

Adopted: November 26, 1996

**ACADEMIC SENATE  
OF  
CALIFORNIA POLYTECHNIC STATE UNIVERSITY  
San Luis Obispo, California**

**AS-470-96/PRAIC  
RESOLUTION ON  
1995-1996 PROGRAM REVIEW AND IMPROVEMENT COMMITTEE  
REPORT OF FINDINGS AND RECOMMENDATIONS**

WHEREAS, The following departments/programs were reviewed during the 1995-1996 academic year:  
Agribusiness  
Animal Science  
Biological Sciences  
Computer Science  
History  
Materials Engineering  
Political Science

and

WHEREAS, The Academic Senate acknowledges receipt of the Program Review and Improvement Committee's "Report on programs reviewed during 1995-1996"; therefore, be it

RESOLVED: That the Academic Senate receive the Program Review and Improvement Committee's "Report on programs reviewed during 1995-1996"; and, be it further

RESOLVED: That the Program Review and Improvement Committee's "Report on programs reviewed during 1995-1996" be submitted to the Vice President for Academic Affairs.

Proposed by the Program Review and Improvement  
Committee  
August 28, 1996

RECEIVED

AUG 26 1996

Cal Poly Memorandum

Date: June 15, 1996

Copies: Academic Senate  
W. Baker .  
P. Zingg  
G. Irvin  
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Department chairs in  
programs reviewed  
University Library


To: Academic Senate Executive Committee  
From: Program Review and Improvement Committee  
Subject: Report on programs reviewed during 1995-96

The Academic Senate Program Review and Improvement Committee reviewed nine programs during the academic year 1995-96. Each program received a Request for Information, based on the Academic Program Review and Improvement document adopted by the Senate in April 1992. The committee then met with all programs to clarify the nature and the procedure of the review process. Programs submitted their reports in January. Based on these, the committee formulated preliminary reports and forwarded them to the programs. We met individually with each program during spring quarter to allow them an opportunity to respond to the preliminary report and to clarify any misunderstandings or misinterpretations. Final reports were then prepared, and programs were given an opportunity to submit a written response.

Please find attached, for each program, the overall findings and recommendations of this committee, the committee's rating of the program for each of the items reviewed, and the response of the program. We thank each program for the effort they have put into their reviews.

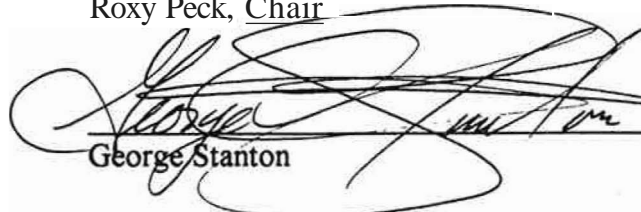
Copies of this report should be placed in the University Library for public access.

\_\_\_\_\_  
Fred Abitia

  
\_\_\_\_\_  
Apsy Morrobel-Sosa

  
\_\_\_\_\_

\_\_\_\_\_  
Roxy Peck, Chair

  
\_\_\_\_\_  
George Stanton

\_\_\_\_\_  
Mike Wenzl

## 1995-96 Program Review and Improvement Committee

### General Recommendations

1. For at least the past two years, President Baker has called upon all departments to undertake a genuine reassessment of their curricula, with an eye toward greater efficiency. He has urged all majors to "open up" their course of study where possible, increase the number of free electives, reduce the rigidity, and increase flexibility. There is little evidence that majority of the departments reviewed this year have made any serious efforts along these lines.
2. Most of the programs reviewed are excessively rigid, are too structured, require a large number of units, and do not "trust" their students to make intelligent choices. Excessive use of restricted electives and concentrations are widespread, and the resulting rigidity is surely an impediment to student progress and a contributing factor to low graduation rates.
3. Many of the programs reviewed this year are not clear about what constitutes professional development. Departments and programs should have clear statements as to what kind of activities constitute professional development and how these various activities are prioritized by the department.
4. Departments need to explore more creative and effective ways to assess program effectiveness and teaching quality. Effective program assessment is facilitated by development and articulation of departmental goals and objectives, and of desired student learning outcomes.
5. Departmental faculty development efforts should include developing skills in curricular design, including articulation of student learning outcomes as well as their implementation and assessment.
6. The relationship between individual departments and their advisory boards needs to be examined. Some of these boards appear to function as reinforcements of the most narrow view of what students ought to study. Some departments almost allow them to dictate curricula; the university's role--that of leading and forming opinion--seems to be seriously compromised when this is the case.
7. The 1994-95 Program Review Report made the following point:  
"Programs need, through ongoing reminders, to move away from the entrenched but outdated idea that more required courses and more units will translate into greater resources. "

This statement is still true for the programs reviewed this year.

8. There is still a good deal of paying "lip service" to the goals and objectives of the General Education and Breadth Program. The practice of supporting GE&B in public, but working to undermine and diminish it in private, is a practice which needs to be discouraged.
9. It appears that in many programs that have been traditionally male dominated, an environment has not yet been created where women feel comfortable. This is evidenced by persisting problems in recruitment and retention of women in these programs.
10. Consistent with Cal Poly's focus on excellence in teaching, faculty should be encouraged to seek external funding for curricular innovation and to publish their work in this area in appropriate journals.

## AGRIBUSINESS

### I. MISSION AND GOALS

Given the amount of material and scope of issues presented in this section, it seems that the Department has invested substantial effort in dealing with its mission and goals. Such effort is commendable, especially in a large department. A department of this size has a significant impact on students and programs at Cal Poly. However, the Committee does feel that the Department's statement is confusing, and that it should be re-organized and simplified. Detailed suggestions for this purpose are presented at the end of this report.

The Department states the need for more resources, yet no rationale for the stated need is offered. The prioritized goals of the department suggest other needs that are not addressed. The department has substantial support from industry, and is encouraged to develop a systematic plan to meet departmental needs.

### n. STUDENTS

The percentage of students on probation seems relatively high. Efforts to assist at-risk students are primarily reactive. The department should consider developing a more pro-active strategy for assisting students.

Recruiting efforts are limited. Although the department receives a large number of applications, they may want to consider recruiting efforts that are specifically targeted to departmental goals and needs, and to increase the quality and diversity of the applicant pool.

### m. CURRICULUM

The curriculum is quite restrictive and includes few free electives. Only 9 % of the program unit total is in "preparatory subjects," whereas this percentage is higher in the comparison programs. Presumably, this is due to the Department teaching its own courses in some preparatory areas. The department is encouraged to consider ways of increasing flexibility and opening up truly free electives. Perhaps the restrictive nature of the program could be eased by integrating support courses into the major and eliminating the concentrations.

The 1989 external review states that the GE component "is vital in terms of affecting the ability of students to respond, adapt, and survive in the world of work...An important objective in this area is to develop in students a greater appreciation for the GE&B component of their formal education...The faculty ... should be genuinely committed to a strong GE&B core..." However, the department still seems focused on trying to circumvent GE&B requirements. This is evident in the department's response to many of the curricular recommendations in the external review. We encourage the department to be more creative in dealing with curricular issues. For example, the department *can't* require a foreign **language** because it won't count in Area C, and the

department indicates that English 310 would be a good course for students, but they do not require it because its narrow focus precludes its inclusion as a GE&B course. If the curriculum were more flexible, these types of courses could be included as support courses.

The Department should get systematic and focused student input, and attempt some measures of learning outcome attainment, other than course grades, that relate to its general learning objectives and that cut across courses (e.g., selected common portions of class-based tests, systematically observed demonstrations of knowledge and competence, etc.).

Given the crucial role of ethnic diversity and the need for cross-cultural understanding in the agricultural industry, the issues of gender and ethnic diversity would seem to require considerable attention in order to prepare students properly to perform professional activities in morally and ethically appropriate ways, not just to "allow peers and employees to express their talents in the most profitable manner". The committee feels that the department's motivation for inclusion of diverse perspectives and issues of environmental and social responsibility is self-serving. The philosophy seems to be to fight the rest of the world rather than to integrate into it. This is illustrated by the following statements from materials submitted by the department:

"The cultural dimensions are consistently included to give the student an awareness of the importance of expanding his/her value system to allow peers and employees to express their talents in the most profitable manner."

"Many issues pit the farmer against the rest of the population, e.g. water use and quality, air quality (rice stubble burning), pesticide use (methyl bromide), grazing of livestock on public lands, etc. The list seems endless."

"It is imperative that our students understand the arguments that are being raised against the way we farm in this country in order to defend, hopefully eloquently and articulately, a position that may not be popular with the American public. How better to defend one's position than to know fully the arguments of one's adversaries."

#### IV INSTRUCTION

The only new developments seem to be in the wine program.

How are the teaching criteria listed employed, and their attainment assessed? These criteria are a "mixed bag," few of which actually focus on teaching.

## V FACULTY

The faculty is not very diverse, but they have had little recent opportunity to hire. Only 11 of 18 tenure-track faculty hold a Ph.D., but the department indicates that a Ph.D. is now a requirement for tenure-track hires. Future recruitment plans should address the lack of diversity in the department.

The faculty is active in a variety of areas, but it is difficult to judge the quality of this activity without an indication of how the department prioritizes professional development activities. Given the predominance of publications in the popular press over articles in referred journals, it would be helpful to get a sense of the intended effect of the publications on the public arena. Public social contribution is a good thing, and the Department should explain its intent in this realm.

## VII FACILITIES

Use of the Internet and World Wide Web is to be encouraged. The Department might develop models of employing electronic information resources for instructional enhancement and efficiency.

## VIII RELATIONS TO THE OUTSIDE

Ten years is too long between external reviews! The department should shorten this interval, and should develop specific reactions and an appropriate plan of action in response to the issues and concerns expressed in the external review.

Interdisciplinary actions seem minimal.

The department has substantial endowment and discretionary funding. How does this tie in to plans for addressing departmental needs?

## X GOALS AND OBJECTIVES

Information about goal attainment is general and implied and does not tie directly to learning outcomes. Proper evaluation of this topic must await the Department's revision of its mission/goals statement regarding just what it is trying to achieve with its students. At that time, evidence of goal attainment can be clearly and explicitly linked to the appropriate objectives.

## SUGGESTIONS FOR MISSION AND GOALS

What is the intended distinction between "mission" and "vision?" Between "goals" and "objectives?" Typically, a vision would be a broadly-stated, self-imposed, hoped-for general result of a program, whereas a mission would be a mandated, generally-stated directive. Goals are generally stated desired program outcomes, the attainment of which is indicated by meeting specific, individually observable objectives. This Department is unusual in attempting to articulate a vision. If the distinction between a mission and a vision seems useful to the Department, the purpose for the distinction should be explained, and the statements should be articulated at an appropriate level of generality (i.e., free of narrowly focused specific objectives, such as "provide professional consultative services via direct faculty interaction...").

More specifically, the three goals that are stated as most important are:

- (1) vocational and career preparation (which essentially repeats the first "vision" bullet and the first "mission" sentence, except for reference to the terms "market driven," "diverse skills," and "diverse group");
- (2) provide consultation service by the faculty (which repeats the second "vision" bullet, but ignores the implication in the final "mission" statement that such consultation should impact course material); and
- (3) challenge (although not require) students to engage in experiences outside the classroom (which repeats the second "mission" statement).

It would be helpful to remedy this repetition and lack of logical coherence: Likewise, it would be helpful to specifically link each of the seven "strategic objectives" to the appropriate specific goal(s) they are intended to serve.

What is the relationship between the "highest priority items" listed under "3." on page 2 and the "three most important **goals**" listed under "2." on page I?

Student learning goals are mentioned only at the broadest level (e.g., "...diverse skills necessary to perform well...having the foundation to rise..."). It behooves any academic department, and especially one as large as this one, to describe in generally understandable yet more specific terms the nature of the domains and kinds of knowledge and skills that it intends to instill in its students.



**Agribusiness**  
**Template for PRIAC Review Process**  
**1995-96**

This template assures that every item (or group of items) in the Request for Information is commented on. Information used in the review has been that provided by the Programs as well as that provided by Admissions, Institutional Studies, and Academic Affairs. The rating scheme consists of five categories:

- M Minimal - Poorly developed or below university norms
- A Adequate
- E Exceptional - Program is Unmovative and/or above university norms
- I Insufficient information
- NA Not applicable to this program

ITEM	RATING	COMMENTS
I. MISSION AND GOALS		
1. Mission statement clearly stated?	A-	Confuses mission and objectives
2. Goals and objectives clear?	A-	Few student oriented goals. Not clear that curriculum meets goal #1
3. Consistent with university strategic plan?	A	
4. Priorities consistent with mission and goals?	A	
5. Unmet needs consistent with mission and goals?	M	
6. Is there a realistic plan to meet needs?	M	Some efforts being made, but no systematic plan.
II. STUDENTS		
1. Are new students balanced between freshmen, transfers, and internal changes?	A	
2. How does quality of applicant pool compare to college and university?	A-	Lower than university, but equal to college
3. How does gender and ethnic diversity compare to college and university?	A	
4. How do probation and dean's list percentages compare to college and university?	M	High probation %
5. How does persistence to graduation compare to college and university?	A	
6. Are recruitment efforts consistent with need?	A	
7. Have students received recognition or awards?	I	What academic or professional awards have graduates received? Need better tracking.
III. CURRICULUM		
1. Desired outcomes clear? Are they met?	I	Desired outcomes are those from Agrimass study, extent to which they are met is unclear.
2. Is curriculum structure/concentrations clear?	A-	Lack of free electives. Duplication of effort with business. 34 core units, 32 concentration units, 31 restricted support electives
3. Is the program coherent?	A-	Seems overly restrictive
4. How do course and unit requirements compare to other institutions?	A-	Other universities have more free electives. Why are similar programs at other CSU campuses downsizing?

5. Is inclusion of contemporary topics adequate?	A-	Topics are there, but focus seems one-sided. with emphasis on current industry and business practices. Issues like land use policies and sustainability do not appear to be adequately addressed.
6. Are critical thinking component adequate?	M	Appears late in the curriculum. How is critical thinking integrated into the curriculum?
7. Are gender and ethnicity dealt with in the curriculum?	M	Why only industry/profit orientation? Appears to be addressed only from an employer's point of view. What about issues of social and environmental responsibility?
8. Is program assessment adequate and effective?	M	
9. Are efforts to help under-prepared and at-risk students adequate?	I	What is MAP? what is faculty participation in MAP, and in dealing with at-risk students?
10. Are experiential learning opportunities available and appropriate to the program?	A	
IV. INSTRUCTION		The department should consider how diversity is addressed in instructional methods as distinct from course content.
1. <b>How</b> is diversity addressed in instruction?		
2. Are innovative and new courses offered?	M	Topics mentioned don't seem particularly innovative
3. How is teaching quality assessed and used?	A-	Good set of criteria. Assessment is the standard minimum.
4. a. SCUIFTEF	361	
b. FTEF used/FTEF generated	.72	
c. \$/SCU	251	
d. WTUIFTEF	14.49	
5. Are service course responsibilities met?	N/A	
6. Are there low or oversubscribed courses?	N/A	
7. Are GEB and service courses listed?	A	
8. What percentage are taught by tenure track?	M	20% of GE&B
9. Are remedial courses and workload described?	N/A	
V. FACULTY		
1. Are gender and diversity appropriate?	M	No ethnic diversity, 3/18 Female
2. Are background and training appropriate?	A	Large number of degrees from Cal Poly. 11118 Ph.D. Ph.D. is now required for tenure-track hire.
3. Have faculty received special recognition?	M	
4. Is professional development policy appropriate?	A	How are these activities prioritized by the department?
5. Is level of professional development adequate?	A-	Lots of conferences, but few papers presented. What professional development opportunities are provided for non Ph.D. faculty members?
6. Are grants and contracts adequate?	A	What are the opportunities for funding in this area?
7. Is publication policy appropriate?	A	How are activities prioritized?
8. Is faculty publication <b>record</b> adequate?	A-	Heavy on nonrefereed publications. What <b>are the reports</b>

VI. STAFF		
1. Are program staff listed?	YES	
2. Is staffing level adequate for needs?	A	
VII. FACILITIES		
1. Are facilities described?	YES	
2. How well are facilities maintained?	A	
3. Is library collection adequate?	A	Not adequate for research
4. Any other relevant facilities?	A	
VIII. RELATIONS TO THE OUTSIDE		
1. Program accredited or taking steps?	N/A	
2. If not, is there outside review?	YES	Only every 10 years
3. Most recent report included?	YES	Suggestions from external review do not appear to have been adequately addressed.
4. Solicit advice, etc. from prof. community?	A	Advisory Board appears to be all management, no representatives from production.
5. Are faculty involved at state and national level?	A	
6. Are interdisciplinary efforts adequate?	M	Involvement could be broader. What other than World Food Politics? Any joint efforts with Business or Econ?
7. Are interdisciplinary courses taught?	M	Could do more in this area
IX. OPPORTUNITIES FOR GRADUATES		
1. Do graduates have employment opportunities?	A	
2. Do graduates have grad/prof school options?	A	
3. Have recent graduates been successful?	A	
X. GOALS AND OBJECTIVES		
Is the program meeting its goals and objectives?	M	External Review (1989) indicates that goals and objectives are not being met, and these concerns have not been adequately addressed in the intervening years.

General comments:

Program curriculum appears to be heavily oriented toward large business interests.

Agribusiness Department  
California Polytechnic State University  
San Luis Obispo

*MEMORANDUM*

DATE: June 14, 1996

TO: Program Review and Improvement Committee  
Roxy Peck, Chair

FROM: Agribusiness Department  
LeRoy Davis, Department Head



Copy To:

SUBJECT: Program Review

Enclosed are the following:

1. the Agribusiness Department's final response to the Program Review and Improvement Committee, dated June 14, 1996,
2. the Program Review and Improvement Committee's report of their review of the Agribusiness Department, dated May 28, 1996,
3. the Agribusiness Department's response to the Program Review and Improvement Committee's first evaluation, dated May 8, 1996,
4. the Program Review and Improvement Committee's first evaluation of the Agribusiness Department, dated April 4, 1996, and
5. the Agribusiness Department's original Program Review, dated January, 1996.

included here) attachment #1

Complete response with attachments 1-5  
included as Appendix 1 at end of document

Roxy Peck

Agribusiness  
 Template for PRIAC Review Process  
 1995-96

This template assures that every item (or group of items) in the Request for Information is commented on. Information used in the review has been that provided by the Programs as well as that provided by Admissions, Institutional Studies, and Academic Affairs. The rating scheme consists of five categories:

- M Minimal - Poorly developed or below university norms
- A Adequate
- E Exceptional - Program is innovative and/or above university norms
- I Insufficient information
- NA Not applicable to this program

AGB Rating Scheme consists of 6 categories:

- A Agree with evaluation - without comment
- AC Agree with evaluation - with comment
- DM Disagree with evaluation - documentation provided by AGB was misinterpreted by committee.
- DI Disagree with evaluation - documentation provided by AGB appears to have been ignored.
- DR Disagree with evaluation - with rebuttal
- NA Not applicable - not required in original Program Review Template

ITEM	RTG	COMMENTS	RTG	AGRIBUSINESS RESPONSE
I. MISSION AND GOALS I. Mission statement clearly stated?	A-	Confuses mission and objectives	DM	Led in development of Mission & Goals by consultant with acknowledged expertise who used a different model than one used by committee
2. Goals and objectives clear?	A-	Few student oriented goals. Not clear that curriculum meets goal #1	DM	Implicit in Goals and Objectives is improved teaching, hence, expected improvement in student outcomes.
3. Consistent with university strategic plan?	A		NA	Not required in original review template
4. Priorities consistent with mission and goals?	A		A	
5. Unrnet needs consistent with mission and goals?	M		DR	Continued faculty development of information competency is fundamental to Mission Statement
6. Is there a realistic plan to meet needs?	M	Some efforts being made, but no systematic plan.	DM	See Pg. 2, 3., b. of Program Review 1/%
II. STUDENTS 1. Are new students balanced between freshmen, transfers, and internal changes?	A		A	
2. How does quality of applicant pool compare to college and university?	A-	Lower than university, but equal to college	A	
3. How does gender and ethnic diversity compare to college and university?	A		A	
4. How do probation and dean's list percentages compare to college and university?	M	High probation %	AC	Recognize need to coordinate with the College and the University a better method of monitoring academically at-risk students.
5. How does persistence to graduation compare to college and university?	A		A	

6. Are recruitment efforts consistent with need?	A		A	
7. Have students received recognition or awards?	I	What academic or professional awards have graduates received? Need better tracking.	DI	See Pg. 6, n., 6. of AGB Program Review, 1/96. National recognition of NAMA team success is comparable to winning a national championship in NCAA.
<b>m. CURRICULUM</b>				
1. Desired outcomes clear? Are they met?	I	Desired outcomes are those from Agrimass study, extent to which they are met is unclear.	DI	Expected student outcomes are identified in Mission Statement as well as Pg. 6, m., 1. of AGB Program Review, 1/96.
2. Is curriculum structure/concentrations clear?	A-	Lack of free electives. Duplication of effort with business. 34 core units, 32 concentration units, 31 restricted support electives	A DI	Re: Free Electives - See Appendix I. Re: Duplication of effort with Business - see Pg. 6 of 5/8/96 AGB Response to Committee questions.
3. Is the program coherent?	A-	Seems overly restrictive	DI	Four Concentrations and Flex Agricultural Production Electives encourages the exploration of vast array of interest areas.
4. How do course and unit requirements compare to other institutions?	A-	Other universities have more free electives. Why are similar programs at other CSU campuses downsizing?	A NA	Free electives issue addressed in m., 2. above. Downsizing issue - uncertain of causes at other campuses; uncertain of relevance to this review.
5. Is inclusion of contemporary topics adequate?	A-	Topics are there, but focus seems one-sided. with emphasis on current industry and business practices. Issues like land use policies and sustainability do not appear to be adequately addressed.	DM	See Appendix n.
6. Are critical thinking component adequate?	M	Appears late in the curriculum. How is critical thinking integrated into the curriculum?	AC	Critical thinking (analysis, synthesis, application) occurs after knowledge and comprehension levels of learning have been established; critical thinking occurs in more advanced courses and rarely in principles courses.
7. Are gender and ethnicity dealt with in the curriculum?	M	Why only industry/profit orientation? Appears to be addressed only from an employer's point of view. What about issues of social and environmental responsibility?	NA DI	Committee's comments are not relevant to this question. See Pg. 6:, III., 6. of AGB Program Review, 1/96.
8. Is program assessment adequate and effective?	M		DI	See Pg. 13., m., 7. of AGB Program Review, 1/96.
9. Are efforts to help under-prepared and at-risk students adequate?	I	What is MAP? what is faculty participation in MAP, and in dealing with at-risk students?	AC	See Appendix III and Attachments re: MAP.
10. Are experiential learning opportunities available and appropriate to the program?	A		DR	See Pg. 13., m., 9. of AGB Program Review 1/96. Internship program is highly acclaimed. and recognized by California agribusiness industry.

IV. INSTRUCTION 1. How is diversity addressed in instruction?		The department should consider how diversity is addressed in instructional methods as distinct from course content.	AC  DI	Role playing and debates in AGB 401, <i>Managing Cultural Diversity of Agricultural Labor Relations</i> , and AGB 318, <i>Agricultural Trade Policies</i> - address concerns of ethnicity and gender. See Pg., 14, IV., 1. of AGB Program Review 1/96 discussion of women in agribusiness.
2. Are innovative and new courses offered?	M	Topics mentioned don't seem particularly innovative	AC	Courses added recently to curriculum, in addition to Wine Certification courses, include AGB 412, 315, 450, and 445. (See Appendix IV for course titles). Difficult to add new courses as faculty numbers have decreased significantly.
3. How is teaching quality assessed and used?	A-	Good set of criteria. Assessment is the standard minimum.	AC	College of Agriculture evaluations more comprehensive than University average.
4. a. SCU/FTEF	361			
b. FTEF used/FTEF generated	.72			
c. S/SCU	251			
d. WTUI/FTEF	14.49			
5. Are service course responsibilities met?	N/A			
6. Are there low or oversubscribed courses?	N/A			
7. Are GEB and service courses listed?	A		A	
8. What percentage are taught by tenure track?	M	20% of GE&B	DR	AGB 401, <i>Managing Cultural Diversity in Agricultural Labor Relations</i> - 100% tenure track; AG 250, <i>Computer Application to Agriculture</i> - 80% part-time. University administration informed us we were not to staff AG 250 with tenure track faculty.
9. Are remedial courses and workload described?	N/A			
V. FACULTY I. Are gender and diversity appropriate?	M	No ethnic diversity, 3/18 Female	AC	Three of the last four more recent hires are women. Have attempted to hire under-represented minorities and have complied with University Affirmative Action guidelines
2. Are background and training appropriate?	A	Large number of degrees from Cal Poly. 11/18 Ph.D. Ph.D. is now required for tenure-track hire.	A	
3. Have faculty received special recognition?	M		DI	See Pg. 17, V., 3. of AGB Program Review, 1/96. Add Douglas Genereux as winner of Dole Teaching Award.

4. Is professional development policy appropriate?	A	How are these activities prioritized by the department?	AC	Operating under College of Agriculture guidelines
5. Is level of professional development adequate?	A-	Lots of conferences, but few papers presented. What professional development opportunities are provided for non Ph.D. faculty members?	AC	Same opportunities to conduct research in AGB as in other departments in College of Agriculture and University.
6. Are grants and contracts adequate?	A	What are the opportunities for funding in this area?	A	
7. Is publication policy appropriate?	A	How are activities prioritized?	AC	Operating under College of Agriculture guidelines
8. Is faculty publication record adequate?	A-	Heavy on nonrefereed publications. What are the research reports mentioned?	AC	Many research reports are for industry associations; reports from consulting contracts with industry and government.
<b>VI. STAFF</b>				
1. Are program staff listed?	YES			
2. Is staffing level adequate for needs?	A		A	
<b>VII. FACILITIES</b>				
1. Are facilities described?	YES			
2. How well are facilities maintained?	A		A	
3. Is library collection adequate?	A	Not adequate for research	AC	Does not create major problem because of increased reliance on electronic media.
4. Any other relevant facilities?	A		AC	New multimedia, studio classroom will be a state-of-the-art facility.
<b>VIII. RELATIONS TO THE OUTSIDE</b>				
1. Program accredited or taking steps?	N/A			
2. If not, is there outside review?	YES	Only every 10 years	DR	Ten years was set by the College of Ag in the strategic plan but was changed to once every five years at Department Head's retreat on 6/11/96 and is to follow the guidelines established by the Academic Senate.
3. Most recent report included?	YES	Suggestions from external review do not appear to have been adequately addressed.	DI	See Pgs. 3-5 of AGB response to Committee questions.
4. Solicit advice, etc. from prof. community?	A	Advisory Board appears to be all management, no representatives from production.	DI	Discussed with Committee that Advisory Board, in fact, includes representatives from production agriculture..
5. Are faculty involved at state and national level?	A		A	
6. Are interdisciplinary efforts adequate?	M	Involvement could be broader. What other than World Food Politics? Any joint efforts with Business or Econ?	DR	See Pgs. 6-7 of AGB response to Committee's questions.



7. Are interdisciplinary courses taught?	M	Could do more in this area	AC	On-going effort to create interdisciplinary courses; university must find ways to make the process easier.
IX. OPPORTUNITIES FOR GRADUATES 1. Do graduates have employment opportunities?	A		DR	Our tracking of graduates indicates rating by Committee of E - Exceptional would be appropriate.
2. Do graduates have grad/prof school options?	A		DR	Our tracking of graduates indicates rating of Committee of E • Exceptional would be appropriate.
3. Have recent graduates been successful?	A		DR	Uncertain of Committee's criteria of measuring success.
X. <b>GOALS</b> AND OBJECTIVES Is the program meeting its goals and objectives?	M	External Review (1989) indicates that goals and objectives are not being met, and these concerns have not been adequately addressed in the intervening years.	DR	External Review (1989) did not evaluate current Goals and Objectives; Mission Statement written after that review.

General comments:

Program curriculum appears to be heavily oriented toward large business interests.

Appendix #1

Breakdown of Units by Area of Curricula for Selected Departments

Curriculum	Degree Units	Units in Major	Units SUODOrt	Units GEB	Free Electives
Statistics	186	69	36	67	14
Soil Science	198	92	41	55	10
Materials <b>Engineering</b>	208	70	78	57	3
Landscape Architecture	236	118	49	58	11
<b>English</b>	186	75	4	76	31
Agribusiness	192	66	61	56	9

Source: Cal Poly Catalog 1994-97

Except for the English Department, the number of Free Elective units is no better nor worse than the requirements of the departments of the four members of the Review Committee.

## Appendix #2 - Department Comments

The Program Review and Improvement Committee inferred erroneously that, "the department's motivation for inclusion of diverse perspectives and issues of environmental and social responsibility is self-serving. The philosophy seems to be to fight the rest of the world rather than to integrate into it." There is apparently a misunderstanding of what the Agribusiness Department is doing. We are aware that agricultural practices in this country, and around the world, are changing; and we want our students to understand the full range of challenges that they will face in the years ahead. We are not teaching dogma or a party line about how agriculture should be. We want to equip our students with critical thinking skills and to develop the ability to articulate their beliefs and ideas, whatever they may be. What better way to do this than to have our students analyze the polar views of leading experts, ones with vastly divergent views of the causes of or solutions to a problem. We are not hanging on to the past, except when the past can serve to make the future better. Is that self-serving?

Appendix #3 - Explanation of Multicultural Agriculture Program (MAP)

See Attached

}

## Providing Services for Students and Faculty

- ✓ Academic advisement
- ✓ Career exploration
- ✓ Developing networks
- ✓ Ethnic support groups
- ✓ Faculty Advisor Program
- ✓ Industry contacts
- ✓ Internship opportunities
- ✓ Leadership development
  - ✓ Outreach
  - ✓ Providing resources
  - ✓ Removing barriers
  - ✓ Student achievement
  - ✓ Student Peer Advisor Program
  - ✓ Student recognition
  - ✓ Student retention
  - ✓ Supplemental instruction

## MAP Sponsors

*MAP depends on private support in its operation. The College of Agriculture is indebted to those who have contributed to MAP's development and operation.*

*(alphabetical order)*

Bank of America Foundation

Ciba-Geigy Corporation

Monsanto Agricultural  
Group

Wells Fargo Bank  
Foundation

The MAP Student Center is located in building 10, room 134. The hours of operation are posted outside the door. Visitors are always welcome.

*For more information, please contact:*

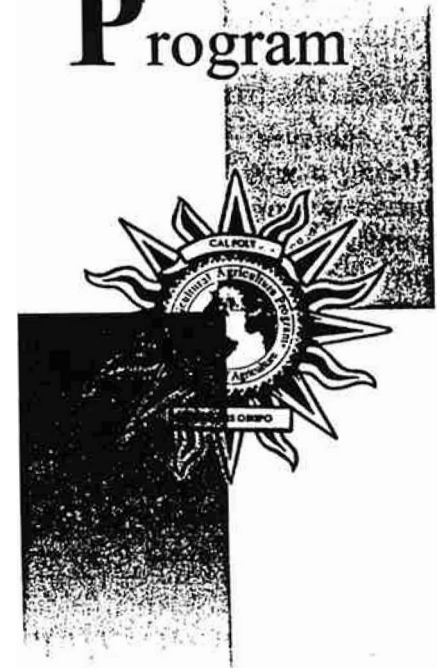
Dr. Robert A. Flores  
(805) 756-2169

**CALPOLY**  
CALIFORNIA  
POLYTECHNIC  
STATE UNIVERSITY  
S A N L U I S O B I S P O  
C A 9 4 0 7

## Multicultural

## Agriculture

## Program



*"Ensuring student success"*

COLLEGE OF AGRICULTURE  
California Polytechnic State University  
San Luis Obispo

## *OUR MISSION*

The mission of the Multicultural Agriculture Program (MAP) at Cal Poly is to provide academic and personal support to students of all cultural backgrounds in the College of Agriculture.

MAP achieves this mission by rendering a wide variety of services to assure student success at Cal Poly. Currently, MAP is directing its attention and resources on student retention and increasing the student graduation rate, with a particular focus on meeting the needs of the ethnically underrepresented students. The ultimate goal is to provide for a diverse campus learning environment in the College of Agriculture.

## *PROGRAM OVERVIEW*

MAP at Cal Poly began in January of 1993. Facilities were assigned for MAP use and contributions from departments in the College of Agriculture and units within Student Academic Services allowed for the acquisition of equipment. Students targeted for services began using the partially equipped center soon after that.

In order to meet the needs of so many student users, the College of Agriculture has incorporated several facets to MAP. In addition to a faculty member serving as the director of the program, Student Academic Services has assigned an academic advisor as a liaison to the College of Agriculture. Paid Student Peer Advisors provide students with peer support and interaction. Volunteer Faculty Advisors provide the academic support and guidance in creating a warm and friendly atmosphere.

## *FACILITIES* — — — —

The MAP Student Center is located in the Erhart Agriculture Building (building 10), room 134. The center consists of a reception room, a reading room, a resource room, and a group meeting room,.

### RECEPTION ROOM

The Reception Room serves as a welcoming area to the center. Students are invited to meet with peers, faculty advisors, or others in this area. Anytime a student needs a place to "park" between classes, this room serves as their "home-away-from-home" for individual or group study.

### READING ROOM

The Reading Room gives students a quiet place to study and prepare for examinations. At times, this room is also used for group sessions.

### RESOURCE ROOM

The Resource Room consists of academic supplies, computer equipment, and other resources for student use. Industry publications, job bulletins, listings of internship opportunities, and announcements from student organizations are posted in the Map Student Center.

### GROUP MEETING ROOM

The Group Meeting Room serves students interested in individual or group study of a particular subject. Students are encouraged to reserve the room for their use. Student Academic Services is cooperating with MAP in providing volunteer tutors and student assistants (peer tutoring and advisement) to the students, based on student needs and the availability of funds.

## *STUDENT ORGANIZATIONS* -

MAP assists in the formation and operation of student support organizations for various ethnic groups. It is important to note that the student support organizations are created to assist the students in adapting to college life. Throughout the adjustment process, students are encouraged to "branch out" and participate in the leadership functions, community service activities, and social events as members of other student organizations in the College of Agriculture.



# MAP STUDENT CENTER

Multicultural Agriculture Program

**IT'S HERE TO HELP YOU!**

For your convenience we have . . .

## **GROUP STUDY ROOM**

You can meet with your study group and tackle class material.

## **COMPUTER ROOM**

You can use the Mac Classic and HP Desk Writer for your reports.

## **READING ROOM**

You can study in a quiet environment.

## **STUDENT PEER ADVISORS**

You can come and talk to the Student Peer Advisors in the College of Agriculture. They will assist you in developing class schedules and will inform you of campus resources.

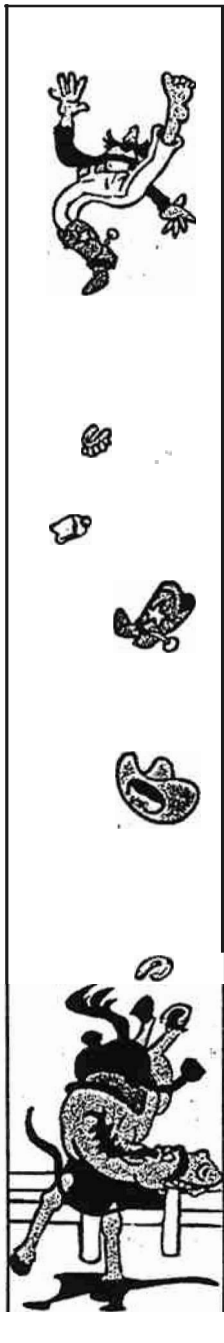
## **FACULTY ADVISORS**

Various faculty members hold their office hour in the MAP Student Center. This is an opportunity to get to know the faculty, as well as get valuable career advice and assistance with academic concerns.

