

3. 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).

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

OLD

This course is an elective element of the biotechnology emphasis for the proposed Professional Science Masters degree in Biotechnology and Bioinformatics

NEW

This course is an elective course of the Professional Science Masters degree in Biotechnology and Bioinformatics.

- Requirement for the Major/Minor
- ☒ Elective for the Major/Minor
- Free Elective

- Requirement for the Major/Minor
- ☒ Elective for the Major/Minor
- Free Elective

Submit Program Modification if this course changes your program.

5. Learning Objectives. (List in numerical order. You may wish to visit resource information at the following website: <http://senate.csuci.edu/comm/curriculum/resources.htm>)

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

OLD

- explain the genetic factors underlying efficacy/toxicity of drug therapy
- evaluate genomic methods in drug design
- assess the value of phenotyping/genotyping in guiding drug therapy of individual patients
- screen a virtual library for molecules with potential therapeutic value

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

NEW

- explain the genetic factors underlying efficacy/toxicity of drug therapy
- evaluate genomic methods in drug design
- assess the value of phenotyping/genotyping in guiding drug therapy of individual patients
- utilize and evaluate a virtual screen library for molecules with potential therapeutic value

6. Course Content in Outline Form. (Be as brief as possible, but use as much space as necessary)

OLD

NEW

Introduction to Structural Genomics
Introduction to Functional Genomics
Genetics of the Human Response to Prophylactic and
Therapeutic Agents
Impact of Genetic Variation on Therapeutic Efficacy
Stratifying Diseases by Mechanism
Proteomics/Pharmacoproteomics of Genetic and
Communicable Disease
Toxicoproteomics
Drug Discovery and Optimization

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Communicable Disease
Toxicoproteomics
Drug Discovery and Optimization

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.

7. 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).
- B. List each cross-listed prefix for the course:
- C. Program responsible for staffing:

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

OLD

Kalow, W., Meyer, A. and Tyndale, R. 2001. Pharmacogenomics. Marcel Dekker & Associates, ISBN: 0824705440
Rothstein, M. 2003. Pharmacogenomics: Social, Ethical, and Clinical Dimensions. Wiley-Liss, ISBN: 0471227692
Michelson S and Joho K: Drug discovery, drug development and the emerging world of pharmacogenomics: prospecting for information in a data-rich landscape. Current Opinion in Molecular Therapeutics 2, 651-654 (2000)
Blume, A., Beasley J., and Goldstein, N. 2000. The use of peptides in Diogenesis: A novel approach to drug discovery and phenomics. Biopolymers 55: 347-356
Cochet, Olivier, David J. Heard, Pascale Fehlbaum, Caroline Ducray, and Laurent Cracco. 2003. Exploiting Human Genomic Diversity Through Alternative RNA Splicing. PharmaGenomics 3:26-36
Brown, S. 2002. Essentials of Medical Genomics. Wiley-Liss, ISBN: 047121003X

NEW

Kalow, W., Meyer, A. and Tyndale, R. 2001. Pharmacogenomics. Marcel Dekker & Associates, ISBN: 0824705440
Rothstein, M. 2003. Pharmacogenomics: Social, Ethical, and Clinical Dimensions. Wiley-Liss, ISBN: 0471227692
Michelson S and Joho K: Drug discovery, drug development and the emerging world of pharmacogenomics: prospecting for information in a data-rich landscape. Current Opinion in Molecular Therapeutics 2, 651-654 (2000)
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9. Tenure Track Faculty qualified to teach this course.

Biology faculty

10. Requested Effective Date or First Semester offered: Summer 2010

11. New Resource 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: Yes ☐ No ☐ (Refer to the Dean's Office for additional processing)
- E. Other. ☐

12. Indicate Changes and Justification for Each. [Check all that apply and follow with justification. Be as brief as possible but, use as much space as necessary.]

- | | |
|--|---|
| <input type="checkbox"/> Course title | <input type="checkbox"/> Course Content |
| <input type="checkbox"/> Prefix/suffix | <input type="checkbox"/> Course Learning Objectives |
| <input type="checkbox"/> Course number | <input type="checkbox"/> References |
| <input type="checkbox"/> Units | <input type="checkbox"/> GE |
| <input checked="" type="checkbox"/> Staffing formula and enrollment limits | <input type="checkbox"/> Other <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Prerequisites/Corequisites | <input type="checkbox"/> Reactivate Course |
| <input type="checkbox"/> Catalog description | |
| <input type="checkbox"/> Mode of Instruction | |

Justification: Since the number of students enrolled in the program has increased significantly in the last few years, we have actually enrolled nearly 30 students in the class. Raising the enrollment cap from 15 to 20 is reasonable as this is a lecture only elective course which requires a computer lab. It will help the students in their timely graduation from the program.

13. Will this course modification 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.**

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

Ching-Hua Wang

10-15-09

Proposer(s) of Course Modification

Date

Type in name. Signatures will be collected after Curriculum approval.

Approval Sheet

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 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
Dean of Faculty		
	Signature	Date