

**Yuba College**

**Academic Program Review**  
**2007 – 2008**

**Executive Summary**

Accounting  
Administration of Justice  
Agriculture (Including Horticulture and Plant Science)  
Automotive Technology  
Emergency Medical Technician  
English  
Mass Communication  
Mathematics/Statistics  
Physical Science/Geology/Physical Geography  
Physics/Astronomy  
Psychology

Submitted May 19, 2008

**Yuba Community College District**

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**Executive Summary**

**Overview**

Academic Program Review is one of five components of the Yuba Community College District's (YCCD) Institutional Effectiveness Model. Academic Program Reviews are periodic formal evaluations (every four years) designed to bring about systematic improvements and enhancements in instructional programs.

Program review serves as the basis for all program recommendations, including curriculum and program direction, staffing, facilities, and equipment. Recommendations on curriculum should consider district-wide implications and the desire of the District to maintain a common curriculum. Therefore, communication between like programs at each college is critical when making recommendations with regard to curriculum. Individual college-based recommendations and analysis, as well as district-wide recommendations, if appropriate, may be developed for staffing, equipment, and facilities. Reviews involve the critical self-evaluation of the program as well as the use of appropriate internal and external data, including the use of student surveys, to support the evaluation, conclusions, and recommendations.

During 2007-2008, the following 11 Yuba College (including the Clear Lake Campus and the Beale Air Force Base Outreach Operation) programs completed an Academic Program Review:

- **Accounting**
- **Administration of Justice**
- **Agriculture (Including Horticulture and Plant Science)**
- **Automotive Technology**
- **Emergency Medical Technician**
- **English**
- **Mass Communication**
- **Mathematics/Statistics**
- **Physical Science/Geology/Physical Geography**
- **Physics/Astronomy**
- **Psychology**

After program reviews are completed and submitted, the district-wide Curriculum Committee Co-Chairs review them and produce a general overview of each program's review. This general overview is provided as background information to the Curriculum Committee subcommittees. The appropriate subcommittee then reviews the Academic Program Reviews for the programs for which they are responsible.

The subcommittees were asked to address the following specific areas or questions posed as they relate to each program review:

- Overall content.
- Was the analysis in each section logical? Cite examples of strengths and/or weaknesses.
- Appropriateness of the rationale given for conclusions drawn.
- Was data appropriately used to support conclusions?
- Appropriateness of recommendations, that is, do they follow from the points made in the major sections of the program review?

The subcommittees prepared short written reports that included pertinent comments for each of the programs reviewed. These summaries were presented to the Curriculum Committee at its meeting on April 15, 2008. Identified below is a brief summary of the completed assessments, including relevant comments from the Curriculum Committee Co-Chair Overview.

<b>Program</b>	<b>Assessment of Academic Program Review</b>
Accounting	<ul style="list-style-type: none"> <li>• This is generally a very good program review. Points made are good.</li> <li>• The program has done a good job of following the program review handbook guidelines and the review is formatted correctly.</li> <li>• Data is used effectively to present an overview of the program in the “Program Description and Current Status” section. Student survey data is used effectively to support conclusions in both the “Program Description and Current Status” section and the “Curriculum and Program Direction” section.</li> <li>• There also is a clearly written section on goals and student learning outcomes.</li> <li>• The “Overview of Program Analysis” sections are complete and well done.</li> <li>• It would have been helpful to include recommendations from the Accounting Program Advisory Committee.</li> <li>• Overall, the evaluation is very well done. Recommendations follow from the “Areas for Improvement” and “Future Directions” sections of the report.</li> <li>• It is unclear as to whether or not the data presented and the survey analysis pertain to both Yuba College and the Clear Lake Campus or just to Yuba College.</li> </ul>

<b>Program</b>	<b>Assessment of Academic Program Review</b>
Administration of Justice	<ul style="list-style-type: none"> <li>• Generally, this is a strong program review. Strengths include a nice historical review; a clear, concise program description; and a good list of goals and objectives.</li> <li>• The “Data Elements” section is extensive and well done. Data, including Employment Outlook statistics, Productivity and Retention Reviews, and Student Survey results, are used effectively and appropriately to make points.</li> <li>• The program offers a variety of class times/schedules to meet the needs of its students and appears to be actively looking at additional ways (e.g., distance learning) to effectively meet student needs and to increase participation in degree specific programs.</li> <li>• The recommendations for additional clerical support and for additional facilities and equipment are backed up well by the data presented. Some other recommendations, however, do not follow from the body of the review.</li> <li>• Several recommendations mentioned in the beginning of the report are not included in the “Recommendations” section.</li> </ul>
Agriculture	<ul style="list-style-type: none"> <li>• Good points are made in the review and the report is clear and easy to follow.</li> <li>• The data analysis in the “Data Elements” section is effective. The analysis of each section is logical. Overall, the Agriculture program is strong and growing.</li> <li>• Sound recommendations are made that flow from the report. The recommendations are based on student needs and the continued success of the program.</li> <li>• The coordination of the Welding Program and Vet Tech Program with the Agriculture Program is a desirable direction in which to go.</li> <li>• The program appears to be growing and the online courses seem to be popular. The offering of online courses and coordination with Welding and Vet Tech make for a strong program and a better prepared student.</li> <li>• Program coordination with the Woodland campus is very important. The expansion of the program to other campuses could be good, but the expansion in Yuba City could possibly take students away from the Marysville campus program. However, data shows strong program growth and retention. Expansion could be supported by this data.</li> </ul>

<b>Program</b>	<b>Assessment of Academic Program Review</b>
Automotive Technology	<ul style="list-style-type: none"> <li>• The review is focused and makes relevant points.</li> <li>• Recommendations follow from the information provided in the “Overview of Program Analysis” sections.</li> <li>• The overall content of the Automotive program review includes a lot of information, but it is presented in the wrong format. The Program Review Handbook guidelines are not followed.</li> <li>• Student learning outcomes are mentioned in the document.</li> <li>• In reviewing the sections of the report, the analysis is logical. The needed information is included, but it is not always labeled appropriately. The curriculum area allows for new technology, recruitment, and recertification of the program. The staffing area takes into consideration program growth and planned retirement. The equipment needs show the need to keep up with technology. The facilities area lists project needs for the future. The rationale given in each area appears to support the conclusions drawn; however, data is needed to support the conclusions better.</li> <li>• Data is used only briefly in the “Program Description and Current Status Section.” The “Data Elements” section is identified, but nothing is written in this section. In addition, the data provided for the review is not included in an appendix as instructed in the Academic Program Review Handbook.</li> </ul>
Emergency Medical Technician (EMT)	<ul style="list-style-type: none"> <li>• Overall, this is a good program review. All required sections are covered.</li> <li>• The “Data Elements” section is quite comprehensive. The program review document includes a lot of valuable data that supports the need for this program and its potential for growth.</li> <li>• The program has adopted a national testing system that will help it insure that it continues to be current and will allow comparisons with other training programs which should help the program stay on track.</li> <li>• The review highlights how the program is working to accommodate the schedules of students. It is working to provide them a high quality program with a mix of directed training and practical experience.</li> <li>• In general, the “Recommendations” section is comprehensive and specific and should facilitate requests for equipment, staffing, and facilities as funds become available over the next couple of years.</li> <li>• The budget section provides excellent rationale for separating the budgeting process for EMT from that of the Fire Academy, but this is not carried over into the “Recommendations” section.</li> <li>• The review discusses some issues regarding EMT training and the Fire Academy, but it is not clear what steps will be taken to resolve these issues.</li> <li>• Student surveys indicate that 40% of the students feel that tutoring/outside assistance is inadequate; however, no specific measures are included in the recommendations to follow-up on this student input.</li> </ul>

