CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

NEW COURSE PROPOSAL

PROGRAM AREAS _____BIOLOGICAL AND PHYSICAL SCIENCES, MATH AND COMPUTER SCIENCE

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.]*

   COMP 362. OPERATING SYSTEMS (3)
   Three hours of lecture in the lab per week.
   Prerequisite: COMP 262.
   Examination of the principal types of systems including batch, multi-programming, and time-sharing. Networked systems are also discussed. The salient problems associated with implementing systems are considered including interrupt or event driven systems, multi-tasking, storage and data base management, and input-output. Emphasis will be placed on some of the simple algorithms used to solve common problems encountered such as deadlocks, queue service, and multiple accesses to data. Projects will be implemented to reinforce the lectures.

2. **Mode of Instruction.**

	Units	**Hours per Unit**	**Benchmark Enrollment**
Lecture	___3_____	___1_____	__24_____
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]*

   The course is a required course for Computer Science majors according to accreditation guidelines.

   Through this course, students will be able to

   - Discuss the role of modern operating systems
   - Design co-operating sequential processes
   - Explain the interaction between hardware and software
   - Organize and express ideas clearly and convincingly in oral and written forms.

   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]*

Introduction to Operating Systems
Processes and Threads
Critical sections
Deadlock
CPU scheduling
Memory management
File systems
Networks
Protection and Security

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

Siberschatz, Galvin and Gagne, *Applied Operating System Concepts*, Wiley, 2000. ISBN 0471365084
Haviland, Gray and Salama, *UNIX System Programming Second Edition*, Addison Wesley, 1998. ISBN 0201877589
Bovet and Cesati, *Understanding the Linux kernel*, 2nd edition (2002) O'Reilly ISBN 0596002130

7. List Faculty Qualified to Teach This Course.

All Computer Science faculty.

8. Frequency.
a. Projected semesters to be offered: Fall ___X__ Spring _X____ Summer ___X__

9. New Resources Required.

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

Use of existing computer lab.

b. Library needs

none

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.

_____

Proposer of Course Date