



SACRAMENTO  
STATE

# Program Proposal Form B

Attachment A  
Faculty Senate Agenda  
October 7, 2010

<b>Academic Group</b> ( <i>College</i> ): ECS	<b>Date of Submission to College Dean:</b>
<b>Academic Organization</b> ( <i>Department</i> ): CpE	<b>Requested Effective:</b> Fall <u>X</u> , Spring __, 2010 __.
<b>Department Chair:</b> Suresh Vadhva	<b>Contact if not Department Chair:</b>
<b>Title of the Program</b> ( <i>Please be specific; indicate minor, undergraduate or graduate degree, etc.</i> ): CpE Masters Program	
<p><b>Type of Program Proposal:</b></p> <p><u> X </u> <b>Modification in Existing Program:</b></p> <p style="padding-left: 40px;"><input checked="" type="checkbox"/> Substantive Change</p> <p style="padding-left: 40px;"><input type="checkbox"/> Non-Substantive Change</p> <p style="padding-left: 40px;"><input type="checkbox"/> Deletion of Existing Program</p> <p><u>   </u> <b>New Programs</b></p> <p style="padding-left: 40px;"><input type="checkbox"/> Initiation (Projection) of New Program on to Master Plan</p> <p style="padding-left: 40px;"><input type="checkbox"/> New Degree Programs</p> <p style="padding-left: 80px;"><input type="checkbox"/> Regular Process</p> <p style="padding-left: 80px;"><input type="checkbox"/> Fast Track Process</p> <p style="padding-left: 80px;"><input type="checkbox"/> Pilot Process</p> <p style="padding-left: 40px;"><input type="checkbox"/> New Minor, Concentration, Option, Specialization, Emphasis</p> <p style="padding-left: 40px;"><input type="checkbox"/> New Certificate Program</p> <p><b>PLEASE NOTE:</b> Form B is to be used only as a Cover Form. Additional information is requested for each of the above as noted in the corresponding procedure in the Policies and Procedures for Initiation, Modification, Review and Approval of Courses and Academic Programs found at <a href="http://www.csus.edu/umannual/acad.htm">http://www.csus.edu/umannual/acad.htm</a></p>	
<p><b>Briefly describe the program proposal (new or change) and provide a justification.</b></p> <p>The proposed change is to offer the Plan C comprehensive examination to the culminating experience.</p> <ol style="list-style-type: none"> <li>1. Students will have to be approved for the Plan C option by one of the elective area faculty advisors and the graduate coordinator.</li> <li>2. The comprehensive examination will be in written form.</li> </ol> <p>This change is justified by the following considerations...</p> <ol style="list-style-type: none"> <li>1. In line with what appears to be a national trend in the discipline, many Universities are now offering a culminating experience comprehensive examination option for the MS degree, which requires no industrial experience qualification and has no oral component. Other campuses in the CSUS system with computer engineering masters programs are gradually following suit, in order to remain competitive.</li> <li>2. There is a very high student demand and a very limited support budget for both the faculty workload and technical facilities required by culminating experience plan B. The program cannot support the current percentage of students, who are attempting to graduate under plan B. The proposed plan C changes will make that plan much more attractive to students and reduce the heavy demand for plan B.</li> </ol>	

## NEW PROGRAM

### **Requirements – CpE Master of Science Degree**

Units required for MS: 30, (including 2-5 units of 500-level courses for Plan A and Plan B) and the remaining units from the list of required and elective courses. Minimum required GPA: 3.0 Students may take no more than 6 units of CPE 299 to fulfill the unit requirements. Only those courses completed within seven years prior to date of graduation will satisfy course requirements.

### **Advancement to Candidacy**

Each student must file an application for Advancement to Candidacy indicating a proposed program of graduate study. This procedure should begin as soon as the classified graduate student has:

- removed any deficiencies in the admission requirements;
- completed at least 12 units of graduate level (200 series) Computer Engineering courses with a minimum 3.0 GPA; and
- passed the Writing Placement for Graduate Students (WPG) or secured approval for a WPG waiver.