<b>Program</b>	<b>Assessment of Review</b>
English	<ul style="list-style-type: none"> <li>• The English program review is very well done. Strengths and weaknesses are outlined clearly, indicating responsible persons and suggesting courses of action and timelines to improve the program. The report is well organized with a logical analysis and achievable goals.</li> <li>• Data is used appropriately to support points made about the Yuba College English program in the “Program Description and Current Status” section.</li> <li>• While the status of English program at the Clear Lake Campus is addressed, it is done as a separate review rather than one that should have been integrated into the Yuba College review.</li> <li>• In general, program review format is not followed.</li> <li>• The report shows some indication of frustration because certain needs have not or are not being addressed, for example, classroom space and equipment needs. Feedback from administration might be helpful in conveying that these needs will be addressed.</li> </ul>
Mass Communication	<ul style="list-style-type: none"> <li>• The review makes many relevant points. All required sections are addressed.</li> <li>• There is some use of data in the “Program Description and Current Status” section and in the “Curriculum and Program Direction” section.</li> <li>• Recommendations are, for the most part, clearly written and follow from the points made in other sections of the review.</li> <li>• Under “Data Elements,” some good points are made, but these should have been supported by actual numbers. The data presented in the Appendix should have been used to support points throughout the review, as appropriate.</li> <li>• Little mention is made about Mass Communication at the Clear Lake Campus with the exception of stating that most courses have been eliminated. Is this desirable? In what direction should the program be going at Lake?</li> <li>• Since space and equipment are vital concerns of the program, it would be helpful to start by listing what facilities and equipment are being used currently.</li> </ul>
Mathematics/Statistics	<ul style="list-style-type: none"> <li>• The review is focused and makes relevant points. An effort is made to focus on the three Yuba College campuses.</li> <li>• Recommendations generally follow from points made in the “Overview of Program Analysis” sections. Each recommendation is accompanied by strong logic, a plan of action, identified contact person, suggested timeline, and possible budget impact.</li> <li>• Mention is made about eagerly awaiting the development of SLO guidelines. However, the program’s selected SLOs are not listed, as required.</li> <li>• The data presented in the Appendix is well organized and contains many valuable details, but should have been used to make points, as appropriate, within the body of the review.</li> <li>• Since facilities are mentioned prominently in areas for improvement, the photographs provided and summary of classroom and lab use are very helpful.</li> </ul>

<b>Program</b>	<b>Assessment of Review</b>
Physical Science/Geology/Physical Geography (Earth Science)	<ul style="list-style-type: none"> <li>• Generally, this is a solid program review. It is presented well and the logic is easy to follow. Strengths include a nice overview of the program; a solid, wide reaching set of goals; and identification of the SLOs that fit the program.</li> <li>• The use of a data table to support points made in the “Program Description and Current Status” section is good.</li> <li>• Recommendations follow from points made in the “Areas for Improvement” and “Future Directions” sections. However, the recommendations use an older format, but they are specific, generally attainable, and will add to the quality of the existing program.</li> <li>• The Clear Lake Campus is addressed in the review. In particular, it states that the campus would like to see the development of online classes to allow students at the campus to get more involved in these program areas.</li> </ul>
Physics/Astronomy	<ul style="list-style-type: none"> <li>• The program review is complete and makes many relevant points. Strengths include a nice overview of the program and how it fits into the college overall. All required sections are addressed.</li> <li>• There is good use of data in last portion of the “Program Description and Current Status” section, especially when addressing retention. When speaking about enrollment in this section, it would have been helpful if data was used to support statements made.</li> <li>• The requests and recommendations are backed up by data. It is good that the program has very specific plans to address identified weaknesses. However, the recommendations section is formatted incorrectly.</li> <li>• The only overall weakness of the program review is the use of general statements where specific numbers should have been used.</li> </ul>
Psychology	<ul style="list-style-type: none"> <li>• Overall the review is very concise and makes many relevant points. The section on changes since the last review is very informative.</li> <li>• Discussion of the Clear Lake Campus program is integrated into the review.</li> <li>• The “Data Elements” section does provide some analysis in the areas of FTE and WSCH per FTES growth.</li> <li>• The analysis of each section is logical. The emphasis is on growth and adding more students and class offerings. The FTES growth over the last five years seems to justify the future direction of the program and the facilities and staffing requests which are set forth.</li> <li>• The requests made are not out of line for this growing department. The material presented supports the recommendations.</li> </ul>

All Yuba College programs preparing an Academic Program Review did a conscientious job in completing the review. Most reviews were submitted in a timely fashion and all generally provided relevant information and reasonable recommendations. There is a need to insure that all programs adhere to the prescribed format. Although some programs requested help with the use and interpretation of data, it is still necessary to provide most programs with support on how to use the data provided in a manner that helps to justify conclusions drawn and recommendations made.

As part of the Program Review process, each program submitted an Executive Summary of its program review. The summaries, as presented below and on the following pages, include a program description and current status statement for each program, the program's strengths and areas of improvement/future direction, and the recommendations/specific actions that emerged from each program review.

## **Accounting**

**Program Review Committee Members:** Barbara Anderson, Jennifer Hanson, Christopher Myers, Sherry Spina

**Dean of Program Area:** Ed Davis

### **Program Description and Current Status**

The Accounting program continues to be a viable program and is vital to the mission of Yuba College. The program provides courses that articulate with four-year college and university Accounting programs. The program also addresses the vocational needs of the business community, providing vocational and retraining skills. It also fulfills licensing requirements for income tax preparers.

For the past five (5) years, the Accounting program has averaged an annual FTES of 78.29 and an average annual WSCH per FTEF of 346.57. These statistics underscore the consistent contribution that the Accounting program makes to the District.

### **Program Analysis**

#### **Curriculum and Program Direction**

- **Strengths**
  - Curriculum continues to be vigorous and relevant. This approach serves to promote critical thinking, problem solving, and decision-making skills necessary for student success at four-year colleges/universities and in the business community.
  - A survey conducted among 178 former and current Yuba College Accounting students noted that 97% agreed that the Accounting curriculum and instruction helped them achieve their educational goals.
  - Accounting faculty continue to support the scholarship fund created to benefit and recognize deserving students. Feedback from several recipients indicated that the recognition gave them increased motivation to succeed in their educational goals and, more specifically, in the accounting profession.

- **Areas for Improvement/Future Direction**
  - Student retention in this program may be able to be improved by improving the tutoring program and enhancing library resources.
  - Faculty needs to participate in Accounting advisory meetings with CSU Chico, CSU Sonoma, and CSU Sacramento to insure the continued acceptability and compatibility of Accounting curriculum.
  - Implementation of more online courses in this subject area will continue to increase enrollments. Accounting 10A will be offered in this format beginning in Fall 2008.

## **Staffing**

- **Strengths**
  - Accounting faculty continue to participate in the community as professionals in their field, keeping Yuba College visible to current and prospective students as well as community and regional employers.
  - The Dean and faculty members are active community members in organizations such as Rotary International, California Society of CPA's (Sacramento Chapter), and the Yuba College Accounting Community Advisory Committee.
  - Faculty members attend seminars, workshops, and conferences to keep up with the ever changing field of accounting.
- **Areas for Improvement/Future Direction**
  - During the present review period, the program lost three (3) adjunct faculty members and one (1) full-time faculty member. Recruiting and selecting qualified Accounting instructors is a time-consuming process that requires long lead-time, especially in the Yuba-Sutter area.
  - Course offerings for Fall 2008 and future semesters may be limited as a result of a shortage of qualified Accounting instructors.
  - Acquiring a full-time staff member will provide continuity and added stability needed to provide consistent course offerings. A request was filed in October 2007 for a full-time faculty member - 60% Accounting and 40% Business Computer Applications (BCA). The position was not approved.

## **Equipment**

- **Strengths**
  - Faculty feel that equipment is adequate for the program.
- **Areas for Improvement/Future Direction**
  - No improvement is needed at this time.

## Facilities

- **Strengths**
  - Faculty feel that facilities are adequate to support the delivery of the current Accounting curriculum.
  
- **Areas for Improvement/Future Direction**
  - No improvement is needed at this time.

