PROPOSAL TO OFFER A MINOR IN FALL 2003

Proposed Name of Minor:

Applied Physics

Faculty Proposing Minor:

Geoff Dougherty, Ph.D.

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1. Catalog Description:

Minor in Applied Physics (25 units)
The Applied Physics Minor introduces the fundamental concepts of physics and applies them to the high-tech environment of digital diagnostic imaging. The program stresses transferable skills and critical thinking, and will supplement students' majors to provide further opportunities for employment within the health-care and associated fields.

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2. Justification for Proposed Minor (< 100 words):

The emphasis within physics on fundamental concepts and analytic training enables students to apply their understanding to new scientific and technological frontiers that are developing rapidly at the interface between more traditional disciplines. This Minor would prepare students for a career in imaging, biomedical technology or health-related fields. It would be particularly effective in combination with a major in Computer Science, Math or Biology. No courses are required beyond those already in place, or planned collaboratively.

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3. Total Number of Units in the Minor (including pre-/ co-requisites):

25-26 UNITS

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4. Lower-Division Requirements (including pre-/ co-requisites):

12 Units Required

MATH 150 Calculus I (4)
PHYS 200 General Physics I (4)
PHYS 201 General Physics II (4)

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5. Upper-Division Requirements (including pre-/ co-requisites):

10 Units Required

PHYS/COMP/MATH 352 Digital Image Processing (3)
PHYS/BIOL/COMP/HLTH 434 Introduction to Biomedical Imaging (3) **or** PHYS/COMP 435 Image Analysis and Pattern Recognition (3)
PHYS/BIOL 464 Medical Instrumentation (4)

6. Lower and Upper-Division Electives (if any):

3-4 Units Required

One of the following:
COMP 410 Computer Applications in Biomedical Fields (3)
COMP 431 Bioinformatics (4)
COMP 490 Topics in Computer Science (3)

7. Additional Facilities/ Faculty/ Resources Needed to Offer the Minor (if any):

No other facilities/faculty/resources are needed beyond the CSUCI planned facilities and faculty.

Review and Approval:

1. Curriculum Committee Approval:

Curriculum Chair: _____

2. Academic Senate Approval:

Chair, Academic Senate: _____ Date:

3. Administration Approval:

President (or designee): _____