

NEW COURSE PROPOSAL**Courses must be submitted by November 2, 2009, for priority catalog review.**DATE (*Change if modified and redate file with current date*)

7-27-2010; REV 10.25.10

PROGRAM AREA(S)

BIOLOGY

1. Course Information. *[Follow accepted catalog format.]***Prefix(es)** (Add additional prefixes if cross-listed) **and Course No.** BIOL 305**Title:** BIOLOGY OF AGING **Units:** 3

x Prerequisites BIOL 211

Corequisites

x Consent of Instructor Required for Enrollment

Catalog Description (Do not use any symbols): Current understanding of biological basis of human aging and senescence processes, including systemic, cellular and molecular mechanisms underlying the transition from health to senescence, evolutionary and comparative aspects of aging, measurement of aging, and the consequences of normal aging processes on various human systems. No credit given toward the Biology major.

Grading Scheme:

x A-F Grades

 Credit/No Credit
 Optional (Student Choice)
Repeatability:

Repeatable for a maximum of units

Total Completions Allowed

Multiple Enrollment in Same Semester

Course Level Information:

x Undergraduate

 Post-Baccalaureate/Credential
 Graduate
Mode of Instruction/Components (*Hours per Unit are defaulted*).

	Units	Hours per Unit	Benchmark Enrollment	Graded Component	CS & HEGIS # (Filled in by the Dean)
Lecture	3	1	30	x	
Seminar		1			
Laboratory		3			
Activity		2			
Field Studies					
Indep Study					
Other Blank					

Leave the following hours per week areas blank. The hours per week will be filled out for you.

Three hours **lecture** per week

hours blank per week

2. 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

Meets University Language Requirement

American Institutions, Title V Section 40404: ☐ Government ☐ US Constitution ☐ US History

Refer to website, 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).

3. Justification and Requirements for the Course. (Make a brief statement to justify the need for the course)

A. Justification: BIOL 305 is a required course for the BS in Health Science with an Emphasis in Gerontology degree program. It provides a foundational knowledge in the biological basis of the aging processes to students in this emphasis.

B. Degree Requirement: ☒ Requirement for the Major/Minor
☐ Elective for the Major/Minor
☐ Free Elective

Note: Submit Program Modification if this course changes your program.

4. Learning Objectives. (List in numerical order. You may wish to use the following resource in utilizing measurable verbs: <http://senate.csuci.edu/comm/curriculum/resources.htm>)

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

Demonstrate an understanding of the theories of aging

Apply different measurements for age-related changes in populations and individuals

Interpret the evolutionary and comparative aspects of longevity and senescence

Describe the various research models used to study aging

Report and analyze the research discoveries in aging

Explain the mechanisms underlying the aging processes

5. Course Content in Outline Form. [Be as brief as possible, but use as much space as necessary]

Conceptual and technical issues of aging

Theory of aging and longevity

Measuring age-related changes in populations

Measuring age-related changes in individuals

Evolutionary and comparative aspects of longevity and senescence

Non-mammalian models for aging studies and discoveries

Mammalian models for aging studies and discoveries

Systemic, cellular and molecular mechanisms underlying the transition from health to senescence

Aging and diseases

Interventions that modify the aging processes

Aging-related research and its impact on society

Does this course content overlap with a course offered in your academic program? **Yes** ☐ **No** ☒

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** ☒

If YES, what course(s) and provide a justification of the overlap. ☐

Overlapping courses require Chairs' signatures.

6. Cross-listed Courses (Please note each prefix in item No. 1)

A. List Cross-listed Courses (Signature of Academic Chair(s) of the other academic area(s) is required).

List each cross-listed prefix for the course:

B. Program responsible for staffing: Academic Affairs

7. References. [Provide 3 - 5 references]

Handbook of the Biology of Aging, Sixth Edition, Edward J. Masoro and Steven N. Austad, Academic Press, 2006

Molecular Biology of Aging, Leonard P. Guarente, Linda Partridge, and Douglas C. Wallace, Cold Spring Harbor Laboratory Press; 1st edition, 2007, ISBN-10: 0879698241

Biology of Aging: Observations and Principles, Robert Arking, Oxford University Press, 3 edition, 2006, ISBN-10: 0195167392

8. Tenure Track Faculty Qualified to Teach This Course.

Biology faculty

9. Requested Effective Date:

First semester offered: Fall 2013

10. New Resources Requested. Yes ☒ No

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 (please refer to Dean's Office for additional processing) **Yes ☐ No ☒**

E. Other

11. Will this new course alter any degree, credential, certificate, or minor in your program? Yes ☐ No ☒

If, YES attach a program update or program modification form for all programs affected.

Priority deadline for New Minors and Programs: **October 5, 2009** of preceding year.

Priority deadline for Course Proposals and Modifications: **November 2, 2009**, of preceding year.

Last day to submit forms to be considered during the current academic year: **April 15th**.

Ching-Hua Wang

7-27-2010

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

Date

Approval Sheet

Program/Course:

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.

Program Chair		
	Signature	Date
Program Chair		
	Signature	Date
Program Chair		
	Signature	Date
General Education Chair		
	Signature	Date
Center for International Affairs Director		
	Signature	Date
Center for Integrative Studies Director		
	Signature	Date
Center for Multicultural Engagement Director		
	Signature	Date
Center for Civic Engagement Director		
	Signature	Date
Curriculum Chair		
	Signature	Date
Dean of Faculty		
	Signature	Date