## Recommendations/Specific Actions

- Continue to improve tutorial services for Accounting students.
  - Action: Faculty will identify specific tutoring needs and work with the Dean and the College Success Center to provide appropriate support.
- Continue to improve library resources.
  - Action: Faculty will work with library staff to insure that they have lists of needed resources that may be purchased as funds become available.
- Attend and influence Accounting Advisory Committees at targeted CSU campuses.
  - Action: Faculty will work with the Dean to identify committee meetings and arrange for representation at these meetings.
- Continue to identify courses that may be conducive to distance education and other forms of delivery.
  - Action: Identify appropriate courses and secure Curriculum Committee approval.
- Improve marketing efforts.
  - Action: Work with the college's marketing staff to increase program visibility through appropriate advertising.
- Continue to recruit qualified Accounting instructors.
  - Action: Faculty and the Dean, in conjunction with HR, need to identify strategies to recruit qualified instructors.
- Hire a full-time Accounting/BCA instructor.
  - Action: Create appropriate proposals to submit to the Faculty Staffing Committee.

## Administration of Justice

**Program Review Committee Members:** Rolfe Appel, Ron Turner, Otto Knorr, Andrea Fritz, Corrine Gil, Kelly Boren

**Dean of Program Area:** Rod Beilby

### Program Description and Current Status

The Administration of Justice (AJ) program is a district-wide program of instruction including Associate Degree, Academy, and Continuing Education courses. It serves students pursuing a transfer degree, those seeking high paying entry-level employment following completion of a state certified academy, and those currently employed as law enforcement officers in need of updated skills and knowledge to stay current in their field of employment.

Instruction is organized into the following curricula areas:

- Associate of Science Degree
  - Law Enforcement
  - Corrections
- Academies – Certificates of Training
  - Basic Police Academy
  - Modular Format Police Academy
    - Reserve Training Module III
    - Reserve Training Module II
    - Reserve Training Module I
  - Specialized Investigator Basic Course
  - Peace Officer Orientation Course (PC 832)
    - Arrest, Search, and Seizure
    - Firearms
  - Correctional Officer Core Course
  - Juvenile Correctional Officer Course
  - District Attorney Trial Preparation Course
  - Basic Academy Re-qualification Course

### Program Analysis

#### **Curriculum and Program Direction**

- **Strengths**
  - Courses are offered during the day and evenings.
  - Courses are developed by those working in the Criminal Justice field.
  - Courses are reviewed on a semester basis to insure that they are current.
  - Over 83 agencies have sent recruits to Yuba College training courses.
  - Academy courses exceed the minimum hours required by the state.
- **Areas for Improvement/Future Direction**
  - Some semester courses have been cancelled due to low student attendance.

- There is a need for new course selections that are more relevant.
- Distance learning should be incorporated into the presentation of courses.
- State Academy curriculum changes frequently are causing college curriculum changes.
- Academy college units cannot be applied towards the A.S. degree.

## **Staffing**

- **Strengths**
  - Faculty members continue to attend training to improve their knowledge and skills.
  - Most faculty members are working actively in the Criminal Justice field.
  - The state agency audit in April 2006 cited the Academy program's exceptional quality of instruction.
- **Areas for Improvement/Future Direction**
  - The program has only one full-time faculty member.
  - The program uses adjunct faculty to teach over 63% of the degree courses.
  - The program has only a Director to manage the entire Public Safety program.
  - The program has only one secretary to process the entire AJ program while other colleges have either two full-time or one full-time and one half-time secretary to perform the same tasks.
  - Expansion of the instructor pool by using "fresh" instructors instead of relying solely on faculty seniority needs to be allowed.

## **Equipment**

- **Strengths**
  - The classrooms have "smart technology".
  - The program uses real law enforcement equipment.
- **Areas for Improvement/Future Direction**
  - The "smart technology" does not work with new computer applications.
  - The college's network will not support the security requirements required by the state to take online Academy tests.
  - There are not enough firearms and defensive tactics equipment for each student.
  - There is not enough room in the current gun safes for Academy and state agency issued firearms.

## **Facilities**

- **Strengths**
  - The full-time faculty member has an office.
  - The Academy facilitator and RTO have an office.
  - The Academy program has four (4) classrooms of various sizes.
  - The Academy has a small mat room for defensive tactics.
  - The program uses two local law enforcement agency firearms ranges.

- The program uses the CHP academy for driving instruction.
- Scenarios are practiced on the Maryville campus to save money rather than renting other facilities.
- **Areas for Improvement/Future Direction**
  - There is not enough office space for the full-time faculty member.
  - There is not enough office space for the Academy staff to perform their duties.
  - There are not enough classrooms available to offer more classes and expand the program.
  - The Academy mat room is too small to safely train more than six (6) recruits at a time.
  - The program must schedule firearm training around the needs of the agencies who own the facilities.
  - The program must schedule drivers training around the needs of the CHP.
  - Scenarios are conducted too close to regular college classrooms and have frightened regular college students.
  - There is no conference room and, with the lack of available classrooms, there is no place to conduct meetings.

#### Recommendations/Specific Actions

- Add new, more relevant, course offerings to existing offerings.
  - Action: Submit curriculum through college channels to expand course offerings.
- Use distance learning to increase course enrollments.
  - Action: Work with Media Services to record class presentations and then have them available on the web for video streaming later.
- Allow Academy units to be used towards degree requirements.
  - Action: Research to possibility of creating a “Law Enforcement” degree so students only will have to take general education units to complete the degree upon Academy graduation.
- Since the program relies too heavily on adjunct faculty, hire a second full-time faculty member.
  - Action: Submit appropriate requisition to hire another full-time faculty member.
- As the program relies on one Director to manage AJ, Fire Tech, and EMT programs, an Assistant director needs to be hired.
  - Action: Submit appropriate requisition to hire an Assistant Director.
- Since the program relies on one secretary to schedule, monitor, and process program needs, an additional half-time secretary is needed to provide support.
  - Action: Submit appropriate requisition to hire a half-time secretary.
- By contract, the program requires that adjunct seniority, and not subject matter expertise, be used to fill vacancies. Subject matter expertise needs to be the primary reason to assign a section to an adjunct faculty member.

- Action: Work with labor union to create flexibility in contract language
- Obtain “smart technology” that will accept new computer applications.
  - Action: Submit appropriate request through budget and equipment request processes.
- Improve the college’s network security so online state testing can be done.
  - Action: Work with college’s IT Department to determine what exactly is needed.
- Increase the equipment needed to run the Academies at an acceptable level.
  - Action: Submit appropriate request through budget and equipment request processes.
- Improve the office space needs for the AJ program.
  - Action: Develop a plan and work closely with the Measure J bond committee.
- Increase the classroom space needed to run the entire AJ program at an acceptable level.
  - Action: Develop a plan and work closely with the Measure J bond committee.
- Develop a training ground that meets the needs of the program and does not rely on contracting out for other facilities.
  - Action: Develop a plan and work closely with the Measure J bond committee.

**Agriculture**

**Program Review Committee Members:** Larry Michel, Brandi Asmus, Harry Lyons, Scott Haskins, and Dan Turner

**Dean of Program Area:** Earl Bloor

Program Description and Current Status

Agriculture is the largest industry in the Yuba Community College District service area. Technological changes in agriculture are happening rapidly and instruction is needed in these areas. There is an opportunity to expand specific training for the community.

The Yuba College Agriculture program includes Plant Science courses taught at the Marysville campus and Agriculture, Animal Science, and Plant Science classes offered online. The courses are taught by the full-time instructor in the program and adjunct faculty.

The two Animal Science courses offered in the program are required in the Veterinary Technology program. The Principles of Plant Science, Introduction to Soils, and Principles of Animal Science meet General Education science requirements.

The program also offers Continuing Education training for the pesticide industry online. A workshop is held on campus each year in coordination with PAPA (Pesticide Applicator's Professional Association).

### Program Analysis

#### **Curriculum and Program Direction**

- **Strengths**
  - Course outlines are all current, having been updated this semester.
  - The addition of an instructor at Woodland Community College allows the Yuba College full-time instructor to focus on Yuba College.
  - The General Education and online courses are extremely popular. The online courses have expanded the geographic area served and increased FTES without impacting college resources.
  - The Animal Science courses offered are required by the Veterinary Technology program.
  
