

In Support of Excellence¹

The construction industry has a remarkable history of contributions to the nation, and will continue providing a variety of services to society. Considered a bellwether industry, it touches every economic sector and accounts for as much as ten percent of the gross national product. The industry must be aware of the issues driving contemporary society and anticipate how it will continue to be useful.

The globalization of the economy, heightened competitiveness, and the use of rapidly evolving information technology are social issues that are causing significant structural changes in the organization and management of businesses throughout the nation. In California, the adjustment to the bursting of the high-tech bubble in 2000 and the housing bubble in 2008, demographic changes, the quality of the work force, changes in government regulation, transportation issues, an aging infrastructure, and a persistent concern for the environment are the leading concerns of business.

What are the implications of these developments for the construction organizations operating in the new millennium? The firms involved in construction work are increasingly expected to assume a wider role in the overall delivery of projects, to accept greater risk, and to produce more high-quality work, faster, and more economically. Under these circumstances, construction organizations must be flexible, efficient, and able to process substantial amounts of information quickly and effectively. They must be able to maintain their focus in the midst of an ambiguous, complex work environment. Innovative, prompt problem solving, risk reduction, productivity enhancement, safety, profitability, and improving the delivery of services will continue to be goals. Historically, teams composed of subcontractors and a firm's own forces have executed the required construction work. While this will no doubt continue, the widening responsibilities that construction companies are assuming, the pressure to expand market share and the need to alleviate the burden of supporting employees through fallow periods will lead to increased out-sourcing and the deployment of task-based interdisciplinary teams. Strategic alliances will be formed to procure, design, build, and manage construction work. Within companies themselves, efficiency and profitability will be encouraged through the establishment of small profit centers, at the center of which will be managers with the entrepreneur's spirit. Diverse skills, creativity, adaptability, resourcefulness, and the determination to succeed will be the hallmarks of the successful players in this environment.

The Construction Management program at CSUS will continue to provide the talented and diverse management graduates that the companies competing in this environment require. Accordingly, the vision statement is as follows:

The CSUS Construction Management Program faculty and staff will consistently attain the highest standards in the development of construction entrepreneurial excellence

¹Revised 1-09

Mission

The principal mission of the Construction Management program is to continue fostering the development of individuals who are qualified upon graduation to perform ethically, responsibly and productively in management positions with construction contractors. Maintaining a construction management program that is vibrant, relevant, and responsive to the students and industry it serves will fulfill the mission. Broad-based fundamental technical and management skill, an understanding of the political, economic, and social issues influencing the industry, sensitivity to moral and ethical issues involving the profession, and effective communication and teamwork skills characterize the CSUS Construction Management Program graduate. Faculty will continue to encourage their students to think like business owners, to independently explore and discover, to recognize education as a life-long endeavor, and to be thoughtful, responsible citizens.

Secondarily, the Construction Management Program will be a source of education, training, and research for organizations performing construction services, when resources permit and demand exists.

Strategies in Support of the Mission

1. Raise the visibility of the construction Management Program on campus and in the community
2. Develop adequate resources and enrollment to support a sustainable² department of Construction Management
3. Maintain the relevancy and effectiveness of the curriculum, adjust as indicated
4. Promote a culture of scholastic achievement and professionalism in the Program
5. Evaluate students' needs and maintain a supportive infrastructure
6. Increase the enrollment of qualified, diverse students
7. Monitor enrollment and academic performance trends, make adjustments as indicated
8. Commit to excellence and innovation in teaching
9. Provide for adequate administrative support
10. Maintain involvement with the construction industry
11. Assess effectiveness using internal and external feedback, make adjustments as indicated
12. Design and construct the Center for Sustainable Design and Construction, a 40,000 square foot instructional and research facility³

² Sustainable, as used here, means having well prepared, motivated, independent students in sufficient number to support a range of classes and frequency of offerings; competent, practice-oriented faculty (75% Full-time, 25% Part-time); and financial support commensurate with enrollment and adequate to support the activities of the CM Program.