You can find all these *luxuries* without leaving the

**AG. BUILDING (10-134)**

For more information, please call 756-2627



# COLLEGE OF AGRICULTURE

# STUDY GROUPS

Looking for help in Ag related classes or support courses?  
Then check out the following resource list available to you!

## STUDENT PEER RDUISDRS:

### Kelleu dackson **kaJackso**

AG 250  
BACT 221  
BIO 101  
CHEM 101121  
FSN 210  
HIST 318x  
MATH 100104  
PSY 201  
STAT 211

### Lily Mesa **limesa**

VSCI general  
CHEM general  
PHYS general

### Blma Mariscal **amarisca**

ACT 211  
AE 340  
ENGL 111 112 114 200  
AGB 101210212310  
SPAN all levels

### rawn1 Hgang **lthoang**

PHYS 131132133  
AE all levels  
MATH up to 241  
CE 204 205 206  
CHEM 124

WATER MANAGEMENT  
HYDROLOGY

ASCI all levels  
VSCI all levels  
BIO 133200303  
CHEM 127 128 129  
PHYS 121122123  
MATH up to 120  
STAT 211  
ENGL all levels  
PSY 201  
GEOG 308  
ZOO 405

### Bertha Hernandez **bhernand**

SS 121433

## PROCEDURES:

1. Email the contact person to set up a session.
2. Call x2627 to schedule by phone, or
3. Drop by the MAP Student Center (10-134) during Student Peer Advisor's office hour.

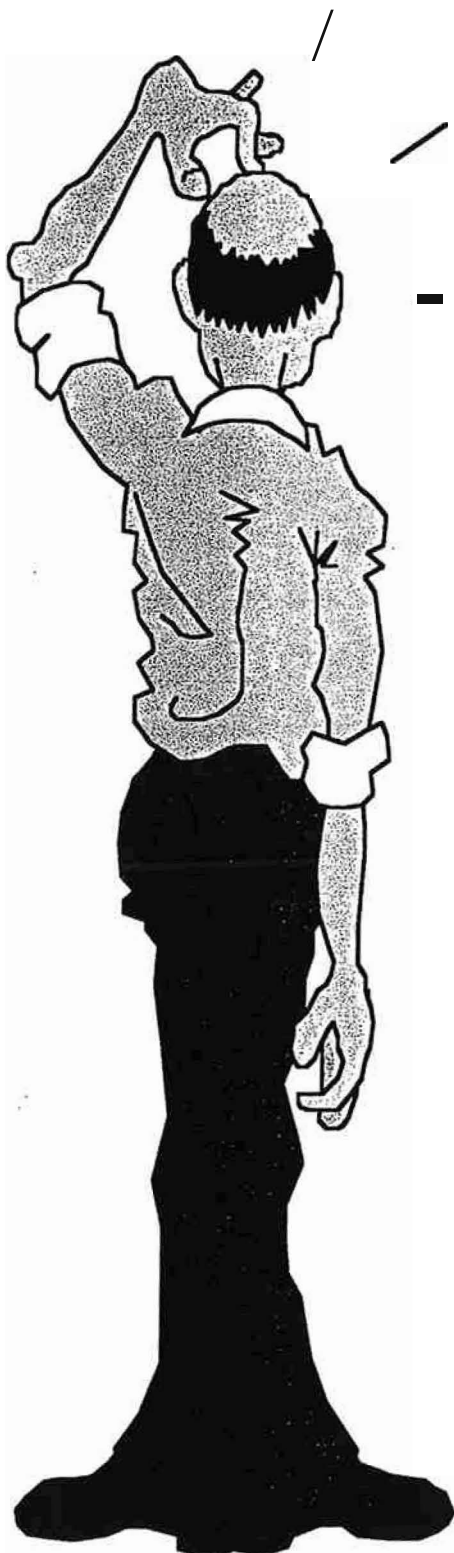
## FOR MORE INFORMATION:

If you have any questions, please contact Mr. Louis 8. Vega at X2301 or at [lbvega@calpoly.edu](mailto:lbvega@calpoly.edu).

In partnership with student Academic Services, the College of Agriculture,  
and the Multiculture Agriculture Program



# EMERGENCY SCANTRONS!



Are you having an exam and don't have a scantron handy or can't get to the store in time for a test?

The Multiculture Agriculture Program Student Center (bldg.IO, room 134, 756-2627) has Emergency Scantrons available!

## PROCEDURES:

- A) Drop by the MAP Student Center.
- B) Ask any one of the **Student Peer Advisors** to get you one or two scantrons.
- C) It is suggested that scantrons taken be replaced at a later time.

## FOR MORE INFORMATION:

Please contact Mr. Louis B. Vega at 756-2301, Hillcrest Building 81 or at [lvega@calpoly.edu](mailto:lvega@calpoly.edu)

*Sponsored by the Multiculture Agriculture Program, College of Agriculture and Student Academic Services.*

# COURSE RESOURCE FILES

The MAP Center is updating its Course Resource Files and would like to know if anyone has old notes, test, study guides, or labs from Rg related and non Rg related courses.

## PROCEDURE:

1. Stop by the MAP Center Bldg. 10-134 and drop off your course files. (756-2627)
2. Please drop off the course files that you believe can be of any help to other students in the "pink" file box.
3. Then a Student Peer **Advisor** will make copies and you can pick up your original files at the end of the week.



*If you have any questions, please contact anyone of the Student Peer Advisors on duty. The office hours are posted outside the MAP entrance.*

# HISTORY 315



Supplemental Instruction Session  
@ the \*M.A.P. Student Center

Supplemental Instruction is designed to enhance the instruction given in class. A facilitator attends the class and reviews the subject matter with students.

MW @ 2:30pm at the MAP Group Study Room 10-134

If you would like to be part of this group or any other, see the list at the MAP Center (10-134) or submit a request at the Academic Skills Center Bld. 33 Room 292.

*For more information, please contact Mr. Bill Sydnor at 756-1256 [wsydnor@calpoly.edu](mailto:wsydnor@calpoly.edu) or Mr. Louis B. Vega at 756-2301 [lvega@calpoly.edu](mailto:lvega@calpoly.edu)*

\*Multicultural Agriculture Program, College of Agriculture

# CAL POLY


SAN LUIS OBISPO

Agricultural Education Department

## MEMORANDUM

April 22, 1996

To Dr. Bill Amspacher  
Agribusiness Department

From Bob Flores  .Copies:

Subject Faculty Advisors to MAP

The following individuals from the Agribusiness Department have served as volunteer Faculty Advisors to the Multicultural Agriculture Program:

Member of the Faculty	Year		
	93-94	94-95	95-96
James Ahern	XXX	XXX	XXX
William Amsoacher	XXX		XXX
Phillip M. Doub	XXX	XXX	XXX
Douglas G. Genereux	XXX		
Jay E. Noel	XXX	XXX	
Nancy C. Ochs	XXX	XXX	XXX
David J. Schaffner	XXX		
Kenneth C. Scott		XXX	
Robert Thompson	XXX	XXX	

The Faculty Advisor Program is a critical component of MAP because it brings members of the faculty closer to the students. Invariably, most of the faculty members who have participated have "opened the doors" to increased communication between them and the students who frequent the MAP Student Center. Of course, serving as a Faculty Advisor is but **one** way to enhance student advisement. Anything we do to show our support and concern for students will pay big dividends in the process of academic advisement.

Thanks for requesting this information. If you should note any errors, please let me know.

Appendix #4 Course Titles

AGB 315, *Land Economics*

AGB 412, *Advanced Agricultural Policy*

AGB 445, *Product Marketing*

AGB 450, *Agribusiness Strategy Formulation*

## Animal Science

### I. Mission and Goals

The mission statement seems fine; there seems to be a "disconnect" between the goals, as they are stated at the beginning, and what follows. For example, the goals statement mentions "diversity", but very little of what is presented supports it. Another example: the goals statement states that the department is striving for a balance between technical education and general education; it is questionable that much balance is achieved. The document does a good job of identifying certain needs, but presents no plan for addressing them.

### II. Students

There is some concern here; admissions are not particularly selective, there are very few males in the program, the percentage of students on probation is high in comparison with other segments of the university. At the same time, retention rates seem very low, as do graduation rates. The committee feels that attention must be given to these things; especially, serious thought must be given to recruitment efforts which might improve the pool of applicants.

### III. Curriculum

The committee raised many questions about the curriculum--there was unanimous agreement that the number of required science courses (biology, etc.) is very low. There seems to be no evidence that the desired learning objectives are met. The committee does not understand what it means to say that the curriculum has been "externalize". We are also somewhat puzzled by the role of "CEA's" in the major. The major core plus the CEA results in a 90+ unit major. There are very few free electives. Why not simply open up the units and allow the students to choose themselves? The department might attract a more diverse student population and attract students desiring to change their major if they were to open up electives in the curriculum. With regard to questions of gender and ethnicity, there is no formal requirement. There is a course offered in the fourth year which deals with these issues, but this seems rather late in the game. The critical thinking component appears to be limited to the application of technology and logic. There has been no rigorous external review and assessment seems minimal, but the department reports that an external evaluation is planned. The department should improve its efforts to help under-prepared and at-risk students, which are passive and reactive rather than pro-active.. A strength of the program is the opportunity it offers students for experiential learning.

### IV. Instruction'

There seems to be some misunderstanding about what is meant by "diversity" in this section. In

the context of this section, it is taken to mean diversity in instructional methods. How are important differences among students addressed in the classroom?

SCUIFTEF: · 250 (94-95)

\$/SCU: \$382 (94-95)

#### V. Faculty

There is very little ethnic diversity on the faculty, but in fairness, the department has had little recent opportunity to hire. Only six of the present fourteen faculty members possess the doctorate. The department reports that all tenure-track faculty hired since 1980 have been Ph.D.'s, and the a Ph.D. is now considered a requirement for tenure-track hires. While the statement on professional development resembles that of many other departments on campus, it would be helpful if the department could indicate which activities are given the highest priority. Most of the activity in this area is in consulting and attendance at professional meetings. Are these the most important activities? What weight does the department give to the various activities listed for promotion and tenure? The department is encouraged to expand professional development activities.

#### VI. Staff

Given the department's varied activities and the routine responsibilities such a program requires, staff resources appear to be stretched pretty thin.

#### VII. Facilities

The department has done a good job describing its facilities and the problems of maintaining them.

#### VIII. Relations

The committee agreed that this department could profit from an *independent* external review. There were many questions raised about the Advisory Board, especially the scope of its responsibilities and its objectivity. The department is encouraged to explore additional avenues for external input.

#### IX. Opportunities for Graduates

The department should provide information on the opportunities for women in the field, especially given the fact that the majority of its majors are female. Tracking of *all* graduates should be undertaken, insofar as it is possible. There is a feeling that tracking only the *successful* ones yields an interesting, but distorted picture.

## X. Goals and Objectives

The goals are admirable, but are they being achieved?? Few of the goals and objectives listed in the faculty section of the document appear to be met (Section I). The department has been active in curricular reform, and we encourage them to continue to look at ways to increase the flexibility of their program.

## XI. Strengths and Weaknesses

### Strengths:

1. The department has undergone extensive curriculum revision; we urge them to go further, identifying what is essential with an eye toward freeing up more electives.
2. There are many opportunities for experiential learning.
3. There seems to be promise in the department's plan for a Poultry Science minor.
4. The department works very hard to maintain and husband their facilities.

### Weaknesses:

1. No independent external review.
2. Low graduation and retention rates.
3. Very little science in a curriculum that would be enriched and solidified by its inclusion.
4. Curriculum lacks adequate flexibility; role of the CEA not clear.
5. No coherent plan for dealing with the nature of the student population; more attention needs to be given to at-risk students.
6. Program is admitting more students, the number of faculty has been steadily decreasing, and larger numbers of students are on academic probation--these are disturbing trends which must be addressed.
7. Department should open up the number of free electives; allow students to choose what combination of courses outside the major best suits their life and career goals.

### General Comments:

The department has put considerable effort into revising its curriculum, and they are moving in the right direction.



Animal Science

Template for PRIAC Review Process  
1995-96

This template assures that every item (or group of items) in the Request for Information is commented on. Information used in the review has been that provided by the Programs as well as that provided by Admissions, Institutional Studies, and Academic Affairs.

The rating scheme consists of five categories:

- M Minimal - Poorly developed or below university norms
- A Adequate
- E Exceptional - Program is innovative and/or above university norms
- I Insufficient information
- NA Not applicable to this program

ITEM	RATING	COMMENTS
I. MISSION AND GOALS		
1. Mission statement clearly stated?	A	
2. Goals and objectives clear?	A	
3. Consistent with university strategic plan?	A	
4. Priorities consistent with mission and goals?	A	
5. Unmet needs consistent with mission and goals?	A	
6. Is there a realistic plan to meet needs?	M	Plan of "prayer for money" not realistic
II. STUDENTS		
1. Are new students balanced between freshmen, transfers, and internal changes?	A	
2. How does quality of applicant pool compare to college and university?	A-	high % accommodated, appears to be declining
3. How does gender and ethnic diversity compare to college and University?	A-	
4. How do probation and dean's list percentages compare to college and university?	M	% on probation very high
5. How does persistence to graduation compare to college and university?	M	Retention rates much lower than university, graduation rates low
6. Are recruitment efforts consistent with need?	M	Recruitment efforts to expand the applicant pool might result in better Quality
7. Have students received recognition or awards?	I	Department should consider some way of tracking student awards and honors
III. CURRICULUM		
1. Desired outcomes clear? Are they met?	M	No evidence that desired learning objectives are met
2. Is curriculum structure/concentrations clear?	A	What does it mean to say that curriculum has been externalized?
3. Is the program coherent?	I	Unable to assess coherence
4. How do course and unit requirements compare to other institutions?	A-	Core + CEA = 90 unit major. Very few free electives.
5. Is inclusion of contemporary topics adequate?	A	
6. Are critical thinking component adequate?	A-	
7. Are gender and ethnicity dealt with in the curriculum?	M	40I course not required, and late in the curriculum
8. Is program assessment adequate and effective?	M	No external review, assessment seems minimal

9. Are efforts to help Wider-prepared and at-risk students adequate?	M	Efforts in this area appear to be needed given high % on probation
10. Are expentiallearning opportunities available and appropriate to the program?	E	
IV. INSTRuCTION		
1. How is diversity addressed in instruction?		The department should consider how diversity is addressed in instructional methods as distinct from course content.
2. Are innovative and new courses offered?	A-	X315 not new or innovative, other changes appear to be more of a repackaging rather than new
3. How is teaching Quality assessed and used?	A	
4. s. SCUIFTEF	250	
b. FTEF used\FTEF generated	1.00	
c. \$/SCU	382	
d. WTUIFTEF	13.72	
5. Are service course responsibilities met?	A	
6. Are there low or oversubscribed courses?	A	
7. Are GEB and service courses listed?	N/A	
8. What percentage are taught by tenure track?	N/A	
9. Are remedial courses and workload described?	N/A	
V. FACULTY		
1. Are gender and diversity appropriate?	A	No ethnic diversity, but little opportunity to hire
2. Are background and training appropriate?	A	Only 6/14 Ph.D. Ph.D required since 1980, but little opoortunity to hire
3. Have faculty received soecial recognition?	A	
4. Is professional development policy appropriate?	A	
5. Is level of professional development adequ.ate?	A	Mostly consulting and attend.ance at professional meetings
6. Are grants and contracts adeQu.ate?	A	
7. Is publication policy appropriate?	A	
8. Is faculty publication record adequate?	A-	
VI. STAFF		
1. Are program staff listed?	YES	
2. Is staffing level adequate for needs?	A	
VII. FACILITIES		
1. Are facilities described?	YES	
2. How well are facilities maintained?	A	
3. Is library collection adequate?	A	
4. Any other relevant facilities?	A	
VIII. RELATIONS TO THE OUTSIDE		
1. Program accredited or taking steos?	N/A	
2. Ifnot, is there outside review?	NO	Program could benefit by external review. Department reports that external review is planned.
3. Most recent report included?	NO	
4. Solicit advice, etc. from prof community?	A-	The objectivity and scope of the advisory board was Questioned.
5. Are faculty involved at state and national level?	A	
6. Are interdisciolinary efforts adequate?	M	
7 Are : , tQ11nht?	NO	

IX. OPPORTUNITIES FOR GRADUATES		
1. Do graduates have employment opportunities?	A	What are the opportunities for women in the field. given so many of the majors are female?
2. Do graduates have grad/prof school options?	A	
3. Have recent graduates been successful?	I	Should proceed with plans to track all graduates (not just successful ones)
X. GOALS AND OBJECTIVES		
Is the program meeting its goals and objectives?	A-	Goals are admirable, but are they being achieved? Few of the goals and objectives listed in the faculty section appear to be met. How are biological and cultural diversity addressed?

General comments:

Strengths: Department has been active in curricular revisions. We encourage them to go further, identifying essentials to free up more electives.

Weaknesses: No external evaluation.

Graduation and retention rates low.

Lack of science in the curriculum.

Role of the CEA's not clear.


No good plan for dealing with the nature of the student population. Given high percent of students on probation, - appropriate attention should be given to at-risk students.

More students, fewer faculty, increasing % on probation--these are disturbing trends that should be addressed.

MEMORANDUM  
Animal Science Department  
Cal Poly San Luis Obispo

TO: Program Review and Improvement Committee  
Roxy Peck, Chair

Date: June 11, 1996

FROM: Ken Scotto, Chair   
Animal Science Department

COPIES: Irvin  
Jen

SUBJECT: Response to Animal Science Department **Program** Review 1995-96

The Animal Science Department appreciates the time and efforts of the Program Review and Improvement Committee (PRAIC) in its assessment of the Animal Science program. The process must seem a thankless one at times, given the defensive reactions which invariably result when one (a department or program) is subject to criticism-initial responses tend to be reactionary, rather than the result of careful thought. In general, the Department feels that the PRAIC was fair-minded in its assessment of the program, and appreciated the time spent with the committee in discussion prior to the preparation of the final review document. The Department assumed that it had clarified questions regarding the curriculum, but apparently not as regards the following:

111.2. Is curriculum structure/concentrations clear? comment: *"What does it mean to say that curriculum has been externalized?"*

Refer to page 7, paragraph 2, of the Program Review. With the new curriculum, required units from ASCI, PM, and VS were decreased from 68 to 46. Required units from CAGR were decreased from 17 to 3; "externalized" refers to the fact that ASCI students may satisfy degree requirements with fewer units from the CAGR (ASCI dept. and others combined).

111.3. Is the program coherent? (Logically ordered?) comment: *"Unable to assess coherence"*

The PRAIC appeared to have **concerns** relative to the role of the career elective area (CEA) of the Animal Science curriculum. Refer to pages 6 and 7, and Appendix Band C of Program **Review**. The CEA is a group of "major" courses comprising 35 to 36 units of advisor approved electives. The Department has suggested eight CEAs which are designed to complement certain career goals; any of these CEAs may be amended (see Appendix C) to satisfy the needs/desires of a student. Working with his/her advisor, a student may design a completely different CEA from those listed. The PRAIC appears to have a problem with "advisor approved" electives, and suggested that the Department "open up the units and allow students to choose themselves." The Department submits that no department represented by those comprising the PRAIC allows a student 46+ units of free electives.

- The CEA is a "vehicle" for enhanced advisor/advisee relationship

- ASCI students have essentially 46 to 49 units of electives when the CEA (35 to 36 units) is combined with free electives (11 to 13)
- The ASCI Department suggests that the current curriculum structure offers significant flexibility to students enrolled in the program

111.7. Are gender and ethnicity dealt with in the curriculum? comment: *"(AGS) 401 course not required, and late in the curriculum"*

The Department would appreciate suggestions/recommendations from PRAIC on how improvement could be made in this area. Many faculty address issues (see page 9 of Program Review) in class, but there is no structure for same. Would PRAIC suggest such a structure? Is there any concern that efforts (formal classes?) might duplicate those of GEB?

111.9. Are efforts to help under-orepared and at-risk students adequate? comment: *"Efforts in this area appear to be needed given high % on probation"*

The Department offers no remedial classes; would appreciate suggestions from PRAIC which go beyond those indicated on page 9 of the Program Review.

IV.2. Are innovative and new courses offered? comment: *"(ASCI) X315 not new or innovative, other changes appear to be more of a repackaging rather than new"*

No mention here of ASCI 476 (Issues in Animal Agriculture), ASCI 410 (Ultrasonography), or of AG X371 (World Food Politics). The Department concedes that Farrier Science (ASCI X315) is not innovative. What is innovative is the method of delivery; distance learning efforts have been encouraged by the administration. The X315 class is being taught at the urging of the Equine Sciences Consortium. CSU Pomona, CSU Fresno, and UC Davis asked Cal Poly to offer this class, because the Animal Science Department has an instructor (Gene Armstrong) who is considered among the best in the nation on the subject.

VIIIA. Solicit advice, etc. from professional community? comment: *"The objectivity and scope of the advisory board was questioned."*

As indicated on page 18 of the Program Review the ASCI Advisory Council provides input on various matters affecting the Department. The advisory council is not an impartial external review board, nor is it intended to function that way. These people volunteer their time in service to the Department, but they are not "yes people;" they have been very aitical of our program at times, but their intent is to make the Department better. If the PRAIC would like a list of the current advisory council members, and their respective professions/positions in the agricultural industry, the Department will be happy to supply it.

The Department appreciates the need for an external review, and is making plans for same. In fact, many faculty feel that a review that compares Cal Poly's Animal Science program to other Animal Science programs in similar institutions would be more appropriate than a review which makes

comparisons among departments/programs within the university. The Animal Science Department appreciates, too, the need for more concerted efforts in the tracking its graduates.

The PRAIe noted that there is "very little science in a curriculum that would be enriched and solidified by its inclusion." The assumption here is that science only exists in courses with BID or CHEM rubrics; the Department submits that there is significant scientific component in such courses as VS 123 (Anatomy and Physiology), ASCI 22,0 (Introductory Animal Nutrition and Feeding), ASCI 304 (Animal Breeding), ASCI 401 (Reproductive Physiology), and ASCI 420 (Animal Nutrition). In addition, a significant number of Animal Science students elect the pre-veterinary/graduate school CEA (see page 22 of the program review) which is comprised of at least 36 units of "science" courses alluded to by the PRAIC. On one hand the PRAtC recommends more free electives for ASCI students, and the other it recommends more required courses which, it seems, would decrease the flexibility of the curriculum.

In summary, the Animal Science Department believes that the greatest value of this review process is that it has afforded the Department the opportunity to take a serious look at itself. The Department has spent considerable time developing a new curriculum, and with the recent recommendation of the Academic Senate that courses be redesigned to comprise four units or more, there is more work to be done. The Department has begun that process, and will give serious consideration to the recommendations of the PRAtC.

# Biological Sciences Department

## I. Mission and Goals

The mission is comprehensive, broad and general. However, the exact nature of the various goals and objectives are unclear due to their generalizations. What are the specific priorities among these goals and objectives?

The Department perceives a critical need to hire new faculty. The Department is making more efficient use of its resources, retraining faculty to teach courses outside of their specialization, offering specialty courses less frequently, eliminating or combining some courses and/or concentrations, and increasing the class size of some sections. The greenhouses and animal care facilities need repair. Part of these needs will be met by seeking extramural funds and equipment donations.

## n. Students

The Department's program has been impacted over the past five years. Prospective students have a low (about 30 %) show rate. Although the Department participates in the College of Science and Math SMART (Science and Math Are Really Terrific) program, it is encouraged to seek ways to enhance the show rate. Also, even though they are turning away good students, it is important to get the message out that the program remains excellent and that competition is strong. Students in this Department have high SAT scores and GPAs. The number of students on probation is higher than usual for some of the degree programs. The department is addressing this by adding chemistry and biochemistry prerequisites to key microbiology courses and adding a freshman orientation audio/tutorial course to its curricula. The number of students receiving recognition seems low relative to the large number of students in this major.

## m. Curriculum

The curriculum seems to be heavily weighted with courses within the major. Also, there are very few free electives. The concentrations seem cumbersome and complicated. The department indicates that it has eliminated two concentrations in the 97-98 catalog. The program rigidity doesn't seem justifiable in arts and science curricula. The department should consider ways in which they can open up their curricula (e.g. eliminating advisor approval for elective courses). It is gratifying to realize that the Department encourages students to present their senior project research at professional meetings. The Department should consider eliminating the non-thesis option for graduate students. The Department appears to be at the fore front of advancing technology in terms of computer applications through geographical information systems and laser disk technology for delivery of teaching modules, as well as, hands-on experience in molecular biology, tissue culture, immunology, and protein chemistry. The critical thinking component is described, but it is

only marginal and general. It seems limited only to science and technology with little extension to the implications of how these impact society. Although these topics are apparently addressed in one or more courses, the extent is unclear. The use of essay exams per se does not guarantee critical thinking. What are the effective learning outcomes you expect for your students? The statements appear to be very content oriented, rather than global.

The Department participates in the Minority Access to Health Professions. The Department is encouraged to find additional ways to enhance the coverage of gender and ethnicity within the curriculum. The Department promotes an active program of student experiential learning by involvement in various internships, co-ops and other opportunities. Should the Department consider developing a more formal internship or cooperative learning program by delineating more clearly what opportunities these students have? We interpret experiential learning more broadly and believe this is occurring within the department, but that the ways that students are doing this on this campus was not addressed clearly in your report.

#### IV. Instruction

Given the crucial **role** of ethnic diversity and the need for cross-cultural understanding in the biological sciences, the issues of gender and ethnic diversity would seem to require additional attention in order to prepare students properly to perform professional activities in morally and ethically appropriate ways. The Department does involve the use of the computer into many of its courses. It is noted that graduate students have the opportunity to teach laboratories under the supervision of a mentor or "master teacher". The Department offers a large number of courses with enrollment over 100 students. The risk in such large class sections is to be challenging and to provide a sense of ownership by the student in the learning process. Approximately two-thirds of the teaching responsibility in the Department is with respect to general education courses. The Department has begun to eliminate or reduce the number of course offerings of some low enrollment courses.

#### V. Faculty

All faculty hold a doctoral degree and some have received additional special training. Although several faculty have received recognition from outside of California, the number seems small for such a large department. There is a lack of diversity among the faculty. The sciences appear to have a large pool of qualified women Ph.D. candidates. Although the professional development policy is stated, it is not clear what priority is given to each item. What priority is used for the publication policy? As a whole the Department has been awarded over \$.2.4 million in grants and contracts. Some faculty do extensive consulting for public and private agencies.



## VI. Staff

Most of the staff have received the Outstanding Staff Award. Government regulations are increasing the need for additional staff time to fulfill the appropriate safety and regulatory processes for animal health.

## VII. Facilities

The Department maintains a microcomputer area for students. In addition, they have several collections of various plants and animals. Additional funding is essential for the maintenance and expansion of these collections. The cancellation of several significant journal subscriptions has reduced the functional value of the library resources.

## VIII. Relations to other programs and the professional community

The Biological Science program was reviewed by a team of three scientists during the Spring of 1995. Each concentration was evaluated along with the masters program. Several points brought out by these reviews were the need for enhanced curriculum flexibility, lack of new equipment, and a recognized "drain" on program resources. The Department plans to solicit more donations of money or equipment. The Department could develop an external advisory committee to assist with these matters. Several of the faculty serve on state or national committees. The Department faculty members conduct research in one or more of the following areas: the Coastal Resources Institute, the Institute of Environmental Restoration and Microbial Diversity, and through the Biotechnology minor. Interdisciplinary courses are taught in conjunction with the Chemistry Department and with the physical sciences program. The number of interdisciplinary courses is disproportionately low relative to the large amount of interdisciplinary research that appears to be conducted by the faculty. Are these interdisciplinary research efforts too narrowly focused?

The external review suggests fewer concentrations, elimination of some courses and revisions of other courses. How does the Department plan to address these suggestions?

## IX. Opportunities (or Graduates)

Approximately 40 to 50 % of the graduates pursue advanced degrees. The diversity of the program provides ample employment for most of these students.

## X. Goals and Objectives

Students express satisfaction with the program. The Department provides an effective balance between theory and practice.

Biological Sciences  
 Template for PRIAC Review Process  
 1995-96

This template assures that every item (or group of items) in the Request for Information is commented on. Information used in the review has been that provided by the Programs as well as that provided by Admissions, Institutional Studies, and Academic Affairs.

The rating scheme consists of five categories:

- M Minimal - Poorly developed or below university norms
- A Adequate
- E Exceptional - Program is innovative and/or above university norms
- I Insufficient information
- NA Not applicable to this program

ITEM	RATING	COMMENTS
I. MISSION AND GOALS		
1. Mission statement clearly stated?	A	Good but fairly general
2. Goals and objectives clear?	A-	Need to be more specific. What are program objectives?
3. Consistent with university strategic plan?	A	
4. Priorities consistent with mission and goals?	A-	Too general
5. Unmet needs consistent with mission and goals?	A	Why not addressed in program goals and objectives?
6. Is there a realistic plan to meet needs?	A	
II. STUDENTS		
1. Are new students balanced between freshmen, transfers, and internal changes?	A	
2. How does quality of applicant pool compare to college and university?	A	
3. How does gender and ethnic diversity compare to college and university?	A	
4. How do probation and dean's list percentages compare to college and university?	A-	Why are probation percentages so much higher in Micro?
5. How does persistence to graduation compare to college and university?	A	
6. Are recruitment efforts consistent with need?	A	Department could expand efforts
7. Have students received recognition or awards?	A-	Most of awards listed are non academic. Have students received academic recognition?
III. CURRICULUM		
1. Desired outcomes clear? Are they met?	A-	Content coverage is OK, but what are the student learning outcome objectives?
2. Is curriculum structure/concentrations clear?	A-	Complicated concentration structure with a large number of concentrations.
3. Is the program coherent?	A-	Concentration structure seems highly restrictive.
4. How do course and unit requirements compare to other institutions?	A-	Few free electives.
5. Is inclusion of contemporary topics adequate?	A-	Focus seems to be on tools rather than on topical coverage.
6. Are critical thinking component adequate?	A	
7. Are gender and ethnicity dealt with in the curriculum?	A-	

8. Is program assessment adequate and effective?	A	Seems pretty generic
9. Are efforts to help under-prepared and at-risk students adequate?	A	Standard minimum
10. Are experiential learning opportunities available and appropriate to the program?	A	Could be articulated more clearly. There would appear to be more opportunities that are listed here.
IV. INSTRUCTION		
1. How is diversity addressed in instruction?	I	This question asks how diversity is addressed in methods of instruction.
2. Are innovative and new courses offered?	A	
3. How is teaching Quality assessed and used?	A	Criteria are unclear
4. a. SCUIFTEF	293	
b. FTEF used/FTEF 2enerated	.84	
c. S/SCU	308	
d. WTUIFTEF	12.51	
5. Are service course responsibilities met?	A+	
6. Are there low or oversubscribed courses?	A	
7. Are GEB and service courses listed?	A	
8. What percentage are taught by tenure track?	A	
9. Are remedial courses and workload described?	N/A	
V. FACULTY		
1. Are gender and diversity appropriate?	M	Gender and ethnic diversity is minimal, but have only hired one tenure-track person since 1978
2. Are background and training appropriate?	A	
3. Have faculty received special recognition?	A	
4. Is professional development policy appropriate?	A	How are these activities prioritized?
5. Is level of professional development adequate?	E	
6. Are grants and contracts adequate?	E	
7. Is publication policy appropriate?	A	
8. Is faculty publication record adequate?	A+	
VI. STAFF		
1. Are program staff listed?	YES	
2. Is staffing level adequate for needs?	NO	
VII. FACILITIES		
1. Are facilities described?	YES	
2. How well are facilities maintained?	M	
3. Is library collection adequate?	M	
4. Any other relevant facilities?	YES	
VIII. RELATIONS TO THE OUTSIDE	N/A	
1. program accredited or taking steps?		
2. If not, is there outside review?	YES	
3. Most recent report included?	YES	
4. Solicit advice, etc. from prof. community?	A	
5. Are faculty involved at state and national level?	A	
6. Are interdisciplinary efforts adequate?	A	
7. Are interdisciplinary courses taught?	A-	Could do more in this area. Biotechnology minor seems narrowly focused.
IX. OPPORTUNITIES FOR GRADUATES		
1. Do graduates have employment opportunities?	A	

2. Do graduates have grad/prof school options?	A
3. Have recent graduates been successful?	A
X. GOALS AND OBJECTIVES Is the program meeting its goals and objectives?	A

General comments:

Should consider streamlining major re-examining role of concentrations.

External review suggest fewer concentrations and some elimination of some courses. How is the department responding to these suggestions?

Biological Sciences Department

**CAL POLY**

SAN LUIS OBISPO  
CA 93407

## Memorandum

To Program Review and Improvement Committee      Date June 13, 1996  
Roxy Peck, Chair

Copies Phil Bailey

From V. L. Holland, Chair *V.L. Holland*  
Biological Sciences Department

Subject: RESPONSE TO PROGRAM REVIEW, BIOLOGICAL SCIENCES DEPARTMENT

Thank you for asking us to respond to the program review of the Biological Sciences Department. We hope our comments clarify the remaining questions and are useful.

Biological Sciences is probably the most diverse and complex program on campus. The major difficulty we faced was how to adequately address a program review for three undergraduate degree areas and a graduate program within the 25 page limit imposed by the program review committee. Smaller and less complex departments without graduate programs would have less of a problem. To keep within the page limit, we had to do major editing to condense our review of the 4 different programs into one 25 page document. Hopefully this explains why we were not able to address all of the issues in the detail we would have liked. We would have preferred to answer the questions posed by the program review committee more completely but could not do so with the page limitations.

### I. Mission and Goals

All three degrees and the graduate program have Mission and Goals Statements. We had to condense these down to just one statement for the department to meet the space limitations imposed upon us. We offered to provide more specific information to the program review committee when we met with them.

### II. Students

The Biological Sciences Department is well known and has an excellent reputation in the State among both private and government agencies. Our success in getting "the message out that our program remains excellent and that competition is **strong**" is shown by the large number of top students in the state who apply for admission to our department. We are by far the most selective biology department in the CSU System, and one of the most selective in the State. We are also the only impacted biology program in the CSU system. We do not compete with the other CSU campuses for students but instead compete with what some consider the more prestigious Universities in the state such as Stanford, U. C. Berkeley, U. C. Davis, U.C. Santa Barbara, U. C. L. A., and U. C. San Diego.

Although we have stated, and the committee has noted, that prospective students have a low show rate of about 30%, a comparison with other departments within the College of Science and Mathematics shows similar rates. For Fall 1994, as an example, Biology, Ecology and Systematic Biology, and Microbiology had show rates of 30, 23 and 43%, respectively. Biochemistry and Chemistry had show rates of 25 and 33%. Physics and Physical Science had

show rates of 29 and 25%. Our show rates are comparable to those majors and probably other majors on campus that are highly selective and competitive.

In recent years we have sought ways to enhance the show rate. Students who apply are sent letters from our Advising Center, the Dean of College of Science and Math. and the Biology Department Chair along with materials about our program. We invite them to come to campus and many attend our open house program. During open house, they see our labs, meet our faculty, staff and students, hear presentations about our program, and are given an opportunity to interact with all of us informally. Questionnaires indicate that open house has often resulted in them choosing Cal Poly over Stanford, U. C. Davis, Berkeley, and San Diego. This year we have established a new departmental Student Services Committee that will explore other avenues to increase show rates in our programs. We believe we are doing as much as or more than other departments on campus and most Universities to enhance show rates.

The number *of* students on probation *is higher* than *usual* for some *of the* degree programs.

Rates of probation in the Biological Sciences and Ecology and Systematic Biology Degrees, which account for about 85% of our students, are no different from probation rates found elsewhere in the University. Only one degree program, the Microbiology Degree, which has about 15% of our students, has a higher than average probation rate. We are not sure why this has occurred recently but our Microbiology faculty are addressing this issue now.