- **Areas for Improvement/Future Direction**
  - Coordination with Woodland Community College is a critical component. The programs cannot compete with each other.
  - The program needs to develop closer ties with the Welding, Business, and Veterinary Technology programs. The Welding program has expanded greatly and is tied closely to the agriculture industry and local high schools. The Welding Camp is being expanded to include a Floriculture Camp this spring. There is an opportunity to work together with Welding to develop grant proposals to improve the programs. The Veterinary Technology program requires two Animal Science courses and attracts Agriculture students. The opportunity to work together in recruiting students could benefit both programs. The Agriculture business courses are taught online and to a variety of individuals, many of them not in the agriculture field. The Entrepreneurship course is now cross-listed with the Management department. Cross-listing the Marketing class should be explored.
  - The development with the Business department of an Agriculture Business Certificate with courses in Agriculture and Business could be very popular.
  - The Agriculture and related programs would benefit from a coordinated website.
  - The program needs an active advisory committee. The current advisory committee has had a Woodland Community College focus.
  - The possibility of offering Plant Science courses at the Lake campus should be explored. The full-time Culinary Arts and Ecology instructors at the Clear Lake Campus are researching offerings related to sustainable restaurant management with emphasis on a “green kitchen” and a “chef’s garden”. In the next three years, their efforts would profit from involvement with District Agriculture instructors. Even experimental

courses would have a stronger start if cross-listed with Plant Science and/or Environmental Horticulture.

- As a college site is developed in Sutter County, consideration should be given to offering Agriculture program classes at that site.

### **Staffing**

- **Strengths**

- The full-time instructor is highly qualified and teaches a variety of subjects.
- The full-time instructor is the faculty Co-Chair of the Curriculum Committee and is very involved in campus activities.

- **Areas for Improvement/Future Direction**

- Adjunct faculty need to be identified to expand the program.
- The full-time instructor is retiring in 2011 and plans for his replacement will need to be developed.

### **Equipment**

- **Strengths**

- Online courses have very little need for equipment
- The Plant Science program works with the Biology laboratory assistant in setting up laboratories and borrowing needed equipment.

- **Areas for Improvement/Future Direction**

- There is an ongoing need to update current equipment.
- There is a need for integrating new technologies such as the following into the program: biotechnology equipment, GPS and other precision agriculture equipment, new pesticide equipment, as well as soil and plant tissue testing equipment.
- If Animal Science courses are offered on campus, equipment will be needed to support these courses.

### **Facilities**

- **Strengths**

- The Plant Science program shares a classroom with Earth Science.
- The instructor has a storage area to keep supplies and equipment, as well as an area to grow plants. This keeps the shared classroom from becoming cluttered.

- **Areas for Improvement/Future Direction**

- If course offerings are increased, additional classroom space will be needed.

## Recommendations/Specific Actions

- Develop a coordinated effort to promote Agriculture, Veterinary Technology, Welding, and other closely related programs.
  - Action: Work with the other programs and develop a promotion plan.
- Coordinate online courses with the Woodland Community College instructor and the Veterinary Technology program.
  - Action: Work with the other programs to determine which courses to offer.
- Explore expansion of courses at the Clear Lake Campus and at the new facility in Sutter County.
  - Action: Work with the other programs to determine which courses to offer.
- Explore the feasibility of courses in sustainable agriculture, biotechnology, international agriculture, and pasture management.
  - Action: Work with the Woodland Community College instructor to determine what new courses should be developed and what mode of delivery should be used.
- Since the full-time instructor is retiring in June of 2011, begin planning for replacing the instructor.
  - Action: Planning should begin in 2010.
- Provide resources to update current equipment and to bring new technologies into the program.
  - Action: Request needed equipment through appropriate channels.

## **Automotive Technologies Program**

**Program Review Committee Members:** Mike Morse, Bill Steen, Don Schumacher  
**Dean of Program Area:** Ed Davis

### Program Description and Current Status

The program offers a complete automotive skills training curriculum, including auto repair, auto body, paint, and refinishing. The Automotive Technology program trains and equips students pursuing a career within the automotive industry and supports current industry professionals desiring to upgrade their job skills.

### Program Analysis

#### **Curriculum and Program Direction**

- **Strengths**
  - The program currently offers courses that meet certification requirements for Master Technician Training with ASE/NATEF, ATTS, I-CAR auto body industry certification, B.A.R training in emissions, and brake and lamp licensing certifications.

- Courses are reviewed on an annual basis to insure that they remain current.
- **Areas for Improvement/Future Direction**
  - Poor reading skills by ESL students need to be addressed.
  - Short-term courses to update skills need to be developed.
  - More courses need to be offered at times convenient for working students.

### **Staffing**

- **Strengths**
  - The automotive program has very competent and experienced instructional staff.
- **Areas for Improvement/Future Direction**
  - Maintaining growth in the program will depend on refilling one full-time position when the instructor retires in 2011.
  - Additional classified staff needs to be hired to assist in the autobody area, the tool room, and the lab.

### **Equipment**

- **Strengths**
  - Present equipment is state-of-the-art and has provided an integral key to keeping the program viable.
- **Areas for Improvement/Future Direction**
  - As new technology is developed and implemented, updating program equipment must keep pace in order to maintain a viable program.

### **Facilities**

- **Strengths**
  - Facilities are kept clean and provide a safe working/learning environment for both students and staff.
- **Areas for Improvement/Future Direction**
  - The facilities have become impacted and are surrounded by offices, classrooms, and heavy student foot traffic.
  - Relocating the Career Technical Education (CTE) department to an area east of the maintenance buildings would offer more classroom and lab space and enable growth in all CTE programs.

### Recommendations/Specific Actions

- Develop a new course to address student issues with language.

- Action: Partner with Language Arts to develop a class that will help students prepare for the technical reading that is required to be successful in Auto Tech classes.
- Develop short-term courses to update skills.
  - Action: Submit appropriate course outlines to the Curriculum Committee for approval.
- Offer more courses at convenient times for students.
  - Action: Review scheduling practices. For new courses needed, submit appropriate course outlines to the Curriculum Committee for approval.

### **Emergency Medical Technician (EMT)**

**Program Review Committee Members:** Rolfe Appel, Ron Turner, Kerri Julian, Russ Hogue, Judy Huff, Kelly Boren

**Dean of Program Area:** Rod Beilby

### **Program Description and Current Status**

The EMT program is a district-wide program of instruction for those entering in the field of emergency, pre-hospital, medical care. It is governed by the Sierra-Sacramento Valley Emergency Medical Services Authority in Rocklin, California. The program is designed to instruct students to the level of Emergency Medical Technician-Basic to meet the requirements of the California State Department of Health and the National Registry of EMTs. The program issues a Certificate of Training upon successful completion.

The program offers two levels of instruction:

- EMT-1: This is the entry-level course and consists of 120 hours of training. At the conclusion of the course, students are able to apply the principles of anatomy, physiology, and communications as they relate to the assessment of the sick and injured and the rendering of pre-hospital basic life support.
- EMT- REFRESHER: This 30 hour course is the review and information update for those practicing as EMTs. This refresher course exceeds the state mandated training (24 hours) required every two (2) years to renew EMT certification.

### **Program Analysis**

#### **Curriculum and Program Direction**

- **Strengths**
  - Courses are offered at various locations including the Marysville campus, the Beale Outreach Operation, and the Wheatland Fire Department.
  - Courses are reviewed on a semester basis to insure that they are current.
  - The basic course is integrated within the Fire Academy.
  - The refresher course exceeds the minimum hours required by the state.

- The basic course offerings are generally filled to the maximum number of students allowed.
  - Students must do “clinical observations” in a hospital emergency room and with an active ambulance service.
  - The latest EMT textbook edition is used.
  - If students fail an exam, they are given a retest as a second chance to pass.
- **Areas for Improvement/Future Direction**
    - Yuba College students taking the National Registry EMT certification test scored lower (66%) than the national average (70%).
    - There is a need to offer more course selections.
    - Although tied to the Fire Academy, the EMT portion should be a “stand alone” course or one that is completed earlier in the Fire Academy.
    - The program does not adequately track budget costs with the EMT course offered within the Fire Academy.
    - As the textbook editions change, the corresponding quizzes and tests should also change.
    - When students fail an exam, they are given the same test to retake.