³ See § IV for a description of the Center

Section II. Excellence Plan: Position Statements

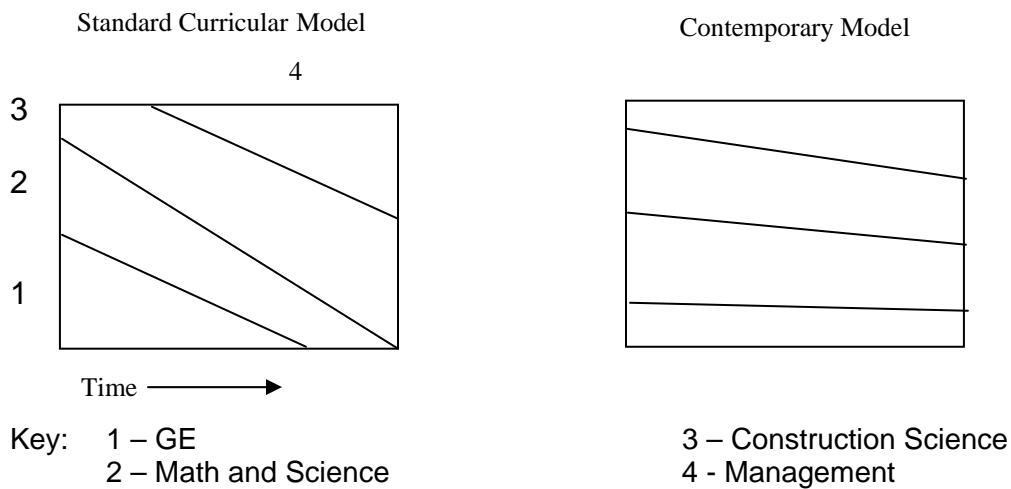
Overall demand for graduates, the rate at which graduates advance in employers' organizations (and ultimately, the positions they hold), the variety of employment in which they are competitive, and industry support are indicators of program quality. The challenge will be to continue to produce high-caliber graduates in the face of decreasing budgets and increasing demands on faculty and students. Ultimately, the quality of the program is a function of:

1. The quality of the curriculum
2. Student quality
3. Faculty quality
4. Program facilities
5. Industry support
6. A sense of community, and
7. The ability of the program to assess its effectiveness

Curriculum

The functional approach to management—focusing on problem recognition, developing plans to achieve established goals, implementing and monitoring those plans, and making the indicated adjustments—permeates the classes in the curriculum. The identification of work packages and their interrelationships, the duration of tasks, the methods for accomplishing the work described in the contract and bidding documents, and in particular the means by which the work will be monitored, are key topics.

The contemporary model for construction education, where fundamental management concepts are introduced in the very first classes in the curriculum and are developed and refined throughout the college experience, is the preferred model:



Regardless of where discussions regarding curriculum lead, the best approach to modifying the curriculum is a “top-down” approach, wherein the skills required of the program graduates are determined first, and the means by which the faculty develop those skills second. The curriculum should be reviewed from time to time to assess its relevance and effectiveness.

Desirable Skills

Success in a Construction Management career results from a person’s ability to identify problems, develop a plan to solve them, communicate the plans to a diverse group of participants and lead the participants to a successful consummation of their effort. The ability to develop effective monitoring tools and redirect the organization so that the successful outcome is assured is central to this effort, and is applicable to the three primary functions of the construction business: procuring, executing and accounting for construction work. Good communication and analytical skills, knowledge of business and the law, sound ethics, a solid foundation in engineering and management, ability to work as a team member, and an understanding of social, political, and economic forces that affect the industry are what distinguish the successful players in this industry.

Principal Learning Categories:

1. Communication skills
2. Critical thinking and analytical skills
3. Knowledge of construction materials, equipment, and processes
4. Engineering knowledge
5. Management knowledge/skills
6. Legal and ethics knowledge and practice
7. Finance, cost development and control
8. Sociopolitical and economic influences

1. Communications Skills

Students should be able to discuss and present ideas orally, graphically, and in writing. The ability to listen effectively and interpret implicit information is essential. Students should graduate with the ability to work effectively on teams, and be able to resolve disputes promptly and fairly.

2. Critical Thinking and Analytical Skill

Critical thinking⁴ – the ability to raise and clearly express vital questions, gather and assess information, recognize points of view, think creatively about alternatives, and come to well-reasoned conclusions – is essential to success in the construction industry and in life.

