

CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

NEW COURSE PROPOSAL

PROGRAM AREAS BIOLOGICAL AND PHYSICAL SCIENCES

- 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.]*

PHYS 490. TOPICS IN PHYSICS (3)

Three hours of seminar per week.

Prerequisites: Upper division standing and consent of instructor.

In-depth analysis of topics in applied physics. Topics vary each semester. Repeatable by topic.

2. Mode of Instruction.

	Units	Hours per Unit	Benchmark Enrollment
Lecture	_____	_____	_____
Seminar	<u>3</u>	<u>1</u>	<u>20</u>
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]*

Required for Applied Physics Minor

The course provides an in-depth analysis of topics in applied physics which may not be addressed thoroughly in other courses. Students are introduced to research at the forefront of the field and benefit from the specific expertise of the instructor.

Through this course, students will be able to

- Identify specific issues within applied physics.
- Apply the appropriate analytical tools to address specific issues within applied physics.
- Summarize and report findings related to the description, assessment and/or solution of specific issues in applied physics.

This course is not designed to satisfy the University Writing or Language requirements.

- 4. Is this a General Education Course** YES NO

If Yes, indicate GE category:

A (English Language, Communication, Critical Thinking)	
B (Mathematics & 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]*

Sample course outline: Medical applications of lasers

Laser-tissue interaction
Laser ophthalmology
Laser cardiology: diagnosis and therapy
Laser tomography
Lasers in urology and lithotripsy
Lasers in dermatology
Lasers in dentistry
Laser safety in medicine

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

References for sample course outline:

Medical Applications of Lasers, ed. D.R.Vij and K.Mahesh. Kluwer, 2002. (ISBN 0-7923-7662-5).

A Guide to Laser Safety, A.R.Henderson. Chapman and Hall, 1997.

<http://www.ece.utexas.edu/bell/>

Other materials selected by the instructor.

7. List Faculty Qualified to Teach This Course.

Physics Faculty

8. Frequency.

a. Projected semesters to be offered: Fall X Spring X Summer

9. New Resources Required.

a. Computer (data processing), audio visual, broadcasting needs, other equipment

None

b. Library needs

Standard University library facilities

c. Facility/space needs

None

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.

 Geoff Dougherty 1/8/03
Proposer of Course Date