### **Staffing**

- **Strengths**
  - The Public Safety Director is a certified EMT.
  - Courses are taught by those working in the emergency medical field.
  - Instructional Assistants used in the course are actively working in the emergency medical field.
- **Areas for Improvement/Future Direction**
  - The program needs to find another EMT instructor to offer an additional offering.
  - The program will lose its “Clinical Facilitator” in December 2007 due to relocation out of the area.

### **Equipment**

- **Strengths**
  - The classrooms have “smart technology”.
  - The program uses real medical equipment for demonstrations and practical exercises.
  - The program has a training ambulance.
- **Areas for Improvement/Future Direction**
  - The “smart technology” does not work with new computer applications.
  - The program’s inventory of supplies and training aids is not well organized.
  - The program needs more anatomy mannequins and basic training aids to improve student learning.

## Facilities

- **Strengths**
  - The program has a separate storage area for its supplies and training aids.
  - The program has a classroom at the Maryville campus and at the Beale Outreach Operation.
  
- **Areas for Improvement/Future Direction**
  - There is not enough storage space for the EMT supplies and training aids.
  - There is not enough equipment for the various training sites.
  - There is no office space for the “Clinical Facilitator” to coordinate the program.
  - There is no covered parking area for the training ambulance.

## Recommendations/Specific Actions

- Improve students’ National Registry passing scores.
  - Action: Adjust curriculum and instruction to focus on problem areas.
- Address students failing the EMT portion of the Fire Academy at the very end of the course.
  - Action: Adjust presentation schedule so EMT is tested earlier in the Fire Academy.
- Costs associated with EMT during the Fire Academy are not adequately tracked.
  - Action: Break out salaries and supplies for EMT out of the Fire Academy budget.
- Textbook up-dates are frequent.
  - Action: Do not require students to purchase new editions until all quizzes and tests are developed.
- When students fail a test, they are given the same test to retake.
  - Action: Develop a different test that measures the same knowledge goal.
- There is a need to offer at least one more course presentation during the semester.
  - Action: Actively recruit and hire another adjunct for EMT.
- Obtain “smart technology” that will accept new computer applications.
  - Action: Submit appropriate request through the budget and equipment request processes.
- Increase the equipment needed to run the EMT program at an acceptable level.
  - Action: Submit appropriate request through budget and equipment request processes.
- Improve the office space and storage needs for the EMT program.
  - Action: Develop a plan and work closely with the Measure J bond committee.
- Develop a covered area or garage to protect the training ambulance from the environment.
  - Action: Develop a plan and work closely with the Measure J bond committee.

## English

**Program Review Committee Members:** John Almy, Richard Edmonds, Brian Jukes, Greg Kemble, Sally Harvey, Kyra Mello, Timothy May, Tina Ramsey, Desiree Moore, Janelle Strik, Peggy Alexander, Bryon Bell

**Dean of Program Area:** Kevin Dobbs

### Program Description and Current Status

The Yuba College English department offers courses in writing, literature, journalism, creative writing, and film. This program currently is healthy with regard to meeting student needs and hopes to maintain that health, albeit with continuing surges in enrollment—for example, from Fall 2002 to Fall 2007, the English department increased its total FTEF by 3.78 or 30%. This continuing growth will require close monitoring as growth always impacts personnel and overall equipment needs.

The Clear Lake Campus offers 8-11 courses each semester, mostly composition courses (two (2) sections at each level). Students are provided with the support needed in their writing and research endeavors.

### Program Analysis

#### **Curriculum and Program Direction**

- **Strengths**
  - Four (4)-unit writing courses have been added to the curriculum.
  - Continuing implementation of holistically scored final exams works well.
  - Yuba College offerings and class times have been increased.
  - The English 1A requirement for an Associate's Degree has brought increased rigor to the District.
  - The Yuba College department continues to follow a rotation schedule for elective courses.
  - Training courses for tutors have been designed and implemented.
  - Two English 1A courses are now offered online.
  - At the Lake campus, coordination between the English department and the Learning Center provides support for students.
  
- **Areas for Improvement/Future Direction**
  - Yuba College still does not have a writing center when other community colleges do.
  - The College Success Center in Marysville does not provide English tutorial services comparable to that provided at other community colleges.
  - Yuba College needs a Writing Across the Curriculum Program like virtually all other community colleges.
  - English 105 and 51 students should not be allowed to enroll in college level courses.

- Enrollment caps are needed for English 1A online courses.
- The Yuba College department currently is experiencing difficulty with enrollment in elective courses.
- Students on the English 105 and 51 levels continue to be poorly placed.
- There needs to be a closer connection between the Lake English faculty and the faculty in Marysville in terms of addressing curricular issues.
- Due to strict enrollment minimums, offerings at the small Lake campus are limited thus providing students with few or no choices regarding when to take a class.

## **Staffing**

- **Strengths**

- The Yuba College Composition Coordinator continues to prove vital to English department success.
- If recommendations of the Staffing Committee are followed, the Yuba College department will have 10 full-time instructors for the Fall 2008 semester.
- The Yuba College department has made wise choices in recent hires of full-time instructors.
- Instructors at Lake are skilled, experienced, and enthusiastic.
- Lake English department faculty visit the local high school semi-annually to address the English curriculum and expectations as a way to inform and recruit students.

- **Areas for Improvement/Future Direction**

- The greatest weakness is absence of a Writing Center Coordinator at the Yuba College campus.
- The Yuba College department has to rely too much on adjunct instructors to staff classes—to the tune of 75 units in composition alone. Adjuncts also teach more than half of the offerings at the Lake campus.
- The Yuba College Composition Coordinator needs to be responsible for consistent contact with all sites.

## **Equipment**

- **Strengths**

- The appropriately equipped portable village erected on the tennis court area at Yuba College has been a good instructional home for the English Department during the 2007 – 2008 year.
- All classrooms at the Lake campus have access to smart technology.

- **Areas for Improvement/Future Direction**

- The District should purchase appropriate, state-of-the-art printers and monitors for all English instructors.
- Wireless technology is lacking at the Lake campus.

## Facilities

- **Strengths**
  - Building 1000 at Yuba College being completed as soon as possible will provide better facilities for the program.
  - The portable village erected on the tennis court area has been a good instructional home for the English Department during the 2007 – 2008 year.
  
- **Areas for Improvement/Future Direction**
  - Even with Building 1000 being completed, more classroom space still will be needed.
  - The Yuba College Journalism Lab: Room 1158 is shared by the Mass Communications program. As a result, scheduling conflicts are becoming increasingly more difficult to resolve.
  - Fluctuating temperatures and heat and air noises in the 900 buildings on the Lake campus are a problem.

## Recommendations/Specific Actions

- The establishment of a District Writing Center is needed.
  - Action: Work with the Dean and the Yuba College Vice President to develop a plan of action.
- Develop an English Across the Curriculum program.
  - Action: Work with the Dean and the Yuba College Vice President to develop a plan of action.
- Establish Reading and Writing prerequisites in subject area courses
  - Action: Work with the Dean and the Yuba College Vice President to develop a plan of action.
- Establish caps for online English classes and ITV slots for English elective courses.
  - Action: Work with the Dean to address these issues.
- Redistribute General Education students to fill elective courses in English.
  - Action: Work with the Dean and the Yuba College Vice President to develop a plan of action.
- Strictly enforce current English placement scores.
  - Action: Work with the Dean, counselors, and other appropriate staff to address this issue.
- Increase the number of hours of drop-in tutorial help in the College Success Center at Yuba College.
  - Action: Work with the Dean of Language Arts and the Dean responsible for the College Success Center to develop a plan of action.
- A Writing Center Coordinator needs to be hired for Yuba College.
  - Action: Work with the Dean and the Yuba College Vice President to develop a plan of action for a Writing Center, including the appropriate staff to run it.