Knowing how to interpret graphic representations of the construction project; break them down into simpler sub-projects or individual systems, components or parts;

⁴ The Miniature Guide to Critical Thinking: Concepts and Tools

identify patterns that are relevant to the constructor's purposes, and reassemble the project in a form that will result in its being constructed promptly and efficiently are at the heart of the construction business. Central to the deconstruction - reconstruction process is the ability to conceptualize a project in three dimensions based on a two-dimensional depiction of it.

3. Knowledge of Construction Materials, Equipment, and Processes

Knowledge and familiarity with the materials and equipment that are used in construction projects, and understanding of the processes required to put them in place is a fundamental requirement of the construction professional. A component of this is an understanding of the strength of commonly used materials such as earth, concrete, wood, masonry, and steel, among many others. Students should be able to identify and develop the appropriate work crews and select the proper equipment to perform a variety of common tasks in civil engineering and building construction projects.

4. Engineering and Design Knowledge

Construction Management students should have a command of engineering fundamentals, and some understanding of design concepts. The focus of the classes that develop engineering knowledge will be shear and moment diagrams, and the ability to apply knowledge of mathematics and science in the design of the temporary structures used in construction. Having sufficient knowledge of concrete and masonry design to assure that an acceptable quality is achieved in the field is crucial. Students should be able to contribute meaningfully to the resolution of constructability problems with design professionals, which, in addition to understanding engineering, requires rudimentary knowledge of architectural design.

5. Management

The ability to develop the management infrastructure for a construction project, which includes setting up the estimate, bidding the project, developing a logistical plan, identifying the proper staff for a project, establishing the required project controls, and developing the appropriate accounting and filing systems is essential knowledge for construction management graduates. Familiarity with technological advances such as Web-based project management and communication is helpful and necessary. By the time students graduate, they should understand how a construction business is formed, managed, and directed. Familiarity with the fundamentals of strategic planning and management is central to the understanding of company management.

6. Legal and Ethics Knowledge and Practice

Understanding the documents that make up the construction contract and familiarity with the environment in which construction enterprises operate is essential to success. Familiarity with commonly used project delivery systems is necessary.

Students should believe that their responsibility is to complete construction projects safely within the legal constraints set forth in the contract and according to the standard of care of the construction professional. They should be determined to succeed by ethical means. Sufficient knowledge of the regulatory environment (e.g., the California Public Contract Code, the Uniform Commercial Code, various building codes, California license law, occupational safety and health, and environmental regulations), contract and tort law, and labor relations is essential.

7. Financial management, Cost Development and Control

Effectively managing financial resources is an essential skill for managers of the construction process. Students should understand how a construction company determines the costs and price of various projects. Fundamental knowledge of how and why material quantities are developed and how equipment and labor crews are selected is crucial. Knowing how costs are recorded, reported and monitored, how prices are developed and preserved, how the construction industry finances projects, and how risk is effectively analyzed and managed are crucial to success. Construction management graduates must be able to determine the duration and sequence of tasks in construction, and how those tasks interrelate. These skills should be developed first with manual techniques, then with industry-standard computer software.

8. Sociopolitical and Economic Influences (External Influences)

Students need to understand the political, economic, and social processes that influence the industry, to be thoughtful, responsible citizens and to recognize that education is a life-long endeavor.

Students

An excellent construction management program consists, probably more than anything else, of determined, resourceful students. The CSUS Construction Management Program and its supporters should increase their efforts to find and attract students with a high potential of success. Good employment opportunities during college and after graduation, a supportive campus environment, qualified, committed faculty, industry interest in the program, and meaningful scholarship opportunities will attract qualified students.

There are a number of explanations as to why many students struggle through the program, particularly in the lower division. Financial burdens, a high number of units in difficult classes, schedule conflicts, the high expectations of CM faculty, the extensive writing requirements in most classes, students' lack of awareness of sources of support, and inadequate preparation prior to enrollment are the most common causes. The demographics of the incoming classes are changing as well: students are younger, less experienced, and generally more passive and less resourceful than in previous years. The student body is racially diverse but women students remain at numbers lower than in the population generally.

Faculty and Administration

Faculty who have a desire to teach and to learn, who have significant practical experience, and who are properly supported will best carry out the strategies of the Excellence Plan.