The number *of* students receiving *recognition* seems low relative to *the large* number *of* students in *this* major.

A large number of our students go on to very successful careers, become well known in their fields, and receive honors. A good indication is the large number of our graduates who are recognized as the Honored Alum from the College of Science and Math each year. We have had about 7 of the last 10. We recognize our outstanding graduating seniors by posting the Dean's and President's list each quarter on our bulletin boards. We recognize students **who** win awards, gain admission to graduate and professional schools, and get jobs by posting announcements on the bulletin boards and via email to all faculty and staff. We honor our outstanding graduating seniors and academic scholarship recipients each year at the Biology Awards Banquet. The outstanding graduate student of the University this year, a Biology Graduate Student, was honored at functions including the main commencement on June 8. Another of our Biology Graduate Students was honored as runner-up for Outstanding Thesis Award this year. Alumni who receive awards are recognized in our departmental newsletter. We are proud of all the honors our students receive which are many. However, we appreciate your suggestions that we give recognition of student achievement a higher profile. There will always be room for improvement. Our newly constituted student services committee will work on the best way to do this.

### m. Curriculum

The *cuniculum* seems to be *heavily weighted* with courses within *the* major. Also, there are *very few free electives*. The *concentrations* seem cumbersome and complicated. The program *rigidity* doesn't *seem* *justifiable* in arts and science curricula

If one examines the catalog, it is clear that the number of units we require in our major is similar to other departments on campus and in our college. Units required in the major for our three degree areas, including concentrations, range from about 72 to 82. Chemistry requires 80 units, Physical Education and Kinesiology requires 92-94 units, Physics requires 93 units. Numbers of electives are also comparable.

We have one of the most broad-based programs at the University which apparently is a source of confusion for the program review committee, especially since there is not a representative with a background in the life or physical sciences. (The College of Science and Math

representative is a Statistician, and a darned good one.} At many Universities each of our department's degree areas are separate departments, I.e., Department of Microbiology, Department of Molecular Biology, Department of Evolution and Ecology, etc. In order to understand our program, one might consider a department in which Horticulture. Crop Science. Animal Science, and Soil Science were degree areas in one department rather than four separate departments. or perhaps a combination of Political Science. History, and SoCial Science. Imagine these combinations of programs preparing one 25 page program review with one mission statement.

With two concentrations in the Biology Degree, two in Ecology and Systematic Biology, and none in Microbiology (plus our individualized courses of study), it seems hard to believe that the program review committee would think our concentrations are cumbersome and complicated. Although no specific information regarding this statement was provided by the committee during our meeting, we will address this issue again.

If one understands that there are three separate degree areas in the Biological Sciences Department. the curriculum is easily understood and well organized. Our students have no difficulty understanding the curricula and the purpose of each degree area and concentration. During the last catalog we streamlined our program even more making it even more simple and clear. We also increased flexibility by giving students a vartety of chOices from which to select their specific programs both in the major and in individualized courses or study. The Department's organization is summartzed below:

#### **Biological Sciences Degree**

- Anatomy/Physiology Concentration (for pre-professional students)
- Biology Concentration (for secondary teaching)
- Individualized Course of Study (to meet individual student's career goals)

The Anatomy and Physiology Concentration prepares students for the health professions. Many professional and medical schools have specific admission requirements that students meet by completing this concentration. It is also important that this concentration provide students with training for specific entrance exams such as the MCAT for medical schools. We are pleased that the anatomy and physiology concentration successfully accomplishes these goals. and our students are successful in admission to professional and graduate schools as a result.

The Biology Concentration meets all of the specific requirements for the Single Subject Credential in Biology. Graduates from this concentration have successfully obtained a wide diversity of teaching positions. In fact, Virtually every junior and senior high school in the central coast has one or more of our graduates teaching biology.

The Individualized Course of Study provides students the flexibility to tailor make a concentration or career track for their specific needs. While the advisor must sign off on the course of study selected by the students for our records, students are given flexibility to plan the courses they want and need. Students may also select courses outside biology in this concentration.

#### **Ecology and Systematic Biology Degree**

- Wildlife Concentration (to become a certified Wildltfe BiolOgist)
- Marine Biology and Fisheries (to become a certified Fisheries or Marine Biologist)
- Individualized Course of Study (to meet individual student's career goals)

The Wildlife and Marine Biology and Fisheries Concentrations are designed to met the specific requirementS for certification established by the Wildltfe and Fisheries Societies. Students in this concentration meet all requirements to become certified upon graduation. These requirements are made by the profeSSional societies, not by us.



The Individualized Course of Study has replaced the Ecology and Systematics Concentrations and provides students the flexibility to tailor make a concentration for their specific needs. While the advisor must sign off on the course of study selected by the students for our records, students are given flexibility to plan the courses they want and need. Students may also select courses outside biology in this concentration.

### **Microbiology Degree**

No concentrations. Students are given flexibility to plan career tracks.

## **IV. instruction**

We understand the crucial role of ethnic diversity and the need for cross-cultural understanding in our society. We also understand that students should be properly prepared to perform professional activities in morally and ethically appropriate ways. We are very unclear as to what the committee wanted us to address in this area specific to our program, and since the committee was unable to give specific examples during our meeting with them, we remain unclear as to how to address this issue. Obviously, our faculty and staff are sensitive to these issues and address them regularly in our department. Gender differences are an important part of biology in plants, animals, and humans and are addressed from a biological standpoint in our classes. Ethnicity is also addressed as appropriate in biology classes such as those dealing with conservation, environmental, or social biology issues. Certainly, students entering professions like medicine are taught the importance of these issues to their profession. We believe our students also receive a strong appreciation and understanding of these issues in the philosophy and social science portion of the GEB requirements. If they are not, we are failing at this University. How are gender and diversity issues addressed in methods of instruction in programs like Statistics, Math, Chemistry, and Physics?

We agree that we offer too many large enrollment classes and will make every attempt to remedy this when we are able to hire additional faculty. Additional faculty will allow us to meet student demand with more reasonably sized classes.

## **V. Faculty**

We would love to diversify our faculty and staff with new hires; however, last year we hired our first tenure track faculty member since 1978. During this hiring process, we offered a tenure track position to three females all of which turned us down because we could not offer positions to their spouses. We were able to hire a full time female lecturer for the 1995-96 academic year. Next year, we hope to advertise for at least two tenure track positions. Obviously, one of our departmental goals is to diversify our faculty with future hires.

## **Summary**

Thank you for the opportunity to respond to the program review of our department. We understand that conducting these reviews was a monumental task and appreciate the time you spent and the suggestions you made regarding our program. We hope our response to your review is helpful. If you have further questions, please don't hesitate to let us know.

## COMPUTER SCIENCE

### MISSION AND GOALS

The department is in the process of reviewing its mission, goals, and objectives. The current mission statement is clear, but the organization of the categories is not. The department needs to be more specific about its priorities and their ranking. The department has a formal five-year plan for hardware, but still needs to address long-range plans for recruitment and retention of faculty.

### STUDENTS

The quality of applicants and enrolled students is very good, although the number of students on probation seems quite high given the quality of the applicant pool. The department is addressing this problem by examining its introductory courses and adding a freshman level orientation course. It is recognized that Computer Science, as an academic endeavor, has had a problem with the gender issue on a national level. Retention and recruiting efforts should be made to redress this imbalance.

### CURRICULUM

The department's curricular outcomes seem to be well organized and monitored, but they are also vague. The list of comparable curricula provided indicates a substantial number of Computer Science units required by the program relative to other institutions. The curriculum is rigid and does not allow students much curricular choice.

The statement that the curriculum is gender/ethnicity neutral is too simplistic. For example, are there any gender appropriate topics that can be (are) discussed? Are there discussions of computing practices that address the needs of handicapped individuals?

The program offers a good range of sources of assessment information.

### INSTRUCTION

The FACT group organized (supported) by the department is very interesting and has good potential. This is a very important element in retention efforts. Because the department places its obligation to offer courses for the CSC and CPE majors above its service obligation, there are many over-subscribed service courses. The department is considering alternate delivery methods as a way of correcting this imbalance.

**Computer Science**  
**Template for PRIAC Review Process**  
**1995-96**

This template assures that every item (or group of items) in the Request for Information is commented on. Information used in the review has been that provided by the Programs as well as that provided by Admissions, Institutional Studies, and Academic Affairs. The rating scheme consists of five categories:

- M Minimal - Poorly developed or below university norms
- A Adequate
- E Exceptional - Program is innovative and/or above university norms
- I Insufficient information
- NA Not applicable to this program

ITEM	RATING	COMMENTS
<b>i. MISSION AND GOALS</b>		
1. Mission statement clearly stated?	A	
2. Goals and objectives clear?	A	
3. Consistent with university strategic plan?	A	
4. Priorities consistent with mission and goals?	A	
5. Unmet needs consistent with mission and goals?	A	
6. Is there a realistic plan to meet needs?	A-	There is a plan for addressing hardware needs, but not for faculty recruitment
<b>ii. STUDENTS</b>		
1. Are new students balanced between freshmen, transfers, and internal changes?	A	
2. How does quality of applicant pool compare to college and university?	A	
3. How does gender and ethnic diversity compare to college and university?	A-	Gender imbalance, typical of College. The department is addressing this issue through retention efforts.
4. How do probation and dean's list percentages compare to college and university?	A	Probation % seems high given quality of applicant pool
5. How does persistence to graduation compare to college and university?	A	
6. Are recruitment efforts consistent with need?	A-	Could recruit to improve diversity
7. Have students received recognition or awards?	A	
<b>iii. CURRICULUM</b>		
1. Desired outcomes clear? Are they met?	I	Outcomes are general and vague. There is a good organization to monitor, but desired outcomes are unclear.
2. Is curriculum structure/concentrations clear?	A	
3. Is the program coherent?	A+	
4. How do course and unit requirements compare to other institutions?	A-	Why is the number of required CSC units so high compared to other programs? Very few free electives.
5. Is inclusion of contemporary topics adequate?	A+	Virtual course on social and ethical issues is an interesting concept.
6. Are critical thinking component adequate?	A+	
7. Are gender and ethnicity dealt with in the curriculum?	I	The committee questions the statement that subject matter is gender/ethnic neutral.
8. Is program assessment adequate and effective?	A	

## FACULTY

The department has 22 tenure-track faculty, three of whom are female. Eighteen of the faculty are white, three are Asian and one is Hispanic. The faculty is active professionally, and half have received grants or contracts.

## STAFF

The department reports a need for additional staff to support its labs and computer systems. An alumni endowment fund to support student system administrators is being proposed to address this problem.

## FACILITIES

The facilities as described appear to be well maintained and are satisfactory.

## RELATIONS

The department has well established connections to industrial contacts that support the program through equipment (hardware, software) donations. The Departmental Advisory Board has also been a source of input on curricular issues. The faculty does not appear to be very active in national/state organizations with the exception of a few faculty identified in the report.

The department also shares resources and faculty with the Electrical Engineering Department in the Computer Engineering Program. Other interdisciplinary efforts reported include the CENG Synthesis project and the Intelligent Computer-Applied Design Project with Architecture. The department indicates that it would like to expand interdisciplinary efforts, but has not had sufficient resources to pursue such efforts.

## OPPORTUNITIES

Graduates of the program are highly recruited and successful. This speaks well of the program and the department.

## GOALS AND OBJECTIVES

The department appears to be meeting the stated goals and **objectives**.

9. Are efforts to help Wlder-prepared and at-risk students adeQuate?	A+	
10. Are experientiallearning opportunities available and appropriate to the program?	A	
IV. INSTRUCTION		
1. How is diversity addressed in instruction?	A	FACT group is good
2. Are innovative and new courses offered?	A	
3. How is teachin2 Quality assessed and used?	A	
4. a. SCUIFTEF	320.49	
b. FTEF usedIFTEF generated	.69	
c. SISCO	252.48	
d. WfUIFTEF	14.25	
5. Are service course responsibilities met?	A	large unmet demand
6. Are there low or oversubscribed courses?	Yes	Appears to be large unmet demand. Does the department have a plan to address this?
7. Are GEB and service courses listed?	Yes	
8. What percentage are taught by tenure track?	A-	Large % taught by part-time faculty
9. Are remedial courses and workload described?	N/A	
V. FACULTY		
1. Are gender and diversity appropriate?	A-	Little ethnic diversity.
2. Are backgroWld and training appropriate?	A	
3. Have faculty received sPecial <b>recognition</b> ?	M	
4. Is professional development policy appropriate?	A	Why only "funded" research??
5. Is level of professional development adeQuate?	A	
6. Are grants and contracts adeQuate?	A	
7. Is publication policy appropriate?	A	How does the department prioritize these items?
8. Is faculty publication record adequate?	A	
VI. STAFF		
1. Are program staff listed?	Yes	
2. Is staffing level adequate for needs?	M	Department reports need for more staff. The department has a plan to address this need.
VII. FACILITIES		
1. Are facilities described?	Yes	
2. How well are facilities maintained?	A	
3. Is library collection adeQuate?	A	
4. Any other relevant facilities?	A	
VIII. RELATIONS TO THE OUTSIDE		
1. Program accredited or taking steps?	Yes	
2. Ifnot, is there outside review?	N/A	
3. Most recent report included?	Yes	
4. Solicit advice, etc. from prof. community?	A	
5. Are faculty involved at state and national level?	M	
6. Are interdisciplinary efforts adeQuate?	A	
7. Are interdisciplinary courses taught?	Yes	
IX. OPPORTUNITIES FOR GRADUATES		
1. Do graduates have emplovment opportunities?	E	
2. Do graduates have grad/prof school ontions?	A	

3. Have recent graduates been successful?	A
X. GOALS AND OBJECTIVES Is the program meeting its <b>goals</b> and objectives?	A

General comments:

Integration of social and ethical issues via the "virtual course" seems to be an ideal way to address these topics.

# History

## L Mission and Goals

The mission statement is clear, but minimal and generic. The department appears to have avoided dealing with its definition. Objectives are given, but what are the department goals? The supplemental information provided helped immensely in clarifying these issues. The specified needs are consistent with the program objectives, but there is no plan to meet these needs.

## n. Students

The number of female students is low when compared to other programs in the college. The number of students on academic probation has decreased over the last years, while the number of students on the Dean's list has increased over the same time period. The show rate for new students has increased over time as well. The department reports few students having received academic recognition. This may be the result of inadequate tracking of students. The department should consider developing a plan for tracking current students and alumni.

## m. Curriculum

The curriculum is clear and is conceptually coherent. The desired student outcomes are vague and general, and it would be helpful to know in more specific terms what is expected of students. The Committee is encouraged to see a foreign language required in the major. Critical thinking has been integrated throughout the curriculum. Science and technology has had a significant impact on history, but students' in this major appear to have a limited exposure to these issues. The inclusion of a science and technology component is encouraged.

The department does not appear to have engaged in any efforts addressing the needs of under-prepared or at-risk students. How are students advised? Experiential opportunities are minimal and passive. Is there a programmatic emphasis on these types of activities in the major?

## IV. Instruction

The department offers a good range of contemporary topics. The assessment of teaching quality appears to be overly sensitive to contractual issues. It is indifferent and minimal, with no alumni input and no focus on specific instructional issues..

V. Faculty

The faculty is well-qualified and several faculty members have received distinguished teaching awards. Faculty have been active in grants and publications.

VI. Staff

The department considers staff support to be adequate, but states that staff are overworked.

VII. Facilities

The department has concerns over the antiquity of its equipment and the status of the university infrastructure.

VIII. Relations

The department does not suggest any plan to increase interdisciplinary efforts, although there is ample opportunity to do so in this field. The department should also pursue an external review, consider forming an advisory board, and in general pursue efforts that would enhance opportunities with the outside community.

IX. Opportunities for Graduates

The list of employment opportunities for graduates seems incomplete. How are students prepared for the job market?

X. Goals and Objectives

There is a stated "malaise and low faculty morale". What are the department's plans to address this? What are the most important department goals, in light of the faculty morale issue?

The History Department has a large GE&B obligation, with service courses making up about 85% of the courses offered. The department does an outstanding job in meeting this obligation, and the dedication to providing excellent instruction in service courses is commendable.



History  
 Template for PRIAC Review Proceas  
 1995-96

This template assures that every item (or group of items) in the Request for Infonnation is commented on. Infonnation used in the review has been that provided by the Programs as well as that provided by Admissions, Institutional Studies, and Academic Affairs. The rating scheme consists offive categories:

- M Minimal - Poorly developed or below university norms
- A Adequate
- E Exceptional - Program is innovative and/or above university norms
- I Insufficient infonnation
- NA Not applicable to this program

ITEM	RATING	COMMENTS
I. MISSION AND GoALS		
1. Mission statement clearly stated?	A	
2. Goals and objectives clear?	A	
3. Consistent with university strateltic plan?	A	
4. Priorities consistent with mission and <b>goals</b> ?	A	
5. Unmet needs consistent with miSsion and goals?	A	
6. Is there a realistic plan to meet needs?	I	No plan given
II. STUDENTS		
1. Are new students balanced between freshmen, transfers, and internal changes?	A	
2. How does quality of applicant pool compare to college and university?	A	Dramatically increased show rate
3. How does gender and ethnic diversity compare to college and university?	A-	Why so few females?
4. How do probation and dean's list percentages compare to college and university?	A	
5. How does persistence to graduation compare to college and university?	A	Provided by Institutional Studies. Third year persistence seems low.
6. Are recruitment efforts consistent with need?	M	
7. Have students received recognition or awards?	I	Need better tracking. Definition of recognition could be expanded.
III. CURRICULUM		
1. Desired outcomes clear? Are they met?	A	
2. Is curriculwn structure/concentrations clear?	A	
3. Is the program coherent?	E	
4. How do cow'se and unit requirements compare to other institutions?	A	
5. Is inclusion of contemporary topics adequate?	A	What is the impact of science and technology on History, and how are these topics integrated into the curriculwn?
6. Are critical thinking component adequate?	A	
7. Are gender and ethnicity dealt with in the curriculum?	E	
8. Is program assessment adequate and effective?	M	No external review. Does professional society prvide guidance on assessment?
9. Are efforts to help under-prepared and at-risk students adequate?	M	None

10. Are experiential learning opportunities available and appropriate to the program?	A-	Could have more programmatic emphasis on this
<b>IV. INSTRUCTION</b>		
1. How is diversity addressed in instruction?	A	
2. Are innovative and new courses offered?	A	
3. How is teaching quality assessed and used?	A	No alwnni or other input. Appears to be overly sensitive to the contract.
4. a. SCUIFTEF	476	
b. FTEF used/FTEF generated	.86	
c. \$/SCU	\$180.20	
d. WTUIFTEF	12.75	
5. Are service course responsibilities met?	E	
6. Are there low or oversubscribed courses?	A	
7. Are GEB and service courses listed?	YES	
8. What percentage are taught by tenure track?	A	80%
9. Are remedial courses and workload described?	N/A	
<b>V. FACULTY</b>		
1. Are gender and diversity appropriate?	A	
2. Are background and training appropriate?	A	
3. Have faculty received special recognition?	E	
4. Is professional development policy appropriate?	A	
5. Is level of professional development adequate?	A	
6. Are grants and contracts adequate?	A	
7. Is publication policy appropriate?	A	
8. Is faculty publication record adequate?	A+	
<b>VI. STAFF</b>		
1. Are program staff listed?	YES	
2. Is staffing level adequate for needs?	A	
<b>VII. FACILITIES</b>		
1. Are facilities described?	YES	
2. How well are facilities maintained?	A	
3. Is library collection adequate?	A	
4. Any other relevant facilities?	N/A	
<b>VIII. RELATIONS TO THE OUTSIDE</b>		
1. Program accredited or taking steps?	N/A	
2. If not, is there outside review?	NO	Department should implement external evaluation
3. Most recent report included?	NO	
4. Solicit advice, etc. from prof. community?	M	Department should consult professional society regarding assessment and external evaluation. May want to consider an advisory board.
5. Are faculty involved at state and national level?	A	
6. Are interdisciplinary efforts adequate?	M	Discipline has great potential for interdisciplinary efforts. Much could be done in this area.
7. Are interdisciplinary courses taught?	M	
<b>IX. OPPORTUNITIES FOR GRADUATES</b>		
1. Do graduates have enrollment opportunities?	A	

	2. Do graduates have grad/prof school options?	A	
	3. Have recent graduates been successful?	I	Need better tracking of graduates
X	GOALS AND OBJECTIVES Is the program meeting its goals and objectives?	A	Department appears to be meeting stated objectives, although these were quite narrow in focus. How does the department plan to address the faculty morale problem?

General comments:

Aspects of science and technology and their impact appears to be a limited part of the curriculum.

The committee had difficulty with desired student outcomes such as "appreciate how historians gather and weigh evidence, shape and test hypotheses and advance conclusions" and "recognize the need to rethink the past..." as opposed to objectives like "demonstrate the ability to gather and weigh evidence,..." and "demonstrate the ability to rethink the past...".

The Department should implement periodic external review. The American Historical Association may be able to provide some assistance.

# Materials Engineering

## I. Mission and Goals

The department mission, goals and objectives are well thought out and convey what the department is trying to accomplish. The "primary goal" is designated as having highest priority. However, this goal encompasses many things--communication and verbal skills, professionalism, ethics, etc. The committee was impressed with the way in which the department has conceptualized its curriculum.

The department has identified unmet needs in the area of technical support, and has a realistic plan to address these needs.

## II. Students

The applicant pool is small, but is of high quality. As with other engineering programs, gender diversity is minimal. The percentage of students on probation appears to be increasing. The department is addressing this through the introduction of a freshman introductory course and aggressive advising.

If the department wishes to expand its major, it may want to consider recruiting unaccommodated **applicants** from the chemistry program, since chemistry has a large applicant pool and is unable to accommodate many well qualified students.

The number of awards and honors received by students is impressive for such a small department.

## iii. Curriculum

The department has provided a good description of desired student outcomes, although some could be strengthened and clarified. The "professional prowess" outcome has too many different ideas packaged together. There is no indication of how the curriculum achieves the desired outcomes.

The program has only 3 free electives. The math/science and engineering units required are consistent with other similar programs in the comparison table provided. However, the committee counts 90 engineering units are required in the Cal Poly curriculum, which is higher than 7 of the 13 comparison schools.

Gender and diversity issues appear to have been integrated into the curriculum. The committee questions the statement that "gender and ethnicity have no bearing in the curriculum".

More could be done to assist students who are under-prepared in the non-engineering fields. How are at-risk students identified, and how are they informed regarding university support services?

#### IV. Instruction

The department has introduced a number of new courses in the last five years, and has been active in curricular revision. We suggest that the department focus its assessment activities more explicitly on its mission and goals.

#### V. Faculty

The department has 7 faculty, all of whom are tenured or tenure-track. Two of the faculty are from under-represented groups. The faculty is active professionally and has been successful in securing grants and contracts.

#### VI. Staff

The present level of staffing is not adequate. The committee recognizes that the department has a plan to address this need.

#### VII. Facilities

Present facilities are limited and in need of modernization. There is little space for new equipment. Maintenance of facilities and equipment is a problem. The department would benefit greatly from increased support in this area.

#### VIII. Relations

The Materials Engineering program is accredited, and the last accreditation report was provided. The accreditation report includes the following statement:

With a broader based materials program, the faculty should explore ways of increasing the opportunity for students to choose electives without increasing the total number of hours or time to complete the program. The interdisciplinary nature of such activities will require considerable streamlining of the present curriculum and looser interaction of the department with other segments of the school of engineering.

How is the department addressing this recommendation?

Due to the nature of materials engineering, there seem to be many opportunities for interdisciplinary activities. The department is encouraged to explore avenues for interdisciplinary instruction.

The department has an Industrial Advisory Board, and maintains numerous industry contacts to the benefit of both faculty and students.

IX. Opportunities for Graduates

There appear to be many opportunities for materials engineering graduates. Approximately 25% of materials engineering graduates continue their education in a graduate program.

X. Strengths and Weaknesses

Strengths:

1. An experienced and well-qualified faculty
2. High level of faculty professional development
3. Good opportunities for graduates

Weaknesses:

1. Rigid curriculum with few free electives
2. Better facilities and increased support for equipment maintenance are needed

Materials Engineering  
 Template for PRIAC Review Process  
 1995-96

This template assures that every item (or group of items) in the Request for Information is commented on. Information used in the review has been that provided by the Programs as well as that provided by Admissions, Institutional Studies, and Academic Affairs. The rating scheme consists of five categories:

- M Minimal - Poorly developed or below university norms
- A Adequate
- E Exceptional - Program is innovative and/or above university norms
- I Insufficient information
- NA Not applicable to this program

ITEM	RATING	COMMENTS
I. MISSION AND GOALS		
1. Mission statement clearly stated?	A	
2. Goals and objectives clear?	A	
3. Consistent with university strategic plan?	A	
4. Priorities consistent with mission and <b>goals?</b>	A	
5. Do met needs consistent with mission and <b>goals?</b>	A	
6. Is there a realistic plan to meet needs?	A	
II. STUDENTS		
1. Are new students balanced between freshmen, transfers, and internal changes?	A	
2. How does quality of applicant pool compare to college and university?	A+	
3. How does gender and ethnic diversity compare to <b>college</b> and university?	A-	Small percentage of females, but typical of other engineering programs
4. How do probation and dean's list percentages compare to college and university?	A	Probation percentage seems to be <b>increasing</b>
5. How does persistence to graduation compare to college and university?	A	
6. Are recruitment efforts consistent with need?	A	
7. Have students received recognition or awards?	E	
III. CURRICULUM		
1. Desired outcomes clear? Are they met?	A	Good description of outcomes, but doesn't say how they are achieved
2. Is curriculum structure/concentrations clear?	A	Can free electives be increased?
3. Is the program coherent?	A	
4. How do course and unit requirements compare to other institutions?	A	Too rigid, few free electives.
5. Is inclusion of contemporary topics adequate?	A	
6. Are critical thinking component adequate?	A	We recognize that engineering design is a part of critical thinking, but critical <b>thinking</b> is broader than just design.
7. Are gender and ethnicity dealt with in the curriculum?	A+	The committee questions the statement that gender and ethnicity have no bearing in the curriculum.
8. Is program assessment adequate and effective?	A	Seems pretty generic
9. Are efforts to help under-prepared and at-risk students adequate?	A	

10. Are experiential learning opportunities available and appropriate to the program?	A+	
<b>IV. INSTRUCTION</b>		
1. How is diversity addressed in instruction?	A	
2. Are innovative and new courses offered?	A	
3. How is teaching quality assessed and used?	A	
4. a. SCUIFTEF	230.88	
b. FTEF used/FTEF generated	.81	
c. S/SCU	384.86	
d. WTUIFTEF	12.11	
5. Are service course responsibilities met?	A	
6. Are there low or oversubscribed courses?	A	
7. Are GEB and service courses listed?	N/A	
8. What percentage are taught by tenure track?	N/A	
9. Are remedial courses and workload described?	N/A	
<b>V. FACULTY</b>		
1. Are gender and diversity appropriate?	A	
2. Are background and trainin2 appropriate?	A	
3. Have faculty received special recognition?	A	
4. Is professional development policy appropriate?	A	
5. Is level of professional development adequate?	E	
6. Are grants and contracts adequate?	E	
7. Is publication policy appropriate?	A	
8. Is faculty publication record adequate?	E	
<b>VI. STAFF</b>		
1. Are program staff listed?	YES	
2. Is staffing level adequate for needs?	M	Staffing is not adequate, but department has a plan to address this need.
<b>VII. FACILITIES</b>		
1. Are facilities described?	YES	
2. How well are facilities maintained?	M	Department facilities appear to be marginal
3. Is library collection adequate?	M	Not sufficient to support research activities
4. Any other relevant facilities?	N/A	
<b>VIII. RELATIONS TO THE OursIDE</b>		
1. program accredited or takin2 steps?	YES	
2. Ifnot. is there outside review?	N/A	
3. Most recent report included?	YES	
4. Solicit advice, etc. from prof. community?	A	
5. Are faculty involved at state and national level?	A	
6. Are interdisciplinary efforts adeQuate?	A	
7. Are interdisciplinary courses taught?	A-	Cross-listed is not necessarily interdisciplinary. Are there opportunities for more team teachin2 of courses?
<b>IX. OPPORTUNITIES FOR GRADUATES</b>		
1. Do graduates have employment opportunities?	A	
2. Do graduates have grad/prof school options?	A	
3. Have recent graduates been successful?	A	



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X. GOALS AND OBJECTIVES

Is the program meeting its goals and objectives?

---

A

General comments:

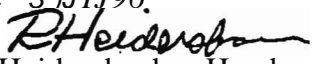
The committee would like to see the model for the new curriculum that is being proposed by the department

State of California  
MEMORANDUM

California Polytechnic State University

TO: Program Review and Improvement Committee  
Roxy Peck, Chair

DATE: June 3<sup>rd</sup> 1996.

FROM:   
R. Heidersbach, Head  
Materials Engineering Department, X2568

SUBJECT: Department Response to Program Review Committee

Copies: Materials Engineering faculty, P. Lee

The following comments are offered in response to the Program Review report for our program. Items are addressed in the order they appear in your report.

Tabular report:

VII. Facilities: The report states that our facilities are marginal. We agree that our buildings and physical plant are problems, but we point out that the instrumentation installed in these facilities is quite up to date and represents continuous effort on the part of our faculty to raise external funds to keep our laboratories current. No program on campus has raised more money through the National Science Foundation Instrumentation for Laboratory Improvement program.

X. General comment: The report comments that the committee would like to see the new curriculum model being proposed by the department.

This seems to be a mistake on your part. The new curriculum *model* was displayed to the Program Review committee at the meeting to discuss the findings of the preliminary report.

Narrative report:

II. Students: The report suggests the department:

...may want to consider recruiting unaccommodated applicants from the chemistry program, since chemistry has a *large* applicant pool

## Political Science

### L Mission and Goals

The mission and goals are somewhat vague. The department identifies its primary unmet need to be an infusion of new and energetic faculty, but indicates that they have been unable to address this need due to hiring practices in the College of Liberal Arts. The department is not generously funded by the university; perhaps a more specific statement about how increased support might be used would be useful in obtaining a more favorable response from those charged with these -decisions.

### II. Students

There is some concern here--the decline in the applicant pool, as well as the increase in the numbers of students on probation ought to be explained. Some members of the Program Review and Improvement Committee found the persistence rate to graduation in the third and fourth years a little lower than it ought to be. The department should suggest how it intends to deal with the declining student pool.

### III Curriculum

Political Science is to be commended for integrating its "concentrations" into its major requirements, thereby giving its students more flexibility and choice. It is also to the department's credit that it includes contemporary topics and experiential learning among its offerings. The proposed curriculum looks flexible and gives students more choice, but no rationale is given for the changes. Does it provide a coherent program? How will the teaching concentration be addressed in the proposed curriculum? Some questions were raised about the articulation of student outcomes, as well as how the department identifies and assists "at-risk" students. Measures to assist at-risk students appear to be more reactive than pro-active.

### IV. Instruction

Their assessment of teaching performance mirrors that of many other departments on campus, and is adequate. All members of the department teach GE classes; for the 1994-95 school year, the department's general education obligation constituted 55% of the total faculty work load. The department apparently has few low-enrollment courses.

SCUIFTEF: 416 (94-95)

\$/SCU: \$208 (94-95)

### V. Faculty

The department lists eleven full-time faculty, almost all of whom have been at the university for

and is unable to accomodate many well qualified students.

This suggestion is new with the final report, and we have not had time to discuss the ramifications of this suggestion with the College of Engineering or with the Admissions office. A request for comments from both offices has been submitted, but no answer has been received as of this writing.

### **VIII. Relations**

The final report quotes our last accreditation report, which makes the following statement:

With a broader based materials program, the faculty should explore ways of increasing the opportunity for students to choose electives without increasing the total number of hours or time to complete the program. The interdisciplinary nature of such activities will require considerable streamlining of the present curriculum and looser interaction with other segments of the school of engineering.

The Program Review report asks how the department is addressing this recommendation.

Our reply, discussed at length with your committee, is that as the faculty and enrollments in materials engineering have increased, we have introduced technical electives within our curriculum. We have also allowed our students to take any advanced-level chemistry or physics course instead of requiring a second physical chemistry course.

### **X. Strengths and Weaknesses**

#### **Weaknesses:**

1. Rigid curriculum with few free electives. We are the only engineering program in the College of Engineering with free electives.

over 20 years. One faculty member is female, appointed in 1982 (also the most recent tenure-track appointment listed), while the remainder of the faculty is white males. There are two lecturers. The department has had opportunities to increase faculty diversity of which they were unable to take advantage due to hiring constraints at the College level. It is unclear from the materials submitted whether ongoing professional activity is widely distributed across the department or is concentrated in a few individuals. The professional development policy is typical of most Arts & Sciences disciplines, and stresses excellence in the classroom as the primary factor. The department is surely aware that in planning future hiring, it should make a concerted effort to insure that some kind of gender/ethnic balance is a goal.

## VI Staff

The present level of staff is adequate for department needs.

## VII. Facilities

While their facilities are not opulent, they are adequate.

## VIII. Relations

Political Science has no external accrediting agency, but they have been recently looked at by a professor from Fresno State. His review is quite thorough and generally praises the department for its quality and efforts; his most trenchant observation, however, is that the department is overworked, that too much is demanded of it given the support it receives. Even within the department itself, he believes that the burden should be more equally shared. The department should develop a plan that indicates how it plans to respond to the points they view as significant in the external review report.

## IX. Opportunities for Graduates

There appear to be many opportunities for graduates, primarily in government, graduate school, and law school. The department's concentrations allow students to focus and adjust to change. The submitted materials show that their graduates have relocated in a variety of attractive situations.

## X. Strengths and Weaknesses

### Strengths:

1. An experience and well-qualified faculty.
2. A flexible curriculum which allows for student choice.
3. An emphasis on contemporary topics and experiential learning.
4. The university appears to be getting a fairly large educational return on a relatively small investment.

Weaknesses:

1. Lack of gender & ethnic diversity on the faculty.
2. A declining pool of applicants.
3. Declining quality in the pool of applicants.
4. The faculty appears over-extended; too much work, too few bodies
5. Field seems appropriate for interdisciplinary activity. More work in this area is encouraged.

**General Comments:**

It appears that the Political Science Department is going to experience a large turnover in the next five years. What are the plans for increasing gender and ethnic diversity?

Given the perennial budgetary and staffing limitations, the department should consider the range of instructional methods employed and consider the appropriateness and feasibility of innovations and alternatives to the traditional method of instruction. Many alternative methods can be adapted to accommodate increased students demand for courses while still maintaining manageable limits on instructor's workload.

The department reports that they have found it difficult to deal with the lack of consistency in policy making, particularly at the college level.

Political Science  
 Template for PRIAC Review Process  
 1995-96

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- M Minimal - Poorly developed or below university norms
- A Adequate
- E Exceptional - Program is innovative and/or above university norms
- I Insufficient information
- NA Not applicable to this program

ITEM	RATING	COMMENTS
I. MISSION AND GOALS	A	What does political activism mean?
I. Mission statement clearly stated?		
2. Goals and objectives clear?	A	
3. Consistent with university strategic plan?	A	
4. Priorities consistent with mission and goals?	A	
S. Unmet needs consistent with mission and goals?	A	Primary unmet need appears to be staffing
6. Is there a realistic plan to meet needs?	A	
II. STUDENTS	A	
I. Are new students balanced between freshmen, transfers, and internal <b>changes</b> ?		
2. How does quality of applicant pool compare to college and university?	A	Decline in applicant pool and quality of applicants while <b>accepting</b> more students
3. How does gender and ethnic diversity compare to <b>college</b> and university?	A	
4. How do probation and dean's list percentages compare to college and university?	A	Probation % increasing
S. How does persistence to graduation compare to college and university?	A-	Persistence to 3rd and 4th year seems low
6. Are recruitment efforts consistent with need?	I	How will department deal with declining applicant pool?
7. Have students received <b>recognition</b> or awards?	A	
III. CURRICULUM	A	What are anticipated student learning outcomes, and how are they related to department's goals and objectives?
I. Desired outcomes clear? Are they met?		
2. Is curriculum structure/concentrations clear?	A	
3. Is the program coherent?	A	
4. How do course and unit requirements compare to other institutions?	A	
S. Is inclusion of contemporary topics adequate?	E	
6. Are critical thinking component adequate?	A+	
7. Are gender and ethnicity dealt with in the curriculum?	A	
8. Is program assessment adequate and effective?	A	How does department know if learning objectives are <b>being</b> achieved? .
9. Are efforts to help under-prepared and at-risk students adequate?	A-	Efforts need to be more pro-active. The department would explore ways to use the peer advising program more effectively.