- Improve retention of adjunct faculty.
  - Action: Work with the Dean and the Yuba College Vice President to develop a plan of action.
- The college should purchase state-of-the-art computers and printers for English faculty.
  - Action: Work with the Dean to develop a funding plan and appropriate rationale.
- Resolve the Yuba College Journalism Lab scheduling conflict.
  - Action: Work with the Dean to bring resolution to this problem.
- Additional English classroom remodels at Yuba College are needed.
  - Action: Work with the Dean and the Yuba College Vice President to develop a plan of action.
- Clarify the role of the English Composition Coordinator at Yuba College to include more outreach and contact with faculty at other District campuses.
  - Action: The Dean of Language Arts and the Clear Lake Campus Dean need to begin discussions to clarify role.
- Provide wireless technology at the Lake campus.
  - Action: The Clear Lake Campus Dean needs to work with the District Director of IT to address this issue.

## **Mass Communications**

**Program Review Committee Members:** Stephen Cato, Brian Jukes  
**Dean of Program Area:** Kevin Dobbs

### **Program Description and Current Status**

The Mass Communications (MComm) program offers courses for both transfer and vocational students wishing to obtain a degree in Mass Communications and/or to realize a position within the radio/television broadcast or journalism industries. The program offers an Associates of Arts or Associate of Science and a Certificate of Completion.

### **Program Analysis**

#### **Curriculum and Program Direction**

- **Strengths**
  - The Mass Communication program provides a wide variety of industry related career paths for students.
  - The program offers a formidable training program that prepares students for entry-level positions in the broadcast and print industry.
  - The program offers a challenging core of courses that when students transfer to the university they are better prepared than if they were to go directly to the university at the beginning of their collegiate career.

- The program emphasizes hands-on exercises that mirror real-world activities.
  - The core courses transfer to the CSU system and several institutions in the UC system.
  - Students find jobs locally and regionally at various television, radio, and newspaper companies.
  - Many students have transferred and have completed their educational degrees at some of the most highly recognized and known communication schools in California and have come back to teach for Yuba College.
  - The Mass Communications program provides an “earn while you learn” approach for students who join the Mass Communication Club.
  - Internships are available at local and regional television, radio, and newspaper companies.
- **Areas for Improvement/Future Direction**
    - Curriculum choices need to be discussed for possible weeding of courses that are not meeting industry standards or cannot be supported due to staff or budget constraints.
    - Support is needed to enhance enrollments in all Mass Communications courses.
    - Curriculum needs to be updated with digital media to mirror that of the regional CSU and UC systems and that of industry.
    - Animation, aesthetics, and digital media arts curriculum needs to be added.
    - Courses need to be offered in the evening that would fulfill community educational needs.
    - Student projects need to be more visible to the community through the college’s broadcast ITV program.
    - Add Mcomm 25R as a requirement to all Mass Communication degrees and certificates.
    - Advisory committee meetings need to be consistent, and more input is needed to guide the program on a community and regional basis.
    - Critically review what the Mass Communication program at Yuba College will be like in five (5) years as compared to the Woodland Community College’s Mass Communications program as it develops.
    - Definitely add new courses to the program that reflect community needs and industry standards in the digital media arts field, such as game art and design, graphic design, web design and interactive media, media arts and animation, and digital photography.

## **Staffing**

- **Strengths**
  - The program has one (1) 60% full-time professor who is highly experienced in communication theory and broadcast media production.
  - The program has two (2) adjunct professors who are highly experienced in sound recording, television production, and videography

- Staff is highly productive in relation to FTEF vs. FTES.
- **Areas for Improvement/Future Direction**
  - A full-time position is needed for program continuance and new growth as the current 60% professor is retiring.
  - More technical support will be needed from the Media staff to support students during project development and during technical set-ups.

## Equipment

- **Strengths**
  - The program has purchased new non-linear editing hardware and software (Mac G5's and Final Cut Pro) for the MComm 5 and 15R courses.
  - The program continues to upgrade Pro Tools software for Mcomm 6, Sound Recording and Production course.
  - The journalism lab provides adequate support technology to produce the "Prospector" college newspaper.
- **Areas for Improvement/Future Direction**
  - Most of the technology in the Mass Communication program is very outdated, especially in the television studio and remote production courses.
  - Television studio cameras are approximately 17 years old and are beyond industry repair/parts replacement capability.
  - Television studio switcher is 20-year-old technology and was purchased as used equipment 15 years ago.
  - Computers that run Pro Tools software are outdated and run slow due to the software driving the hardware.
  - The program lost its only means of transportation last year due to the age of the van. The MComm 17R, Remote Production class, depended on the van to produce video projects both on and off campus.

## Facilities

- **Strengths**
  - The TV studio and control room is adequate in size for teaching and producing television shows.
  - The audio studio is adequate in size for sound production and can be combined with the TV studio for performing bands.
- **Areas for Improvement/Future Direction**
  - More lab space is needed for the Sound Recording and Production courses.
  - Adequate space is needed for the Editing Suites (4 suites) away from Media Services.
  - More storage space is needed for equipment and props.
  - A lecture classroom is needed for teaching and learning without lab interruption.

- The MComm program needs a dedicated facility.
- The radio station should be the next major growth area with a separate facility, possibly combined with audio labs.
- As the program grows, lecture space will be needed that will not interrupt lab work.
- Transportation is needed to continue the Remote Television course.
- More lab space is needed due to program growth.

### Recommendations/Specific Actions

- Curriculum choices need to be discussed for possible weeding of courses.
  - Action: An examination of the MComm program in conjunction with the Journalism program will be undertaken.
- Support is needed to enhance enrollments in all Mass Communications courses.
  - Action: Work with counselors and Public Relations to promote MComm program.
- Curriculum needs to be updated with digital media to mirror that of the regional CSU and UC systems and that of industry.
  - Action: A determination needs to be made as to what equipment is outdated.
- Animation, aesthetics, and digital media arts curriculum needs to be added.
  - Action: Develop course outlines and submit them to the Curriculum Committee.
- Add Mcomm 25R as a requirement to all Mass Communication degrees and certificates.
  - Action: Make appropriate changes and submit them to the Curriculum Committee.
- Offer more evening courses and utilize the ITV network to reach more students
  - Action: Make appropriate adjustments to the class schedule.
- Plan to replace the 60% faculty position with a full-time position.
  - Action: Submit appropriate forms to the Faculty Staffing Committee to replace position.
- Insure that new equipment is added to the program to meet industry needs and that outdated equipment is replaced with state-of-the-equipment.
  - Action: Identify new needed equipment and create a replacement schedule for aging equipment. Submit appropriate requests for funding.
- New lab rooms and at minimum a classroom with additional media is needed.
  - Action: Submit appropriate forms through upgrade of LRC facilities and Measure J funding processes.
- Adequate storage space should be available for technology.
  - Action: Submit appropriate forms through upgrade of LRC facilities and Measure J funding processes.
- Adequate transportation should be available for TV remote productions that students produce.

- Action: Submit appropriate forms through Instructional Equipment Block Grant or other equipment funding process.

### **Mathematics/Statistics**

**Program Review Committee Members:** Roger Davidson, Catherine Heaton, Sarah, Kovacs, Michael Papin, John Steverson, Lauren Syda, John Thoo, Kirk Wardlaw,

**Dean of Program Area:** Earl Bloor

### **Program Description and Current Status**

The Mathematics program spans three campuses (Marysville, Clear Lake, and the Beale AFB Outreach Operation) with a total of 15 lecture rooms, eight (8) faculty offices, two (2) computer laboratories (one (1) is shared with Statistics), and the Hard Math Café (Marysville campus) for drop-in math tutoring. Full-time faculty has a net increase of one since the last program review with the retirement of one faculty member and the hiring of two others at Marysville. The Mathematics offerings continue to evolve with the addition of Math 58 and Math 50A/B as new courses and additions in new sections and locations of many other courses that are in high demand. The faculty are very dedicated, often teaching additional courses to help satisfy demand, and all faculty enjoy a high level of collaboration and professional camaraderie across campuses. Graduating students reflect this in their consistent “Way To Go” award nominations of the department and faculty over the years.