Full-time faculty members teach eight different classes each year—the heaviest teaching load on the campus—and a reduction is essential to the long-term health of the Program.

Faculty members need time to develop new class projects, to improve teaching skills and to keep themselves current in their areas of academic expertise. Time to develop professionally and to pursue applied research projects (as faculty members individually desire), to write papers and texts, and to review academic materials is critical if the CM program is to achieve its greatest potential.

The administrative responsibilities of the CM Program are comparable to department responsibilities: the CM program has its own accreditation requirements, curriculum, teaching requirements, part-time faculty pool, lab facility, student advising and graduation requirements, scholarship program, budget, grant program, and Industry Advisory Board. Administrative release time should be increased to half time in the short term, and, like the Department Chair positions, to three quarters time in the long term with summer support.

Facilities

Although state-of-the-art equipment is desirable, the focus of the CSUS Construction Management program is fundamentals of construction management. As such, manual techniques for graphic communication, scheduling, and estimating are still valid and useful; electronic tools should be incorporated into classes in a supportive role.

Industry Support

As its principal constituency, the industry needs to be engaged in the growth and refinement of the CM Program. Program students, faculty and administration need to stay involved with industry personnel.

A Sense of Community

The educational experience is a socialization process for students; the values of their chosen profession are assimilated in the course of the college experience. An environment that supports accountability for one's actions, an understanding of the importance of construction work, respect for other professionals, and ethical behavior should be encouraged.

Section III Excellence Assessment Plan

The faculty, the University administration and the construction industry are responsible for evaluating the effectiveness of the CM Program and supporting any adjustments that might be indicated. Both internal and external reviews are necessary to effective assessment.

Process – Academic

1. Revisit and redefine goals, objectives and learning outcomes and identify potential assessment tools
2. Select objectives or learning outcomes to be assessed in the current cycle
3. For academic matters, identify in what classes the desired learning outcomes are being delivered, and how the outcomes are evaluated
4. Assess achievement of objectives or learning outcomes
5. Disseminate and analyze assessment feedback, identify problems and develop strategies for achieving the desired outcomes
6. Implement new strategies as required
7. Reassess objectives or learning outcomes

Potential tools for assessment of learning outcomes

- Proficiency exams at the beginning of the semester in each class to determine the extent of students' entry level knowledge
- Surveys of students' personal commitments (work, family, and social commitments)
- Traditional assessment tools such as examinations, term papers and assignment reviews in each class
- Critiques of students' work, e.g. written project proposals and oral presentations, by industry personnel
- American Institute of Constructor's Certified Professional Constructor (CPC) exam
- Exit interviews of graduating seniors
- Surveys of graduates done during commencement
- Surveys of graduates one, three, and five years after graduation
- Survey of employers of graduates
- Student Evaluations of Teachers (SETS)
- Peer Reviews

Learning Outcomes/Course Matrix

Course	10	20	21	22	30	40	110	111	120	121	124	126	127	129	130	135	136	140	150	BA	BA	BA	GE	
Outcome																								
Communi- cation	X	X	X	X		X	X	X	X	X	X	X	X	X							X	X		X
Critical Thinking and Analytical Skill	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X
Materials & Processes		X		X		X			X	X	X		X											
Engineer- ing Manage- ment		X	X		X	X			X		X				X	X	X	X	X					
Law/Ethic- s	X			X			X	X				X		X			X				X	X		
Cost Dev. & Control		X	X	X			X		X	X	X	X	X	X										X
External Influence- s			X	X			X	X				X		X							X	X	X	X