Students must have been advanced to candidacy before they can register for Plan A, B or C. The student should fill out the form after planning a degree program in consultation with a Computer Engineering graduate advisor. The completed form must be signed by the CPE Graduate Coordinator and is then returned to the Office of Graduate Studies for approval.

### **Culminating Requirement (0-5 units)**

Plan A, B or C (Advanced to candidacy and graduate coordinator's permission).

### **Notes:**

Before registering for CpE 500, students choosing Plan A, Master Thesis (5 units), or Plan B, Master Project (2 units), must submit an approved Topic Form to the Graduate Coordinator. As soon as possible after the student has registered for CpE 500, it is expected that the student will select a committee appropriate to the chosen plan of study. The Thesis Committee is to consist of the student's Thesis Advisor, who is the Chairperson of the student's Thesis Committee, and two other faculty members. The Project Committee is to consist of the student's Project Advisor, who is the Chairperson of the student's Project Committee, and one other faculty member. The committee members selected by the student must be approved by the Computer Engineering Graduate Coordinator.

## OLD PROGRAM

### **Requirements – CpE Master of Science Degree**

Units required for MS: 30, including 2-5 units of 500-level courses and the remaining units from the list of required and elective courses. Minimum required GPA: 3.0 Students may take no more than 3 units of CPE 299 to fulfill the unit requirements. Only those courses completed within seven years prior to date of graduation will satisfy course requirements.

### **Advancement to Candidacy**

Each student must file an application for Advancement to Candidacy indicating a proposed program of graduate study. This procedure should begin as soon as the classified graduate student has:

- removed any deficiencies in the admission requirements;
- completed at least 12 units of graduate level (200 series) Computer Engineering courses with a minimum 3.0 GPA; and
- passed the Writing Placement for Juniors (WPJ) or secured approval for a WPJ waiver.

Students must have been advanced to candidacy before they can register for Plan A or B. The student should fill out the form after planning a degree program in consultation with a Computer Engineering graduate advisor. The completed form must be signed by the CPE Graduate Coordinator and is then returned to the Office of Graduate Studies for approval.

### **Culminating Requirement (2-5 units)**

CpE 500 Plan A OR Plan B (Advanced to candidacy and graduate coordinator's permission)

**Thesis (Plan A)** must be orally presented and defended, approved by the student's Thesis Committee, and approved by the Electrical and Electronic Engineering Graduate Coordinator prior to submittal of the Thesis to the Office of Graduate Studies.

**Project (Plan B)** is to culminate in a report and a device or simulation, which is to be demonstrated to the student's Project Committee. The Project Report must be approved by the student's Project Committee and approved by the Computer Engineering Graduate Coordinator prior to its submittal to the Office of Graduate Studies.

**Comprehensive Exam, (Plan C)** this option must be approved by their elective area advisor. Students will not receive degree credit for CpE 500. Students must complete a total of 30 units of approved course work, including core, elective core, and elective courses. Students must advance to candidacy for the degree, and take a written comprehensive exam that will cover all of the material in their MS Program of Study. Students who fail may be permitted to retake the exam at its next offering; however, those who fail the exam a second time will not be allowed to continue with the Plan C option. **NB:** It should be recognized that industry puts a high value on project and thesis problem-solving experience, and the demonstration of technical writing skills that these options require. Graduating under the Plan C option will not provide that experience. Students taking this option should consider, with their elective area advisors, other ways of gaining that valuable experience, such as through an CpE 299 Special Problems course.

**Approvals:**

Department Chair:	<u>Srinivas Yeddu</u>	Date:	<u>6/4/2010</u>
College Dean:	<u>[Signature]</u>	Date:	<u>6/4/10</u>
University Committee:	<u>[Signature]</u>	Date:	<u>9/22/10</u>
Associate Vice President and Dean for Academic Affairs:	<u>[Signature]</u>	Date:	<u>09/23/10</u>