### **Program Analysis**

#### **Curriculum and Program Direction**

- **Strengths**
  - The program currently offers courses that meet appropriate standards for both transferring students and the Associate in Science Degree.
  - Courses continue to be developed, and existing courses are reviewed annually to insure they remain current and appropriately scheduled.
- **Areas for Improvement/Future Direction**
  - The number of sections offered of required Mathematics and Statistics needs to be expanded, although there are limited rooms available at times classes are needed by students.
  - A stronger line of communication and collaboration must be developed between the Mathematics and Counseling departments in order to better serve students.
  - Student grading funding must be increased.
  - The use of technology in the classroom continues to be investigated and adopted where beneficial.

## Staffing

- **Strengths**
  - Faculty members have a diverse collection of mathematical backgrounds and training which creates a rich educational environment for students.
  - Faculty members are involved actively in the college community as well as in professional mathematics societies and activities.
- **Areas for Improvement/Future Direction**
  - Another full-time faculty member is needed and a larger pool of adjunct faculty would provide greater flexibility in course scheduling.
  - There is a need to increase the availability of quality Mathematics tutoring.

## Equipment

- **Strengths**
  - Software licenses were purchased to support increased Stats 1 enrollment.
  - The Building 800 remodel has added many classroom upgrades.
- **Areas for Improvement/Future Direction**
  - Additional classroom and online technologies need to be investigated.
  - Software license management is needed to support Stats 1 enrollment.
  - A WiFi network is needed at the Clear Lake campus.

## Facilities

- **Strengths**
  - The Building 800 remodel has improved several classrooms used for Mathematics instruction at the Marysville campus.
- **Areas for Improvement/Future Direction**
  - Lack of adequate facilities is now limiting opportunities to increase course offerings at times that will accommodate student needs.
  - Limited space in the Hard Math Café has capped the amount of tutoring and FTES generated by this resource for our students, although research by Institutional Effectiveness shows a 9.1% increase in success rate for students using the Hard Math Café.

## Recommendations/Specific Actions

- Request that a new building or major renovation of Building 700 on the Marysville campus be undertaken for the Math, Engineering, Drafting, Computer Science, MESA, and Hard Math Café programs.
  - Action: Dean to contact Measure J Planning Committee to determine feasibility and alternatives.
- Investigate the use of Basic Skills Initiative project monies to increase student retention and success rates.

- Action: Math department to contact the BSI Project Team and coordinate appropriately.
- Investigate hiring additional full-time faculty for the Marysville campus.
  - Action: Funding has been secured and announcement has been published with a scheduled implementation timeline for Fall 2008.
- Investigate new classroom technologies for Mathematics instruction.
  - Action: A pilot will be initiated to investigate technologies for Math 21 and Math 7, and the use of WileyPlus for Math 3 will be piloted in 2008.

### **Physical Science/Geology/Physical Geography (Earth Science)**

**Program Review Committee Members:** Betsy Julian, Susan Ramones, Jennifer McCabe

**Dean of Program Area:** Earl Bloor

#### **Program Description and Current Status**

After decades with only adjunct instructors, a full-time instructor was hired to begin in Fall 2005. After the original full-time hire left the college, a new full-time instructor was hired. The program gained a dedicated classroom and lab facility during the remodeling of the 800 building. These recent changes should allow the program to grow and diversify.

The addition of a full-time instructor means that there is now an individual to direct the program, oversee curriculum updates and changes, provide stability in course scheduling, and recruit students. There has not yet been enough time to measure the effects of this change. It is too soon to identify meaningful trends in enrollment or student retention. There has been an increase in the variety of courses offered. Two Geology courses (GEOL 10 and 10L) have been scheduled regularly since 2005. No Geology courses were offered in the preceding three years. Earth Science (PHYSC 10A) is now being taught every semester instead of just during Fall semester, and the number of Physical Geography (GEOG 1) sections has increased. The only decrease has been in the number of sections of Physics and Chemistry offered.

#### **Program Analysis**

##### **Curriculum and Program Direction**

- **Strengths**
  - A variety of courses are scheduled during both daytime and evenings so that students have options for taking the course of their choice. PHYSC 10B and PHYSC 10C were offered in the evening during Fall 2007 in response to a request by several students who needed the course for their degree but were unable to attend morning classes. GEOG 1, the most popular course in the program, has been offered through ITV for the past two (2) semesters, providing yet another option for students.

- Several new courses have been created during the past year. These include the following: GEOL 40 (Geology of Yosemite), GEOL 47a (Coastal Geology), and GEOG 47a (Exploration of Sustainability Issues).
  - GEOL 20 (Geology of California) has been incorporated into the catalog and will be offered pending approval as an option for the Natural Science GE requirement.
  - All course outlines are being updated.
  - An Earth and Physical Science website: [ms.yccd.edu/earth science](http://ms.yccd.edu/earth%20science) has been created. This site includes pages for each course where students can get lecture notes, study guides, and other course information.
  - In response to student interest, a new club, the Earth Explorers' club, has been created at Yuba College. It will focus on environmental issues and outdoor exploration.
- **Areas for Improvement/Future Direction**
    - Many course outlines have not been updated for over a decade.
    - Yuba College does not offer many courses about environmental issues, natural hazards, or local geology. These courses can attract students to the program and fill a need for course material that students can relate to in their lives.
    - There currently is little collaboration with other departments, although a combined Ecology/Geography course on Exploration of Sustainability Issues is being offered in Spring 2008.
    - Very few students at Yuba College plan to major in Geology or Geography. The Sutter Buttes Gem and Mineral Society is establishing a scholarship for Geology majors to attract students to a major in Geology.
    - Greater diversity in the curriculum, including more environmental courses and more field courses, to attract more students and also provide scope for greater collaboration with faculty in Ecology, Agriculture, or other departments is needed.
    - Existing courses need to be adapted to better meet students' needs. In particular, it is important to revise PHYSC 10A,B,C to better articulate with the CSU Chico teaching program. A lab component must be added to PHYSC 10A in order for it to fulfill all of the Chico State requirements. This course also may be suitable for adaptation as an online course. Eventually, GEOG 1 may be offered online and have a lab added.

## **Staffing**

- **Strengths**
  - There are now two full-time instructors, one at Yuba College and one at Woodland Community College. These additions have allowed major updating of the program, such as revising the existing curriculum, adding new courses, expanding and organizing the sample and lab equipment,

and developing an effective schedule of class offerings.

- The full-time instructor is able to represent the Earth and Physical Sciences program on campus and in the community.
- **Areas for Improvement/Future Direction**
  - While there is good communication between the full-time instructors at Yuba College and Woodland Community College, there is currently no communication with the adjunct instructor at the Beale Outreach Operation.
  - One full-time instructor is sufficient to meet the current staffing needs of the Earth and Physical Sciences program at Yuba College. If the program grows, it may become necessary to hire adjunct instructors, particularly if there is a desire for courses at the Clear Lake Campus.
  - An assistant to help with lab preparation and organization may become necessary as the program grows.

## **Equipment**

- **Strengths**
  - Yuba College has an extensive collection of rock and mineral specimens on display in Room 818.
  - Ten binocular stereomicroscopes and five (5) petrographic scopes have been purchased. These microscopes enhance the study of soils, sediment, and even rock samples.
- **Areas for Improvement/Future Direction**
  - The extensive rock and mineral collection is not yet completely organized. Some samples remain unidentified.
  - After further organization, it may be possible to share some duplicate display samples with Woodland Community College.
  - The Geology department still needs six (6) more petrographic microscopes and a digital camera to take microphotographs.
  - A rock saw and polishing equipment are needed to prepare the thin section slides capable of being viewed through the microscopes.
  - Installation of a weather station that measures and displays temperature, barometric pressure, rainfall, and humidity on the Yuba College campus to give access to real time local data is needed.
  - More samples of the most basic rocks and minerals are needed.
  - To expand, the environmental program will require new equipment, e.g. water testing tools, energy auditing equipment, GPS for surveying, and tools for soil and air analysis.
  - Basic teaching tools, such as DVDs and maps (topographic, geologic, hydrologic, and physiographic) are needed.
  - A color printer is needed to print diagrams, photographs, maps, and images from the Internet.

## **Facilities**

- **Strengths**
  - The program has a wonderful new classroom in Room 818.
  - The computer and projection equipment is good.
  - The “Elmo” projector works well for the program.
  - Storage space for rock and mineral specimens in the classroom is appropriate.
- **Areas for Improvement/Future Direction**
  - None are identified at this time.