Current Student Learning Outcomes Assessment Schedule⁵

Skill	Comments	Result
Communication		
Auditory	Formal assessment CM 22 S'09	
Oral	Starts freshman year in term reports in (CM 20 Construction Materials and Processes, Communications Studies 4 or 5), continues throughout the curriculum in CM 110, 111, 120, 125, 126, 129. Regional and National ASC Competition preparation and participation seem to have greatly improved the students' skills, as reported by the CM 126 Project Management instructor (based on his anecdotes on the differences in presentations in that class between Reno participants and non-participants)	
Written	Assessed each year in CM 10 – Introduction to the Industry	Varies, but poor writing skill is apparently a problem across campus. Several students put on Writing Watch
Graphic	Assessed each year using proficiency exams at the beginning of the semester (CM 21 Construction Graphics, CM 22 Construction Documents, CM 121 Fundamentals of Estimating)	
Non-verbal		
Critical Thinking and Analytical Skill		
Knowledge of construction materials, equipment, and processes	Assessed in CM 20, 21, 22, 120, 121, 124, 125, 126 Construction Graphics in quizzes	
Engineering knowledge	As above, add CM 30, 130, 135, 140, 150	
Management knowledge/skills	All courses in the management sector of the curriculum	
Legal and ethics knowledge and practice	CM 10, 22, 110, 111, 120, 121, 125, 126, 129	
Finance, cost development and control	Mgmt 101, CM 21, 22, 121, 125, 126, 127, 129	
Sociopolitical and economic influences	General Education courses	

⁵ Most of the skills listed are evaluated each semester using traditional classroom assessment techniques such as quizzes, exams, and routine assignments

Section IV Implementation Plan

The implementation plan lists Program strategies, tactics, metrics where applicable, responsible parties, required resources, a schedule, and a brief status report. Faculty, the industry advisory committee, interested students, and accreditation teams will periodically review the plan.

Revised 1-09

KEY

<u>Strategy</u>	<u>Responsible Party</u>	<u>Resources</u>	<u>Schedule</u>	<u>Status</u>
Tactic (Metric, as applicable in parentheses) Numbers in superscript ¹ pertain to elements in that row	As noted; <i>IAC is the CM Program's Industry Advisory Committee; SCMEF is the Sacramento Construction Management Education Foundation</i>	<u>Required</u> Predominant resource listed; * denotes capital support required		(Measurement)

Definitions:

ACCE—American Council for Construction Education (an accreditation board)

ASC—Associated Schools of Construction

AY—Academic Year (August-June)

CMSA—Construction Management Students Association

CSLB—Contractor's State License Board

Dean—Key administrator for the Colleges on campus

ECS—College of Engineering and Computer Science

FAR—Faculty Activity Reports

Faculty—Full-time Construction Management faculty unless otherwise noted

IAC—CM Program Industry Advisory Committee

SCMEF—Sacramento Construction Management Education Foundation

Strategy Tactic, (metric as applicable)	Responsible Party	Resources Required	Schedule	Status
<u>Raise the visibility of the construction Management Program on campus and in the community</u>				
1 Develop signs with promotional tag lines, install on CSUS projects managed by CSUS graduates	Faculty, staff	\$1500 Hornet Marketing Services production fees	Complete signs by S'06	Four signs completed and installed on two campus projects F '06. On display for 1 ½ years
2 Involve students and faculty in service learning projects in the community.	Faculty, students	\$3,000 donations from industry, labor provided by students and faculty	Fall '06 improvements to Women's Softball Facility	Project completed October '06 with great success
3. Inform the campus community as well as the community-at-large of the accomplishments of the CM Program	Faculty, students, industry supporters	Time	Ongoing	<p>2006 Interview in April on Insight, Jeffrey Callison's Capitol Public Radio program (Professor Anderson); articles in the Hornet re the CM Program (one on the regional ASC competition, one on the CM Program)</p> <p>2008 Articles in Hornet re National Bidding Competition successes (three first places), 8-second notice on electronic billboard adjacent to State Route 50</p>
7. Continue participating in the ASC bidding competition (number and success of competing teams) and other competitions	CMSA faculty advisor, industry sponsors	\$25K/yr	Annual	3 national ASC titles 2008, and first and second place prizes in the inaugural Granite Collegiate Challenge
<i>End of Tactics for this Strategy</i>				

Strategy Tactic, (metric as applicable)	Responsible Party	Resources Required	Schedule	Status
<u>Develop adequate resources and enrollment to support a sustainable department of Construction Management</u>				
Determine the resources required	Administration, faculty, industry	TBD by ECS Associate Dean	Complete by October '08	Work has apparently been done, results have yet to be disseminated by the dean
Evaluate the benefits of a different structure for SCMEF	SCMEF Executive Committee	Time	Complete by December 2008	The establishment of a Task Force to create a "legacy" foundation has been suggested, and candidates for the position selected. Decision to accept has yet to be made by SCMEF Board
<i>End of Tactics for this Strategy</i>				