10. Are experiential learning opportunities available and appropriate to the program?	E	A strong feature of program. What are the educational objectives of the internship program, and how are they assessed?
IV. INSTRUCTION		
1. How is diversity addressed in instruction?		The department should consider how diversity is addressed in instructional methods as distinct from course content.
2. Are innovative and new courses offered?	A	What are the innovative aspects of the courses mentioned?
3. How is teaching quality assessed and used?	A	The graduate survey is an assessment vehicle of considerable potential. However, the current instrument could be improved in order to obtain information that is of greater value for program and instructional improvement.
4. a. SCU/FTEF	416	
b. FTEF used/FTEF generated	.90	
c. \$/SCU	209	
d. WIUIFTEF	13.09	
5. Are service course responsibilities met?	A	
6. Are there low or oversubscribed courses?	A	
7. Are GEB and service courses listed?	A	
8. What <b>percentage</b> are taught by tenure track?	A	90%
9. Are remedial courses and workload described?	N/A	
V. FACULTY	A	No ethnic diversity, but little opportunity to hire
1. Are <b>gender</b> and diversity appropriate?		
2. Are background and training appropriate?	A	
3. Have faculty received special recognition?	A	
4. Is professional development policy appropriate?	A	
5. Is level of professional development adequate?	A-	Balance among department members?
6. Are grants and contracts adequate?	A	
7. Is publication policy appropriate?	A	
8. Is faculty publication record adequate?	A	
VI. STAFF		
1. Are program staff listed?	YES	
2. Is staffing level adequate for needs?	A	
VII. FACILITIES		
1. Are facilities described?	YES	
2. How well are facilities maintained?	A	
3. Is library collection adequate?	A	
4. Any other relevant facilities?	N/A	
VIII. RELATIONS TO THE OUTSIDE	N/A	
1. <b>Program</b> accredited or taking steps?		
2. If not, is there outside review?	YES	
3. Most recent report included?	A	
4. Solicit advice, etc. from prof. community?	M+	Could be more systematic in efforts
5. Are faculty involved at state and national level?	A	
6. Are interdisciplinary efforts adequate?	A	
7. Are interdisciplinary courses taught?	M	Only one interdisciplinary course offered, but it has been very successful.



IX. OPPORTUNITIES FOR GRADUATES	A
1. Do graduates have employment opportunities?	
2. Do graduates have grad/prof school options?	A
3. Have recent graduates been successful?	A
X. GOALS AND OBJECTIVES	A
Is the program meeting its goals and objectives?	

General comments:

Department of Political Science  
(805) 756-2984

CAL POLY  
San Luis Obispo, CA 93407

Memorandum

June 6, 1996

To: Program Review and Improvement Committee

Fr: ~~John Culver~~, Chair  
Political Science Department

Re: PRAIC Report on the POLS Dept.

Although I take issue with several ratings/comments in the Committee's evaluation of the Political Science Department, my concerns are not major. And, despite the tone of what follows, I am appreciative of the Committee's time and efforts devoted to evaluating programs in an objective and conscientious manner. My comments are referenced to the items on the PRAIC template.

II.6 Re: recruitment of new students-this is not a problem; we have an adequate and qualified applicant pool and we take many Cal Poly students who transfer from other programs to ours. The time and expense of participating in the Admission's Office "prospect" program to expand the applicant pools is not worth the effort.

III. 6 Re: curriculum outcomes-as I stated before the Committee members, I do not understand why several members perceive a problem in relating student learning outcomes to Department goals and objectives. These are quite straightforward.

III. 9 Re: help for at-risk students-we are doing a fine job with this and we will expand peer advising. There is, in fact, a point at which students must assume a minimum sense of responsibility for their own academic progress.

IV. 1 Re: diversity in instruction-I do not understand the absence of a rating here. As I explained before the Committee, I think we handle this quite well and there have been no criticisms of this by our students. The PRAIC has identified a problem which is nonexistent.

VII. 2 Re: advice from professional community--I find the Committee's rating here in error. We pay careful attention to soliciting advice from the professional community.

IX, 1 & 2 Re: opportunities for graduates--I disagree with the Committee's "adequate" rating. Evidence was included with our program review documenting the successes of our graduates in obtaining employment in the private and public sectors. Similarly, I doubt any other program in our College has a better record of sending seniors off to graduate programs and law schools. The PRAIC seems to have a formula in mind that it employs to measure the "opportunities" for graduates. How the Committee members evaluate this measure is unclear. How many students have to be accepted into graduate programs/law school to be rated M, A or E?

## Social Science

The Program Review and Improvement Committee reviewed the document submitted by the Social Sciences Department for the 1995-96 review process. Due to the incompleteness of the document, the committee was not able to evaluate the department and curriculum. Many of the substantive questions necessary for an objective assessment of the program were not addressed.

In order to complete a review, the committee suggests that the department resubmit a document which adheres to the guidelines set forth for the process for the next cycle. The department might want to consult with another department or their college representative on the committee before the next submittal if there are questions. The committee representative from your college is Mike Wenzl.

The committee looks forward to the next cycle and the review of the Social Sciences Department.

Social Science  
 Template for PRIAC Review Process  
 1995-96

This template assures that every item (or group of items) in the Request for Information is commented on. Information used in the review has been that provided by the Programs as well as that provided by Admissions, Institutional Studies, and Academic Affairs. The rating scheme consists of five categories:

- M Minimal - Poorly developed or below university norms
- A Adequate
- E Exceptional - Program is innovative and/or above university norms
- I Insufficient information
- NA Not applicable to this program

ITEM	RATING	COMMENTS
I. MISSION AND GOALS		
1. Mission statement clearly stated?	I	
2. Goals and objectives clear?	I	
3. Consistent with University strategic plan?	I	
4. Priorities consistent with mission and goals?	I	
5. Unmet needs consistent with mission and goals?	I	
6. Is there a realistic plan to meet needs?	I	
II. STUDENTS		
1. Are new students balanced between freshmen, transfers, and internal changes?	I	
2. How does quality of applicant pool compare to college and University?	I	
3. How does gender and ethnic diversity compare to college and university?	I	
4. How do probation and dean's list percentages compare to college and university?	I	
5. How does persistence to graduation compare to college and university?	I	
6. Are recruitment efforts consistent with need?	I	
7. Have students received recognition or awards?	I	
M. CURRICULUM		
1. Desired outcomes clear? Are they met?	I	
2. Is curriculum structure/concentrations clear?	I	
3. Is the program coherent?	I	
4. How do course and unit requirements compare to other institutions?	I	
5. Is inclusion of contemporary topics adequate?	I	What is the impact of the Pacific Rim program on the curriculum?
6. Are critical thinking component adequate?	I	
7. Are gender and ethnicity dealt with in the curriculum?	I	
8. Is program assessment adequate and effective?	I	
9. Are efforts to help Under-prepared and at-risk students adequate?	M	
10. Are experiential learning opportunities available and integrated into the	I	

IV. INSTRUCTION		
1. How is diversity addressed in instruction?	I	
2. Are innovative and new courses offered?	I	
3. How is teaching Quality assessed and used?	I	
4. a. SCUIFTEF	487.42	
b. FTEF used/FTEF generated	.79	
c. \$/SCU	180.31	
d. WTUIFTEF	13.20	
5. Are service course responsibilities met?	I	
6. Are there low or oversubscribed courses?	I	
7. Are GEB and service courses listed?	I	
8. What percentage are taught by tenure track?	I	
9. Are remedial courses and workload described?	I	
V. FACULTY		
1. Are gender and diversity appropriate?	I	
2. Are background and training appropriate?	I	
3. Have faculty received special recognition?	M	
4. Is professional development policy appropriate?	I	
5. Is level of professional development adequate?	A	
6. Are grants and contracts adequate?	I	
7. Is publication policy appropriate?	I	
8. Is faculty publication record adequate?	A	
VI. STAFF		
1. Are program staff listed?	I	
2. Is staffing level adequate for needs?	I	
VII. FACILITIES		
1. Are facilities described?	I	
2. How well are facilities maintained?	I	
3. Is library collection adequate?	I	
4. Any other relevant facilities?	I	
VIII. RELATIONS TO THE OUTSIDE		
1. Program accredited or taking steps?	N/A	
2. If not, is there outside review?	YES	1996, by single external reviewer from CSUFresno
3. Most recent report included?	YES	
4. Solicit advice, etc. from prof. community?	I	
5. Are faculty involved at state and national level?	M	
6. Are interdisciplinary efforts adequate?	I	
7. Are interdisciplinary courses taught?	I	
IX. OPPORTUNITIES FOR GRADUATES		
1. Do graduates have employment opportunities?	I	
2. Do graduates have grad/prof school options?	I	
3. Have recent graduates been successful?	I	
X. GOALS AND OBJECTIVES		
Is the program meeting its goals and objectives?	I	

General comments:

Difficult to assess--report does not follow format or address questions raised in the Request for Information. Department did not answer any of the substantive questions.

State of California

California Polytechnic State University  
San Luis Obispo, CA 93407

Memorandum

Date: February 6, 1996

File: Program Rev. 96

To: Program Review and Improvement Committee

Via: Roxy Peck, Chair  
Statistics



Copies:

From: Joseph M. Kourakis, Acting Department Head  
City and Regional Planning


Subject: Program Re'view

I would like to request that the program review for the City and Regional Planning Department be deferred for one year. Our department is conducting three searches this year (two tenure-track and one department head) in addition to our MCRP reaccreditation. Due to these impacts, a program review at this time would create a severe hardship on my staff. A one-year shift in our program review cycle would also help in subsequent years, as it would then occur at a more appropriate time given our accreditation cycles for the undergraduate and graduate programs.

Thank you for your assistance in this matter.

Feb. 12, 1996

To: Joseph Kourakis, Acting Department Head  
City and Regional **Planning**

From: Roxy Peck, Chair   
Program Review and Improvement Committee

Copies: Harvey Greenwald, Chair  
Academic Senate

Subject: Program Review

The Program Review and Improvement Committee found your request to delay the review of your department's program to be reasonable. City and Regional Planning will be rescheduled for review in the 96-97 academic year.

## APPENDIX I

### AGRIBUSINESS RESPONSE WITH ALL ATTACHMENTS

In addition to the response provided by Agribusiness in the body of the committee's "Report on programs reviewed during 1995-96," an additional 88 pages of materials were submitted as Appendix I.

This Appendix of information has been provided to the Academic Senate Executive Committee (which includes each college's caucus chair), President Baker, Provost Zingg, Associate Vice President Irvin, the Dean of Agriculture, the Agribusiness Department, and the University Library Archives.

If you would like to review Appendix I, please contact one of the individuals/offices noted above. A copy is also available in the Academic Senate office.



Agribusiness Department  
California Polytechnic State University  
San Luis Obispo

*MEMORANDUM*

DATE: June 14, 1996

TO: Program Review and Improvement Committee  
Roxy Peck, Chair

FROM: Agribusiness Department  
LeRoy Davis, Department Head



Copy To:

SUBJECT: Program Review

Enclosed are the following:

1. the Agribusiness Department's final response to the Program Review and Improvement Committee, dated June 14, 1996,
2. the Program Review and Improvement Committee's report of their review of the Agribusiness Department, dated May 28, 1996,
3. the Agribusiness Department's response to the Program Review and Improvement Committee's first evaluation, dated May 8, 1996,
4. the Program Review and Improvement Committee's first evaluation of the Agribusiness Department, dated April 4, 1996, and
5. the Agribusiness Department's original Program Review, dated January, 1996.

Agribusiness  
 Template for PRIAC Review Process  
 1995-96

This template assures that every item (or group of items) in the Request for Information is commented on. Information used in the review has been that provided by the Programs as well as that provided by Admissions, Institutional Studies, and Academic Affairs. The rating scheme consists of five categories:

- M Minimal - Poorly developed or below university norms
- A Adequate
- E Exceptional - Program is innovative and/or above university nonus
- I Insufficient information
- NA Not applicable to this program

AGB Rating Scheme consists of 6 categories:

- A Agree with evaluation - without comment
- AC Agree with evaluation - with comment
- DM Disagree with evaluation - documentation provided by AGB was misinterpreted by committee.
- DI Disagree with evaluation - documentation provided by AGB appears to have been ignored.
- DR Disagree with evaluation - with rebuttal
- NA Not applicable - not required in original Program Review Template

ITEM	RTG	COMMENTS	RTG	AGRIBUSINESS RESPONSE
1. MISSION AND GOALS 1. Mission statement clearly stated?	A-	Confuses mission and objectives	DM	Led in development of Mission & Goals by consultant with acknowledged expertise who used a different model than one used by committee
2. Goals and objectives clear?	A-	Few student oriented goals. Not clear that curriculum meets goal #1	DM	Implicit in Goals and Objectives is improved teaching, hence, expected improvement in student outcomes.
3. Consistent with university strategic plan?	A		NA	Not required in original review template
4. Priorities consistent with mission and goals?	A		A	
5. Unmet needs consistent with mission and goals?	M		DR	Continued faculty development of information competency is fundamental to Mission Statement
6. Is there a realistic plan to meet needs?	M	Some efforts being made, but no systematic plan.	DM	See Pg. 2, 3., b. of Program Review 1/96
II. STUDENTS 1. Are new students balanced between freshmen, transfers, and internal changes?	A		A	
2. How does quality of applicant pool compare to college and university?	A-	Lower than university. but equal to college	A	
3. How does gender and ethnic diversity compare to college and university?	A		A	
4. How do probation and dean's list percentages compare to college and university?	M	High probation %	AC	Recognize need to coordinate with the College and the University a better method of monitoring academically at-risk students.
5. How does persistence to graduation compare to college and university?	A		A	

*Atch #*

6. Are recruitment efforts consistent with need?	A		A	
7. Have students received recognition or awards?	I	What academic or professional awards have graduates received? Need better tracking.	DI	See Pg. 6, II., 6. of AGB Program Review, 1/96. National recognition of NAMA team success is comparable to winning a national championship in NCAA.
III. CURRICULUM				
1. Desired outcomes clear? Are they met?	I	Desired outcomes are those from Agrimass study, extent to which they are met is unclear.	DI	Expected student outcomes are identified in Mission Statement as well as Pg. 6, III., 1. of AGB Program Review, 1/96.
2. Is curriculum structure! concentrations clear?	A-	Lack of free electives. Duplication of effort with business. 34 core units, 32 concentration units, 31 restricted support electives	A DI	Re: Free Electives - See Appendix I. Re: Duplication of effort with Business - see Pg. 6 of 5/8/96 AGB Response to Committee questions.
3. Is the program coherent?	A-	Seems overly restrictive	DI	Four Concentrations and Flex Agricultural Production Electives encourages the exploration of vast array of interest areas.
4. How do course and unit requirements compare to other institutions?	A-	Other universities have more free electives. Why are similar programs at other CSU campuses downsizing?	A NA	Free electives issue addressed in M., 2. above. Downsizing issue - uncertain of causes at other campuses; uncertain of relevance to this review.
5. Is inclusion of contemporary topics adequate?	A-	Topics are there, but focus seems one-sided, with emphasis on current industry and business practices. Issues like land use policies and sustainability do not appear to be adequately addressed.	DM	See Appendix N.
6. Are critical thinking component adequate?	M	Appears late in the curriculum. How is critical thinking integrated into the curriculum?	AC	Critical thinking (analysis, synthesis, application) occurs after knowledge and comprehension levels of learning have been established; critical thinking occurs in more advanced courses and rarely in principles courses.
7. Are gender and ethnicity dealt with in the curriculum?	M	Why only industry/profit orientation? Appears to be addressed only from an employer's point of view. What about issues of social and environmental responsibility?	NA DI	Committee's comments are not relevant to this question. See Pg. 6., III., 6. of AGB Program Review, 1/96.
8. Is program assessment adequate and effective?	M		DI	See Pg. 13., III., 7. of AGB Program Review, 1/96.
9. Are efforts to help under-prepared and at-risk students adequate?	I	What is MAP? what is faculty participation in MAP, and in dealing with at-risk students?	AC	See Appendix III and Attachments re: MAP.
10. Are experiential learning opportunities available and appropriate to the program?	A		DR	See Pg. 13., III., 9. of AGB Program Review 1/96. Internship program is highly acclaimed and recognized by California agribusiness industry.

IV. INSTRUCTION 1. How is diversity addressed in instruction?		The department should consider how diversity is addressed in instructional methods as distinct from course content.	AC  DI	Role playing and debates in AGB 401, <i>Managing Cultural Diversity of Agricultural Labor Relations</i> , and AGB 318, <i>Agricultural Trade Policies</i> - address concerns of ethnicity and gender. See Pg., 14, IV., 1. of AGB Program Review 1/96 discussion of women in agribusiness.
2. Are innovative and new courses offered?	M	Topics mentioned don't seem particularly innovative	AC	Courses added recently to curriculum, in addition to Wine Certification courses; include AGB 412, 315, 450, and 445. (See Appendix IV for course titles). Difficult to add new courses as faculty numbers have decreased significantly.
3. How is teaching quality assessed and used?	A-	Good set of criteria. <b>Assessment</b> is the standard minimum.	AC	College of Agriculture evaluations more comprehensive than University average.
4. a. SCU/FTEF	361			
b. FTEF used/FTEF generated	.72			
c. S/SCU	251			
d. WTU/FTEF	14.4 9			
5. Are service course responsibilities met?	N/A			
6. Are there low or oversubscribed courses?	N/A			
7. Are GEB and service courses listed?	A		A	
8. What percentage are taught by tenure track?	M	20% of GE&B	DR	AGB 401, <i>Managing Cultural Diversity in Agricultural Labor Relations</i> - 100% tenure track; AG 150, <i>Computer Application to Agriculture</i> - 80% part-time. University administration informed us we were not to staff AG 250 with tenure track faculty
9. Are remedial courses and workload described?	N/A			
V. FACULTY 1. Are gender and diversity appropriate?	M	No ethnic diversity, 3/18 Female	AC	Three of the last four more recent hires are women. Have attempted to hire under-represented minorities and have complied with University Affirmative Action guidelines
2. Are background and training appropriate?	A	Large number of degrees from Cal Poly. 11/18 Ph.D. Ph.D. is now required for tenure-track hire.	A	
3. Have faculty received special recognition?	M		DI	See Pg. 17, V., 3. of AGB Program Review, 1/96. Add Douglas Genereux as winner of Dole Teaching Award.

4. Is professional development policy appropriate?	A	How are these activities prioritized by the department?	AC	Operating under College of Agriculture guidelines
5. Is level of professional development adequate?	A-	Lots of conferences, but few papers presented. What professional development opportunities are provided for non Ph.D. faculty members?	AC	Same opportunities to conduct research in AGB as in other departments in College of Agriculture and University.
6. Are grants and contracts adequate?	A	What are the opportunities for funding in this area?	A	
7. Is publication policy appropriate?	A	How are activities prioritized?	AC	Operating under College of Agriculture guidelines
8. Is faculty publication record adequate?	A-	Heavy on nonrefereed publications. What are the research reports mentioned?	AC	Many research reports are for industry associations; reports from consulting contracts with industry and government.
VI. STAFF				
1. Are program staff listed?	YES			
2. Is staffing level adequate for needs?	A		A	
VII. FACILITIES				
1. Are facilities described?	YES			
2. How well are facilities maintained?	A		A	
3. Is library collection adequate?	A	Not adequate for research	AC	Does not create major problem because of increased reliance on electronic media.
4. Any other relevant facilities?	A		AC	New multimedia, studio classroom will be a state-of-the-art facility.
VIII. RELATIONS TO THE OUTSIDE				
1. Program accredited or taking steps?	N/A			
2. If not, is there outside review?	YES	Only every 10 years	DR	Ten years was set by the College of Ag in the strategic plan but was changed to once every five years at Department Head's retreat on 6/11/96 and is to follow the guidelines established by the Academic Senate.
3. Most recent report included?	YES	Suggestions from external review do not appear to have been adequately addressed.	DI	See Pgs. 3-5 of AGB response to Committee questions.
4. Solicit advice, etc. from prof. community?	A	Advisory Board appears to be all management, no representatives from production.	DI	Discussed with Committee that Advisory Board, in fact., includes representatives from production agriculture..
5. Are faculty involved at state and national level?	A		A	
6. Are interdisciplinary efforts adequate?	M	Involvement could be broader. What other than World Food Politics? Any joint efforts with Business or Econ?	DR	See Pgs. 6-7 of AGB response to Committl questions.

7. Are interdisciplinary courses taught?	M	Could do more in this area	AC	On-going effort to create interdisciplinary courses; university must find ways to make <b>the</b> process easier.
IX. OPPORTUNITIES FOR GRADUATES 1. Do graduates have employment opportunities?	A		DR	Our tracking of graduates indicates rating by Committee of E - Exceptional would be appropriate.
2. Do graduates have grad/prof school options?	A		DR	Our tracking of graduates indicates rating of Committee of E - Exceptional would be appropriate.
3. Have recent graduates been successful?	A		DR	Uncertain of Committee's criteria of measuring success.
X. GOALS AND OBJECTIVES Is the program meeting its goals and objectives?	M	External Review (1989) indicates that goals and objectives are not being met, and these concerns have not been adequately addressed in the intervening years.	DR	External Review (1989) did not evaluate current Goals and Objectives; Mission Statement written after that <b>review</b> .

General comments:

Program curriculum appears to be heavily oriented toward large business interests.

Appendix #1

Breakdown of Units by Area of Curricula for Selected Departments

Curriculum	Degree Units	Units in Major	Units Support	Units GEB	Free Electives
Statistics	186	69	36	67	14
Soil Science	198	92	41	55	10
Materials Enirineering	208	70	78	57	3
Landsacape Architecture	236	118	49	58	11
English	186	75	4	76	31
Agribusiness	192	66	61	56	9

Source: Cal Poly Catalog 1994-97

Except for the English Department, the number of Free Elective units is no better nor worse than the requirements of the departments of the four members of the Review Committee.

## Appendix #2 - Department Comments

The Program Review and Improvement Committee inferred erroneously that, "the department's motivation for inclusion of diverse perspectives and issues of environmental and social responsibility is self-serving. The philosophy seems to be to fight the rest of the world rather than to integrate into it." There is apparently a misunderstanding of what the Agribusiness Department is doing. We are aware that agricultural practices in this country, and around the world, are changing; and we want our students to understand the full range of challenges that they will face in the years ahead. We are not teaching dogma or a party line about how agriculture should be. We want to equip our students with critical thinking skills and to develop the ability to articulate their beliefs and ideas, whatever they may be. What better way to do this than to have our students analyze the polar views of leading experts, ones with vastly divergent views of the causes of or solutions to a problem. We are not hanging on to the past, except when the past can serve to make the future better. Is that self-serving?



Appendix #3 - Explanation of Multicultural Agriculture Program (MAP)

See Attached

## Providing Services for Students and Faculty

- ✓ Academic advisement
- ✓ Career exploration
- ✓ Developing networks
- ✓ Ethnic support groups
- ✓ Faculty Advisor Program
- ✓ Industry contacts
- ✓ Internship opportunities
- ✓ Leadership development
  - ✓ Outreach
  - ✓ Providing resources
  - ✓ Removing barriers
  - ✓ Student achievement
  - ✓ Student Peer Advisor Program
  - ✓ Student recognition
  - ✓ Student retention
  - ✓ Supplemental instruction

## MAP Sponsors

*MAP depends on private support in its operation. The College of Agriculture is indebted to those who have contributed to MAP's development and operation.*

*(alphabetical order)*

Bank of America Foundation

Ciba-Geigy Corporation

Monsanto Agricultural  
Group

Wells Fargo Bank  
Foundation

The MAP Student Center is located in building 10, room 134. The hours of operation are posted outside the door. Visitors are always welcome.

*For more information, please contact:*

Dr. Robert A. Flores  
(805) 756-2169

**CAL POLY**  
CALIFORNIA  
POLYTECHNIC  
STATE UNIVERSITY  
SAN LUIS OBISPO  
C A O O I

## Multicultural

## Agriculture

## Program



*"Ensuring student success"*

COLLEGE OF AGRICULTURE  
California Polytechnic State University  
San Luis Obispo

## OUR MISSION

The mission of the Multicultural Agriculture Program (MAP) at Cal Poly is to provide academic and personal support to students of all cultural backgrounds in the College of Agriculture.

MAP achieves this mission by rendering a wide variety of services to assure student success at Cal Poly. Currently, MAP is directing its attention and resources on student retention and increasing the student graduation rate, with a particular focus on meeting the needs of the ethnically underrepresented students. The ultimate goal is to provide for a diverse campus learning environment in the College of Agriculture.

## PROGRAM OVERVIEW

MAP at Cal Poly began in January of 1993. Facilities were assigned for MAP use and contributions from departments in the College of Agriculture and units within Student Academic Services allowed for the acquisition of equipment. Students targeted for services began using the partially equipped center soon after that.

In order to meet the needs of so many student users, the College of Agriculture has incorporated several facets to MAP. In addition to a faculty member serving as the director of the program, Student Academic Services has assigned an academic advisor as a liaison to the College of Agriculture. Paid Student Peer Advisors provide students with peer support and interaction. Volunteer Faculty Advisors provide the academic support and guidance in creating a warm and friendly atmosphere.

## FACILITIES — — — —

The MAP Student Center is located in the Erhart Agriculture Building (building 10), room 134. The center consists of a reception room, a reading room, a resource room, and a group meeting room.

### RECEPTION ROOM

The Reception Room serves as a welcoming area to the center. Students are invited to meet with peers, faculty advisors, or others in this area. Anytime a student needs a place to "park" between classes, this room serves as their "home-away-from-home" for individual or group study.

### READING ROOM

The Reading Room gives students a quiet place to study and prepare for examinations. At times, this room is also used for group sessions.

### RESOURCE ROOM

The Resource Room consists of academic supplies, computer equipment, and other resources for student use. Industry publications, job bulletins, listings of internship opportunities, and announcements from student organizations are posted in the Map Student Center.

### GROUP MEETING ROOM

The Group Meeting Room serves students interested in individual or group study of a particular subject. Students are encouraged to reserve the room for their use. Student Academic Services is cooperating with MAP in providing volunteer tutors and student assistants (peer tutoring and advisement) to the students, based on student needs and the availability of funds.

## STUDENT ORGANIZATIONS -

MAP assists in the formation and operation of student support organizations for various ethnic groups. It is important to note that the student support organizations are created to assist the students in adapting to college life. Throughout the adjustment process, students are encouraged to "branch out" and participate in the leadership functions, community service activities, and social events as members of other student organizations in the College of Agriculture.

# MAP STUDENT CENTER

## Multicultural Agriculture Program

### IT'S HERE TO HELP YOU!

For your convenience we have . . .

#### **GROUP STUDY ROOM**

You can meet with your study group and tackle class material.

#### **COMPUTER ROOM**

You can use the Mac Classic and HP Desk Writer for your reports.

#### **READING ROOM**

You can study in a quiet environment.

#### **STUDENT PEER ADVISORS**

You can come and talk to the Student Peer Advisors in the College of Agriculture. They will assist you in developing class schedules and will inform you of campus resources.

#### **FACULTY ADVISORS**

Various faculty members hold their office hour in the MAP Student Center. This is an opportunity to get to know the faculty, as well as get valuable career advice and assistance with academic concerns.

You can find all these *luxuries* without leaving the

**AG. BUILDING (10-134)**

For more information, please call 756-2627



# COLLEGE OF AGRICULTURE

# STUDY GROUPS

Looking for help in Rg related classes Dr support courses?  
Then check out the following resourse list available to you!

## STUDENT PEER RDUISORS:

Kelley Jackson [ka/jackso](#)

AG 250  
BACT 221  
BID 101  
CHEM 101121  
FSN 210  
HIST 318x  
MATH 100104  
PSY 201  
STAT 211

Lily Mesa [lmesa](#)

VSCI general  
CHEM general  
PHYS general

Rima Mariscal [amarisca](#)

ACT 211  
AE 340  
ENGL 111 112 114 200  
AGB 101210212310  
SPAN all levels

Jawnl Hoang [tthoang](#)

PHYS 131132133  
AE all levels  
MATH up to 241  
CE 204 205 206  
CHEM 124

WATER MANAGEMENT  
HYDROLOGY

Wendy Ford [wford](#)

ASCI all levels  
VSCI all levels  
810 133 200 303  
CHEM 127128129  
PHYS 121122123  
MATH up to 120  
STAT 211  
ENGL all levels  
PSY 201  
GEOG 308  
ZOO 405

Bertha Hernandez [bhernand](#)

SS 121433

## PROCEDURES:

1. Email the contact person to set up a session.
2. Call x2627 to schedule by phone, or
3. Drop by the MAP Student Center (10-134) during Student Peer Advisor's office hour.

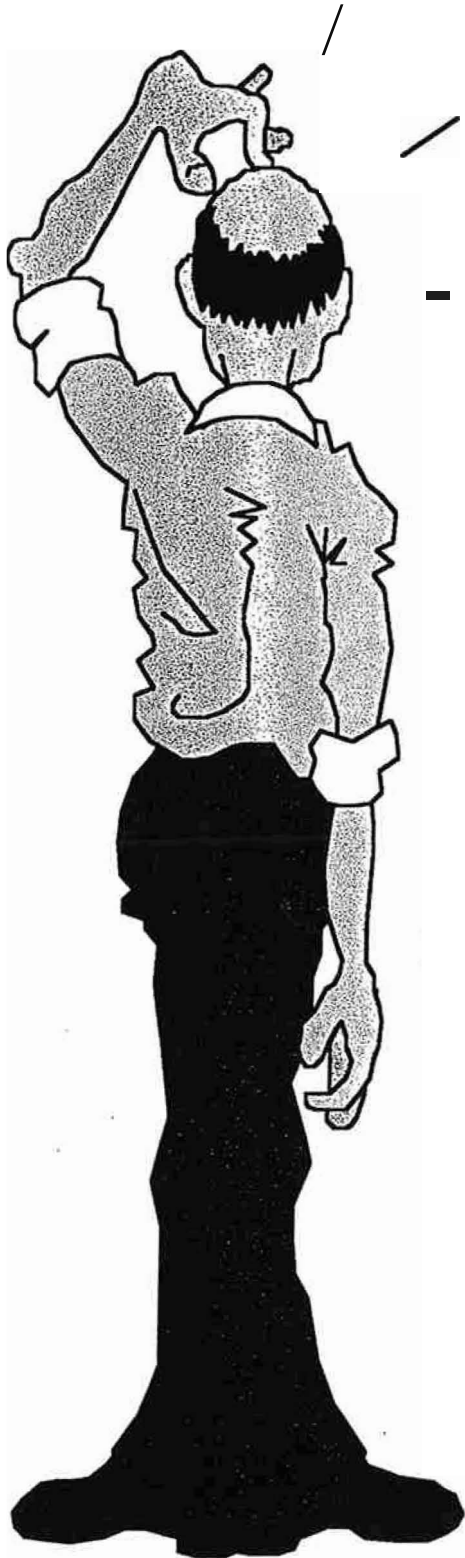
## FOR MORE INFORMATION:

If you have any questions, please contact Mr. Louis B. Vega at x2301 or at [lbvega@calpoly.edu](mailto:lbvega@calpoly.edu).

*In partnership with Student RDsdemID services, the College of Agiructure,  
and the Multiculture Rgrlculture Progrsm*



# EMERGENCY SCANTRONS!



Are you having an exam and don't have a scantron handy or can't get to the store in time for a test?

The Multiculture Agriculture Program Student Center (bldg. 10, room 134, 756-2627) has Emergency Scantrons available!

## PROCEDURES:

- A)** Drop by the MAP Student Center.
- B)** Ask any one of the **Student Peer Advisors** to get you one or two scantrons.
- C)** It is suggested that scantrons taken be replaced at a later time.

## FOR MORE INFORMATION:

Please contact Mr. Louis B. Vega at 756-2301, Hillcrest Building 81 or at [lvega@calpoly.edu](mailto:lvega@calpoly.edu)

*Sponsored by the Multiculture Agriculture Program, College of Agriculture and Student Academic Services.*



# COURSE RESOURCE FILES

The MAP Center is updating its Course Resource Files and would like to know if anyone has old notes, test, study guides, or labs from Rg related and non Rg related courses.

## PROCEDURE:

1. Stop by the MAP Center Bldg. 10-134 and drop off your course files. (756-2627)
2. Please drop off the course files that you believe can be of any help to other students in the "pink" file box.
3. Then a Student Peer Advisor will make copies and you can pick up your original files at the end of the week.



*If you have any questions, please contact anyone of the Student Peer Advisors on duty. The office hours are posted outside the MAP entrance.*

# HISTORY 315



Supplemental Instruction Session  
@ the \*M.A.P. Student Center

Supplemental Instruction is designed to enhance the instruction given in class. A facilitator attends the class and reviews the subject matter with students.

MW @ 2-3:30pm at the MAP Group Study Room 10-134

If you would like to be part of this group or any other, see the list at the MAP Center (10-134) or submit a request at the Academic Skills Center Bld. 33 Room 292.

*For more information, please contact Mr. Bill Sydnor at 756-1256 [wsydnor@calpoly.edu](mailto:wsydnor@calpoly.edu) or Mr. Louis B. Vega at 756-2301 [lvega@calpoly.edu](mailto:lvega@calpoly.edu)*

\*Multicultural Agriculture Program, College of Agriculture



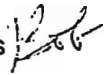


Agricultural Education Department

MEMORANDUM

April 22, 1996

To Dr. Bill Amspacher  
Agribusiness Department

From Bob Flores 

Copies:

Subject Faculty Advisors to MAP

The following individuals from the Agribusiness Department have served as volunteer Faculty Advisors to the Multicultural Agriculture Program:

Member of the Faculty	Year		
	93-94	94-95	95-96
James Ahern	XXX	XXX	XXX
William Amspacher	XXX		XXX
Phillip M. Daub	XXX	XXX	XXX
DouQlas G. Genereux	XXX		
Jay E. Noel	XXX	XXX	
Nancy C. Ochs	XXX	XXX	XXX
David J. Schaffner	XXX		
Kenneth C. Scott		XXX	
Robert Thompson	XXX	XXX	

The Faculty Advisor Program is a critical component of MAP because it brings members of the faculty closer to the stUdents. Invariably, most of the faculty members who have participated have "opened the doors" to increased communication between them and the students who frequent the MAP Student Center. Of course, serving as a Faculty Advisor is but one way to enhance student advisement. Anything we do to show our support and concern for students will pay big dividends in the process of academic advisement.

Thanks for requesting this information. If you should note any errors, please let me know.

Appendix #4 Course Titles

AGB 315, *Land Economics*

AGB 412, *Advanced Agricultural Policy*

AGB 445, *Product Marketing*

AGB 450, *Agribusiness Strategy Formulation*

## Cal Poly Memorandum

Date: May 28, 1996

To: Leroy Davis, Chair  
Agribusiness Department

From: Program Review and Improvement Committee  
Roxy Peck, Chair *RP*

Subject: Program Review

Attached is a copy of the report that the Program Review and Improvement Committee will be forwarding to the Academic Senate. This report is submitted along with any written response that your department would like to provide. In order to be included in the report to the Senate, your response must be received before June 15, 1996.