## Recommendations/Specific Actions

- The diversity of course offerings needs to be increased.
  - Action: Write course outlines and submit them to the curriculum committee for the following new courses: Field Geology and Laboratory for Earth Science (PHYSC 10A). Offer an online course, probably PHYSC 10A.
- Enhance instructional equipment.
  - Action: Purchase the following: six petrographic microscopes, digital camera, a rock saw, a weather station and display equipment, environmental monitoring equipment, water monitoring equipment, energy auditing equipment, GPS units, and rock and mineral sample sets.

## Physics/Astronomy

**Program Review Committee Members:** Ken Fiering

**Dean of Program Area:** Earl Bloor

### Program Description and Current Status

The Physics/Astronomy program currently has one full-time faculty member teaching Physics and Astronomy and one adjunct faculty member teaching Astronomy online. The Physics department offers an algebra-based course series and a calculus-based series. The algebra-based series serves primarily those students who are transferring into the life sciences. The calculus-based series serves primarily those students who are transferring into engineering, the physical sciences, or computer science. Physics differs from most other programs in that Physics majors seldom attend community colleges. Therefore, direct outreach programs are less critical for the Physics department, although the department contributes to the good reputation of the science, Mathematics, and Engineering programs as a whole at Yuba College. Physics is a critical foundation, however, for students in other Engineering and science majors. The Astronomy course is a popular course for General Education students and for those science and Engineering majors with an interest in it. A classroom course and two online courses offered each semester are usually full.

Enrollment in Physics courses has increased slightly over the last five years. The algebra-based series currently is full in the first semester of the series and slightly below capacity in the second

semester due to attrition. The calculus-based series is not at capacity. It is growing slowly and the number of students currently enrolled for the 2007-2008 year is the largest ever. The number of Astronomy students significantly increased when an online course was offered in addition to the classroom course. It jumped again when two sections were offered online each semester. Most of the fluctuation in FTES seen in the enrollment data is due to the changes in Astronomy offerings described above.

Retention rates for Physics students are quite good (85% average over the five year period, 90% in 2006-07) reflecting the motivation of students who have decided to major in science or Engineering. Unfortunately, the retention rates in Astronomy are not as good (51% average over the five year period, 38% in 2006-07). The faculty members believe that this figure also reflects the motivation of the students enrolled in the Astronomy classes and in the online sections, in particular. It is one of the goals of the department, however, to find ways to increase retention rates. For the last five-years, the average WSCH per FTEF is 455.86.

### Program Analysis

#### **Curriculum and Program Direction**

- **Strengths**
  - The current course offerings and curriculum in the Physics department meet the needs of all our science and Engineering students transferring to the main four-year institutions that Yuba College feeds.
  - The current course offerings articulate to all the main four-year institutions that Yuba College feeds.
  - The department is currently offering two (2) online sections of Astronomy that attract a large number of students.
  - Retention rates in Physics courses are good.
  
- **Areas for Improvement/Future Direction**
  - Retention rates for Astronomy courses need to be improved, if possible.
  - Physics 2 series courses are at capacity and it may be necessary to offer both courses in the series each semester in the future.
  - Some schools such as UC San Diego are now requiring life science majors to take a Physics series at a level intermediate to our algebra and calculus-based series and this trend needs to be monitored (UC Davis does not require this).
  - There is almost no demand for Astronomy laboratory and conceptual-based Physics courses so they will probably not be offered in the next few years unless conditions change.

#### **Staffing**

- **Strengths**
  - Faculty is currently used efficiently with Average WSCH per FTEF at 455.86.
  
- **Areas for Improvement/Future Direction**
  - There currently is no support staff to handle equipment maintenance and laboratory setup (this should be about a half-time position).

- Additional adjunct faculty may be necessary if enrollment continues to grow.

## Equipment

- **Strengths**
  - The new audio/visual equipment in the Physics classroom is highly used and provides for an excellent student experience.
  - The recent purchase of new computers and sensors for the laboratory has improved significantly the student experience in the laboratory.
- **Areas for Improvement/Future Direction**
  - Not all equipment lost in the facility move has been replaced.
  - Since Introductory Physics courses do not change much, equipment only needs to be replaced as it wears out (with the exception of computers).
  - The Astronomy film series needs to be updated periodically since Astronomy changes rapidly.

## Facilities

- **Strengths**
  - The current classroom assigned to Physics/Astronomy is adequate for student class sizes in the four (4) series of Physics courses.
  - The same classroom is utilized for lecture and laboratory.
- **Areas for Improvement/Future Direction**
  - Both the Physics 2A course and the Astronomy course are being taught with 8 to 10 students more than room capacity.
  - The Physics 3A laboratory course had to be expanded to two sections which reduces the efficiency of faculty use.
  - Any classroom is acceptable for Astronomy classes and an alternate classroom may need to be considered for the Astronomy course.
  - If enrollment continues to grow and the decision is made to offer both Physics 2A and Physics 2B each semester, the classroom overloading would be relieved.
  - If enrollment continues to grow and only Physics 2A is offered in the Fall semester, students will be turned away unless a larger classroom is provided.

## Recommendations/Specific Actions

- Retention rates in astronomy courses need to be improved.
  - Action: During the Spring 2008 semester, the full-time faculty member should develop a questionnaire for students who drop Astronomy courses. During the Fall 2008 semester, the full-time faculty member should administer the questionnaire to as many students who drop Astronomy classes as possible. During the Spring 2009 semester, the full-time faculty member should develop and implement a list of actions that might improve the retention rate in Astronomy classes.
- An approximately half-time support person should be hired for equipment maintenance and lab setup.

- Action: The full-time faculty member will develop list of duties and time needed to perform them. A proposal will be developed to help the administration to understand the need for the support staff.
- Lost equipment should be replaced in future semesters.
  - Action: The full-time faculty member will submit requests for replacement equipment.

## **Psychology Program**

**Program Review Committee Members:** Lisa Jensen-Martin, Sharon Ng Hale, Heidi Morgan, Alison Buckley

**Dean of Program Area:** Ed Davis

### Program Description and Current Status

The Psychology program at Yuba College is a thriving program that offers lower-division Psychology courses for transfer students as well as for general education credit.

### Program Analysis

#### **Curriculum and Program Direction**

- **Strengths**
  - The program currently offers courses that meet the goals and mission of the College and the Educational Master Plan.
  - Courses are conveniently scheduled and varied throughout the day.
  - Courses meet YCCD graduation requirements and CSU and UC transfer requirements.
  - Courses are taught online as well as face-to-face.
- **Areas for Improvement/Future Direction**
  - The department as a whole will be looking at ways to measure SLOs within each course.

#### **Staffing**

- **Strengths**
  - The Psychology program has very competent and experienced instructional staff. Both Psychology department faculty are well grounded in biological aspects of the brain. The most recent hire is very well qualified in marriage and family counseling as well.
- **Areas for Improvement/Future Direction**
  - The department should be looking to expand the adjunct faculty pool.

## **Equipment**

- **Strengths**
  - Present equipment is out of date and needs to be upgraded. A permanent, smart classroom would be a benefit to the program.
- **Areas for Improvement/Future Direction**
  - The District should reevaluate the current budget allocation for Psychology.

## **Facilities**

- **Strengths**
  - The 500 building's renovation should be beneficial to the Psychology classes offered in that building.
- **Areas for Improvement/Future Direction**
  - Bldg. 700 (Classrooms 716 and 724) are old and in need of safety upgrades. The HVAC is unreliable, and outside lighting is inadequate. Broken desks are left in place year-after-year, and the carpeting is dirty and worn.

## Recommendations/Specific Actions

- Develop a plan to measure SLOs within each course.
  - Action: Under the leadership of the SLO Committee, follow the guidelines to implement course SLOs.
- Develop adequate budget line items.
  - Action: Work with the Dean to develop an appropriate budget to meet the needs of the program.
- Address the problems identified in Rooms 716 and 724.
  - Action: Contact Maintenance Department regarding the identified problem areas in Rooms 716 and 724.