Strategy Tactic, (metric as applicable)	Responsible Party	Resources Required	Schedule	Status
<u>Maintain the relevancy and effectiveness of the curriculum, adjust as indicated</u>				
1. Compare Program curriculum with ACCE Standards, review ACCE correspondence, monitor web page	Faculty	Time	Annually	New curriculum with reduced credit hours completed for 04-05 AY, complies with ACCE Standards
2. Conduct exit interviews, graduating seniors, review data	Faculty	Time	Annually, record data, disseminate triennially	Disseminate data when compiled
3. Review curriculum with IAC, analyze feedback	Faculty, IAC	Time	Triennially	Completed S'04, business minor retained, credit hours reduced. New review scheduled after S'09 accreditation visit
4. Reduce required G.E. and graduation requirements	ECS faculty	Time	1 year, analyze results	No change in GE requirements at this time
5. Assess total credit hours, monitor credit hour reduction trends in the CSU, evaluate reduction/increase	Faculty, IAC	Time	Precede accreditation visits by 6 months	Completed F'03, 7-unit credit hour reduction conceived and implemented 04-05 Academic Year
6. Develop the program for offering CM 22, CM 30, CM 130, and CM 135 each semester	Faculty	Some funding for part-timers required	Complete plan S'09	Project underway
<i>End of Tactics for this Strategy</i>				

Strategy Tactic, (metric as applicable)	Responsible Party	Resources Required	Schedule	Status
<u>Promote a culture of scholastic achievement and professionalism in the Program</u>				
1. Aggressively promote scholarships, (quantify applications annually ¹), expand scholarship program by funding CM Program Endowment (endowment fund growth ²), continue applying for grants (quantify successful grants ³)	¹ Faculty, CM Program Staff; ² SCMEF scholarship subcommittee ³ Coordinator	* ² Significant capital required to fund useful endowment (\$1M)	Annually	Scholarships actively promoted last 4 years (¹ apps exceeded 10% of number of majors); Program endowment specifications to be developed January 2009yet; ³ grants funded i
2. Maintain/expand scholarship reception	Faculty, CM Program Staff, Events committee SCMEF	*\$7K/year	Annually	all of the last 10 years) SCMEF scholarship program (\$35 K) in place (added to \$15K/year in other scholarship funds)
3. Add ethics discussions and assignments in more classes	Faculty	N/A	Completed S'04	Business, Ethics, and Society (Mgmt 117) now a required class; ethics discussions start in Introduction to the Industry course
<i>End of Tactics for this Strategy</i>				

Strategy Tactic, (metric as applicable)	Responsible Party	Resources Required	Schedule	Status
<u>Evaluate students' needs and maintain a supportive infrastructure</u>				
1. Develop a component of the introductory class (CM 10) that identifies how to succeed in the CM Program and the industry	Faculty	N/A	F'02	Completed on schedule, implemented in class last 6 years
2. Maintain rapport with the College of Engineering and Computer Science's Career Services Center; inform industry of its database, publish employment opportunities on Career Services web page	Faculty, Staff, Director of Career Services	N/A	Ongoing	Hot link to Placement Office database added to CM web page F'01 (www.csus.edu/cm), industry regularly informed of database
3. Reduce required credit hours by 7 units, by requiring OBE 117 (Business Ethics and Society), eliminating the MIS 1, 2, and 3 requirement in favor of proficiency challenge, substitute 4-unit Bio 5 with 3-unit Environmental Sciences 10	Faculty	N/A	Submit to Academic Council review F'03	Plan completed F'02, in catalogue for 04-05 AY; discussions involving a reduction in GE underway on campus
4. Switch to a true fall semester start	Faculty	Additional advising; disseminate info to students	Commence F'04, complete S'07	Completed, first spring graduation S'08
5. Develop Construction Theory, Methods, and Practices Library by funding CM program endowment, continue successful grant writing effort (number of successful grant efforts)	Faculty; industry trust funds	\$75 K	*Ongoing	Additional tutorials developed Summers of '07 and '08
6. Expand the mentoring program (increase involvement of industry with students)	Faculty, SCMEF sub-committee	Time		Evening With Industry program continues; mentoring committee resuming its meetings
<i>End of Tactics for this Strategy</i>				