Please forward your response to the Program Review and Improvement Committee, in care of Roxy Peck, Statistics Department.

If you have any questions, please feel free to contact the chair or your college representative on the committee.

*RP #2*

**Agribusiness**  
 Template for PRIAC Review Process  
**1995-96**

This template assures that every item (or group of items) in the **Request** for Information is commented on. Information used in the review has been that provided by the Programs as well as that provided by Admissions, Institutional Studies, and Academic Affairs. The rating scheme consists of five categories:

- M Minimal - Poorly developed or below university norms
- A Adequate
- E Exceptional - Program is innovative and/or above university norms
- I Insufficient information
- NA Not applicable to this program

ITEM	RATING	COMMENTS
I. MISSION AND GOALS		
1. Mission statement clearly stated?	A-	Confuses mission and objectives
2. Goals and objectives clear?	A-	Few student oriented goals. Not clear that curriculum meets goal #1
3. Consistent with university strategic plan?	A	
4. Priorities consistent with mission and goals?	A	
5. Unmet needs consistent with mission and goals?	M	
6. Is there a realistic plan to meet needs?	M	Some efforts being made, but no systematic plan.
II. STUDENTS		
1. Are new students balanced between freshmen, transfers, and internal changes?	A	
2. How does quality of applicant pool compare to college and university?	A-	Lower than university, but equal to college
3. How does gender and ethnic diversity compare to college and university?	A	
4. How do probation and dean's list percentages compare to college and university?	M	High probation %
5. How does persistence to graduation compare to college and university?	A	
6. Are recruitment efforts consistent with need?	A	
7. Have students received recognition or awards?	I	What academic or professional awards have graduates received? Need better tracking
III. CURRICULUM		
1. Desired outcomes clear? Are they met?	I	Desired outcomes are those from Agrimass study, extent to which they are met is unclear.
2. Is curriculum structure/concentrations clear?	A-	Lack of free electives. Duplication of effort with business. 34 core units, 32 concentration units, 31 restricted support electives
3. Is the program coherent?	A-	Seems overly restrictive
4. How do course and unit requirements compare to other institutions?	A-	Other universities have more free electives. Why are similar programs at other CSU campuses downsized?

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5. Is inclusion of contemporary topics adequate?	A-	Topics are there, but focus seems one-sided, with emphasis on current industry and business practices. Issues like land use policies and sustainability do not appear to be adequately addressed.
6. Are critical thinking component adequate?	M	Appears late in the curriculum. How is critical thinking integrated into the curriculum?
1. Are gender and ethnicity dealt with in the curriculum?	M	Why only industry/profit orientation? Appears to be addressed only from an employer's point of view. What about issues of social and environmental responsibility?
8. Is <b>program</b> assessment adequate and effective?	M	
9. Are efforts to help under-prepared and at-risk students adequate?	I	What is MAP? what is faculty participation in MAP, and in dealing with at-risk students?
10. Are experiential learning opportunities available and appropriate to the program?	A	
IV. INSTRUCCION		The department should consider how diversity is addressed in instructional methods as distinct from course content.
1. How is diversity addressed in instruction?		
2. Are innovative and new courses offered?	M	Topics mentioned don't seem particularly innovative
3. How is teaching quality assessed and used?	A-	Good set of criteria. Assessment is the standard minimum.
4. a. SCUIFTEF	361	
b. FTEF used/FTEF generated	.72	
c. S/SCU	251	
d. WTUIFTEF	14.49	
5. Are service course responsibilities met?	N/A	
6. Are there low or oversubscribed courses?	N/A	
1. Are GEB and service courses listed?	A	
8. What <b>percentage</b> are taught by tenure track?	M	20% of GE&B
9. Are remedial courses and workload described?	N/A	
V. FACULTY		
1. Are <b>gender</b> and diversity appropriate?	M	No ethnic diversity, 3/18 Female
2. Are background and training appropriate?	A	Large number of degrees from Cal Poly. 11/18 Ph.D. Ph.D. is now required for tenure-track hire.
3. Have faculty received special recognition?	M	
4. Is professional development policy appropriate?	A	How are these activities prioritized by the department?
5. Is level of professional development adequate?	A-	Lots of conferences, but few papers presented. What professional development opportunities are provided for non Ph.D. faculty members?
6. Are grants and contracts adequate?	A	What are the opportunities for funding in this area?
7. Is publication policy appropriate?	A	How are activities prioritized?
8. Is faculty publication record adequate?	A-	Heavy on nonrefereed publications. What are the reports?

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went from I to

VI. STAFF		
1. Are program staff listed?	YES	
2. Is staffing level adequate for needs?	A	
VII. FACILITIES		
1. Are facilities described?	YES	
2. How well are facilities maintained?	A	
3. Is library collection adequate?	A	Not adequate for research
4. Any other relevant facilities?	A	
VIII. RELATIONS TO THE OUTSIDE		
1. Program accredited or taking accreditations?	N/A	
2. If not, is there outside review?	YES	Only every 10 years
3. Most recent report included?	YES	Suggestions from external review do not appear to have been adequately addressed.
4. Solicit advice, etc. from prof. community?	A	Advisory Board appears to be all management, no representatives from production.
5. Are faculty involved at state and national level?	A	
6. Are interdisciplinary efforts adequate?	M	Involvement could be broader. What other than World Food Politics? Any joint efforts with Business or Econ?
7. Are interdisciplinary courses taught?	M	Could do more in this area
IX. OPPORTUNITIES FOR GRADUATES		
1. Do graduates have employment opportunities?	A	
2. Do graduates have grad/prof school options?	A	
3. Have recent graduates been successful?	A	
X. GOALS AND OBJECTIVE		
Is the program meeting its goals and objectives?	M	External Review (1989) indicates that goals and objectives are not being met, and these concerns have not been adequately addressed in the intervening years.

General comments:

Program curriculum appears to be heavily oriented toward large business interests.

## AGRIBUSINESS

### 1. MISSION AND GOALS

Given the amount of material and scope of issues presented in this section, it seems that the Department has invested substantial effort in dealing with its mission and goals. Such effort is commendable, especially in a large department. A department of this size has a significant impact on students and programs at Cal Poly. However, the Committee does feel that the Department's statement is confusing, and that it should be re-organized and simplified. Detailed suggestions for this purpose are presented at the end of this report.

**The Department** states the need for more resources, yet no rationale for the stated need is offered. The prioritized goals of the department suggest other needs that are not addressed. The department has substantial support from industry, and is encouraged to develop a systematic plan to meet departmental needs.

### n. STUDENTS

The percentage of students on probation seems relatively high. Efforts to assist at-risk students are primarily reactive. The department should consider developing a more pro-active strategy for assisting students.

Recruiting efforts are limited. Although the department receives a large number of applications, they may want to consider recruiting efforts that are specifically targeted to departmental goals and needs, and to increase the quality and diversity of the applicant pool.

### m. CURRICULUM

The curriculum is quite restrictive and includes few free electives. Only 9 % of the program unit total is in "preparatory subjects," whereas this percentage is higher in the comparison programs. Presumably, this is due to the Department teaching its own courses in some preparatory areas. The department is encouraged to consider ways of increasing flexibility and opening up truly free electives. Perhaps the restrictive nature of the program could be eased by integrating support courses into the major and eliminating the concentrations.

The 1989 external review states that the GE component "is vital in terms of affecting the ability of students to respond, adapt, and survive in the world of work...An important objective in this area is to develop in students a greater appreciation for the GE&B component of their formal education...The faculty ... should be genuinely committed to a strong GE&B core..." However, the department still seems focused on trying to circumvent GE&B requirements. This is evident in the department's response to many of the curricular recommendations in the external review. We encourage the department to be more creative in dealing with curricular issues. For example, the department *can't* require a foreign language *because* it won't count in Area C, and the

department indicates that English 310 would be a good course for students, but they do not require it because its narrow focus precludes its inclusion as a GE&B course. If the **curriculum** were more flexible, these types of courses could be included as support courses.

The Department should get systematic and focused student input, and attempt some measures of learning outcome attainment, other than course grades, that relate to its general learning objectives and that cut across courses (e.g., selected common portions of class-based tests, systematically observed demonstrations of knowledge and competence, etc.).

Given the crucial role of ethnic diversity and the need for cross-cultural understanding in the agricultural industry, the issues of gender and ethnic diversity would seem to require considerable attention in order to prepare students properly to perform professional activities in morally and ethically appropriate ways, not just to "allow peers and employees to express their talents in the most profitable manner". The committee feels that the department's motivation for inclusion of diverse perspectives and issues of environmental and social responsibility is self-serving. The philosophy seems to be to fight the rest of the world rather than to integrate into it. This is illustrated by the following statements from materials submitted by the department:

"The cultural dimensions are consistently included to give the student an awareness of the importance of expanding his/her value system to allow peers and employees to express their talents in the most profitable manner."

"Many issues pit the farmer against the rest of the population, e.g. water use and quality, air quality (rice stubble burning), pesticide use (methyl bromide), grazing of livestock on public lands, etc. The list seems endless."

"It is imperative that our students understand the arguments that are being raised against the way we farm in this country in order to defend, hopefully eloquently and articulately, a position that may not be popular with the American public. How better to defend one's position than to know fully the arguments of one's adversaries."

#### IV INSTRUCTION

The only **new** developments seem to be in the wine program.

How are the teaching criteria listed employed, and their attainment assessed? These criteria are a "mixed bag," few of which actually focus on teaching.



## V FACULTY

The faculty is not very diverse, but they have had little recent opportunity to hire. Only 11 of 18 tenure-track faculty hold a Ph.D., but the department indicates that a Ph.D. is now a requirement for tenure-track hires. Future recruitment plans should address the lack of diversity in the department.

The faculty is active in a variety of areas, but it is difficult to judge the quality of this activity without an indication of how the department prioritizes professional development activities. Given the predominance of publications in the popular press over articles in referred journals, it would be helpful to get a sense of the intended effect of the publications on the public arena. Public social contribution is a good thing, and the Department should explain its intent in this realm.

## VII FACILITIES

Use of the Internet and World Wide Web is to be encouraged. The Department might develop models of employing electronic information resources for instructional enhancement and efficiency.

## VIII RELATIONS TO THE OUTSIDE

Ten years is too long between external reviews. The department should shorten this interval, and should develop specific reactions and an appropriate plan of action in response to the issues and concerns expressed in the external review.

Interdisciplinary actions seem minimal.

The department has substantial endowment and discretionary funding. How does this tie in to plans for addressing departmental needs?

## X GOALS AND OBJECTIVES

Information about goal attainment is general and implied and does not tie directly to learning outcomes. Proper evaluation of this topic must await the Department's revision of its mission/goals statement regarding just what it is trying to achieve with its students. At that time, evidence of goal attainment can be clearly and explicitly linked to the appropriate objectives.

## SUGGESTIONS FOR MISSION AND GOALS

What is the intended distinction between "mission" and "vision"? Between "goals" and "objectives"? Typically, a vision would be a broadly-stated, self-imposed, hoped-for general result of a program, whereas a mission would be a mandated, generally-stated directive. Goals are generally stated desired program outcomes, the attainment of which is indicated by meeting specific, individually observable objectives. This Department is unusual in attempting to articulate a vision. If the distinction between a mission and a vision seems useful to the Department, the purpose for the distinction should be explained, and the statements should be articulated at an appropriate level of generality (i.e., free of narrowly focused specific objectives, such as "provide professional consultative services via direct faculty interaction...").

More specifically, the three goals that are stated as most important are:

- (1) vocational and career preparation (which essentially repeats the first "vision" bullet and the first "mission" sentence, except for reference to the terms "market driven," "diverse skills," and "diverse group");
- (2) provide consultation service by the faculty (which repeats the second "vision" bullet, but ignores the implication in the final "mission" statement that such consultation should impact course material); and
- (3) challenge (although not require) students to engage in experiences outside the classroom (which repeats the second "mission" statement).

It would be helpful to remedy this repetition and lack of logical coherence. Likewise, it would be helpful to specifically link each of the seven "strategic objectives" to the appropriate specific goal(s) they are intended to serve.

What is the relationship between the "highest priority items" listed under "3." on page 2 and the "three most important goals" listed under "2." on page 1?

Student learning goals are mentioned only at the broadest level (e.g., "...diverse skills necessary to perform well...having the foundation to rise..."). It behooves any academic department, and especially one as large as this one, to describe in generally understandable yet more specific terms the nature of the domains and kinds of knowledge and skills that it intends to instill in its students.

California Polytechnic State University  
San Luis Obispo  
Agribusiness Department

MEMORANDUM

DATE May 5, 1996

TO Roxy Peck  
Program Review Committee

FROM M. LeRoy Davis, Department Head  
Agribusiness Department



SUBJECT: Agribusiness Program Review

We hope the following response will help you conclude your review of our program. Where possible, we tried to give you as much general information and explanation as possible. We felt, however, that in some instances (Question 4 for example) that a closer look at one specific example might give you a better feel for how we address a topic within our department.

QUESTION 1: In our meeting, it was indicated that the seven objectives listed on page 5 of the materials submitted for program review were being implemented, had timelines, and faculty overseeing their implementation. Could you provide further details on the timelines and on what progress is being made?

These are the 7 objectives listed in the report on page 5. This is page 10 of the Department's Strategic Plan drawn up on April 15, 1994. It was reviewed in update meetings in 5/94, 10/94, 10/95 and will be reviewed again at one of our year-end faculty meetings in 5/96.

PART ID. PLANNING

A. Strategies

1. To develop an active departmental diversity program. (Marlin Vix, Phil Doub, Doug Genereux)

*These faculty spearheaded 3 separate movements: activities to recruit underrepresented students and faculty, enhanced effort in the Multicultural Agriculture Program (MAP) and expanded coverage in our AGB 401, Managing Cultural Diversity in Ag Labor Relations course.*

2. To build industry relations, activities, promotion, research money  
(LeRoy Davis, Ken Scott, Nancy Dchs, Jay Noel & Bob McCorkle)

*The appointed faculty have specifically enlarged our pool of company internships for our students, made two major annual overnight industry field trips during Fall conference week in which all faculty attended, and raised considerable direct contributions from industry as well as working closely with the administration's advancement people.*

3. To be flexible and equitable in allocating faculty time, efficiency, SeD's, every individual will have to buy in. (Jack Scott, LeRoy Davis, Bill Amspacher)

*These faculty oversaw a plan to make time available for the professional development of faculty to conduct research and publish their results (especially for the newer tenure track faculty). Student club activities and other co-curricular activities were staffed by senior faculty members. Efficiency was improved by going to larger class sizes in lieu of losing six faculty positions over the past few years.*

4. To create a development plan for our department, computer databases.  
(Duane Seaberg, Art Duarte and Bob McCorkle)

*Duane Seaberg worked diligently on a development plan for two years but then we lost both him and his position. LeRoy Davis has continued to spearhead our development efforts and we have acquired computer and audiovisual hardware for our students as a result of these efforts.*

5. To develop a plan to communicate what we are about with our production departments and the College of Business. (Renny Avey, Jack Herlihy)

*This strategy resulted in informal brown bag lunches in our conference room with some of the other Ag departments to discuss curriculum and industry needs. There were a few productive lunch meetings with faculty from the College of Business over curriculum and we have an ongoing dialogue with the joint MBA in Agribusiness degree.*

6. To incorporate a global focus into our courses especially Mexico, Latin America.  
(Ken Scott, Curriculum Committee)

*This task/orce has made great strides in developing liaisons with Technological Institute of Monterey, Campus Queretero (ITESM) in Mexico, resulting in faculty visits and consulting assignments. Bob Thompson spent Fall, 1995 teaching at the Queretero*

*campus of ITESM This June our department is conducting a student trip to China. Upper division courses have all injected a more global focus via case studies (Harvard Business School!), videos, examples and texts.*

7. To become excellent teachers, workshops, FilIO, visit classes, Don Maas at our meeting. (Jim Ahem, Jack Herlihy, Bob Thompson)

*This taskforce has worked individually with professors by forming a departmental three-person personnel committee to visit classes and provide consultation on improving teaching performance. Several professors were encouraged and have attended Don Maas' teaching course. Former Cal Poly Agribusiness professor, Dr. Steve McGary, now at Rick's College, recently made a presentation on multimedia teaching which will have a major impact on our class presentations. We have acquired presentation hardware and software to facilitate rapid implementation of these new techniques.*

8. To update the plan at May Faculty Meetings at year end and at the Advisory Board Meetings every Fall. (All)

*These updates have provided the faculty the opportunity to revisit our vision, mission and key strategies and have been the tuning fork for making decisions at our weekly faculty meetings.*

QUESTION 2: We didn't really have time to fully discuss the department's response to the issues raised in the 1989 External Review Report. Could you elaborate on the issues raised in the 1989 External Review Report? Could you elaborate on how the department has addressed these issues?

In responding to Item 2, we're assuming the comments in our 1989 External Review that concerned you were the suggestions of additional courses listed under Section III, at the bottom of page 2 and page 3 of the External Review Report. If you want comments on additional areas of the External Review, please let us know.

In general, all of the comments concerning additional classes were suggested by our faculty as wishes to the Committee.

1. They suggested an additional course in mathematics -- We have included the option of either MATH 118, *Pre-Calculus Algebra*, or MATH 221, *Calculus for Business and Economics*. We also recently met with Roxy Peck from Statistics to see if there were a four unit course we could use that would open up some additional room for another math class, chemistry class or whatever. After discussing the STAT 211, *Elementary Probability and Statistics*, and STAT 212, *Statistical Methods*, sequence with her, the faculty voted to keep the six units of Statistics.

2. Additional course work in the sciences -- This issue was raised with the consideration that our program might be able to go to 208 units, similar to engineering, or that some reduction in required GEB courses might occur. In the past year, we lost an additional Chemistry or Life Science when Glenn Irvin approved double counting, *i.e.*, if a student met the Life Science requirement in the GEB column, Evaluations also crosses it off in our Support column. The issues such as food safety, pollution, etc. are covered in our Agricultural Applied Science courses such as SS 121, *Introductory Soil Science*, CRSC 311, *Insect Pest Management*. etc. Students can also select the Water Science Minor or Plant Protection Minor as part of our "flex" of our Agricultural Production Electives. Additionally, we have a significant number of students that pursue the Pest Control Advisors License each year, which requires that they take additional courses in the Life and Physical Sciences.
3. "Further work in written and verbal communication is urged." -- The Review Committee was very supportive of listing ENGL 310, *Corporate Communication*, as an option to ENGL 215/218, *Writing: Argumentation/Professional Writing: Argumentation and Reports*. We asked the GEB Committee to consider this and were turned down. We still feel strongly that this course would benefit our students more than ENGL 215/218, as they will be writing more short, concise letters and memos than long reports once they graduate. We would urge this Review Committee to suggest to the Area A GEB Committee that this issue be reconsidered.
4. Foreign Languages -- We agree with the External Review Committees conclusions about Foreign Language. As the global market continues to grow, this will be more important. We have added the option of courses in Spanish to our Farm and Ranch Management Concentration. Students can take foreign language at almost every community college in California and it will count in Area C, but Cal Poly students can't take foreign **language** courses at Cal Poly and have them count in Area C unless they are literature courses. As a new alternate member on the Area C Committee, I'm urging them to take a new look at this issue. We're currently advising our students to take foreign language courses at Cuesta, and Cal Poly must accept them in Area C.
5. Accounting -- The suggestion for additional accounting came from Mike Fitch, Vice President for Agriculture at Wells Fargo Bank. We have made provision for that by allowing courses from the College of Business in each of our concentrations. Several students each year want to work toward certification as a CPA. Our CPA faculty member, Nancy Ochs, advises these students and I usually make substitutions in the Agricultural Finance concentration so they can get enough courses in accounting.
6. Concentration areas: Marketing -- We have discussed adding AGB 450, *Agribusiness Strategy Formulation*, as a capstone to our core. Rather than do that

at this time, we have developed capstone courses in each of the concentrations: AGB 456/457/458, *Crop Management Problems/Livestock Management Problems/Dairy Management Problems*, AGB 410, *Management Practices in Agricultural Lending*, and AGB 412, *Advanced Agricultural Policy*.

We are addressing the global issues in more of our courses. Our Agricultural Policy class now spends time on GATT and NAFTA. Our Agricultural Marketing course, AGB 301, *Agricultural Marketing*, discusses exchange rates and has the students trade one foreign currency on the Futures Market as part of the class. We are also developing a sub-concentration under our Agricultural Marketing concentration in the area of International Marketing and Trade Policy. We envision splitting our AGB 318, *Agricultural Trade Policies*, course into two courses, one with an emphasis on International Agricultural Marketing and the other on International Trade Policy. We also envision a new course in Logistics since the issue of shipping agricultural products is so important.

7. Concentration Area: Policy -- The issue of AGB 323, *Agribusiness Managerial Accounting*, has been discussed. We are considering putting AGB 323/331, *Agribusiness Managerial Accounting/Farm Accounting*, in the core and let the students choose. We have left it in the concentration for now as we wanted each student to have at least one additional course in accounting beyond ACTG 211, *Financial Accounting/or Nonbusiness Majors*.
8. Concentration areas: Agricultural Finance and Appraisal-- A number of banks are starting to come back into the market, hiring our graduates as they have recognized the need for some young blood in their organizations. There are not significant numbers of jobs in this area as there once were in the 1960's through the 1980's when we started to see so many bank mergers. We have renamed our accounting course in this area to just "Farm Accounting." It uses two different specialized computer accounting packages designed specifically for agricultural producers and focuses on accrual accounting. Our course in cash accounting is AGB 321, *Farm Records*. We will continue to teach AGB 321 as long as cash accounting remains legal for farms and ranches.
9. Farm and Ranch Management Concentration -- Following the Committee's recommendation, we have included both Price Analysis and Linear Programming in the concentration. All of our students get thirty-one units of course work in the agricultural sciences including SS 121, *Introductory Soil Science*. As mentioned earlier, more and more of our students are taking a minor in Water Science or Plant Protection.

If there are other issues in the External Review that you would like us to address, please let us know.

QUESTION 3: There was some concern expressed regarding the overlap between your department and the College of Business, and we didn't get a chance to talk about what you see as your relationship to those programs. Could you provide us with some perspective on this issue?

We appreciate the opportunity to provide our perspective on this subject, as it is one that has been previously raised.

With the 1992 Program Review and Improvement Committee review, the issue of course overlap was raised. As part of that review process, the AGB Department and the College of Business (COB) together discussed potential overlap situations; the compromise settlement that was agreed upon by both parties was the philosophy that COB would teach the fundamental core course in a discipline, for example ACTG 211, *Financial Accounting/or Nonbusiness Majors*, in accounting, MKTG 301, *Principles of Marketing*, in marketing. The Agribusiness Department would then teach courses that are specific to the discipline (*i.e.*, AGB 433, *Agricultural Price Analysis*, after requiring STAT 211, *Elementary Probability and Statistics*, STAT 212, *Statistical Methods*).

Under the above agreement the Agribusiness Department no longer teaches AGB 203, *Agribusiness Organization and Management* and AGB 304, *Agribusiness Marketing Management*. It is our feeling that the issue has been "put to bed".

It should also be noted that the AGB curriculum calls on the COB for several courses to provide core competencies.

- ECON 222, *Macroeconomics*
- BUS 207, *Business Law*
- ACTG 211, *Financial Accounting/or Nonbusiness Majors*
- ECON 337, *Money and Banking and Credit* (in Agribusiness finance and appraisal concentration:
- MKTG 301, *Principles of Marketing* (in Agribusiness Marketing concentration).

Additionally, **depending** on the concentration, 6-9 units in elective 300-400 level courses may be taken in the COB.

It should be noted that for the past ten years we have worked with the COB on offering an Agribusiness Specialization in the MBA program. The impetus for developing this program originated from the Agribusiness Department and one of our faculty members, Jay Noel, sits on the COB Graduate Studies Committee. There are also a **number** of AGB courses that attract enrollment from COB students, for instance, AGB 336, *Commodity Markets in Agribusiness*, is over 50 percent COB majors this quarter.

For the past quarter of century (by the way, in Cal Poly genealogy our roots precede that of the COB), the Agribusiness Department has been educating managers for the agribusiness industry or what is often referred to today as "the food system." The term



Agribusiness was first coined by John H. Davis and Ray A. Goldberg, Harvard University professors, in their text, *A Concept of Agribusiness*. Goldberg is still actively involved in the Agribusiness component of the Harvard MBA program.

In the past ten years, a professional society, the International Agribusiness Management Association, and professional journal, *Agribusiness: An International Journal* have been developed. There are distinct and unique characteristics (see appendix to this document for these characteristics) about the agribusiness sector as discussed by Sonka and Hudson that set it apart from other business sectors. As one of the premier agribusiness programs in the country, we depend on the support of the COB and a strong College of Agriculture (CAGR). Over the past five years, the Agribusiness minor has become one of the most heavily subscribed in the University and at the same time our 700 plus majors gain much from the minors and other applied science courses that CAGR programs offer. It is our juxtaposition between the agricultural industries we serve and basic business disciplines that provide synergies that have well served the agribusinesses in the State and the larger community.

QUESTION 4: How is diversity of perspectives addressed in the curriculum? How are social and political implications of Ag Business decisions addressed?

The subject of "diversity of perspectives" was interesting. Here, we felt that a more in-depth look at one class would give you a clearer picture. The following is a statement by Marlin Vix regarding his AGB 312, *Agricultural Policy*, class:

I begin my course with this quotation by Francis Bacon:

It is not possible to join the wisdom of the serpent to the innocence of the dove, if we do not know all the characteristics of the serpent -- his **meanness**, his dragging his belly, his slipperiness, his inconstancy, his poison. Without this knowledge, virtue is vulnerable and defenseless.

Many issues pit the farmer against the rest of the population, *e.g.*, water use and quality, air quality (rice stubble burning), pesticide use (methyl bromide), grazing of livestock on public lands, etc. The list seems endless.

In light of the farmer's mounting battles, coupled with an eroding base of representation in State and national governments, it is imperative that our students understand the arguments that are being raised against the way we farm in this country in order to defend, hopefully eloquently and articulately, a position that may not be popular with the American public. How better to defend one's position than to know fully the arguments of one's adversaries. The days of putting up one's dukes, digging one's feet in the ground, and defending the status quo are gone forever.

In order to best prepare my students for the coming battles that agriculture will face in the near future. I assign readings by authors with vastly divergent points of view. For example, when discussing trade policy, an article by Milton Friedman titled The Need to Embrace Free Trade (the free trade view) and an article by John Culbertson titled The Folly of Free Trade (the protectionist view) are discussed and the benefits and detriments of each are compared and contrasted.

When discussing U. S. involvement in the food aid process, distinctly different positions are analyzed. The writings of Francis Moore Lappe, the leading opponent of U.S. efforts in the famine alleviation process who contends that it is this involvement that causes the problem, are compared to more traditional views expressed in USAID and State Department publications that trumpet the triumphs of direct U.S. efforts to end needless suffering. Added to the mix are theories of triage, lifeboat ethics, Malthus, etc.

Discussions of farm subsidies, water rights, and direct foreign investments by U.S. agribusiness firms in foreign countries are invariably approached with a look at the extreme, polar views of the issues.

QUESTION 5: How does the curriculum achieve balance between principles of economic viability, environmental responsibility, and social justice? The theme of economic viability is clear in the curriculum, but how is social and environmental responsibility fostered?

Whereas the previous question appeared to address how we, as faculty, deal with social responsibility in the classroom, we felt that this last question was based more on the material we cover in our curriculum. We have, therefore, provided you with a list of classes where a wide range of topics relating to social and environmental responsibility are discussed. As you will see, a wide variety of forces other than profit maximization (market orientation) are considered within our curriculum.

#### ENVIRONMENTAL & ETHICAL CONCERNS AND ISSUES COVERED IN AGRIBUSINESS CURRICULA

- Sustainability, sustainable resource use, emphasis on reducing agricultural chemical use, soil erosion
- Market failure and externalities (economics for environmental issues)
- Common property resource abuse problems - ground water, fisheries, grazing, Ian McHarg, Paul Erlich and economists' positions
- Allocation of scarce lands to agriculture
- Consumer surplus - utilitarian evaluation of welfare economics
- Cost benefit analysis as the basis of utilitarian ethical decision processes
- Agricultural chemical-animal health product approval processes, safety efficacy issues, environmental impact requirements, evolution to non-persistent lower risk chemicals
- Coalition building in state and federal agricultural policies.

- Internalizing externalities through effluent **taxes**, environmental performance standards, and prohibition to protect **endangered** species.
- Egalitarian social implications of food stamps, farm programs, farm safety net, water development projects, etc.
- Soil erosion - Conservation Reserve Program (CRP), agricultural worker safety and OSHA requirements
- International food aid (pL 480) and development assistance
- Food safety regulations and problems
- Procedural ethics of law affecting agriculture.
- Cultural diversity in agricultural labor, equal opportunity issues
- Cooperative enterprises in agricultural inputs and marketing.
- Agricultural waste - recycling agricultural waste and waste disposal - such as rice straw burning and Kesterson Reservoir.
- Land reform attempts in United States, Latin America, Africa, etc.

These issues are covered variously in the following classes:

- AGB 212, *Agricultural Economics*
- AGB 213, *Agricultural Economic Analysis*
- AGB 312, *Agricultural Policy*
- AGB 302, *Agricultural Associations and Cooperatives*
- AGB 401, *Managing Cultural Diversity in Agricultural Labor Relations*
- AGB 445, *Produce Marketing*
- AGB 457, *Livestock Management Problems*
- AGB 315, *Land Economics*
- AGB 412, *Advanced Agricultural Policy*
- AGB 433, *Agricultural Price Analysis*
- AGB 555, *Technological and Economic Change in Agribusiness*
- AGB 543, *Agribusiness Policy and Program Analysis*
- AGB 456, *Crop Management Problems*

It is our hope that these written responses, together with our April 29th meeting with your committee, have provided you with the information you need to fairly evaluate our program. Please do not hesitate to contact me if you need further information.

## APPENDIX:

### Unique Aspects of the Agribusiness Sector:

- The unique cultural, institutional, and political aspects of food and fiber production, both domestically and internationally.
- The uncertainty arising from the biological basis of crop and livestock production.
- The alternative goals and forms of political intervention across subsectors and between nations in an increasingly global industry. These issues include environmental concerns, health and food safety, and labor.
- Institutional arrangements that place significant portions of the technological development process in the public sector.
- The differing competitive structure existing within and among the subsectors of the agribusiness sector, *e.g.*, many farms resembling the purely competitive economic model, cooperative business structures, marketing orders, etc.

From: Sonka, Steven and Michael Hudson, "Why Agribusiness Anyway," draft of a paper being prepared for the Journal of Agribusiness, presented at the National Agribusiness Education Commission, Denver, Colorado, October 20, 1988..

# Cal Poly Memorandum

Date: April 4, 1996

To: Department Head/Chair of Agribusiness  
*Roxy Peck*  
From: Roxy Peck, **Chair**  
Program Review and Improvement Committee

Subject: Preliminary Report and Meeting Schedule

Attached you will find the Committee's preliminary report on your program, based on the information submitted for program review. A rating and, where appropriate, a question or a comment has been assigned to each category addressed in the Request for Information. In the case of an I rating (for insufficient information), we request that you provide additional clarification when you meet with the committee. For item IVA, we have reported the most recent information for your program, but we have not "rated" these values.

The Program Review and Improvement Committee will meet with representatives of each of the programs being reviewed. All meetings will take place in room 25-229E on Monday afternoons, as this is the only time when all members of the committee can meet. We would like to meet with your department

Monday April 29 from 2:10 - 3:00

This meeting is an open meeting, and you are welcome and encouraged to bring a few members of your faculty, although the size of the room precludes bringing the entire department. At this meeting, you may respond to the preliminary report, provide additional information to the committee, and answer questions from the committee.

We will begin the meeting by giving you an opportunity to respond to the preliminary report. It is not necessary to respond prior to the meeting date; and it is not necessary to respond in writing unless you have additional data or factual information to submit to the committee. Your response will be followed by a general discussion.

Our goal is to provide complete and fair reports of all programs, and we may have come to some preliminary ratings based on insufficient information. The preliminary report may be revised based on the discussions at our meeting with the department representatives. You will have approximately two weeks to respond in writing to the final report. Both the committee report and the department response will be forwarded to the Academic Senate at the end of spring quarter.

If you have any questions about the preliminary report or would like to discuss any aspects of the report prior to meeting with the committee, I encourage you to contact your college representative on the committee:

Tom Ruebr, Soil Science Department

We look forward to meeting with you.

*Atch #4*

*Cy to Bill, Jack H., Dave S., & Jim Allen. 4/12/96  
4116196 904*

**DRAFT**  
 Agribusiness  
 Template for PRIAC Review Process . .  
 1995-96

This template assures that every item (or group of items) in the Request for Information is commented on. Information used in the review has been that provided by the Programs as well as that provided by Admissions, Institutional Studies, and Academic Affairs. The rating scheme consists of five categories:

- M Minimal - Poorly developed or below university norms
- A Adequate
- E Exceptional - Program is innovative and/or above university norms
- I Insufficient information
- NA Not applicable to this program

ITEM	RATING	COMMENTS
I. MISSION AND GOALS		
1. Mission statement clearly stated?	A-	Confuses mission and objectives
2. Goals and objectives clear?	A-	Few student oriented goals. Not clear that curriculum meets goal # 1
3. Consistent with university strategic plan?	A	
4. Priorities consistent with mission and goals?	A	
5. Unmet needs consistent with mission and goals?	M	No justification given
6. Is there a realistic plan to meet needs?	I	No plan for addressing needs given
II. STUDENTS		
1. Are new students balanced between freshmen, transfers, and internal changes?	A	
2. How does quality of applicant pool compare to college and university?	A-	Lower than university, but equal to college
3. How does gender and ethnic diversity compare to college and university?	A	
4. How do probation and dean's list percentages compare to college and university?	M	High probation %
5. How does persistence to graduation compare to college and university?	A	
6. Are recruitment efforts consistent with need?	A	
7. Have students received recognition or awards?	M	What academic or professional awards have graduates received? Need better tracking.
III. CURRICULUM		
1. Desired outcomes clear? Are they met?	I	What are desired outcomes?
2. Is curriculum structure/concentrations clear?	A-	Lack of free electives. Duplication of effort with business. 34 core units, 32 <b>concentration</b> units, 31 restricted support electives
3. Is the program coherent?	A-	Seems overly restrictive
4. How do course and unit requirements compare to other institutions?	A-	Other universities have more free electives. Why are similar programs at other CSU campuses downsizing?

5. Is inclusion of contemporary topics adequate?	A-	Focus seems one-sided, with emphasis on current industry and business practices. What about issues like land use policies, sustainability, etc.?
6. Are critical thinking component adequate?	I	Appears late in the curriculum. How is critical thinking integrated into the curriculum?
7. Are gender and ethnicity dealt with in the curriculum?	M	Why only industry/profit orientation? Appears to be addressed only from an employer's point of view. What about issues of social and environmental responsibility?
8. Is program assessment adequate and effective?	M	
9. Are efforts to help under-prepared and at-risk students adequate?	I	What is MAP? what is faculty participation in MAP, and in dealing with at-risk students?
10. Are experiential learning opportunities available and appropriate to the program?	A	
IV. INSTRUCTION		Question asks about how diversity is addressed in methods of instruction.
1. How is diversity addressed in instruction?	I	
2. Are innovative and new courses offered?	M	Topics mentioned don't seem particularly innovative
3. How is teaching quality assessed and used?	I	Good set of criteria. How are they evaluated?
4. a. SCUIFTEF	361	
b. FTEF used/IFTEF generated	.72	
c.S/SCU	251	
d. WTUIFTEF	14.49	
5. Are service course responsibilities met?	N/A	
6. Are there low or oversubscribed courses?	N/A	
7. Are GEB and service courses listed?	A	
8. What percentage are taught by tenure track?	M	20% of GE&B
9. Are remedial courses and workload described?	N/A	
V. FACULY		
1. Are <b>gender</b> and diversity appropriate?	M	No ethnic diversity, 3/18 Female
2. Are background and training appropriate?	I	Large number of degrees from Cal Poly. 11/18 Ph.D. What is expected terminal degree in discipline? What is hiring policy?
3. Have faculty received special <b>recognition</b> ?	M	
4. Is professional development policy appropriate?	A	How are these activities prioitized by the department?
5. Is level of professional development adequate?	A-	Lots of conferences, but few papers presented. What professional development opportunities are provided for non Ph.D. faculty members?
6. Are grants and contracts adequate?	A	What are the opportunities for funding in this area?
7. Is publication policy appropriate?	I	No policy provided
8. Is faculty publication record adequate?	A-	Heavy on nonrefereed publications. What are the ...orts ?

