CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

NEW COURSE PROPOSAL

PROGRAM AREA _BIOLOGY_____

1. **Catalog Description of the Course.** *[Include the course prefix, number, full title, and units. Provide a course narrative including prerequisites and corequisites. If any of the following apply, include in the description: Repeatability (May be repeated to a maximum of ___ units); time distribution (Lecture ___ hours, laboratory ___ hours); non-traditional grading system (Graded CR/NC, ABC/NC). Follow accepted catalog format.]*

   BIOL 303 EVOLUTIONARY BIOLOGY (3)
   Three hours of lecture per week.
   Prerequisites: BIOL 200 and BIOL 201
   This course will examine principles of biological evolution. Topics include evolutionary genetics, adaptation and natural selection, the fossil record, speciation and macroevolution.

2. **Mode of Instruction.**

	Units	**Hours per Unit**	**Benchmark Enrollment**
Lecture	____3____	_____1___	____40____
Seminar	_____	_____	_____
Laboratory	_____	_____	_____
Activity	_____	_____	_____

3. **Justification and Learning Objectives for the Course.** (Indicate whether required or elective, and whether it meets University Writing, and/or Language requirements) *[Use as much space as necessary]*

   Evolutionary Biology is a required course for students earning a Bachelor of Science in Biology and a Bachelor of Science in Biology with an emphasis in Cell and molecular Biology. Evolution is a central unifying theme in biology and is thus essential for a well-rounded education in biology.

   Students who successfully complete this course will be able to:
   - Describe the theory of natural selection
   - Explain how new species arise
   - Construct a phylogenetic tree
   - Explain the mechanisms which underlie evolution at the molecular level

4. **Is this a General Education Course** **YES** **NO**
   If Yes, indicate GE category:

A (English Language, Communication, Critical Thinking)	
B (Life Sciences)	
C (Fine Arts, Literature, Languages & Cultures)	
D (Social Perspectives)	
E (Human Psychological and Physiological Perspectives)	

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

Evidence For Evolution
Population Genetics
Molecular Evolution
Quantitative Genetics
Adaptation and natural selection
Speciation
The Reconstruction Of Phylogeny

Classification And Evolution
Evolutionary Biogeography
The History Of Life
Evolutionary Genomics
Evolutionary Developmental Biology
Rates Of Evolution
Coevolution
Extinction And Radiation

6. References. *[Provide 3 - 5 references on which this course is based and/or support it.]*

Gould, SJ (2002). The Structure of Evolutionary Theory. Oxford Univ. Press.
Strickberger, MW (2004). Evolution, 3rd edition. Jones & Bartlett Pub.
Mayr, E. (2002). What Evolution Is. Basic Books.
Futuyma, DJ (1998). Evolutionary Biology, 3rd Edition. Sinauer
Ridley, M. (2003). Evolution, 3rd edition. Blackwell.

7. List Faculty Qualified to Teach This Course.

Dr. Amy Denton

8. Frequency.
a. Projected semesters to be offered: Fall _____ Spring __x___ Summer _____

9. New Resources Required.
a. Computer (data processing), audio visual, broadcasting needs, other equipment
b. Library needs
c. Facility/space needs

10. Consultation.
Attach consultation sheet from all program areas, Library, and others (if necessary)

11. If this new course will alter any degree, credential, certificate, or minor in your program, attach a program modification.

__Nancy Mozingo and Amy Denton_____5 Dec 03_____
Proposer of Course Date