Strategy Tactic, (metric as applicable)	Responsible Party	Resources Required	Schedule	Status
<u>Evaluate students' needs and maintain a supportive infrastructure, cont'd.</u>				
8. Maintain schedule flexibility for upper division students	Faculty	N/A	Annual	In place
9. Coordinate lower division CM classes with Physics, Math, Surveying, English 20 schedules	Coordinator	N/A	Annual	Completed Jan- 05 for 05-06 AY, continues
10. Evaluate offering "stumbling block" classes every semester	Faculty	Time		Complete evaluation by Fall 2009
<i>End of Tactics for this Strategy</i>				

Strategy Tactic, (metric as applicable)	Responsible Party	Resources Required	Schedule	Status
<u>Increase the enrollment of qualified, diverse students</u>				
1. Increase the number of full tuition (FT) scholarships to 10 by adding donors (quantify increase)	SCMEF subcommittee	\$28 K/yr	F'04	SCMEF now offers 4-\$3500 scholarships per semester; Elliott Family Scholarship offers 4-\$2500 scholarships per year to incoming freshmen; 4 awarded as of F-08
2. Fund visiting scholar program (quantify increase in endowment funds)	Faculty, IAC, Director of Development	*\$15K/yr	S'03	Shelved in favor of other efforts
3. Engage the industry in recruitment (number of students enrolling on the advice of industry personnel)	SCMEF, CM Program graduates	Time	F'09	In planning; enrollment currently exceeds the resources of the Program
4. Survey northern California and Nevada construction employers to determine demand for graduates in 2010 and 2011	Consultant	\$1K	Complete survey by June 2009	Survey in development
<i>End of Tactics for this Strategy</i>				

Strategy Tactic, (metric as applicable)	Responsible Party	Resources Required	Schedule	Status
<u>Monitor enrollment and academic performance trends</u>				
1. Maintain mandatory advising requirement	Faculty	N/A	Every semester	4.2 faculty advise 225 students
2. Continue the periodic correlation of student work hours to unit load and academic performance	Full and Part-time faculty	Time	Every year starting F '04	Initial study done S'02, student survey done F'04; results due 3/05; project abandoned until additional faculty hired
3. Amend Program policy so that attainment of C- or better grade becomes mandatory			Ongoing	
<i>End of Tactics for this Strategy</i>				

Strategy Tactic, (metric as applicable)	Responsible Party	Resources Required	Schedule	Status
<u>Commit to excellence and innovation in teaching</u>				
1. Reduce faculty work load to 9 WTU, using University resources, CSLB funds, CM Program Endowment, and a stable part-time faculty pool (increase in contributions to endowment)		9 WTU (\$60K)	By AY 08	Fund raising in progress; CSLB funds (\$22 K) received, SCMEF has committed to an endowment. Goal currently unattainable, too few faculty
2. Provide for faculty professional development opportunities using University, SCMEF, grant, and funded research funds (number of attendees at educational seminars ¹ ; number and type of grant-funded projects ² ; number of funded research projects ³)	Provost, Dean, CE Department Chair, Coordinator, SCMEF fund-raising committee, faculty	*\$22K/yr for two full-time faculty member (\$44K)	Funds available	SCMEF currently funds travel and workshop expenses; One faculty member has attended workshops in two of the last five years ² \$10 available in each of the last two year – 60% of funds used. ³ no funded research projects currently underway)
3. Hire, support, and promote faculty who desire to teach, and who have significant practical work experience	Faculty, VP for Academic Affairs, Dean, CE Department Chair, IAC	N/A	Assemble employee manual S'03	Manual completed and distributed; one of two new faculty hired S'04 returned to the private sector, the other now teaches primarily in CE; Search Committee continuing its efforts to find faculty; reduced teaching load for 1 st year approved for new faculty
4. Chronicle faculty achievements in Faculty Activity Reports (FAR's)	Faculty	N/A	Ongoing	FAR's current through 2005
5. Maintain the currency of faculty by providing summer employment and consulting opportunities (number of research/consulting projects)	Faculty, IAC	\$2K		Two full-time faculty members currently engaged in consulting/creative work; two of three faculty planning to attend ASC National meeting
<i>End of Tactics for this Strategy</i>				