VI. STAFF		
1. Are program staff listed?	YES	
2. Is staffing level adequate for needs?	A	
VII. FACILITIES		
1. Are facilities described?	YES	
2. How well are facilities maintained?	A	
3. Is library collection adequate?	A	Not adequate for research
4. Any other relevant facilities?	A	
VIII. RELATIONS TO THE OUTSIDE		
1. Program accredited or taking steps?	N/A	
2. If not, is there outside review?	YES	Only every 10 years
3. Most recent report included?	YES	How were suggestions from most recent external review addressed???
4. Solicit advice, etc. from prof. community?	A	Advisory Board appears to be all management, no representatives from production.
5. Are faculty involved at state and national level?	A	
6. Are interdisciplinary efforts adequate?	M	Involvement could be broader. What other than World Food Politics? Any joint efforts with Business or Econ?
7. Are interdisciplinary courses <b>taught?</b>	M	Could do more in this area
IX. OPPORTUNITIES FOR GRADUATES		
1. Do graduates have employment opportunities?	A	
2. Do graduates have grad/profschool options?	A	
3. Have recent graduates been successful?	A	
X. GOALS AND OBJECTIVES		
Is the program meeting its goals and objectives?	M	External Review (1989) indicates that goals and objectives are not being met, and it does not appear that these concerns have been addressed in the intervening years.

General comments:

Why not more collaboration with College of Business?

Suggestions made by 1989 external reviewers do not appear to have been addressed by the department. For example, curriculum suggestions regarding Math Science and GE&B seem to have been ignored.

Program curriculum appears to be heavily oriented toward large business interests.



## AGRIBUSINESS

### I. MISSION AND GOALS

Given the amount of material and scope of *issues* presented in this section, **it** seems that the Department has invested substantial effort in dealing with its mission and goals, and such effort is commendable, especially *in* a department of this size. However, the Committee does feel that the Department's statement is **confusing**, and that **it** should be re-organized and simplified. Detailed suggestions for this purpose are presented at the end of this report.

The Department states the need for more resources, yet no rationale for the stated need is offered, other similar departments are downsizing (see p. 10), the Department notes substantial support from industry (cf. pp 22-23), and no plan is offered for addressing unmet needs.

### II. STUDENTS

What is the nature and rationale of the *admissions* criteria weighting used? What is the Department's sense of the reasons why accommodated students do not enroll?

The percentage of students on probation seems relatively *high*. What efforts are made, or planned, to confront this situation?

Recruiting efforts are generic. Could they be more specifically targeted to departmental goals and needs?

### III. CURRICULUM

What is the relation between the student learning outcomes identified in the survey cited and the content coverage objectives noted as the basis for program coherence (see p. 10)? Can these learning/content objectives be incorporated into the mission/vision statement? How do these objectives relate to the curricular attention to applied sciences of the food system?

Would the Department's goals be well served by requiring Spanish?

Coordination with the College of Business seems called for. Such a relationship should be planned, explored, and explained. Collaborative teaching and curricular integration should be *considered* for pedagogical and program efficiency reasons. Redundancies with courses *in* Business, Computer Science, or any other areas should be justified. The Committee notes that only 9% of the program unit total is in "preparatory subjects," whereas this percentage is higher in the comparison programs. Presumably, this is due to the Department teaching its own courses in some of

those areas.

Perhaps the restrictive nature of the program *could* be eased by integrating support courses into the major and reducing or even *eliminating* the concentrations.

Given the crucial *role* of ethnic diversity and the need for cross-cultural understanding *in* the agricultural industry, the *issues* of gender and ethnic diversity would seem to require considerable attention in order to prepare students properly to perform professional activities in *morally* and ethically appropriate" ways, not just to "*allow* peers and employees to express their talents in the most profitable manner (p.13)."

Is more information available about how critical thinking is enhanced other than subjecting capstone course presentations to "rigorous examination," and having a senior project?

The Department *should* get systematic and focused student input, and attempt some measures of learning outcome attainment, other than course grades, that *relate* to its *general* learning objectives and that cut across courses (e.g., *selected* common portions of *class*-based tests, systematically observed demonstrations of knowledge and competence, etc.).

#### IV INSTRUCTION

The only new *developments* seem to be in the wine program.

How are the teaching criteria listed employed, and their attainment assessed? These criteria are a "mixed bag," few of which actually focus on teaching.

#### V FACULTY

The faculty is not very diverse. Are there any recruiting *plans*? If so, is this issue addressed? And what is the expected terminal degree and level of training expected for faculty in this area?

The faculty does seem active, but it is *difficult* to judge the quality of this activity without reference to Departmental professional *development* policy and priorities. More *specifically*, the professional development policy should take into account the relative paucity of Ph.Ds on the faculty.

Given the predominance of publications in the popular press over articles in referred journals, it *would* be helpful to get a sense of the intended effect of the publications on the public arena. Public social contribution is a good thing, and the Department should *explain* its intent in this realm. (This issue could be subsumed within a professional development **policy**.)

## VII FACILITIES

Use of the Internet and World Wide Web *is* to be encouraged. The Department might develop models of employing electronic information resources for instructional enhancement and efficiency.

## VIII RELATIONS TO THE OUTSIDE

Ten years is too long between external reviews! The department should shorten this interval, and should develop specific reactions and an appropriate plan of action in response to the *issues* and concerns expressed in the external **review**.

Interdisciplinary actions seem minimal.

How does the endowment and discretionary funding relate to the development plan?

## X GOALS AND OBJECTIVES

Information about goal attainment is general and implied and does not tie directly to learning outcomes. Proper evaluation of this topic must await the Department's revision of its mission/goals statement regarding just what it is trying to achieve with its students. At that time, evidence of goal attainment can be clearly and explicitly linked to the appropriate objectives.

## SUGGESTIONS FOR MISSION AND GOALS

What is the intended distinction between "mission" and "vision?" Between "goals" and "objectives?" Typically, a vision would be a broadly-stated, self-imposed, hoped-for general result of a program, whereas a mission would be a mandated, generally-stated directive. Goals are generally stated desired program outcomes, the attainment of which is indicated by meeting specific, individually observable objectives. This Department is unusual in attempting to articulate a vision. If the distinction between a mission and a vision seems useful to the Department, the purpose for the distinction should be explained, and the statements should be articulated at an appropriate level of generality (i.e., free of narrowly focused specific objectives, such as "provide professional consultative services via direct faculty interaction...").

More specifically, the three goals that are stated as most important are:

- (1) vocational and career preparation (which *essentially* repeats the first "vision" bullet and the first "mission" sentence, except for reference to the terms "market driven," "diverse skills," and "diverse group");
- (2) provide consultation service by the faculty (which repeats the second "vision" bullet, but ignores the implication in the final "mission" statement that such consultation should impact course material); and
- (3) challenge (although not require) students to engage in experiences outside the classroom (which repeats the second "mission" statement).

It would be helpful to remedy this repetition and lack of logical coherence. Likewise, it would be helpful to specifically link each of the seven "strategic objectives" to the appropriate specific goal(s) they are intended to serve.

What *is* the relationship between the "highest priority items" listed under "3." on page 2 and the "three most important goals" listed under "2." on page 1?

Student learning goals are mentioned only at the broadest level (e.g., "---diverse skills necessary to perform well...having the foundation to rise..."). It behooves any academic department, and especially one as large as this one, to describe in generally understandable yet more specific terms the nature of the domains and kinds of knowledge and skills that it intends to instill in its students.

. AGRIBUSINESS DEPARTMENT  
PROGRAM REVIEW  
JANUARY 1996

I. Mission and Goals

1. Our Vision and Mission Statements

Our Mission

The mission of the Agribusiness Department is to provide students with the diverse skills necessary to perform well in entry level positions as well as having the foundation to rise to managerial levels in agricultural business.

Students will be challenged by the faculty to excel and encouraged to go beyond classroom involvement and participate in farm production projects, field trips, club activities, and internships.

Fundamental to the Agribusiness Department's continued success will be the faculty's close association with industry, government agencies, and our alumni. These associations are essential to creating course material that is contemporary and relevant for our students who will be meeting the global needs for food and fiber in the twenty-first century.

Our Vision

To be recognized as a leader in agribusiness education:

- by providing a diverse group of future leaders to the agribusiness industry who are grounded in the agricultural sciences, global in their perspective, market driven and balanced in theory and application, and
- by providing professional consultative services via direct faculty interaction and **department** sponsored centers of excellence.

These two statements were developed over the course of several Agribusiness faculty strategic planning sessions, the last one at an all day off-site meeting on April 15, 1994. A participatory process involving all faculty achieved consensus and commitment to these two important overarching statements for our department.

2. Goals and Objectives

a. At the heart of our vision and mission statements are three most important goals:

- (1) To provide the agribusiness industry with future leaders that are grounded in the agricultural sciences, global in their perspective, and balanced in theory and application.
- (2) To provide professional consultative services via direct faculty interaction and department sponsored centers of excellence and in so doing will enhance the professional development of our faculty. This calls for the faculty's close **association** with industry, government agencies, and alumni.
- (3) To challenge our students to excel and go beyond classroom involvement and participate in farm production and industry projects, field trips, club activities and leadership opportunities, and internships.

*Atch # 5*

- b. The agribusiness faculty decided on seven (7) strategic objectives or opportunities to achieve the above goals. These objectives are:
- (1) To become and maintain excellent teachers through workshops, FilIO, class visitations, and technological innovation in the classroom.
  - (2) To build on our industry relations and promote the Agribusiness Department, the College, and the University.
  - (3) To be flexible and equitable in allocating faculty time to achieve grant **development**, professional development, and service to the department.
  - (4) To foster and encourage departmental diversity among faculty, students, and staff.
  - (5) To create a development plan for our department to raise funds for needed projects' and equipment.
  - (6) To incorporate a global emphasis (especially Latin America and Far East) across our courses.
  - (7) To develop better communications with the rest of the University, especially other CAGR departments and the College of Business.

3. Of the above goals the highest priority items are:

- a. To develop and maintain teacher excellence.
- b. To execute the development plan. We are in the process of generating and collecting approximately \$90,000 to upgrade our computer labs.
- c. To build industry relations because this helps us in multiple areas such as recruiting qualified students, raising funds, enabling faculty to remain current, and providing jobs for our graduates.
- d. To execute on our department diversity program. This includes recruiting students and staff, but also much is being done in classroom instruction and advising as well.

4. The Agribusiness Department does have some unmet needs. Some of these key needs are:

- a. Our need for more faculty is great. We have lost 6 faculty positions in the last 4-5 years. The department has continued student demand and has even been asked by CAGR to expand our enrollment beginning Fall 1996.
- b. We need additional resources, specifically, increased funding for a computer technician and student assistants, computer upgrades and maintenance, and faculty professional travel.

II. Students: Parts 1-4 summarized in the following tables

Table 1. Data on Students Transferring in and out of the AGB Major and Admissions data.

Year	Transfer Out	Transfer In	Net
90-91	45	52	7+
91-92	30	50	20+
92-93	26	39	13+
93-94	20	37	17+
94-95	30	31	1+

Table 2. Fall Quarter Admissions Data

Fall Quarter Admissions Data					
	914	924	934	944	954
FTF Aps	166	179	204	217	246
FTF Accom	152	117	171	190	170
FTF Enrolled	96	68	113	107	104
FTF SAT MCAAcad Run	1105	1075	1096	1090	1095
FTF SAT Total	1040	1040	1023	1040	1040
TRANS APS	91	88	92	118	105
TRANS Accom	87	73	75	99	64
TRANS Enrolled	58	49	54	76	51
Trans GPA Acad Run	2.85	3.05	2.99	2.94	2.91
Trans GPA Total	2.75	2.89	2.92	2.86	2.90

2. Table 3. Average GPA of Graduating Seniors

Average GPA of Graduating Seniors		
	1993-94	1994-95
GPA	2.77	2.77

Also, see attached Table 4, Enrollment by **Gender** and Ethnicity

- See attached Table 5, Number and Percentage of Students on Dean's List and Academic Probation.
- See attached Table 6, Summary Data on Persistence of First-Time Freshmen at Cal Poly, SLO Current Studies on Degree Objective **Students** from 1980.
- The Department uses the Agricultural Ambassadors to recruit at high **schools** and community colleges, and then responds to students indicating an interest in Agribusiness using the Admissions Office's mailing capabilities. We have also developed a packet of information that we send to students inquiring about the major and give to students that visit the campus.

Table 4. Enrollment by Gender and Ethnicity

## AGRICULTURAL BUSINESS ENROLLMENT BY GENDER AND ETHNICITY

## Undergraduates

	Native American		African American		Mexican American		Other Hispanic	
	W	M	W	M	W	M	W	M
1995	2	5	0	3	17	42	8	19
1994	4	4	0	2	23	42	7	17
1993	4	4	0	2	19	36	7	15
1992	2	2	0	2	12	28	11	14
1991	3	2	0	1	13	26	12	14

	Asian		Filipino		Pacific Islander		White		All Other	
	W	M	W	M	W	M	W	M	W	M
9	9	2	2	1	0	223	304	9	13	
10	13	1	1	2	1	249	355	9	19	
8	9	1	0	1	2	272	366	9	18	
7	10	1	0	1	2	284	392	4	18	
9	10	0	0	2	1	313	426	7	14	

Table S. Number and Percentage of Students on Deans List and Academic Probation

## NUMBER AND PERCENTAGE OF STUDENTS ON THE DEAN'S LIST

	Dean's List	%
1994	58	7.2
1993	69	8.4
1992	55	6.6
1991	66	7.4
1990	70	7.5

## NUMBER AND PERCENTAGE OF STUDENTS ON ACADEMIC PROBATION

	Acad Prob	%
1994	186	23.0
1993	170	20.7
1992	160	19.2
1991	186	20.8
1990	223	23.8



Table 6. Summary Data on Persistence of First-Time Freshmen at Cal Poly, SLO  
Current Studies on Degree Objective Students from 1980.

SUMMARY DATA ON PERSISTENCE OF FIRST-TIME FRESHMEN  
AT CAL POLY, SLO  
CURRENT STUDIES ON DEGREE OBJECTIVE STUDENTS FROM 1980

ALL STUDENTS IN AGRICULTURAL BUSINESS

FALL	n-	PERCENT RETENTION BY YEAR				Cumulative Percent Awarded Bachelor's Degree at SLO		
		2nd	3rd	4th	5th	4	5	6-10
		Fall	Fall	Fall	Fall	Years	Years	Years
1980	102	85.3	76.5	62.7	8.8	<b>41.2</b>	56.9	
1981	103	77.7	64.1	68.9	9.7	31.1	53.4	
1982	92	79.3	67.4	62.0	6.5	28.3	52.2	
1983	103	84.5	77.7	71.8	8.7	31.1	61.2	
1984	104	78.8	67.3	64.4	2.9	25.0	53.8	
1985	114	77.2	67.5	67.5	0.9	27.2	55.3	
1986	113	81.4	72.6	69.9	3.5	25.7	53.1	
1987	109	82.6	73.4	65.1	6.4	3d.3	58.7	
1988	129	82.2	72.9	69.8	7.0	31.8	55.0	
1989	162	85.8	77.8	67.3	4.9	34.6	51.2	
1990	93	84.9	75.3	72.0	0.0	41.9		
1991	97	85.6	77.3	74.2	15.5			
1992	68	97.1	91.2	<b>79.4</b>				
1993	113	82.3	76.1					
1994	107	76.6						

Note: Prior to Fall 1990 **major** was known as **Agricultural Management**.  
InstilUllonaJ Slidles: EMRO: 12-19-95

ALL STUDENTS

FALL	n-	PERCENT RETENTION By XEAB			Cumulative Percent Awarded Bachelor's Degree at SLO		
		2nd	3rd	4th	4	5	6-10
		Fall	Fall	Fall	Years	Years	Years
1980	1794	84.9	72.9	65.3	10.0	<b>38.1</b>	58.5
1981	1871	83.5	71.5	66.0	9.6	38.8	51.9
1982	1,462	84.1	72.5	65.3	6.8	35.9	60.3
1983	1,671	83.1	73.3	68.2	6.6	30.0	63.0
1984	1864	81.7	71.4	68.1	3.9	27.5	62.2
1985	1730	81.6	72.4	67.6	3.8	28.3	62.3
1986	1477	84.1	77.0	73.3	4.3	27.1	63.9
1987	1434	81.8	75.7	71.4	3.3	28.0	62.3
1988	1622	88.1	<b>77.5</b>	74.2	4.4	30.2	58.5
1989	1808	86.1	79.5	70.6	4.6	32.6	53.7
1990	1621	88.8	73.0	68.2	4.3	29.8	
1991	1540	84.0	74.9	72.3	6.4		
1992	1314	85.9	77.8	71.2			
1993	1650	88.4	78.2				
1994	2106	84.2					

InstilUllonaJ Slidles: EMRO: 12-19-95

6. Our NAMA (National Agri-Marketing Association) student chapter has participated in the national marketing contest every year for the past twenty years. We have won a total of six national championships. No other university has won more than once. We compete against 35-40 universities including the major land-grant universities.

Cal Poly's NAMA chapter also sponsors a highly successful Ag Showcase that exposes students to leaders in agribusiness firms throughout California and nationwide. The 1996 NAMA Ag Showcase included representatives of 50 leading agribusiness firms and government agencies. Companies visiting the Showcase this year were told that they should expect to meet with 750 students, including 350-450 students due to graduate within the next two years.

Cal Poly's Agribusiness students were also recognized as "Tomorrow's Produce Industry Leaders" in the March/April 1995, *Produce Marketplace: The official magazine of the United Fresh Fruit and Vegetable Association*.

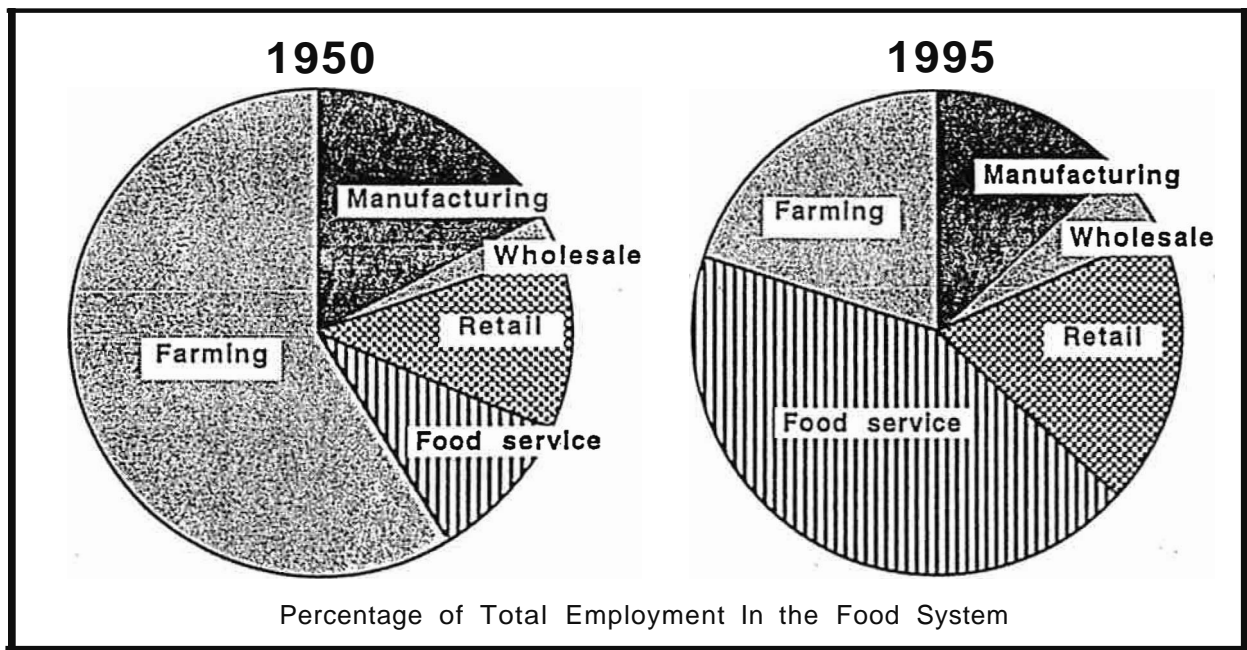
Katie Rookus was honored at graduation in Spring 1993 as the College of Agriculture student with the highest GPA - a perfect 4.0. Several other students receive "Honors" awards at graduation each year.

The Department is proud of the leadership shown by our students. Since 1986, three Agribusiness students have served as ASI President and six have served as Vice President (or Chairman of the Board). The same pattern exists in years before 1986: 1987: V.P. Stan Van Vleck; 1988: Pres. Stan Van Vleck; 1989: V.P. John Moons; 1990: Pres. Ricardo Echeverria, V.P. Ellen Sanders; 1992: V.P. Dennis Albiani; 1993: V.P. Deirdre Flynn; 1996: V.P. Tony Torres.

### III. CURRICULUM

1. Whereas a farmer in the United States once fed 10 other persons, today one farmer feeds over 100 other people. The result has been a dramatic transformation in production agriculture; in 1995, the number of farms in the United States declined to less than 2 million, about the same number that existed at the time of the Civil War. One of the results of this trend toward fewer and larger farms is that employment in farming has fallen by more than half in the past 50 years. However, that decline has been more than offset by increases in other segments of the food and fiber system (Figure 1). Today, the food system in its entirety (inputs to agriculture, transportation, manufacturing, wholesaling, food service, retailing, and other ancillary industries) constitutes 16 percent of the U.S.' Gross Domestic Product and employs 21 million people - more than the health care industry employs. It is estimated that through the 1990s more than 48,000 annual openings will be available in the food system for those with baccalaureate degrees. Of these positions, approximately one-third, or 16,000, are projected in the area of marketing, merchandising, and sales representatives. Almost an equal number of positions will be available in the scientific and technical areas, in **areas**

such as food process engineering and reproductive physiology, and in environmental sciences.<sup>1</sup>



Source: Adapted from Bureau of the **Census** (1977d) and Bureau of Labor Statistics (1995)

FIGURE 1 EMPLOYMENT TRENDS IN THE US FOOD SYSTEM, 1950 AND 1995

Various surveys have ranked the importance of skills that Agribusiness students should possess upon graduation. One survey, the AGRI-MASS Study, a national survey conducted in 1987, ranked interpersonal skills number I, followed by communication skills, business and economics, technical skills in agriculture, c'omputer, quantitative and management information skills, followed by work experience. As a department, we have adjusted curriculum in response to the changing structure of the food system and the changing needs of the industry that we serve.

2. The attached Figure 2 is a Flowchart for the Agricultural Business major. The major provides for four concentrations: Farm and Ranch Management, Agricultural Policy, Agricultural Finance and Appraisal, and Agricultural Marketing (see Figure 3). These concentrations encompass the major available career areas in the industry. The coherence of the program is evidenced by the strong theoretical underpinning that each student obtains in micro and macro economic theory, accounting, and mathematics and statistics, that is then utilized in upper division courses in the core and in the concentrations. Each concentration includes a capstone course that is **oriented** toward

<sup>1</sup>"Employment Opportunities for College **Graduates** in the Food and Agricultural Sciences," (Washington, D.C.: Cooperative State Research Service, USDA, December, 1990), pp. 10-16.

Figure 2. Flowchart for Agricultural Business Major

1st Year			3rd Year			4th Year		
Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring
Intro ag bus AGB 101	computer appl AG 250	ag sales AGO 201				ag labor AGB 401	advisor approved 300-400 electives AGB/DUS	
pre-calculus algebra Math 118 or Math 110/117 or Math 221	statistics STAT 211	statistics STAT 212	linear alg ACTG 211	acctg AGB 323 or 331 [ACTG 211]	AGB concln/rlln elective [See Catalog]	AGB 460 AGO concln/rlln elective	AGB 461 AGB concln/rlln elective	
	life sci with lab	chemistry		all elective restricted list ag elective restricted list		AGB concln/rlln elective		
writing expo ENGL 114 E-1	gen psy PSY 201/1201	amar govt POLS 210 D-	philosophy PHIL 230 C-1	wrlng ENGL 216/218 A-4	elective ANT 201/Geog 150/SOC 105 D-4a	world hist HIST 315 D-2	gen od elective Ar/Mu/Th C-2 critical reading elective C-1	gen od elective Ant/Bus/Econ/Geog/Pol/Soc D-4b critical reading elective C-
amer democ HIST 204 D-1 15	elec Engl 125/Phil 125/SPC 12S A-2 17	speech SPC 201 or 202 A-3 17	bus law BUS 207 17	acnomic ECON 222 16	elective E.2 17	lrao LIU/Phil/Art C-3 16		

1994-97

**Notes:**  
This curriculum diagram illustrates the recommended programming at courses for a student without previous college experience. Students enrolling with college credit should review their program of study with their faculty advisor.

It is intended that this curriculum diagram be used in conjunction with, but not supersede, the 1994-97 University catalog.

Courses are not always offered during the quarter indicated on the diagram. Verify availability with current quarter University course schedule.

General education and breadth courses must be selected in accordance with University and Departmental requirements. Refer to the University catalog for a comprehensive listing of general and breadth courses and their prerequisites.

**Example:**  
course will. COURSE NO. [Prerequisites]

Prerequisites must be completed to advance. Prerequisites, where required, are identified in brackets for each of the courses listed in AGB. Please complete AGB concentration courses early to prepare you for Senior Project.

CURRICULUM IN AGRICULTURAL BUSINESS Name \_\_\_\_\_  
 Social Security # \_\_\_\_\_

Date: \_\_\_\_\_

94.97 CATALOG  
 UNITS REQUIRED: 192

Concentration \_\_\_\_\_

COURSES IN MAJOR	UNITS	SUPPORT COURSES	UNITS	GENERAL EDUCATION BREADTH REQUIREMENTS	UNITS	Free Electives	UN
Intro to Agribus & Ag Econ	AGB 101	4	Gen Chem	'CHEIA 121'	4	A. I. A. 4	13
Ag Sales & Service	AGB 201	3	Macro Economics	ECON 222#	4	Wrlg: Expos ENGL 114	4
Ag Economics	AGB 212	3	Math	MATH 116 & 117/118/221'	4	ENGUPHIUSPC 125	3
Ag Econ Analysis	AGB213	4	Statistics	STAT211'	3	Speech SPC 201/202	3
Computer Appl Ag	AG 250'	3	Statistics	STAT 212'	3	Wrlg: Arg ENGL 215/218	4
Ag Marketing	AGB301	3	Bus Law	BUS 207	4	B.1	
Ag Credit/Fin	AGB310	3	Financial Actg	ACTG 211	4	Life Sci wllab	4
Ag Policy	AGB312	3				C.1	
Manage Culrural Diversity in Ag labor Relations	AGB 401	4				Philosophy PHIL 230/231	3
Research Methods	AGB 463	2				literature ++	3
Senior Project	AGB 451	2	AG SUPPORT/ELECTIVE COURSES			Lit or Phil ++	3
			CrSc 131 or 230 / Fisc 131 or 230 / Vg Sc 230 or OH 121 / ASci 231 1PM 230 1DScl 230 1121		4	C.2	
			AS 340 / FSN 230 / CrSe 311		4	Ar/Mu/Th ++	3
			Soils SS 121		4	C.1IC.2IC.3 Elective ++	3
			+ Restricted Electives		15/16	e.3	
			o Sn.:dents with special interests may consult their advisors to select substitute courses.			LiVPhiVArls(300-400)++	3
Concentration Requirements	32					D.1 Title 5, Sec. 40404	
						Am Ideals & Inst HIST 204	3
						Am & Cal Gov POLS 210	3
						0.2	
						Mod Wld Hist HIST315	3
						0.4a	
						ANT 201 Geog 150 / SOC 105	3
						0.4b Elective ++	3
						E.1	
						Gen Psych PSY 2011202	3
						E.2	
						Elective ++	2
UNITS REQUIRED	66	UNITS REQUIRED	57	UNITS REQUIRED	56		13

CONCENTRATIONS :

**Farm and Ranch Management**

3	AGB 302	Ag Assoc & Cooperatives	3
4	AGB 315	Land Economics	3
4	AGB 317/409	Ag Consumer Relationships/Calif Ag law	
4	HIST 30SIEGEOG 315	Hisl Am Ag/Geog of Resource Utiliz	3
3	AGB 318	Agricultural Trade Policies	3
3	AGB 323	Agribusiness Managerial ACg	4
4	AGB 421/433	Ag Business Operatons Analysis!	
		Ag Price Analysis	4/3
	AGB 412	Advanced Agricultural Policy	4
		Advisor Approved Electives (300-400)	

**Agribusiness Polley**

		In AGB or College 01 Business	8/9
			32

**Agribusiness Marketing**

MKT 301	Marketing Management	4
AGB 318	Agricultural Trade Policies	3
AGB 323	Agribusiness Managerial Acrg	4
AGB 405	Ag Mktg Research Methods	3
AGB 406	Ag Mktg Planning	4
AGB 421/433	Ag Bus Op Analysis/Ag Price Analysis	4/3
AGB 450	Ag Strategy Formulation	4
	Advisor Approved Electives (300-400)	
	in AGB or College 01 Business	6/7
		32

**Agribusiness Finance/Appraisal**

Econ 337	Money, Banking & Credit	4
AGB 322	Principles 01 Farm Mgt	4
AGB 324	Agricultural Property Mgt	4
AGB 326	Farm Appraisal	4
AGB 331	Farm Accounting:	4
AGB 410	Mgt Practices in Ag Lending	4
	Advisor Approved Electives (300.400)	
	in AGB or College 01 Business	

August 19, 1995

Figure 3. Agribusiness Major Curriculum

case study and application, requiring the students to pull together managerial theories and tools they have learned.

3. Other California institutions that offer programs similar to Cal Poly's Agricultural Business degree are Fresno State and V.C. Davis. The programs at Chico State and Cal Poly, Pomona are really not considered competitors, as in recent years their downsizing has left them below a point of critical mass in faculty and students. A comparison of our course and unit requirements with other programs around the country is provided in Table 7. A major difference between our program and other programs is our requirement for obtaining a substantial body of knowledge in the applied sciences of the food system. We require approximately 30 quarter units (16% of the graduation requirement) in courses such as crop science, food science, and agricultural engineering. This also provides an opportunity for our students to obtain minors in, for example, Water Science, Plant Protection, and Food Science, thus enhancing their career opportunities.
  
4. Several avenues are used to bring contemporary techniques and topics of current interest into the classroom. A few are highlighted below:
  - In AGB 301, *Agricultural Marketing*, students trade futures contracts, following factors that influence commodity prices. Resources used: various market news services that are located in the Market Information Center (supported by an annual \$4000 grant from the Calcot-Seitz Foundation), World Wide Web and the Wall Street Journal.
  - AGB 440, *Field Studies in Agribusiness*, a 2-3 day field trip class, involves visiting various agribusinesses and industry! government organizations to learn about issues impacting the industry today and the management techniques employed.
  - In the AGB 201, *Agricultural Sales and Service*, current articles from periodicals are brought into the class. Guest speakers are used to bring a sense of the "real world" to this primarily lecture/discussion based class. Additionally, the "Day with a Salesperson" assignment requires the students to spend one day off campus with a salesperson in an agricultural industry, observing firsthand what selling is all about.
  - "Internet assignments are being used in several classes, including AGB 318, *Agricultural Trade Policies*; AGB 421, *Agricultural Operations Analysis*; and AGB 457, *Livestock Management Problems*.
  - AGB 314, *Fair Management*, relies heavily on industry speakers and field trips to keep students current in the area of Fair Management. A recent section of this class had eleven guest speakers and involved three field trips to industry locations.
  - Both the National Agri-Marketing Association (NAMA) and Agricultural Business Management (ABM) Clubs have industry field trips as well as guest speakers at most of their meetings. Additionally, the ABM Club has initiated a speaker's forum that is open to campus-wide attendance. The 1995 ABM Speaker's Forum on California Water Issues included presentations by the following speakers: Phil Larson, Wilbur Ellis Company; Grace Chan, L.A. Metropolitan Water District; Dale Pierce, U.S. Fish and Wildlife Service; Richard Howitt, U.C. Davis Agricultural Economics; Bill Jones, Secretary of the State of California. The Club's 1996

TABLE 7 COMPARATIVE ANALYSIS:  
Cal Poly Agribusiness Curriculum with Similar Programs

PROGRAM:	Cal Poly		Penn State		Iowa State		TexasA&M		Fresno State		U. C. Davis	
	UNITS	%OF TOTAL	UNITS	%OF TOTAL	UNITS	%OF TOTAL	UNITS	%OF TOTAL	UNITS	%OF TOTAL	UNITS	% OF TOTAL
TOTAL UNITS	192 (Qtr.)		130 (Sem.)		128 (Sem.)		132-136 (Sem.)		128 (Sem.)		180 Q t r	
GEB	64	33%	36	28%	42	33%	42	31%			64	36%
PREPARATORY SUBJECTS: (MATH, ACCT., STAT., OTHER)	18	9%	20	15%	20	16%	19	14%	52	41%	24	13%
MAJOR COURSES	66	34%	55	42%	40	31%	45	34%	48	38%	50	28%
TECHNICAL AG crSc, ASCI, FSN, etc.	31	16%	9	7%	9	7%	12	9%	12	9%	0	0%
UNRESTRICTED ELECTIVES	13	7%	10-14	8%	14-17	13%	14-18	12%	13-16	13%	37-48	23%

Source: Current catalogs of the subject universities.

Speaker's Forum entitled "1995 Farm Bill California's Perspective" will include a similarly well balanced and impressive panel.

- Both students and faculty within the department have taken part in an informal exchange with Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM) in Queretaro, Mexico.. Bob Thompson completed a sabbatical at ITESM in Fall 1995. This exchange will be formalized in 1996 with both Dean Joe Jen and President Warren Baker scheduled to attend the signing of the formal exchange agreement in Queretaro. Our faculty have been active in other international sabbaticals and/or professional leaves with recent visits to Australia, Ireland, and New Zealand..

5. Critical thinking is enhanced, we would hope, in all of our courses; however, some specific examples are our concentration capstone courses: AGB 412, *Advanced Agricultural Policy* (Policy); AGB 450, *Agribusiness Strategy Formulation* (Marketing); AGB 410, *Management Practices in Agricultural Lending* (Finance and Appraisal); and AGB 456, *Crops Management Problems*; AGB 457, *Livestock Management Problems*; AGB 458, *Daily Management Problems* (Farm and Ranch Management). These courses incorporate case studies, debates, and presentations that are subjected to rigorous examination by peers and instructors.

Our Senior Project is, of course, another prominent example of our efforts to teach our students to critically analyze problems and opportunities in the agribusiness industry. It is interesting to note that several agribusiness programs have come to us for advice on how to implement an effective undergraduate thesis program. Minnesota solicited our advice on agribusiness curriculum development, and our faculty were asked to provide consultation on their program structure, including adoption of a senior project component. Faculty from Texas Tech University (1992), New Mexico State University (1995), and Monash University, Australia (1991) have come to Cal Poly and used our experiences and structure to assist in developing their programs.

