

2012/13 PLANNING FORM

INTRODUCTION

This form is intended to present the plans for the whole college. Please briefly describe the processes and actions that your college will undertake in 2012/13 and up to three years beyond that address the planning actions below and how these connect to Academic Affairs' priorities of **academic quality** (access, assessment, research, learning-centered and ongoing programs), **student engagement**, and **shared values** (collaboration, technology, revenue enhancement, and structural alignment based on evidence). Indicate how your plans include assessment.

The planning document should be five pages or less, using 12-pt Times New Roman font.

In addition to the 2012/13 planning document, please briefly (no more than one page) reflect on the college's achievement of outcomes set in last year's plan (link to WASC website: http://irqry.csun.edu:8080/openweb/wasc/main/planning_page_five.html).

Initial drafts are due to the Provost's Office by **November 1, 2011**; **final drafts** are due to the Provost's Office by **December 21, 2011**. Please submit ***by email only*** to **Harry Hellenbrand**, with copies to **Diane Stephens and Edith Winterhalter**.

Planning Actions

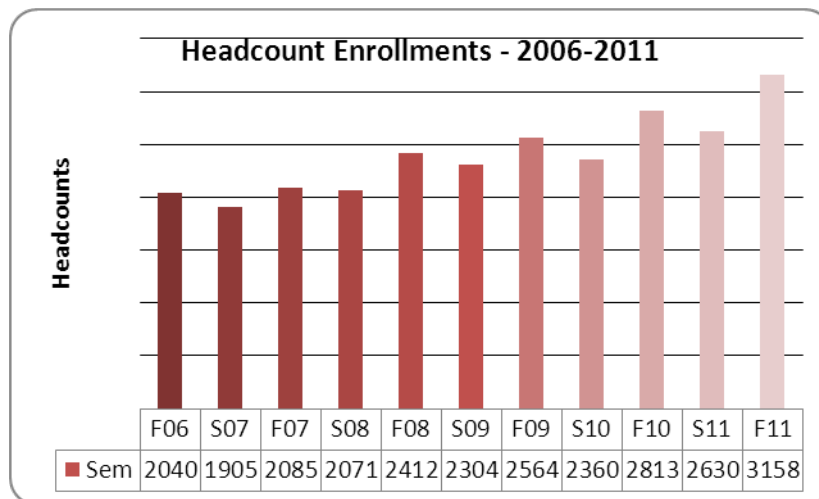
1. Demonstrating Student Success (through advising, retention, graduation rates, student involvement in faculty research, and assessment)
2. Hiring and Supporting New Faculty
3. Making Operational and Structural Changes
4. Utilizing Facilities and Technology to Support Mission
5. Increasing Revenue Generation

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COLLEGE/UNIT: Engineering and Computer Science

I. Demonstrating student success (through advising, retention, graduation rates, student involvement in faculty research, assessment)

Enrollments in the college have grown by 54.8 % over the past 5 years from 2,040 students in fall 2006 to 3,158 students in fall 2011. All programs in the college have experienced growth during this period. Our incoming freshman class of 542 in fall 2011 is more than double the freshman enrollment of 242 from fall 2006.



Most of the lower division advisement is handled in our Student Services Center. During the 2011/12 AY we

changed our FTF advisement process to small group sessions due to the large number of incoming students. However, for the 2012/13 AY we have proposed a hybrid process using individual major advisement and small group class registration. This is presently under review and will be implemented pending approval by the college. This will allow us to accommodate the increase in students without having to increase the professional staff in our office. We will however need to use student assistants (peer advisors) to help with the small group registrations.

The College will also be seriously looking to improve student retention and graduation in the coming plan year. In particular we need to have early intervention strategies in place to assist or redirect students as appropriate. We will be requesting Institutional Research to analyze in 2011-2012 our undergraduate retention/graduation rates of CSUN freshman, local CC transfers, all CC transfers, 4-yr transfers and international students. We need this data so we can focus on the problem areas; in the interim we will continue to track and monitor student performance and academic success through our Facilitated Academic Workshops (FAWS) program and tutorial services offered through our Student Services Center. These programs have been supported with lottery funds and campus quality fee funding in the past and we will need to develop alternate sources of support such as external grants to assure that they can be sustained in the long term.

Our recent five year, \$ 5.5 M, HSI-STEM grant from the Department of Education (<http://blogs.csun.edu/news/2011/10/engineering-grant/>) is timely since it focuses on the graduation of under-represented minorities in our disciplines with an emphasis on transfer students from our feeder community colleges. The college continues to host two outstanding events that demonstrate student success. Our annual Project Showcase event in April includes

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demonstrations and displays as well as breakout sessions with oral presentations where the top teams from each program as selected by the department/program compete for prizes. The projects are judged by a distinguished panel of industry experts.