Strategy Tactic, (metric as applicable)	Responsible Party	Resources Required	Schedule	Status
<u>Provide for adequate administrative support</u>				
1. Increase release time from 3 to 6 WTU in the short term, ultimately to 9 for Coordinator position with University and CSLB funds	Provost, Dean, CE Department Chair	*\$80K/yr	S'03 Admin. funds, CSLB funds F'03	After 4 years with 6 WTU (03-06), assigned time again reduced to 3 WTU
2. Raise funds for full-time administrative support position	Provost, Dean, CE Department Chair	*\$20K/yr	S'03 Admin. funds or in-kind support	Funds available (SCMEF) – search to fill the position on hold
3. Maintain involvement with the industry through participation in industry events, meetings of the SCMEF (number of events participated in ¹ , number of IAC meetings ²)	Faculty, IAC	*\$5K/yr, memberships, other fees	Ongoing	¹ Involvement in AGC, CSI, Builders' Exchange events continues; ² SCMEF meets every two months

End of Tactics for this Strategy

Strategy Tactic, (metric as applicable)	Responsible Party	Resources Required	Schedule	Status
<u>Assess effectiveness using internal and external feedback</u>				
1. Continue refinement and use of Plan of Excellence	Faculty, IAC	Time, resources as noted	Ongoing	Plan in place since 1994, Revised every 3 years (on schedule)
2. Add to external feedback by publishing plan on the web with request for input	All Program supporters	N/A	Ongoing	Alumni questionnaire launched S'02; limited response
3. Maintain ACCE accreditation	Faculty, Provost, CE Department Chair, IAC, students, graduates.	*\$2K/yr for membership, participation in meetings	Ongoing	Re-accreditation visit S'09
4. Maintain web page and alumni database	Faculty, CM and CE Administrative Assistants	N/A	Major database update summer '05	On schedule, looking for web master
5. Establish a regular survey, analysis, dissemination schedule for aspects of assessment plan	SCMEF Subcommittee	Time	F'04	Results due 3/05
<i>End of Tactics for this Strategy</i>				

Section V. Center for Sustainable Design and Construction

Concept

An applied research and instructional center for the Sac State Construction Management, Civil and Mechanical Engineering, and proposed Architecture programs.

Justification

- ⇒ As noted in the CM Program Plan of Excellence, design and construction practice is evolving into interdisciplinary collaboration involving key design professionals and contractors, and increased understanding and cooperation between professions is now essential to success
- ⇒ The CM Program is growing, both in enrollment and visibility and is reviving long dormant programs in mechanical and electrical specialty contracting and environmentally sensitive construction, with input from local industry leaders, and current facilities are inadequate for a professional program
- ⇒ Mechanical Engineering is proposing major changes to its MET curriculum and orienting it toward mechanical specialty contracting. Several faculty in that department have begun to develop relationships with local government and agencies that could well lead to research opportunities
- ⇒ There is significant pent-up demand for a professional program in architecture, and the design community is currently deliberating over the proposed curricula they have received
- ⇒ Civil Engineering, through its Office of Water Programs, has developed beneficial relationships with local agencies and has begun to develop relationships in the transportation community that will lead to additional research opportunities

Mission:

Facilities in the Riverside Hall are aging and much of the College infrastructure does not adequately support the current activities or future plans of the above-named programs. Additionally, there is no space at all for an architecture program which, among other things, requires a studio space for upper division design courses. The participants involved seek to design and construct a new building of approximately 40,000 square feet to house the Center, sponsored by the architecture, engineering, and construction professions; the real estate development community; and state funds. Called the Center for Sustainable Design and Construction, this facility will provide adequate office, classroom, research, and lab space for the programs involved and any private sector businesses that believe an association with the University will benefit them. Although any location close to the existing 300-acre campus would be acceptable, the most desirable location would be within the existing campus grounds. The concept has been presented to the University President, the Vice President for Finance, and the Vice President for Advancement, who all support it.

In addition to the building acting as a living laboratory and instructional facility for students and faculty, it will function as a research center for the Office of Water

Programs and the research efforts of the other programs. Some “incubator” office space may be added for individuals or small businesses that are affiliated with the University or would like to be. Participants imagine a year-long programming phase, followed by a three-year design development and phased construction program under the design-build delivery system.