6. Because faculty recognized the importance of diversity in the agribusiness workplace, AGB 401, *Agricultural Labor Relations and Personnel Management*, received a major revamp and became AGB 401, *Managing Cultural Diversity in Agricultural Labor Relations*. The course has been reviewed and approved as meeting the University requirements that all students complete a course that addresses cultural pluralism. The new AGB 401 course:

- Examines agricultural labor trends and problems as they relate to cultural, racial, and gender issues in California Agribusiness.
- Uncovers and discusses class members' cultural stereotypes.
- Develops an understanding of the formulation and sustainability of teamwork in a collectivist or individualistic cultural setting. .
- Creates an awareness of the dependence of agribusiness on workers with different cultural heritages. .

In all of the subject materials that are covered, the cultural dimensions are consistently included to give the student an awareness of the importance of expanding his/her value



system to allow peers and employees to express their talents in the most profitable manner.

7. In assessing the effectiveness of our program, we conduct external reviews (1989), survey our alumni (1994), and solicit input from our Department Advisory Committee (1995). See Section VIII, parts 2-4 for a more detailed description of these activities.
8. Several faculty members are involved in the CAGR MAP (Multicultural in Agricultural Program) Center. We have also provided opportunities (departmentally funded) for tutoring assistance in our agricultural economics course (AGB 212, *Agriculture Economics*).
9. We support an active internship program by providing an internship coordinator, and for the last few years we have placed an average of 90 students a year in internships in locations from Kenya to the Salinas Valley. By all measures we operate the largest and most extensive internship program of all agribusiness programs in the country (verified at a colloquium on student internship programs, where faculty member Ken Scott was a presenter, at the Annual Meeting of the American Agricultural Economics Association, Baton Rouge, LA., 1989).

For many years our AGB 406, *Agribusiness Marketing Planning*, course has been recognized for its innovativeness in experiential learning. In fact, about 20 years ago the National Agri-Marketing Association (NAMA) established its national student competition modeled after the AGB 406, *Agribusiness Marketing Planning* course, and more recently, a similar student competition directly modeled after the U.S. experience was established in Australia. In the AGB 406 course, student teams work with an industry client who has a marketing problem to be explored and needs a marketing plan for the product or service. The industry cooperators pay at least student expenses involved in conducting the research and developing the plan. Over the past five years, over \$120,000 has been provided for AGB 406 student teams and the national competition teams. As noted earlier, these teams have set the national standard over the past 20 years.

The following table was taken from the 1994 Agribusiness Alumni Survey and show most recent indication of student participation and involvement.

Table 8. Question - Did you participate in the "Internship Programs" at Cal Poly?

	Frequency	Valid %
No Response	78	5.8
Yes	323	24.0
No	945	70.2
Missing Cases	26	
	1372	Valid Cases 1346

It is interesting to note that the proportion of alumni that would recommend internship programs was double the number that actually participated.

#### IV. INSTRUCTION

1. Gender and ethnic diversity issues are, as discussed above, directly addressed in the AGB 401, *Managing Cultural Diversity in Agricultural Labor Relations* course. Another course where these issues are discussed is AGB 201, *Agricultural Sales and Service*, since diversity in the agribusiness marketplace directly affects sales and communication. Ms. Kerry Cochran, who is our lead instructor in this course, brings successful professional women into the class frequently. Ethnic diversity is discussed by Ms. Cochran in this course and in the AGB 406, *Agribusiness Marketing Planning* course, which she also teaches, in terms of meeting the needs and **expectations** of varied customers, both domestically and internationally. A module of the AGB 318, *Agricultural Trade Policies* course in International Marketing also explicitly covers international cultural diversity issues and how these issues impact the marketing of food on an international basis.
2. Recognizing the growth of the Central Coast wine industry and the need for a continuing education program in wine marketing, courses have been developed that can lead to a Wine Marketing Certificate offered through Extended Education. These courses are AGB 446, *Wine Market Analysis*; AGB 447, *Wine Distribution and Pricing*; FSN 402X, *Sensory Evaluation of Wine*; AGB 448, *Governmental Wine Regulations and Compliance*; and AGB 449, *Wine Promotion and Packaging*. While this program originated in the Agribusiness Department, it is now interdisciplinary with Dr. Bob Noyes of the Food Science and Nutrition Department teaching FSN 402X, *Sensory Evaluation of Wine*.

Although not new to the department, AGB 314, *Fair Management*, certainly represents an important innovation to the Agribusiness curriculum. Introduced over 15 years ago, this course is the classroom side of an active program supported by the fair industry with a current endowment of nearly \$400,000. Only three other universities in the country have fair management programs, none the size nor success of Cal Poly-s.

3. We place heavy emphasis on teaching quality within our department. In fact, we believe that the primary consideration in retention, tenure, and promotion should be performance in teaching. This performance should include not only proficiency in formal lectures and laboratories, but supervision activities such as senior projects and special problems. We believe course and lecture preparation, organization, and clarity of presentation should be evaluated considering criteria such as:
  - a. Organization of the course.
  - b. Correlation of practice with theory.
  - c. Arousing interest and stimulating thinking of students.
  - d. Up-to-date knowledge of the subject.
  - e. Course objectives clearly given to **students**.
  - f. Quality of presentation.
  - g. Grading and examinations.
  - h. Student-instructor relationship in class.
  - i. Complexity of courses taught. .

- j. Scheduling, i.e., new or repeat course, time of day offered, etc.
- 4. a. SCUIFTEF

Table 9. Agribusiness Department Student Credit Unit (SCU) and Full-time Equivalent Faculty (FTEF) Data, 1991-95.

College Year					
	91-92	92-93	93-94	94-95	*95
SCU	6804	6145	5779	5924	6019
FTEF	21.80	18.30	18.40	16.40	16.77
SCUIFTEF	312	335	314	361	359

\*Fall Quarter 1995 only.

Source: Faculty Assignment by Department CAGR: WRM: 10-26-95

- b. Data on FTEF Used and Generated. Please note that generated data for Agribusiness is incorrect in the *report* sent to the program review committee by Institutional Studies since it does not include the Agribusiness Department's share of AG prefix courses. These are reported under All College (AG) in the data sent to the committee. FTEF used data is also incorrect. Data presented below was taken from FAD reports for Fall Quarter only. Generated FTEF was calculated using mode and level formulas. Generated FTEF was not calculated after **Fall 92** as Model and Level was no longer in use.

Table 10. Data on FTEF Used and Generated.

	89-90	89-90	90-91	90-91	91-92	91-92	92-93	92-93
	FTEF	FTEF	FTEF	FTEF	FTEF	FTEF	FTEF	FTEF
	Used	Gen	Used	Gen	Used	Gen	Used	Gen
AGB'	22.80	26.46	22.80	24.39	-21.80	24.88	18.30	25.44

- c. S/SCU data for the past five years.

Table 11. S/SCU Data for the Past Five Years.

\$IS.CU						
	89-90	90-91	91-92	92-93	93-94	94-95
\$	1,783,337	1,929,451	1,831,969	1,529,006	1,545,824	1,490,553
SCU		6604	6804	6145	5779	5924
\$/SCU		292	269	248	267	251

## d. Agribusiness Department - Various Statistics

Table 12. Average \VTUIFTEF for the Past Five Years.

	90-91	91-92	92-93	93-94	94-95	95-96
WTUIFTEF	12.85	13.38	14.05	13.88	14.49	13.74 <sup>J</sup>
FTEF (Fall <i>Qtrt</i>	22.80	21.80	18.30	18.40	16.40	16.77
Number of Majors <sup>3</sup>	928	890	825	814	791	709
Fall Applications"	274	241	270	286	324	339
Student Credit Units <sup>5</sup>	6604	6804	6145	5779	5924	6019 <sup>1</sup>

<sup>1</sup> Fall 1995 only

<sup>2</sup> Data provided by Wally Mark from FAD reports. Data provided to committee is in error.

<sup>3</sup> Quarterly Internal Report as provided by Wally Mark. Please note that the decrease was intentional as quota of new students was lowered as faculty numbers dropped.

"Total of FTF and TRANS taken from Admissions Office Applications and reported by Wally Mark on 10-25-95.

<sup>5</sup> Source: Faculty Assignment by Department.

5. The Department does not teach any courses that are categorized as service only. One of the more significant developments in the service area is the increasing number of students enrolling in the Agribusiness minor. Minor applications the past two years have exceeded 50 per year, double the amount from 1991;1993. The increase is due in large part to changes implemented by other CAGR departments that provide for increased curriculum flexibility and the opportunity for students to take more elective courses and minors. . Currently, approximately 100 students are enrolled in the minor (and there are undoubtedly many students taking classes for the minor but not yet signed up). The increase in non-major enrollment is evident in many classes. Many courses, such as AGB 212, *Agricultural Economics*, AGB 301, *Agricultural Marketing*, AGB 310, *Agribusiness Credit and Finance*, AGB 322; *Principles of Farm Management*, .and AGB 401, *Managing Cultural Diversity in Agricultural Labor Relations*, are running 40 to 50 percent non-major enrollment. Additionally, the capstone courses in the Farm and Ranch Management concentration (AGB 456, *Crops Management Problems*, AGB 457, *Lh'estock Management Problems*, and AGB 458, *Dairy Management Problems*) also attract majors from their associated production areas.

With a reduction in FTEF and a steady to increasing SEU generation, the department does not have any low enrollment courses at the undergraduate level. There are a few low enrollment courses at the graduate level. The Departmental response has been to go to an every-other-year offering for some of the courses (in the Agribusiness MBA program, for example) and with low enrollment in the International Agricultural Development Program, accompanied by low student numbers, courses in that program are no longer offered. While many of our courses are now taught in class sizes that . faculty feel are too large, there are no courses in the department that can be defined as oversubscribed, that is, having student demand consistently far greater than course capacities.

6. The following are GEB courses taught by and/or managed by the Department:
- AG 250 *Computer Applications to Agriculture*; GEB F.1
  - AGB 401 *Managing Cultural Diversity in Agricultural Labor Relations*; USCP requirement
  - The AGB 401, *Managing Cultural Diversity in Agricultural Labor Relations* course is taught by tenured faculty.

Eighty percent of the AGB 250, *Computer Applications to Agriculture* course sections are taught either by part-time lecturers or by faculty from other CAGR departments. Lecturer staffing of this course is a change from how this course had been staffed over the years. The use of lecturers was requested by the Dean, CAGR, to staff the course less expensively, due to reduced state funding levels.

7. The Agribusiness Department does not offer any remedial coursework.

## V. Faculty

Parts 1, 2, 5, 6, and 8 are summarized in Table 13, Education, Background, and Certification of Faculty and Table 14, Faculty Professional Growth and Development Activities. Please note that the data provided to the Program Review Committee from Institutional Studies regarding number of faculty with M.S. and Ph.D. degrees is in error. We can provide the Committee with annual data over the last five years, if needed. We have provided data in Table 13 for 1995-96.

3. Faculty awards for outstanding teaching and **service**.  
 The Campbell Award: Doug Genereux.  
 SunWest Foods Award: Jay Noel 93-94, Bob Thompson 94-95.  
 Western Ag Services Award: Bob Thompson 93-94; Jack Scott 94-95.  
 Lou Merrill Award from Western Fairs Association: Jack Scott (only educator to ever receive this award).

## 4. Professional Development

Professional development is intended to enrich and upgrade faculty knowledge and skills as well as to stimulate intellectual growth and professionalism. **The** following are the kinds of activities which provide evidence that the faculty member is growing professionally:

- Participating in applied, basic, or fundamental research activities.
- Consulting experiences which provide significant intellectual growth in the faculty member's discipline.
- Participating in sabbatical leaves and difference-in-pay leaves for professional growth.
- Continuing education, as in completing additional coursework in the discipline, or continuing education to earn or maintain a license, certification, or registration.

Table 13. Faculty Education Background, Training, Certification, Gender, & Rank.								
1996 Program Review AGB								
Faculty Person	BA/BS De	Univ/Coliege	MastersDI	Univ-Yr	PhD Deg	Univ/Coliege	Gender	Academic Rank
J. Ahem	B8'71	CSPU	M8'73	Univ Maryland	PhD '80	Univ Maryland	M	Full
W. Amspacher	B8'78	Clemson Univ	M8'80	Clemson Univ	PhD '88	UC Davis	M	Full
R. Avey	BS'69	Cal Poly	MS'72	Oregon St Univ	PhD '74	Univ Hawaii	M	Full
K. Cochran	BS '76	Chico State U	MIM'86	Thunderbird	Lics.PestCtrlAdv '78-'93		F	Lecturer
M.L. Davis	B8'66	Cal Poly	M8'68	Iowa St Univ	PhD '73	Colo St Univ	M	Full
P. Doub	B8'66	Cal Poly	MBA '71	ColWm & Mary			M	Full
A. Duarte	B8'64	Cal Poly	M8'65	OregonSt Univ	PhD '75	Wash StUniv	M	Full
D. Genereux	8S'64	Nebraska	MS'69	Nebraska	PhD '79	Colo. St Univ	M	Full
J. Herlihy	BS '62	Manhattan Col	MBA '78	Cal Poly			M	Full
R. McCorle	8S'60	Cal Poly	MS'62	UC Davis		UWis & OreStU	M	Full
J. Noel	8S'73	UC Davis	MS'75	UCDavis	PhD '79	UC Davis	M	Associate
N. Ochs	8S'66	St Louis Univ	MAcct '75	Univ Arizona	Certified Financial Plnr		F	Full
D. Schaffner	BS'64	UCDavis	M8A '70	California	PhD '80	Golden GateU	M	Full
J. Scott	B8 '61	Cal Poly	MA'67	Cal Poly			M	Full
K. Scott	85'70	Brigham Young			PhD '75	Wash Sf Univ	M	Full
R. Thompson	B8'69	Cal Poly	MS70	UC Davis	PhD '90	Colo St Univ	M	Full
M. Vix	85'68	San Jose State	MS'77	Cal Poly			M	Full
M. Wolf	8A '76	Johns Hopkins	MA'77	Johns Hopkins	PhD '79	JohnsHopkins	F	Associate
fn\aabfaced.doc								

Faculty Person	Publications						Confer & Pres.		
	PopMags & Res Re	WI-JntAut	Journals	WtJntJour	BooklChpt	WtBkChpt	BookRev	Attended	Papers Pres
J. Ahern	3	1.5	1	0.3			1	3	2
W. Amspacher	4	1.3						3	2.5
R. Avey									
K. Cochran			1	0.3				4	4
M.L. Davis								6	
P.Doub									2
A. Duarte								2	
D. Genereux									
J. Herlihy									
R. McCorkle	1							14	3
J. Noel	3	1.5	1	0.5				6	1
N.Ochs	2	1						28	
D. Schaffner	5	4			1	0.33	1	1	2
J. Scott	1							5	
K. Scott	1								2
R. Thompson			2	1	2	0.7		2	1
M.Vix	2	1							
M.Wolf					1	0.33		2	1
Totals	22	10.3	5	2.1	4	1.36	2	76	20.5

Faculty Person	Grants Received					Professional		Consulting
	Number(prorata)		Participated In Grants of:			Affilations		Projects
	#EdServ*	Research*	Grant Value	WtValue	Member	Officer	#	
J. Ahern		3(1.5)		\$43,400	\$21,033	3		5
W.Amspacher		3(1.5)		\$43,400	\$21,033	1		1
R. Avey						3		
K. Cochran	2		\$43,500		\$43,500	2		3
M.L. Davis						5	1	1
P. Doub	2		\$21,000		\$21,000			4
A. Duarte	3(0.67)		\$4,800		\$1,600	1		
D. Genereux	3(0.67)		\$4,800		\$1,600	2		
J. Herlihy						1		20
R. McCorkle	10		\$58,877		\$58,877	3	1	3
J. Noel	3(1.5)	6(4.5)	\$10,900	\$43,350	\$43,950	2		4
N.Ochs						2		
D. Schaffner	7(5.5)	2(1.5)	\$30,672	\$20,530	\$28,861	2		
J. Scott						1		
K. Scott	5(1.0)		\$257,660		\$25,766	1	1	3
R. Thompson						2	2	
M.Vix								
M.Wolf	1	2(1.5)	\$10,000	\$7,470	\$17,470	2		
Totals	(24.3*)	(16.5*)	\$442,209	\$158,150	\$284,690	33	5	44

Notes: \* - these columns reflect a weighted (Wt) contribution in each respective category.  
in cases where activities were the product of more than one person the work was weighted to reflect share by each author or participant and assumes equal weights.

- Writing research grant proposals and submitting them to appropriate agencies.
- Participating in professional meetings as a presenter, moderator, session chair, or invited panelist.
- Publication in peer reviewed or refereed professional scientific journals.
- Publication of a textbook or a chapter in a book.
- Publication in trade journals.
- Editorships in scientific and trade journals.
- Leadership in professional organizations and active participation at regional and national meetings.
- Reviewing **manuscripts** for scientific journals and **textbooks**.

## VI. Staff

1. Jean Degnan, Department Secretary  
Sue Olson, Power Keyboard Operator
2. We need additional staff support in the office and desperately need a computer technician as faculty members and a student assistant are having to care for two departmental computer labs, two college-wide computer labs, and the computers in each faculty member's office and the main office.

## VII. Facilities

1. The tenured, tenure-track, and full-time lecturers are housed in individual offices in Buildings 10 and 22. Four part-time lecturers share 10-255. Each office is equipped with a computer and printer. All faculty offices have access to the same software as is available in the laboratories. This includes Netscape for WWW access and software for internet e-mail access.
2. The following equipment is available for AGB and CAGR faculty and **students** to use in their classes:

10-215	16	ACS Macintosh Iisi computers with network connections
10-216	25	CAGR Dell Pentium 90 computers with network connections
10-203	16	Macintosh IIx computers with network connections
10-203	16	Macintosh SE computers (no network connections)
10-204	12	Witco 486 computers with <b>network</b> connections

The equipment and facilities are maintained satisfactorily with much help from faculty and student assistants. We receive considerable help from Information Technology Services (ITS) in the college labs and in maintaining the Novell network. A computer **technician** is a high priority **need**.

The labs in 10-203, 10-215, and 10-216 are used not only by AGB classes, but by other classes in the College of Agriculture as well and are open to students when not in class use until 10:00 p.m. each evening.



3. The library collection is adequate for teaching purposes but is not adequate for research purposes. There are too many gaps in data sets. We may be able to solve this problem with more and more data sets being available on the World Wide Web. Our students have also been noted to be some of the heaviest users of library research facilities such as Lexus-Nexus and the Dow Jones news retrieval service.
4. The entire College Farm including Swanton Pacific Ranch is important as it provides enterprise project and internship experiences for our students.

VIII. Relations to other programs and the professional community

1. There is no **accreditation** program for our discipline.
2. We do conduct external reviews at least once every ten years. The most recent was in 1989. (A copy of the report is attached at the end of this document).
3. Attached as appendix.
4. The Department has established a Department Advisory Council currently made up of sixteen people from the agribusiness industry. They provide us with advice on issues ranging from long-range strategic planning, curriculum, and fund-raising. About half of the Council are Agribusiness alums and the other half non-alumnus. Biographies for current Advisory Council members are included with our external review appendix.

The Agribusiness faculty has always been concerned about the degree of contact we maintain with the California agricultural industry. Efforts to intensify that contact have resulted in industry tours during Fall Conference Week for the past two years. We committed two full days, formerly spent in meetings, to visit with managers and other agricultural professionals as we toured their businesses and discussed their future need for educated **employees**.

In 1994, we visited Kings and Tulare counties meeting with seven Agribusiness firms including Sunkist National Marketing Office and Bank of America Dairy Center. In 1995, we visited eight companies in the Salinas Valley including Smuckers, Tanimura and Antle, and Driscoll Strawberries. We also met with area alumni during an evening reception each year. These faculty tours have been very successful, so successful, in fact, that the College of Agriculture has adopted the concept by sponsoring additional tours.

5. LeRoy Davis serves as Public Member to the California Tomato Board and California Kiwifruit Commission. He served on the National Agribusiness Education Commission from 1987 to 1990 when the project ended. He currently serves as one of six Board members for the National Association of Agricultural Economics Administrators where he represents all of the non-land grant universities. Additionally:

- Marlin Vix serves as Public Member of the Kiwifruit Administrative Committee.

- Robert (Bob) Thompson serves on the Board of Directors of the Farm Financial Standards Council.
  - Marianne Wolf serves on the New Product Development Committee for Tanimura and Antle.
  - Ken Scott serves as Public Member of the California Milk Pooling Producer Review Board.
6. The Global Agricultural Trade and Marketing Research Center (GATMAR) is based in the Agribusiness Department. Colloquia sponsored by GATMAR have included the **presentations** by Dr. John O'Dell (USC) on "International Threats and Internal Politics: Brazil, The European Community and the U.S." (June 1992); Dr. Mike Cook (O. of Missouri) on the "Major Forces in the Agribusiness Environment of the 1990's" (Nov. 1992); Dr. Robert Paarlberg (Wellesley and Harvard) on "Agriculture in the Uruguay Round" (Feb. 1993); and Jorge Kondo Lopez, President of CAADES (Confederacion de Asociaciones Agrícolas del Estado de Sinaloa, Mexico) on "NAFTA The Mexican Agricultural Perspective" (April 1994).

Bob Thompson, Dave Schaffner, and Jay Noel have worked with both the U.C. Center for Cooperatives and the Ag Issues Center headquartered at U.C. Davis.

Jay Noel has worked on several interdisciplinary grant proposals since joining our faculty. One of these, a McIntire-Stennis grant proposal authored with Richard Thompson (NRM), has recently been approved, and they are currently working on another proposal for the U.S. Forest **Service**.

Ken Scott is Chairman of the CAGR Land Use Task Force. This group has been a strong, cohesive force as stewards of Cal Poly's agricultural land resource.

The farm also is an integral part of the Agribusiness curriculum:

- Over 200 Agribusiness students a year enroll in enterprises.
  - Approximately 30 units (16%) of our required classes are in production agriculture.
  - During the last three years, over 60 of our students have prepared nine marketing plans and two business plans for the Farm.
  - Ten senior projects have been prepared on the Farm in the last three years.
  - Our Farm and Ranch Management classes develop budgets each quarter for sections of the Farm.
7. George Hellyer received a Challenge grant to develop several interdisciplinary courses in farm systems. A total of twelve people from different departments worked on this project from 1992 to 1994. One of the courses is now taught as POLS 371, World Food Politics, with Bud Evans as the **lead teacher** and is usually cross-listed as **AG 371**.
8. A further indication of our Departments interaction with the agribusiness industry is the support they have given the Department in the form of endowments and discretionary funding..

Endowment	<u>7/1/93</u>	12/31/95
:		
0305 Chas Gibbons	\$ 526	\$ 622
0317 Agb Quasi End	108,373	154,931
0320 Calif Agri-Fair	251,124	284,442
0326 Edgar Ryer	39,964	47,725
0356 Senior Project	13,432	15,875
0366 <b>Market Info</b>	23,070	43,820
0651 Lou <b>Merrill</b> Fairs	40,766	46,510
0654 Roger Peters <b>Mem.</b>	3,952	4,682
0680 Ted & Dottie Kasinak		
Fair Scholarships	9,677	21,494 "
0697 <b>NAMA</b> West Sch	19,946	23,819
0698 Sun West.Foods	19,640	35,089
0706 Richard Kaprielian	<u>13,895</u>	<u>16,965</u>
	\$544,365	\$695,974

Discretionary Accounts

6050, ProfDev, AGB	\$ 2,276.13	\$ 2,480.13
6055, AGB Sr Proj	2,368.03	3,239.03
6057, Wine Mktg	196.00	717.87
6060, AGB Mkt Info Ctr	3,031.45	-0-
6061, Ryer Endow Income	5,497.58	9,764.58
<b>6063, Gibbons Mem</b>	54.00	28.00
7060, AGB Discret	41,012.48	52,089.98
7062, Rodeo Discret	<u>17,746.12</u>	<u>13,199.87</u>
	\$72,181.79	\$81,519.46

IX. Employment and Professional Graduate School Opportunities for Graduates

1. As stated earlier, approximately fifteen percent of all jobs in the United States are in the agribusiness industry. This is the area where most of our graduates seek and find employment. The four areas that categorize most of our jobs for graduates coincide with our concentrations.

Our most current indication of employment opportunities for graduates is summarized in our latest (1994) alumni survey.

Table 15. Question - What is the primary type of work you perform?

	Frequency	Valid %
Sales Rep, Insurance, Marketing	256	19.1
Finance, Banking, Stock Broker	137	10.2
Management of Firm or Fair	123	9.2
Appraisal, Real Estate	73	5.4
Consultant, Accountant, Lawyer	73	5.4
Sciences	15	1.1
Farm and Ranch Management	289	21.6
Government, Education	83	6.2
No Response	13	1.0
Missing Data	32	
	1372	Valid Cases 1340

Table 16. Question - Do you consider your current position to be:

	Frequency	Valid %
Entry Level	57	4.3
Staff	162	12.1
Lower Management	128	9.5
Proprietor	315	23.5
Middle Management	279	20.8
Upper Management	263	19.6
Other	117	8.7
Sales Professional	7	.5
No Response	13	.5
<b>Missing Cases</b>	31	
	1372	Valid Cases 1341

Table 17. Question - Please check your current salary range.

	Frequency	Valid %
<18,000	85	6.3
18,000-24,000	84	6.2
25,000-32,000	163	12.0
33,000-42,000	226	16.7
43,000-54,000	227	16.8
<b>55,000-69,000</b>	196	14.5
70,000-99,000	168	12.4
100,000+	161	11.9
No Response	45	3.3
Missing Cases	17	
	1372	Valid Cases 1355

2. Graduate school opportunities exist for our graduates in Agribusiness and Agricultural Economics for the M.S. and Ph.D. degrees. Several graduates have attended and are attending law school with emphasis in agricultural law, water law, and environmental law. Others seek the MBA degree with emphasis areas in Agribusiness, International Trade, Finance, and Marketing.

Table 18. Question - What is the highest education qualification you have earned?

	Frequency	Valid %
BS/BA	1151	84.3
JDILLMILLB	27	2.0
MBA	64	4.7
PhD/EdD	11	.8
MS/MA	63	4.6
Other	42	3.1
No Response	8	.6
Missing Cases	6	
	1372	Valid Cases 1366

3. Employment|Further Schooling for Agribusiness Students

Table 19. Employment Status Report for Agribusiness  
Source: Cal Poly Career Services Annual Reports

Employment Status Report <b>Agribusiness</b>	1990-91	1991-92	1992-93	1993-94
Employed Full-Time	84	111	78	109
Employed Part-Time	4	3	2	4
Graduate School	9	9	9	6
Still <b>Seeking</b> Employment	6	5	7	4
Not Seeking Employment	0	-	1	1
Other	0	1	0	1
No Response	35	63	84	73
<b>TOTAL</b>	138	192	181	198

Table 20. Median Monthly Salary Statistics of Agribusiness Graduates

Year	1990-91	1991-92	1992-93	1993-94
Low Salary	1,000	600	900	1,000
High Salary	4,000	5,000-	4,200	5,000
Median Salary	2,000	2,028	2,075	2,083

- X. The major indications that the Agribusiness Department is meeting its goals and objective are:
- Graduates are obtaining good positions upon graduation and the demand for our graduates appears to be increasing.
  - The feedback we receive from industry about our graduates and our program continues to be excellent.
  - National recognition such as the National Agri-Marketing Association, statewide recognition by the California fair industry.
  - Positive feedback from our Department Advisory Board.
  - Feedback from industry and parents at such events as the annual two-day faculty field trip, the Open House in April, and the Summer New Student BBQ.
  - The continued demand of new students and the fact that the College of Agriculture is requesting that we grow.

The External Review Committee, comprised of Michael Fitch, Leon Garoyan and Neil E. Harl (the full titles and addresses appear at the end of this report) enjoyed an unusually high level of cooperation from faculty, students, administrators and alumni of the Agribusiness Department at the California State University, San Luis Obispo, California. The Committee offers the following observations, comments and recommendations in a spirit of assisting a good academic unit to become even better. -

## I. Particularly Impressive Features of the Program

The committee observed several features of departmental programs that were truly impressive.

- Faculty-student relations are on an unusually high plane. **Indeed**, after extensive discussions with students and faculty, the committee was unable to identify significant problems with that relationship. In general, faculty are genuinely interested in students and demonstrate concern about student problems. The level and intensity of faculty-student interactions are high.

- Faculty-industry relations are quite good even though the university is **geographically** distant from major agribusiness firms and population centers. Faculty members appear to have made a significant effort over a period of many years to establish and maintain effective working relationships with middle and upper levels of management in an impressive array of firms. These relationships have yielded and continue to yield benefits in terms of internship and employment opportunities for students, a source of continuing education for faculty and important support for departmental programs.

- Instructional programs are generally innovative, creative and well implemented. Faculty take instructional responsibilities very seriously.

Departmental programs tend to be **reality-oriented** with formal **coursework**, seminars, student projects, and internships linked to and reflective of agriculture and agribusiness in the State of California. The committee wishes to make special mention of the internship program as an unusually effective educational program that serves to bring faculty and industry into a closer working relationship as an important side benefit.

- The on-going planning process pursued in recent years has served the department well in establishing mission, goals and objectives as well as in developing course patterns and content. The department has made a sincere effort to adapt as technology, basic economic forces of demand and supply and US fiscal and monetary policies have impacted the agricultural sector.

- Alumni relations seem unusually good with several initiatives pursued recently to improve and strengthen that relationship. The committee was impressed by the commentary provided by approximately 15 alumni in several areas including curriculum, instructional effectiveness, faculty evaluation and university/industry relations.

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## II. The Mission

The committee reviewed the mission statement developed by the department-

The mission of the Agricultural Management Department is to provide students with the diverse skills necessary to perform well in entry level positions as well as having the foundation to rise to higher managerial levels in agricultural business.

Students will be challenged by the faculty to excel, and encouraged to go beyond classroom involvement and participate in farm production projects, field trips, club activities, and internships.

Fundamental to the Agricultural Management Department's continued success will be the faculty's close association with industry, government agencies, and our alumni. These associations are essential to creating course material that is contemporary and relevant for our students who will be meeting the global needs of our world in the Twenty-First Century.

The committee observes that the mission statement has recently been updated and believes that the statement is appropriate for the department.

The committee was impressed by the department's effort to provide students with skills currently needed to meet objectives implicit in the mission statement. The department should be encouraged to anticipate the skills and abilities needed to years or more into the future. This is a worthy objective for all institutions but particularly so for a university with a reality-based curriculum.

## III. Curriculum

The committee recognizes that curriculum planning should be on-going and continuous. Moreover, the committee believes that the general education part of the curriculum plays a vital role and deserves the same type of critical review given by departments to their own curricular offerings.

The committee acknowledges that the Agribusiness Department exercises little control over the area of General Education and Breadth (OE&D). However, the content of that segment of the curriculum is vital in terms of affecting the ability of students to respond, adapt and survive in the world of work as employment patterns change and in terms of affecting the quality of life for the individual.

An important objective in this area is to develop in students a greater appreciation for the GE&B component of their formal education. That effort should ideally come early in the first year of study before attitudes have been formed about the usefulness of the various parts of the curriculum. One possibility would be to involve one or more faculty or alumni as part of first year seminar activity to discuss the basic reasons behind the GE&B requirements. The faculty or alumni should be genuinely committed to a strong GE&B core but should not be drawn from those academic areas as a matter of faculty service or alumni major or minor. Rather, the faculty or alumni should be drawn from the student's own major area of study or at least from the general area of study selected by the student attending the particular seminar.

Several unsolicited comments by alumni confirmed that GE&B courses are perceived as vital to the ability of graduates to grow intellectually and adapt to a changing world.

The committee identified several areas of concern with respect to GE&B requirements.

- The committee believes that an additional 4-hour course should be required in mathematics. The evidence that this addition would strengthen students' backgrounds is compelling. For some students, linear algebra would be helpful; for others, additional work in calculus, matrix algebra or some other course in mathematics might be more



appropriate. Permitting a selection from among an array of rigorous alternatives would permit programs of study to be tailored to best fit student needs.

- Additional coursework in the basic sciences seems advisable. The addition of four units in organic chemistry or physics would enhance the educational base of students significantly. The current and expected emphasis on food safety, groundwater pollution, stream pollution and effective use of chemical materials suggests that additional coursework in this area is warranted.

- Further work in written and verbal communications is urged. The committee is convinced that additional emphasis in this area is merited and should be viewed as central to a solid core of study in this general area. An additional three units seems **advisable**. Special mention is made of English 310, Corporation Communications, as a course with high perceived value in enhancing the ability of students to communicate effectively and well. In the event it is not possible to increase the work in *this* area by three units, the committee would favor listing English 310 as an alternate course to Report Writing or Technical Writing.

- The committee was advised at every turn that more work in foreign languages is needed. While a number mentioned the usefulness of Spanish for those working in California, others mentioned languages of the Pacific Rim including Japanese. Clearly the globalization of agriculture in the past two decades has focused a great deal of attention on the ability of US citizens living and working abroad to communicate with others. The same can be said of the ability of US citizens interacting with individuals in the United States (where English is no better than the second or third language) to communicate effectively with others.

The committee is mindful of the point of view that language can be viewed as a skill rather than as a part of general education, but the committee is also convinced that familiarity with a foreign language **is** an integral part of understanding a culture. For that reason, the committee would be favorably inclined toward the substitution of selected foreign language coursework in lieu of some emphasis currently placed on literature. The committee believes that 18 units of literature and arts without a substitution option is excessive.

- The committee believes that an additional course in accounting, drawn from several possible options, would be advisable. Accounting has always been central to management but has assumed an even more crucial role in recent years. As noted below, the committee recommends that risk management be fully integrated into all production and marketing decision making with that integration carried out in a context of accounting literacy. The calculation of liquidity and net worth, as factors determining loan carrying capacity, is fundamental to the consideration and **selection** of risk management approaches or techniques.

The committee is impressed by the **arguments in favor** of increasing the number of units required for graduation from 198 to 208 but **is** mindful of the institutional obstacles to such a change. Short of **such** a modification in course requirements, additional courses can be added to the GE&B core only if other courses are eliminated or combined as noted below. The faculty are in the best position to evaluate the trade **offs** inherent in **such** decisions.

## Required coursework in the department

The committee initially had concerns about the teaching of microeconomics in the department. In general, the committee believes that both micro and macro theory should be taught in departments of economics. However, after extensive inquiry into the way microeconomics is taught in this department, the **committee's** concerns have been fully allayed. The committee believes the course is being taught effectively and at least at the level of rigor found in departments of economics. In addition, the course as being taught serves well the needs of students interested in an agricultural or agribusiness perspective.

The committee endorses the idea that applied areas of study should remain in close juxtaposition to the theoretical or basic discipline and, therefore, recommends that those teaching microeconomics should remain close to the regenerative forces of economics as a discipline and the Department of Economics on this campus.

A similar point is made with respect to the teaching of accounting. The committee is impressed by the adaptation of accounting to the needs of students in agriculture. The result is a superior course experience for

students in agriculture and agribusiness. Again, however, the committee recommends that those teaching the accounting courses in the department remain close to accounting as a discipline and to the Department of Accounting on this campus.

As mentioned above, the department should endeavor to integrate accounting and risk management into production and marketing decision making. Indeed, risk management should permeate educational efforts relating to decision making and entrepreneurship. Part of the economic trauma in agriculture in the 1980s was traceable to an overestimation of the ability of individuals and firms to withstand economic adversity.

The department appears to be doing good work in educating students on the use of computers. The department must, however, be certain that students understand the basic underlying principles and do not become mere manipulators. Computers are a tool, albeit a powerful and important one, but are not substitutes for knowledge and analytic ability.

