

CS BOV



# Overview of the CS Strategic Plan

*presented by*

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*Innovation in Education*

*Creation of Technology through Business*

*Preparation of Great Computer Scientists*

*Sarkey's Premier Energy Facility*



To produce engineering graduates sought among the first by industry and investors for excelling in a rapidly changing technology-driven world both as engineers and technology managers in existing companies, and as leaders in starting new, technology-based companies. We will accomplish our vision by transforming our faculty expectations, our approach to student mentoring, and by adjusting our curricula in order to align with the realities of the new economy. We will succeed by creating meaningful partnerships with industry as well as the public sector to become as dynamic as the constituencies we serve.



## 1.1 Produce knowledge delivery products.

1.1a (CS) Develop distance education MS degree program(s).

- Target one or two specializations within the field of CS.
- Visit other institutions that have been successful in using distance education for graduate programs.
- Hire two new faculty members by Fall 2000.

1.1b (CS) Develop, license, and market new "dynamic" knowledge delivery media.

- Develop prototype by Fall 2000 based on CS 1323.
- Fully integrate into CS 1323 by year two, fully integrated in CS 1333 by year three.



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## 1.2 Integrate state-of-the art learning techniques.

### 1.2a (CS) Track and utilize state-of-the-art technologies.

- CS course notes published on web.
- Online presence of CS courses.
- At least one “flagship” course at each level.

### 1.2b (CS) Increase summer course offerings.

- Video tape fall spring courses to aid in summer instruction.



## **2.1 Raise research and graduate education to top 25 status.**

- Aggressively pursue top graduate students.
- Develop 5-year combined BS/MS program.
- Work in teams to generate cross-cutting proposals.

## **2.2 Increase technology transfer.**

- Target software engineering as a generator of technology licenses and spin-off companies.
- Invite industrial experts to educate faculty and students in the areas of leadership and entrepreneurship.



## **2.3 Increase industrial sponsored research activities.**

- Increase interaction with industry; learn their needs.
- Invite industrial experts to educate faculty and students on issues such as licensing of intellectual property.
- Facilitate industrial sponsorship of research, equipment and software.



## 3.1 Accreditation

## 3.2 Student credentials in top 10.

- Strengthen our high school recruitment activities.
- Increase industrial sponsorship of scholarships.
- Develop 5-year combined BS/MS program.
- Accept credit for advanced standing students.

## 3.3 Graduates sought by top companies.

- Facilitate educational modules in "hot technology" areas with strong industrial support and input.



### **3.4 Required use of a computer for achieving success.**

- Refer to Goals 1.1a, 1.1b, 1.2a, 1.2b.
- New core computing and/or information technology course(s) for all engineering schools in the COE.
- State-of-the-art laboratories for computer science education.
- Permanent endowments to support the ongoing need to periodically update the laboratories used for computer science education.

### **3.5 Increase undergraduate retention and graduation rates.**

- Communicate better the expectations and requirements placed on students that enter our program.
- Identify other techniques to improve retention.



#### **4.1 Collaborative efforts with Geosciences and the Sarkey's Energy Center.**

- Build upon our current successes in collaboration.
- Team with Geosciences, ECE, Williams Communications, and others to create terabit testbed for networking and distributed high-performance computing.

#### **4.2 Formalize the interrelationship between Engineering, Geosciences and the Sarkey's Energy Center.**