of the eucaryotic cell cycle
• Define the chemical components of cells and explain biosynthetic pathways
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7. Course Content in Outline Form. (Be as brief as possible, but use as much space as necessary)

OLD
I. Chemical and molecular foundations
Cell structure/function
Cell chemistry and biosynthesis
Protein structure/function
Basis molecular genetic mechnanisms

II. Cell Signaling
Signaling at the cell surface
Signaling pathways that control gene activity
Integrating signals and gene control

III. Membrane trafficking
Moving proteins into membranes and organelles
Vesicular traffic, secretion and endocytosis
Metabolism and movement of lipids

IV. Cell cycle and cell growth control
Regulating the eucaryotic cell cycle
Cell birth, lineage and death
Cancer

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Does this course content overlap with a course offered in your academic program? Yes **No** x
If YES, what course(s) and provide a justification of the overlap.

Does this course content overlap a course offered in another academic area? Yes **No** x
If YES, what course(s) and provide a justification of the overlap.

Overlapping courses require Chairs' signatures.

8. Cross-listed Courses (Please note each prefix in item No. 1) *Beyond three disciplines consult with the Curriculum Committee.*

A. List cross-listed courses (Signature of Academic Chair(s) of the other academic area(s) is required).
B. List each cross-listed prefix for the course:
C. Program responsible for staffing: Biology

9. References. *[Provide 3-5 references]*

OLD **Lodish, Berk, Matsudaira, Kaiser, Krieger, Scott, Zipursky and Darnell. (2003). Molecular Cell Biology, 5th edition. WH Freeman.**

Alberts, Johnson, Lewis, Raff, Roberts and Walter. (2002). Molecular Biology of the Cell, 4th edition. Garland Science.
Helmreich. (2001). The Biochemistry of Cell Signalling. Oxford University Press.
Gomperts. (2002). Signal Transduction. Academic Press.

NEW Lodish, H., A. Berk, C. Kaiser, M. Krieger, A. Bretscher, H. Ploegh, A. Amon, H. Scott. (2012). *Molecular Cell Biology, 7th Edition*. W.H. Freeman.

Alberts, B., A. Johnson, B. Lewis, M. Raff, K. Roberts, P. Walter. (2007). *Molecular Biology of the Cell, 5th Edition*. Garland Science.

Helmreich. (2001). *The Biochemistry of Cell Signalling*. Oxford University Press.

Gomperts. (2002). *Signal Transduction*. Academic Press.

10. Tenure Track Faculty qualified to teach this course.
Biology faculty

11. Requested Effective Date or First Semester offered: Fall 2014

12. New Resource Requested: Yes **No** x
If YES, list the resources needed.

A. Computer Needs (data processing, audio visual, broadcasting, other equipment, etc.)

B. Library Needs (streaming media, video hosting, databases, exhibit space, etc.)

C. Facility/Space/Transportation Needs:

D. Lab Fee Requested: Yes **No** **(Lab fee requests should be directed to the Student Fee Committee)**

E. Other.

13. Will this course modification alter any degree, credential, certificate, or minor in your program? Yes x **No**
If, YES attach a program update or program modification form for all programs affected.
Priority deadline for New Minors and Programs: October 1, 2013 of preceding year.
Priority deadline for Course Proposals and Modifications: October 15, 2013.
Last day to submit forms to be considered during the current academic year: April 15th.

Amy Denton — 10/13/13

Proposer(s) of Course Modification — Date
Type in name. Signatures will be collected after Curriculum approval.

Approval Sheet

Course: BIOL 504

If your course has a General Education Component or involves Center affiliation, the Center will also sign off during the approval process.

Multiple Chair fields are available for cross-listed courses.

The CI program review process includes a report from the respective department/program on its progress toward accessibility requirement compliance. By signing below, I acknowledge the importance of incorporating accessibility in course design.

Program Chair		
	Signature	Date
Program Chair		
	Signature	Date
Program Chair		
	Signature	Date
General Education Chair		
	Signature	Date
Center for Intl Affairs Director		
	Signature	Date
Center for Integrative Studies Director		
	Signature	Date
Center for Multicultural Engagement Director		
	Signature	Date
Center for Civic Engagement and Service Learning Director		
	Signature	Date
Curriculum Chair		
	Signature	Date
AVP		
	Signature	Date