Familiarity with cooperative management, accounting, taxation and operation would be helpful and a cooperative component should become part of the course pattern within the department. Cooperatives are the primary marketer for most California commodities and are also important suppliers of inputs. Five out of six California farmers are members of some form of cooperative.

#### Concentration areas: marketing

AgB 450, Strategy Formulation, should be offered more widely and should be available to farm and ranch management as well as finance and policy areas. A good argument can be made for including this course in the core. It is an innovative teaching effort, and quite unique to agribusiness management. Indeed, the committee is unaware of such a course being offered elsewhere in agricultural management or agribusiness management programs.

More emphasis is needed on the global aspects of agricultural production, marketing and financing including exchange rates, currency markets and risk management on a global basis. Firms doing business abroad face substantial economic exposure to such fluctuations. Coursework is needed to provide basic guidance in this area.

The team questions whether AgB 318, Agricultural Trade Policies, should be included in the core. A good argument can be made for its inclusion but that and other decisions on curriculum are best made after a careful consideration of the trade issues involved and after a thorough review of courses and course content as suggested below.

We suggest some brainstorming on needs in the marketing area. One possibility discussed by the committee is a program in retail outlet management, both for food and for ornamental horticulture.

#### Concentration areas: policy

The team questions whether AgB 323, Managerial Accounting, should be included in the policy concentration. The team has concerns about including the course in that concentration although the committee is aware of the reasons for including the course there. In defense of including the course in the policy concentration, there is an argument for differential evaluation of non-private services; however, it is doubtful that managerial accounting is reaching those differences. The more important question is whether managerial accounting should be listed as a general elective or in the core. The team favors the latter but understands the reasons for placing the course in the policy concentration.

The committee believes that it is important, as a policy matter, to emphasize the varying motivational forces driving management in the public sector and management in the private sector.

There is a potential for research inquiry on synthesizing and analyzing government programs. Traditionally, little attention has been devoted to analyzing the economic and social efficacy of government programs with even less time and attention committed to analysis of proposed programs. The department needs to do some

brainstorming on the scope of "policy," how to anticipate problems and how to engage these kinds of issues on a systematic basis.

### Concentration areas: finance

The **greatest** need in this concentration is to view this as a service area for other parts of the department. The demand for finance graduates in the United States has been declining as agricultural lending has been downsized in recent years. Moreover, the transfer of finance statement preparation from lender to borrower further emphasizes the need for a more pervasive inclusion of finance in the curriculum. The committee wants to make it abundantly clear that it envisions no reduction of importance for courses in finance, and cautions against interpreting the importance of an area of concentration by the number of students pursuing sufficient coursework in the area to be considered as within the particular area of concentration.

The committee believes that the department should consider differentiating the accounting courses on some basis other than "large farm," perhaps on the basis of cash and accrual accounting. Farming appears destined gradually to shift away from reliance on the cash method of accounting to an emphasis on accrual accounting. Thus, both need to be **light** for the foreseeable future. To suggest that all large farms are on accrual accounting is **misleading** and inaccurate.

### Concentration areas: farm and ranch management

As noted above, the four additional units of mathematics would strengthen appreciably the abilities of students to handle coursework in this **area of concentration**. Such an addition is strongly recommended.

It would **appear** that more emphasis should be placed on resources including water and environmental aspects. Resource allocation, use and conservation are intertwined with production and management decisions and should be **considered** as part of that decision making process.

The committee believes that both linear programming and price analysis should be included in this **area** of concentration rather than one or the other as at present. Both are important to farm and ranch management.

### Complete review of courses

The **committee** believes that a complete review of all courses in the department should be undertaken at an early date. Such a review should be carried out with objectives of - (1) prioritizing areas of importance, emphasizing fundamentals; (2) duplication and overlap; (3) possibly reducing the number of courses; and (4) improving educational experiences of students.

### Emphasis on entrepreneurship

The committee is impressed with the number of departmental graduates who are self-employed. Although the four areas of concentration deal with various aspects of entrepreneurship, the committee believes that a seminar focusing specifically on entrepreneurship would be a useful addition to the curriculum. The seminar could involve faculty members from other disciplines including business, psychology and law who could make important contributions to the area of **entrepreneurship** which is inherently multi-disciplinary in nature.

## IV. Faculty

The committee recognizes that faculty in this department are student oriented and industry responsive. Those are important qualities and should be nurtured. The committee is also mindful of the inherent difficulties in an educational system oriented **heavily** toward teaching and with a civil service type compensation system of maintaining uniformly high productivity among faculty members. The committee believes firmly that the future of this department is heavily dependent upon maintaining an able, motivated, productive faculty. A worthy objective is

to resolve, over the next decade, to create a departmental culture in which non-striving, non-productive faculty are made to feel distinctly uncomfortable. That result is not usually achieved overnight

Thus, long term, faculty must strive to remain intellectually alive and highly motivated. That can be done through various means including (1) research, (2) work with industry, (3) greater use of inter-institutional seminars and exchanges and (4) encouragement to participate in regional and national professional associations.

By mentioning research, the committee does not mean to suggest that this department should seek to emulate research-oriented departments at land grant universities. Rather, the idea is to suggest research projects that are instructionally related, student oriented and designed to advance educational objectives within the unique mission of the institution. Care should be taken to articulate effectively to the industry that research is to increase the practical skills of faculty and relevance of **teaching**, not to create another research-oriented institution.

The suggestion for "encouraging exchanges between this **department** and departments" with similar subject matter interests in research-oriented institutions is grounded in the belief that research-oriented departments would have much to gain from the insights acquired by this department with respect to the development and operation of instructional programs. Similarly, this department could gain from those involved in research programs in departments with a heavy research orientation.

The committee believes that faculty should become more involved in publishing including articles in popular journals focusing on farm production, finance, marketing and policy issues, and on radio and television. Such activity can provide an important benefit of bringing greater visibility to the department and to the university.

The environment for consulting within the guidelines appears to **be positive**. This is another way to reach out, enhance productivity and to ensure that faculty remain current. Of course, oversight must be maintained over such activity to ensure that the activity does not become excessive.

The committee recognizes that there is a **delicate** balance between emphasizing faculty performance through research and emphasis on teaching. Undue emphasis on research would be seriously competitive with teaching which is and will likely continue to be the major focus of this department. Undue emphasis on teaching can create serious problems of remaining at the leading edge of thought in any discipline that is rapidly changing.

One of the most difficult tasks in any **academic** setting is the evaluation of faculty performance. That task is, in some ways, even more difficult in an environment of performance by teaching. Short of extensive and regular surveillance of the classroom, the evaluation process can be criticized as inadequate and incomplete.

- Student evaluations should properly play a role in faculty evaluation. Indeed, students are the only ones perceiving instructional performance on a regular basis over the duration of a course. While students may not have sufficient insight or background to evaluate all aspects of a course, certainly their observations should not be ignored.

The **team** believes that student evaluations should be **done** regularly, consistently and with a commitment to utilizing the results in faculty evaluation. Every course offered should be subjected to evaluation every term.

Although the committee is mindful of the practical difficulties inherent in such a project, the committee views favorably the publication of evaluation results for student perusal.

- Peer evaluations by other faculty members should be used in overall faculty evaluation and should be pursued with a commitment to objectivity and thoroughness appropriate for the high level of importance that should accompany the evaluation process. The use of off-campus peer review by knowledgeable individuals should be done routinely including review by individuals from other colleges and universities. Evaluation input by representatives from industry should be utilized where appropriate in instances where performance has been observed by those in industry.

- Administrative evaluations must continue to be a major component of the overall evaluation process. Ideally, such evaluations should be conducted annually for purposes of establishing compensation levels. In systems such as in California where that decision is largely left to compensation schedules, the importance of administrative evaluation - (1) upon initial appointment to assistant professor, (2) for promotion to associate professor, (3) for tenure and (4) for promotion to professor - necessarily take on added significance.

For this department, there may be a need to reallocate some faculty resources to place the few faculty who are ineffective in positions where they can be productive or work to retire those faculty from active service. This may involve obtaining counseling for individuals in an effort to identify barriers to more effective performance. It is the belief of the committee that ineffective faculty become ineffective not by design or by substandard performance on an intentional basis but by a set of forces operating on that individual such as lack of self-confidence and level of preparation. It is believed that most nonperforming faculty would vastly prefer to be high level performers rather than to be viewed as deficient in **performance**.

Recruitment of faculty needs to be viewed as one of the most important activities undertaken. The objective should be to recruit able, aggressive faculty who are sensitive to the unique mission; new hires need to understand the importance of teaching and also to **understand** the importance of being and remaining productive.

## V. MBA Program

The committee reviewed the MBA program established and conducted jointly with the School of Business and makes several observations relative to that program.

- The committee acknowledges the relatively modest enrollment in the program and agrees that the program must attract a greater number of enrollees to survive long term.

- The committee believes that the course content is appropriate and notes with approval that the content and structure of the program are consistent both in philosophy and in terms of specific features with the recommendations of the National Agribusiness Education Commission report issued in 1989.

- The committee believes that a more thorough strategic planning exercise be carried out for the MBA program, aimed at identifying an appropriate niche for this program. That niche may not necessarily be the same as for the undergraduate agribusiness program. As presented in the MBA brochure, the agribusiness emphasis appears almost as an "after thought" and does not carry much in the way of **differentiation**.

- The committee is convinced that a major reason for the relatively low enrollment is the lack of a major population base within easy commuting distance for part-time work and the absence of an established reputation among potential enrollees. The committee believes, however, that the potential demand for a quality agribusiness MBA is high if the degree could be pursued on a part-time basis along with continuation of employment by the enrollee.

One possibility for achieving that result would be to utilize satellite communication technology on an uplink/downlink basis (and the use of fiber optics) to reach enrollees for a portion of the coursework. That technology permits access to even remote areas of the State of California and elsewhere. Another portion of the coursework could be pursued on a weekend "executive" basis which has become relatively common among schools and colleges of business.

It is the belief of the committee that courses offered by satellite with appropriate adaptation to the medium can be educationally effective. Quite clearly, the technology provides an opportunity for offering coursework (and continuing education to post-baccalaureate constituencies) on an efficient basis.

- The committee notes that there appears to be some conflict and resentment between individuals in the School of Business and individuals in the School of Agriculture. That situation stands as a distinct impediment to effective cooperation by the two schools and should be addressed forthrightly at appropriate administrative levels. The Council of the President should monitor this situation and ensure a speedy resolution of the problem. The use of joint appointments is one means by which such conflict can be resolved once it is reduced to manageable levels.

## VI. Growth in Enrollment

The committee is aware of constraints on growth in enrollment both in terms of system-imposed limitations and in terms of local considerations relative to water availability and the impact on housing costs.

Certainly, any limitation on growth should be imposed in a manner designed to achieve a rational result. This is particularly important in a **dynamic**, changing environment with respect to shifts in employment demand and supply. The most defensible approach is to **suboptimize** at each administrative level as decisions are made with respect to admissions. An objective of assuring reasonable comparability in terms of societal value and quality of student output seems defensible and would appear to be the most operational of several possible decision making models. Some shifting will be necessary in "spaces" available to departments and programs to assure that result

As growth in enrollment occurs, the quality of the educational experience should be monitored closely in an effort to avoid significant declines within the Agribusiness Department.

## VII. Special Student Concerns

### Minors in coursework

The committee perceives a high level of support in other departments within the School of Agriculture for minor work in this department. Several department heads voiced strong approval for the opportunity for students in their curricula to obtain a minor in Agribusiness Management. It is the belief of the team that such work at the level of a minor (and the taking of needed coursework in the department at a level below a minor) should be encouraged. Moreover, it is believed that opportunities should be created for students in the Agribusiness Department to take minor work in other departments in the School of Agriculture in order to develop the best possible combination of coursework for the student's emerging career needs.

### Student placement,

The reputation of the university helps students find employment. So does the Student Placement Office. However, alumni interviewed by the committee question whether the level of support is now as high as it was six or more years ago.

The university may need to assess the role of the Student Placement Center to determine if it is still as effective as it was once in educating **students** on resume preparation and education on preparation for interviews.

As a last resort, the School of Agriculture may wish to pursue the possibilities of a satellite placement office for their students, or other ways to restore the level of placement services provided previously.

## Recruitment

The department (as well as the School of Agriculture and the University) should endeavor to seek out and recruit the most highly qualified students. The effort should strive to recruit the most highly qualified students. The effort should be to recruit more students from the ranks of minorities.

The department should use care in establishing policies for student recruitment and should be sensitive to concerns of other departments, particularly those not enjoying growth in student numbers.

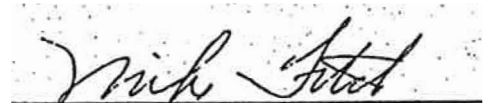
## VIII. Concluding Thoughts

Whatever decisions are made in the future **relative** to faculty, curriculum, placement, **recruitment** and other features of departmental operations, everyone involved in those decisions should reflect upon the fact that the program currently attracts a good base of students. The numbers and apparent quality are both impressive.

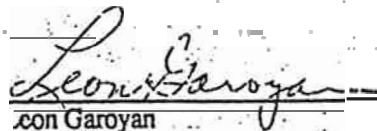
Moreover, it should be remembered that Cal Poly enjoys a good reputation in the state. Those working within the department should be mindful of a supportive administration at both school and university levels.

Perhaps the **most** important task, and one of overriding **importance**, is to develop ways **to encourage** faculty to be and remain productive and to do so within the structure of the reward system.

Respectfully submitted,



Michael Fitch  
Vice President  
Agri Business Affairs  
Wells Fargo Bank  
San Francisco, California



Leon Garoyan



Neil E. Harl  
Charles F. Curliss Distinguished  
Professor in Agriculture and  
Professor of Economics  
Iowa State University  
Ames, Iowa

AGRIBUSINESS DEPARTMENT ADVISORY COMMITTEE  
January, 1996

DENNIS ALLAN (Spouse Margaret)

Term: 1994-1997

Business: Allan Real Estate Investments  
135 N. Halcyon, Suite A  
Arroyo Grande, CA 93420  
Phone: (805) 473-7500

Residence: 539 LePoint  
Arroyo Grande, CA 93420  
Phone: (805) 489-7711  
FAX: (805) 473-2753

Dennis received his Master of Business Administration from Pepperdine University in Malibu, California in 1985 and his Bachelor of Science in Agriculture from Chico State University in California in 1972. He is owner/broker-real estate sales for Allan Real Estate Investments. He was President and CEO of AMI Foodservices, Inc. from 1988 to 1991. He was President and CEO of Allan & Murrell Enterprises, Inc. from 1986 to 1989 and President and CEO of San Luis Obispo Production Credit Association from 1976 to 1986. He is a member of the Rotary Club of San Luis Obispo, was president in 1984, was a trustee of the San Luis Obispo County Community College District from 1985 to 1989, a member of the Advisory Committee to School of Agriculture from 1984 to 1992, was a member of the Saint Patrick's School Board of Trustees from 1984-1986, and is currently a member of the Pismo Coast Board of Realtors Board of Directors.

STEVEN H. BENNETT (Spouse Carol)

Business: **Local Market Manager**  
1327 Brookdale Drive  
Merced, CA 95340  
Phone: (209) 722-1214  
Cellular: (209) 761-0985

Term: 1994-1997

Steve received his Bachelor of Science degree from Cal Poly, San Luis Obispo in 1979 majoring in Agricultural Business Management. Steve is Sales Specialist for Monsanto Corporation, the Agricultural Group, Local Market Manager, San Joaquin Valley. He is responsible for sales and marketing of agricultural chemicals to retailers and growers and is the lead recruiter for Monsanto in California. Steve received the Monsanto **Master** Salesman Award in 1993 and 1994, he was the Regional Outstanding Salesman in 1993, **and** he received the Beck Award for the School of Agriculture in 1979. He is a member of the California Farm Bureau and the California Production Consultants Association.



CHRISTOPHER A. BUNN <Spouse Mrs. Christopher Bunn)

Term: 1994-1997

Business: President  
Crown Packing  
P.O. Box 247  
Salinas, CA 93902  
Phone: (408) 424-1996  
FAX: (408) 424-7812

Residence: 510 River Road  
Salinas, CA 93908  
Phone: (408) 455-2258

Chris received his Bachelor of Science from Cal Poly, San Luis Obispo in 1967 and his Masters in Education and a California Teaching Credential in 1970. He worked for the U.S. Peace Corps in Colombia, South America rural agricultural development in 1967 to 1969, was an elementary school teacher from 1970 to 1973 and worked for Growers Exchange from 1973 to 1976, President of Crown Packing Company from 1976-1994 and Property Manager of General Farm Investment Company from 1976 to 1994. Chris is a member of the Agricultural Water Conservation Task Force for the Monterey County Water Resources Agency.

KAREN CAPLAN

Term: 1994-1997

Business: President and Chief Executive Officer  
Frieda's, Inc.  
4465 Corporate Center Drive  
Los Alamitos, CA 90720-2561  
Phone: (714) 826-6100  
(800) 421-9477  
FAX: (714) 816-0277

**Karen** grew up eating Kiwifruit, Cherimoya and Jicama, and is the first-born daughter of Entrepreneur Frieda Caplan. She has been working with produce since the age of ten. In 1986 Karen was promoted to President and Chief Operating Officer and with her vision and leadership has propelled Frieda's, Inc. to the forefront of the produce industry with annual sales approaching \$23 million. Her extensive research program and "open-door" policy has made Frieda's, Inc. "the source" for information on specialty produce for food writers, government agencies, and universities nation-wide and **world-wide**. In 1992, Karen was selected by the Roundtable for **Women** in Foodservice for their Pacesetter Award recipient in the category of Entrepreneur of the Year. She has served on the Board of Directors of the Institute of Government Affairs at U.C., Davis, selected as Vice President **of the** Produce/Floral Division of the City of Hope's Food Industries Circle, has been involved with the U.S. Agency for International Development's Entrepreneurial Exchange Program, is active in the National Association of Women Business Owners (NAWBO), was named NAWBO's Women Business Owner of the Year in 1994, is a guest on numerous television and radio programs nationwide, and is a sought-after lecturer. Ms. Caplan earned her B.S. degree in Agricultural Economics and Business Management from the University of California at Davis, attended Mills College in Oakland, California, and is an active alumnus of both institutions.

ANNE CHADWICK

Term: 1994-1997

Business: The Chadwick Company  
1485 University Avenue  
Sacramento, CA 95825  
Phone: (916) 925-4360  
FAX: (916) 925-6720

Anne Chadwick has been a trade-policy advisor to the State of California since 1986. She has managed the Cal-Ag Committee on International Trade, a coalition that participates in policy issues such as the Uruguay Round of multilateral trade talks and the *NAFTA*. She has analyzed policy issues ranging from the U.S.-Canada Free Trade Agreement to the Omnibus Trade Bill. She has coordinated a state-wide series of seminars since 1984 as well as meetings in the U.S. and abroad bringing together industry leaders with top government officials. Anne's articles on international trade policy have appeared in leading trade journals and leading daily newspapers, her comments have been quoted nationally by the Associated Press, Los Angeles Times, USA Today and the New York Journal of Commerce. Industry and government leaders have commended her periodic trade updates as accurate, well researched and comprehensive. Anne served on the Advisory Committee on Small Business and Agriculture to the Federal Reserve Bank of San Francisco from 1986 to 1990 and remains an advisor to the economic research staff. She is a founding member and past-president of Capital Agri-Women in Sacramento. Ms. Chadwick had the honor of participating in the 1992 Visitors Program of the European community and is an advisor to a farmer-to-farmer program between the United States and Commonwealth of Independent States.

STEPHEN I. CHAMBERS (Spouse Susan W. Travers)

Term: 1994-1997

Business: Executive Director, Western Fairs Association  
1111 Howe Ave, Suite 210, Arden Branch  
Sacramento, CA 95825  
Phone: (916) 927-3100

Residence: Elk Grove, California

Steve was born in Waterville, Maine, to parents with doctorates in education. He was raised on several college campuses and completed his high school education at Davis High. At the age of 17, he postponed his college work and became the assistant trainer for Desomer Stable, Inc., the West Coast's largest standardbred racing stable. For the next five years he supervised a racing and breeding operation that competed on a national basis with an annual budget of three million dollars and over fifty full-time employees. In 1978, Steve attended Santa Rosa Junior College and completed his work at Sacramento State University majoring in government and minoring in Journalism. From 1980 to 1983 he served as staff analyst for the California Legislature's Joint Committee on Fairs Allocation and Classification. In 1983 Mr. Chambers was hired by the California-based Western Fairs Association as their Government Program Manager. He was promoted to Assistant Executive Director in 1984, named the Association's Executive Director in 1987, and continues to manage the Western Fairs which represents over 160 of the west's finest agricultural fairs. The Association provides ongoing educational programs for the fair industry as well as advocacy marketing and related support services.

JAMES R. ERRECARTE (Spouse Kalhy)

Term: 1994-1997

Business: SunWest Foods, Inc.  
1477 Drew Avenue, Suite 103  
Davis, California 95616  
Phone: (916) 758-8550  
FAX: (916) 758-8110

Residence: 43411 Almond Lane  
Davis, CA 95616  
Phone: (916) 753-6868

Jim received his B.S. in Agricultural Business Management from Cal Poly, San Luis Obispo and his M.S. in Agricultural Economics from Cornell University in Ithaca, New York. Jim was a Business Analyst for Berkeley Bank for Cooperatives, and instructor for the Department of Agricultural Business Management at Cal Poly, Assistant to the President of Paul Masson Vineyards, Vice President of Stanford Wolf Associates, Executive Vice President and General Manager of Butte County Rice Growers Association, Vice President and Operations Manager and Executive Vice President and CEO of the Rice Growers Association of California. He is now owner and President of SunWest Foods, an integrated agribusiness processing and marketing entity involved with the marketing of rice, specialty pasta meals, walnuts, almonds, and pistachios. SunWest has \$45 million annual revenues. Jim also owns SunWest Milling Company, is a partner in Northland Fanning Company, an owner of rice land in the Sacramento Valley, and owner of a grain storage facility at the Port of Sacramento. Jim is a member of the Board of the U.S. Rice Millers Association and the California Rice Promotion Board. He is active in snow skiing, fly fishing, golf and travels extensively for business and pleasure.

JEFF FOSTER (Spouse Theresa)

Term: 1994-1997

Business: Foster Farms  
Del Mesa Farms  
132 E. 5th St.  
Delta, CO 81416  
Phone: (303) 874-7503

Residence: 62213 Charolais Drive  
Montrose, CO 81401  
Phone: (303) 240-4893

Jeff received his Bachelor of Science Degree in Agribusiness in 1993 from Cal Poly, San Luis Obispo. He was on the Dean's Honor List Spring 1992 and Fall 1992. a member of the Poultry Club, and took part in Intramural Sports. Jeff began his career as a general laborer for Foster Farms in Modesto; graduated to conducting vaccination programs, maintained flock health; became Assistant Ranch Manager in 1991, managing and rearing replacement pullets. responsible for feeding. weighing. maintaining flock health and ranch sanitation; worked as a student employee at Cal Poly poultry unit gathering eggs, feeding layers, processing broilers and spent fowl, installed new feed system in a layer house and raised contract turkeys for Zacky Farms while getting his Bachelor's degree. Jeff is now Field Supervisor for Del Mesa Farms in Delta, Colorado, a subsidiary of Foster Farms, Inc., being responsible for supervision of breeder flocks and employees. He is responsible for insuring proper weight gains, production, and overall flock performance and health.

DEL L. GARCIA (Spouse Kelliel)

Term: 1994-1997

Business: ValliWide Bank  
Vice President/Agriculture Banking Manager  
P.O. Box 1357  
600 James Street  
Shafter, California 93263  
Phone: (805) 746-6331  
FAX: (805) 746-5619

Residence: 13501 Smoke Creek Avenue  
Bakersfield, CA 93312  
Phone: (805) 588-1201

Del received his Bachelor of Science Degree in Agricultural Business Management from Cal Poly, San Luis Obispo and attended California Intermediate Banking School and Western Agricultural Credit School. Del is Vice President/Manager of the Shafter Office of Community First Bank. He is a member of the Buttonwillow Chamber of Commerce, the Buttonwillow Lions Club, the Ag Advisory Committee of Shafter High School, Director and President of Central Coast Alpha Gamma Rho Alumni Association, Rotary International Group Study Exchange with Australia, the United Way Allocations Committee, Shafter Rotary Club, and the American Cancer Society-Kern Unit Board of Directors.

JANE KLEINKRAMER (Spouse Paul)

Term: 1994-1997

Business: Dairyman's Cooperative Creamery Association  
Corporate Analyst  
400 South M Street  
Tulare, CA 93274  
Phone: (209) 685-6880  
FAX: (209) 685-6911

Residence: 144 Salida Place  
Tulare, CA 93274  
Phone: (209) 685-9178

Jane received her Bachelor of Science Degree with a Dairy Science Major and an Agribusiness Minor and a Master of Business Administration with an Agribusiness Specialization from Cal Poly, San Luis Obispo. Jane did a graduate internship with Golden Genes, Inc./RuAnn Dairy assisting management with the development of a formal business plan. She worked for Trece, Inc. assisting in the implementation of a computerized manufacturing inventory system on a Novell computer network. She was an instructor for an upper division class in Business Information Systems and Computers for the University of Redlands, Whitehead Center; was a purchasing agent for Dairyman's Cooperative Creamery Association. Jane now works for the Dairyman's Cooperative Creamery Association being responsible for financial analysis, cost accounting and production forecasts for a dairy processing cooperative with annual sales of \$550 million. She produced the first strategic plan for the cooperative, including the design and implementation of an annual profit planning system for each department. She designed, edited and produced the company newsletters, brochures and graphics.

JAMES LLANO (Spouse Julie) :

Term: 1994-1997

Business: Export Sales Manager  
Hemphill & Wilson Ent.  
P.O. Box 1257  
Selma, CA 93662  
Phone: (209) 896-8676  
Pager: (209) 263-0845  
FAX: (209) 896-8677

Residence: 1823 South Gowdy Street  
Visalia, CA 93262  
Phone: (209) 635-7140

Jim joined the fresh fruit marketing firm Hemphill and Wilson Enterprises in 1995. His responsibilities include developing new export markets as well as expanding current markets for the firm's line of tablegrapes, apples, and deciduous tree fruits. Prior to joining Hemphill & Wilson, Jim was employed by Blue Anchor, Inc., of Sacramento as Export Sales Manager between 1986-1994. Jim served as Assistant Export Sales Manager and Field/Sales coordinator from 1980-1986. Jim is a past Board Member of California Kiwi Fruit Commission and currently serves on the Export Development Committees of the California Tree Fruit Agreement and the California Apple Commission. In addition, he serves as an alternate member of The California Shipping Point Advisory Committee. Jim holds a B.S. in Agricultural Science and a teaching credential from Cal Poly, San Luis Obispo.

DAVID MARGULEAS (Spouse Robin)

Term: 1994-1997

Business: Senior Vice President, Marketing  
Sun World  
53-990 Enterprise Way  
P.O. Box 1028  
Coachella, CA 92236-1028  
Phone: (619) 398-9600  
FAX: (619)-398-9613

**Sun** World International is one of the nation's leading innovators in growing and marketing more than 75 fresh fruit and vegetable varieties include Le Rouge Royale\$ sweet red peppers, Sun World Seedless\$ watennelon. Star Sweet\$ super red grapefruit, Keitt mangoes, Honeycot\$ apricots, Black Diamond™ plums, and Superior Seedless™ brand grapes. The Company, a founding sponsor of the national \$ a Day campaign, attempts to increase fresh product consumption by developing new products that improve the flavor or extend the seasonability of traditional items. The privately-owned company maintains sales, packing and research operations throughout California. David O. Marguleas was appointed senior vice president of marketing and corporate development in November 1994. He is responsible for all corporate communications and marketing activities as well as the Company's Research and Development program, Intellectual Property portfolio, American Sunmelon and Sun Date partnerships and all domestic and foreign grower relationships. Previously, Marguleas served as senior vice president of marketing, vice president of merchandising **and** marketing services and from 1986 to 1990 was manager of merchandising and corporate relations. He was instrumental in launching several specialty products from Sun World, including the Le Rouge Royate\$ sweet red pepper, Le Jaune Royale\$ sweet yellow pepper, Sun World Seedless\$ watermelon and DiVine Ripe® tomato. He chairs the management committee of American Sunmelon, an Oklahoma City-based joint venture responsible for seedless watermelon varietal research and production. Marguleas is actively involved with **various** food industry organizations. He serves on the Shipper's advisory Committee for the California Table Grape Commission and is a member of the Board of Directors for the California Grape and Tree Fruit League. Marguleas is a past member of the Board of Directors and Executive Committee for the Produce Marketing Association. Additionally, he was the Chair of the Nominating Committee

JEAN MARI PELTIER Continued

League from 1977 to 1981. Jean-Mad received her Bachelor of Science in Agricultural Communications from the California State University, Fresno and graduated Summa Cum Laude, Outstanding Graduate, School of Agriculture, 1977. Jean-Mari speaks Spanish,

GARY L. SUTHERS (Spouse Diana)

Term: 1994-1997

Business: President, Ag Associates, Inc.  
5100 California Avenue. Suite 101  
Bakersfield, Ca 93309  
Phone: (805) 327-5494

Residence: 1103 Camino Del Oeste  
Bakersfield, CA 93309  
Phone: (805) 834-9428

Gary received his Bachelor of Science degree in Pomology with an Agronomy minor from the University of California, Davis in 1965 and received his Master of Science in Horticulture from the University of California, Riverside in 1966. In 1965 to 1969 he was Farm Advisor, University of California Agricultural Extension Service (citrus specialist) and in 1969 to 1973 served as General Manager of the Southern Tulare Farming Company which operated 15,000 acres of diversified farmland in Tulare and Kern counties. In 1973-1978 he was President of Haygrove Corporation and General Manager of Jasmine Groves Company, a 6,000 acres publicly held limited partnership. From 1978 to 1988 he was employed by Brea Ag Services to design and install field **research** trials to evaluate new agricultural products developed in the Brea system. In 1978 he became President of Ag Associates, Inc., which provides farm management, accounting, lease management and technical assistance to absentee owners and/or investors in agribusiness. Gary is District 8 Commissioner for the California Kiwifruit Commission and is Treasurer. He is also on the Board of Directors of the Kiwifruit Marketing Association of California; and is a member of the California Apple Association.

NICK TOMPKINS

Term: 1994-1997

Business: President, Apio, Inc.  
Founder and Proprietor Tompkins Farms  
193 Oak Grove Lane  
Arroyo Grande, CA 93420  
Phone: (805) 343-2835

Residence: Phone: (805) 489-9778

Nick is the founder and sole proprietor of Tompkins Farms. He is founder and co-owner of Apio, Inc., a grower, packer, shipper of fresh vegetables from California, Arizona, and Mexico located in the Santa Maria Valley. In 1985 he became the Managing General Partner of Apio Produce Sales that markets vegetables nationally and internationally. In 1989 he became the founder and co-owner of the South Coast Paper which is a wholesale distributor of paper products used in agriculture. In 1991 he became the Managing General Partner of Apio Cooling Ltd. which is a limited partnership of seven growers. In 1991 he became the president and co-owner of Pacific West Produce Marketing, Inc. which is a **marketing** company formed to market soft fruit, grapes, apples, and kiwis from the San Joaquin Valley and strawberries from the Santa Maria Valley. In 1992 he became the co-owner of Pacific West Cold Storage which is a commercial cold storage and packing house for grapes and stone fruit located in Cutler, California. In 1992 he became a partner in H. & F. International which is a produce importer located in Tokyo, Japan.

DAVID O. MARGULEAS Continued

and a member of the Fundraising Committee, Board of Directors and Executive Committee for the Produce for Better Health Foundation (national 5 a Day program). Prior to Joining Sun World, Marguleas founded and published The Times Monitor, a weekly college newsmagazine, located in Ilhaca, New York while attending Cornell University. He graduated from Cornell's College of Agriculture and Life Sciences in 1983, earning a B.S. in communications with an emphasis in food marketing. During his residence in upstate New York, Marguleas was a correspondent for The New York Times and The Packer, a major agribusiness publication. He is also a former news and agribusiness reporter for The Bakersfield Californian. The California native was born in Palm Springs and now lives in Palm Desert with his wife Robin, daughter Sydney and son Oliver.

ALFRED G. MONTNA (Spouse Gail)

Term: 1994-1997

Business: Montna Farms:  
12755 Garden Highway  
Yuba City, CA 95991  
Phone: (916) 674-2837  
FAX: (916) 671-4740

Al is owner of Montna Farms, a large rice growing farm in the Sacramento Valley of California. He also leases land for sugar beets, tomatoes, wheat, seed crops and wild rice. He is owner of Montna Farms and Rice Driers; producer and partner in English walnuts; owner of North State Land Management, a land management company that specializes in agricultural properties; is Chairman of the Board of Directors of Farmers' Rice Cooperative which **markets** 45 percent of the rice produced in California; is Chairman of the Farmers' Rice Cooperative Fund; is Chairman of the IDS. Rice Producers Group, a legislative group representing rice producers in Washington, D.C.; is Chairman of the California caucus of the U.S. Rice Producers; is a Member of the State Board of Food and Agriculture; is a Member of the Board of Directors of the Northern California Water Association, is a Member of the Steering Committee for Metro Air Park, a large commercial development being planned next to Sacramento Metropolitan airport; is a Member of the Rice Land Habitat Committee, representing the Board of Directors of the California Rice Industry Committee; and is a Member of the Board of Directors of Garden Highway Mutual Water Company, Tudor Mutual Water Company, Natomas Mutual Water Company, Sutter Bypass and Mutual Water Company. Al graduated in 1966 from Cal Poly University in San Luis Obispo with a Bachelor of Science in Farm Management.

JEAN-MARI PELTIER

Term: 1994-1997

Business: Executive Director  
California Pear Advisory Board  
1521 "I" Street  
Sacramento, CA 95814  
Phone: (916)441-0432  
FAX: (916) 446-1063

Jean-Mari is President and Chief Executive Officer of the California pear industry's agricultural marketing and bargaining cooperative with annual sales of over \$20 million. She was Senior Policy Specialist for George Deukmejian's California State World Trade Commission from 1983 to 1986 and advised the Governor's Commission on policies and strategies to expand sales of California's goods internationally, identified emerging issues of trade policy impacting agriculture and proposed actions to address California's concerns, counseled agricultural firms on trade issues, represented the state in meetings with Jean-Mari Peltier with foreign representatives as well as elected officials and the agricultural community, and did extensive public speaking and media liaison work on behalf of the Commission. Jean-Mari was a Legislative Assistant to Congressman Tony Coelho from 1982 to 1983 and was Director of Public and Government Relations for the California Grape and Tree Fruit

**RECEIVED**

FEB 25 1997

**CAL PoLy**

SAN LUIS OBISPO  
CA 93407


State of California

**Memorandum**

**Academic Senate**

To: Harvey Greenwald  
Chair, Academic Senate

Date: February 18, 1997

From:   
Warren J. Baker  
President

Copies: P. Zingg, G. Irvin

Subject: Academic Senate Resolution AS-470-96/PRAIC  
Resolution on 1995-1996 Program Review and Improvement Committee  
Report of Findings and Recommendations

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Thank you for your memo of December 4, 1996, which transmitted Academic Senate Resolution (AS-470-96/PRAIC) on 1995-1996 Program Review and Improvement Committee Report of Findings and Recommendations.

I am pleased to approve this resolution and to acknowledge the findings of the committee. The committee's findings have been summarized and forwarded to the CSU Chancellor's Office. As you know, the Provost intends to meet with the faculty of the programs which have been reviewed to emphasize the value of internal reviews and to discuss the recommendations within the reviews.

Please express my appreciation to both the Academic Senate and the members of the Academic Senate Program Review and Improvement Committee for their efforts.