As one can see from the program, http://www.ecs.csun.edu/ecs/sdps/Project_Showcase_2011.pdf the student projects are diverse and interesting and cover a wide range of areas. The other signature event in the college is the biannual Tech Fest event that connects employers and alumni with our graduates. The most recent Tech Fest event in September 2011 drew over 35 companies from a range of industries with a wide portfolio of open positions. It is noteworthy that some of the alumni who returned to CSUN to recruit found their first career position through past Tech Fest events.

Assessment plays an important role in our academic programs. The undergraduate programs in the college are actively engaged in assessing student learning outcomes and use the results from the evaluations to make improvements to the program. Each department has an industry liaison council that works closely with the programs in this process. There is a college level program review and assessment committee (PRA) which includes representatives from the college industry advisory board that meets biannually to review progress and suggest improvements as appropriate. Also there is a college level assessment committee made up of faculty representatives that meets regularly to share information on best practices in assessment across the college's programs. One of the concerns is the increasing impact on faculty workload and funding for assessment activities. Our next ABET accreditation visit is in fall 2013 and the programs are on track to submit their self-study reports in spring 2013.

II. Hiring and Supporting New Faculty

During the past year we successfully completed five of the eight searches for tenure-track faculty in the college's academic departments. For 2012-13 the college is anticipating recruiting eight new faculty including five positions that were allocated this year and three positions that were rolled over from last year. This is on track with the college's plans for new faculty (18 new faculty in 3 years) and comes at a time when we are experiencing rapid enrollment growth and the loss of senior faculty to retirements and resignations. The new faculty who joined the college this year have been working closely with their respective department chairs and colleagues to orient them to the CSUN culture. A series of events including one on one meetings with the dean, a luncheon with college leaders, and an introduction to the college industry advisory board were organized during the fall 2011 semester. We feel it is especially important for our new hires to be connected with our industry supporters so that they can explore suitable applied research projects. During the spring 2012 semester the new faculty will be invited to make brown bag presentations on their research interests. Our goal is to increase interactions between the new faculty and colleagues in the college to make them feel at home.

We have received partial support for new faculty start-up costs (50 %) from the Provost's office; with the balance to be covered by the college. This is going to be a challenge next year given the budget situation and we will need to look to outside support to supplement university funds to provide incoming faculty with appropriate start up packages. An associated challenge is finding

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research laboratory space for new faculty. Presently the departments are looking internally to see how they might be able to accommodate this need. This poses a challenge given the college's growth. As we seek to increase applied research, grants and contracts, this is an area that needs to be addressed in the near future across the campus.

III. Making Operational and Structural Challenges

The recent addition of a technician position is timely and necessary given our current situation and the upcoming accreditation visit in 2013. With the growing enrollments in the college a greater reliance on a sharing of facilities across disciplines is to be expected. The CECS technical shop needs to be reorganized and restructured to accommodate the needs of all programs. One possibility is the creation of a larger, shared senior design lab for all of engineering and computer science. This shared lab could have a centralized "machine shop" with a staff person present to safely supervise and assist students with the equipment. Multi-disciplinary projects would be strongly encouraged; some of these projects might be ongoing, evolving, multi-year activities – in real life, students will rarely have the opportunity for a clean start on a new project; they will be hired on to work on a complex, existing project. Some of these projects could have "design clinic" aspects. CECS technical services personnel should have more access and oversight for all technical activities across the college. Student access and safety training must be better monitored and managed. We plan to monitor major shop equipment replacement needs annually and are poised to seek institutional and industry support through instructional needs funding and College and Department IABs.

IV. Utilizing Facilities and Technology to Support Mission

The Information Systems group is comprised of 5 full-time employees maintaining 1,300 desktops, laptops and servers. They support over 100 major applications and about 10 operating systems. The 900 computer lab machines are in 36 labs. Due to the increase in demand for the services provided by the IS group from the additional faculty and students that have come in during 2011-2012, and the expected increase in 2012-2013 the recent approval of the IS tech position is really important. Without continued support the IS group will be unable to cope with the increased demands for service from the college's programs. An area of focus during the coming year will be to streamline services and avoid proliferation of software in some labs in close consultation with the department chairs and the academic liaisons.

CECS plans to have approximately 20% - 30% of the labs in a thin/virtual environment in the next 3 -4 years. 2012-2013 will mark the start of thin client testing of select labs which includes the entire lab, instead of just a few machines being thin and the rest being "thick" in a lab. This change would allow the individual departments to purchase only the thin-client hardware, and the campus will provide the infrastructure. We plan to have a few engineering and computer science applications offered through the campus virtual environment (Citrix) in 2012-2013. Testing of applications will start in 2011-2012. Applications that will be tested and deployed in this environment are not graphics or CPU intensive.

