



SACRAMENTO  
STATE

# Course Change Proposal Form A



Academic Group (College): <b>Engineering and Computer Science</b>	Academic Organization (Department): <b>Electrical and Electronic Engineering</b>	Date: <b>September 26, 2006</b>
Type of Course Proposal: New <input checked="" type="checkbox"/> Change <input type="checkbox"/> Deletion <input type="checkbox"/>	Department Chair: <b>Dr. Suresh Vadhva</b>	Submitted by: <b>Dr. Pradeep Setlur</b>
Does this course fulfill a requirement for single-subject or multiple subject credential students? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	For Catalog Copy: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> CCE: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Semester Effective: Fall <input type="checkbox"/> Spring <input checked="" type="checkbox"/> <b>2007</b>

This course replaces experimental course Subject Area (prefix) and Catalog Number (course number):	N/A
This Catalog Number (course number) is being replaced:	N/A

<b>Change from:</b>		Units:
Subject Area (prefix) & Catalog No. (course no.): N/A	Title: N/A	N/A
<b>Change to:</b>		Units:
Subject Area (prefix) & Catalog No. (course no.): ENGR 2	Title: Robotics Explorations	3

**JUSTIFICATION:**

Young adults today perceive the field of engineering and science to be extremely difficult and boring. Further, exercises that help students understand the applications of scientific concepts to real world problems is lacking. There is an urgent need to turn these perceptions of fear for the engineering profession into one of inquisitiveness, and possibility. This can be achieved by providing an interesting challenge in a friendly environment that will additionally give the students a sense of achievement.

**NEW COURSE DESCRIPTION:** (Not to exceed 80 words, and language should conform to catalog copy. See <http://www.csus.edu/acaf/univmanual/crspsl.htm> - Guidelines for Catalog Course Description)

Introduction to robotics. History of robotics, recent advances in the field, common devices such as sensors and actuators. Use of modular robotic kits. Students will be assigned competition based projects.

Note:

Prerequisite: Algebra and Trigonometry

Corequisite:

CAN (California Articulation Number):

Graded: Letter  Credit/No Credit

Instructor Approval Required? Yes  No

Course Classification (e.g., lecture, lab, seminar, discussion):  
04

Title for SIS+/CMS (not more than 30 characters)  
Robotics Explorations

Cross Listed?  
Yes  No

If yes, do they meet together and fulfill the same requirement, and what is the other course.

How Many Times Can This Course be Taken for Credit? Once

Can the course be taken for Credit more than once during the same term? Yes  No

# FOR NEW COURSE PROPOSALS OR SUBSTANTIVE CHANGES ONLY:

**Description of the Expected Learning Outcomes:** Describe outcomes using the following format: "Students will be able to: 1), 2), etc."  
See the example at <http://www.csus.edu/acaf/example.htm>

1. Develop effective problem solving skills through hands-on projects
2. Learn to work in teams to solve problems
3. Develop effective communication skills (oral and written)
4. Gain exposure to the nature of technical challenges faced in the field of Robotics.
5. Identify available resources in terms of the latest technology as well as the sources of information for robotics.

\*\*Attach a list of the required/recommended course readings and activities [Note: it is understood that these are updated and modified as needed by the instructor(s).] This attachment should be forwarded only to your Dean's office, not Academic Affairs.

**Assessment Strategies:** A description of the assessment strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers) which will be used by the instructor to determine the extent to which students have achieved the learning outcomes noted above:

1. Successful completion of projects
2. Periodic oral and written reports
3. Team project

For whom is this course being developed?

Majors in the Dept \_\_\_ Majors of other Depts \_\_\_ Minors in the Dept \_\_\_ General Education \_\_\_ Other X

Is this course required in a degree program (major, minor, graduate degree, certificate)? Yes \_\_\_ No X  
If yes, identify program(s):

Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer facilities, faculty, etc.)? Yes \_\_\_ No X  
If yes, attach a description of resources needed and verify that resources are available.

Indicate which department or programs will be affected by the proposed course (if any). ACE Program

*The Department Chair's signature below indicates that affected programs have been sent a copy of this proposal form.*

**Approvals:** If proposed change, new course or deletion is approved, sign and date below. If not approved, forward without signing to the next reviewing authority, and attach an explanatory memorandum to the original copy.

Signatures:	Date
Department Chair: <i>Suresh Yadhwani</i>	11/21/2006
College Dean or Associate Dean: <i>[Signature]</i>	11/6/06
CPSP (for school personnel courses ONLY)	
Associate Vice President and Dean for Academic Programs	

Distribution: Academic Affairs (original), Department Chair and College Dean. Dean's office to send original after approval to Academic Affairs, at mail zip 6016. An electronic copy must also be sent.