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We are actively participating in the project to leverage the buying power of the California State University system to reduce the cost of software licenses per campus. The first package that we are working on is LabView from National Instruments. We have been able to get some very attractive pricing from the company based on a CSU-wide site-license. We are working with the purchasing department at the Chancellor's Office on this endeavor. We plan to work on additional software licenses that are used extensively by the programs in the college during the upcoming year.

We will continue to monitor IT purchases in the CECS, and make necessary recommendations. The server infrastructure is now being refreshed on approximately 5-year cycle, instead of the industry standard 3-4 year cycle. The use of the CECS Common Lab has continued to be high, especially in the afternoon hours. Again our growing enrollments have strained our computing resources. We are doing our best to balance this increasing demand by using the RGS software to access CECS workstations from remote sites (home/office) during the "off-hours" of the computer labs. We will be looking to replace the workstations in the common lab due to the combination of heavy usage and aging (over 5 years old in 2012-13).

V. Increasing Revenue Generation

Fundraising and development efforts are of paramount importance to the college and its programs given the budget realities that confront us.

Year	Goal	Achievement	% of Goal
2009-2010	\$1,000,000	\$1,052,235	105.22%
2008-2009	\$750,000	\$1,077,628	143.68%
2007-2008	\$1,100,000	\$860,095	78.19%
2006-2007	\$807,250	\$763,174	94.54%
4 Year Total	\$3,657,250	\$3,753,132	102.62%

In reviewing the college's performance over the period from 2006-2010 it is apparent that we met our goals when the entire period is taken into

account, largely due to the success from 2008-2010. However, without a dedicated development officer assigned to the college we have fallen short of the target in 2010-11 (\$ 644K against a target of \$ 1 M). The College is fortunate to have a dedicated Industry Advisory Board (IAB) at the college level, strong Industry Liaison Councils at the department level, and a few long term donors that have been instrumental in helping the college during the past year. With the assistance of the College IAB, faculty have been successful in obtaining grants and contracts to support design clinics; exploring industry support for indirect use of supervised labs and faculty technical expertise through workshops and seminars.

The recent conversations with University Advancement are a start towards the restructuring that needs to occur for the college to effectively pursue, cultivate and steward prospective donors that lead to significant contributions.

The College has three active Centers that enable faculty to connect with industry and attract grants and contracts. Besides these activities, two of our centers are planning on organizing technical conferences and workshops during the coming year to increase revenue generation.

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New programs through Extended Learning:

Strategies include increasing online and hybrid offerings, working closely with industry partners in emerging areas of interest such as energy, robotics, software engineering, sustainability, and construction management. We are also actively looking at offering entire degree programs online. We are seeking to re-establish the online Masters degree in Engineering Management, revise curricula and offer the program using Moodle, while providing more visibility for the Minor in MSEM and the Quality Engineering Certificate program. We are exploring a fully online Masters degree program in Electrical/Systems Engineering, as well as a new Masters degree in Computer Engineering. On the self-support side, CECS has developed an interdisciplinary Masters degree in Assistive Technology Engineering which was launched in fall 2011 with a cohort of 17 students. Discussions are underway with Civil Engineering and Construction Management to develop self-support programs based on regional need.

CECS Planning Process for the 2012-2013 Academic Year

Date	Activities
Sept 21 (Planning Committee Meeting)	Distribute template for 2012-2013 planning process.
Sep 21 – Oct 12	College Departments and units. Review previous year's college plan and department/unit plans for reference. What are your plans for 2012-2013? Department and Unit reports due Oct 13 to Dean's Office
Oct 19 10:00 – 11:30am (Planning Committee Meeting)	Planning Committee meets to synthesize department plans into a college plan
Oct 20 – Nov 01	Prepare Draft (5 pages or less) of the 2012-2013 College Planning Document and submit to Provost (Dean). Also share with College IAB during Oct 21 st meeting.
Nov 01 – Nov 28	Incorporate feedback from Provost on Draft Planning Document. Circulate Draft document to faculty, staff, and IAB. Comment period. Comments due Monday, November 28 th to Dean's Office .
Nov 28 – Dec 05	Incorporate Comments. Circulate Revised Planning Document to faculty and staff. Present Revised Planning Document at College Meeting on December 9 th .
Week of Dec 20	Send 2012-2013 Revised Draft College Plan to Provost
Dec 21 – Feb 8	Comments from Provost. Rewrites if needed.
Wed Feb 8 10:00 – 11:30am (Planning Committee Meeting)	Planning Committee meets to review final College Planning Document.
Feb 15	Final College Planning Document sent to the Provost