

# **Saddleback College**

## **Administrative Unit Review**

Division of Mathematics, Science  
and Engineering

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# **Program Review Team Members and Approvals**

## **Program Review Team Chair:**

Dr. James Wright

## **Program Review Team Members:**

Beth Brokaw

Suzanne Anderson

Patricia O'Connor

## Administrative Unit Review

Date Completed	Administrative Unit Action
12/05/08	Contact Administrative Unit Review Chair for orientation
12/05/08	Form Review Team
12/05/08	Gather documents (Organization Chart/Staffing Profile/AUR Assessments Forms)
12/17/08	Solicit input from faculty and staff
	Determine if additional research is needed
01/13/09	Contact College Research Analyst if necessary
01/20/09	Write Program Review report
02/02/09	Submit report to VPI
	Report submitted to College President and the Office of Institutional Effectiveness
	Presentation to the Planning and Budget Counsel

## Section 1: Unit Overview

### A. The Mission of the Unit and its Link to the College's Mission and Goals.

**Our College Mission:** *To provide access to learning opportunities that promotes student success; to foster intellectual growth, individual expression and character development; and to support a dynamic and diverse environment of innovation and collegiality.*

**Our Division Mission:** *To develop, instruct and inspire all students in rigorous, high quality post secondary education in lower division courses in mathematics, science and engineering with vision for tomorrow.*

**Our Administrative Unit Mission:** *To provide administrative support for the faculty and staff in the Division of Mathematics, Science and Engineering (MSE).*

Institutional Mission/Goal Reference	Administrative Outcomes	Means of Assessment and Criteria for Success	Summary of Data Collected	Use of Results
<p>College Goals:</p> <p>The Division of Math, Science &amp; Engineering closely supports the major college goals to:</p> <ol style="list-style-type: none"> <li>1. Provide educational programs leading to the Associate of Art and Associate of Science Degrees.</li> <li>2. Provide a comprehensive, broad range of high quality courses and programs to enable students to pursue their educational objectives and career goals.</li> <li>3. Provide necessary developmental, remedial, and basic skills instruction so students may be successful in their chosen course of study.</li> <li>4. Provide access for the community to the educational, cultural, and recreational resources of the college.</li> </ol> <p>Admin. Unit Mission Statement:  <i>...to provide administrative support for the faculty and staff in the MSE Division</i></p>	<ol style="list-style-type: none"> <li>1. To determine satisfaction levels of service provided to the faculty and staff in the MSE Division by the Division office staff and dean.</li> <li>2. To provide necessary administrative support to instructors and staff for courses offered so students enrolled can successfully complete the courses with maximum retention.</li> <li>3. To monitor and help prepare the schedule in an efficient and effective manner.</li> <li>4. To monitor and help prepare all curriculum in the Division for curriculum review.</li> </ol>	<ol style="list-style-type: none"> <li>1. MSE Division Office Survey of all faculty and staff in the Division.</li> <li>2. Number of FTES who successfully completed courses from the Grade Distribution Reports for each semester.</li> <li>3. Review of semester schedules for each department for errors, corrections and additions.</li> <li>4. Number of courses, certificates and degrees reviewed and completed in program review.</li> </ol>		

## **B. Historical Background and Unique Characteristic of the Unit**

The Division of Mathematics, Science and Engineering oversees nine instructional areas including Astronomy, Biological Science, Chemistry, Computer Science, Engineering, Geology, Marine Science (Oceanography), Mathematics and Physics in the College. The Division currently offers Associate in Arts or Associate of Science Degrees in these disciplines. There are 40 full-time faculty, 12 classified and 60-70 associate faculty depending on the semester and one Dean in the MSE Division. This review will briefly address curriculum offerings and the two Division Senior Administrative Assistants, part-time Office Assistant and Dean. The faculty and other classified staff members have been included in their respective department and/or discipline reviews.

## **C. Progress since the last Administrative Unit Review**

This is the first Administrative Unit Review for the Office of the Division of Mathematics, Science & Engineering.

## **D. Current Opportunities, Challenges, and Strengths**

### **Opportunities**

The MSE Division has experience growth in enrollments, full-time equivalent students (FTES), weekly student contact hours (WSCH) and productivity (WSCH/FSEF) in the past four years. The increase in student enrollment has been 9.1% in the past three years and 9.6% in WSCH. The MSE Division four year census data shows the FTES, enrollments and WSCH as well as the WSCH/FTEF productivity in Appendix E.

Distance Education (DE) offerings in the past three years has shown a growth of 50% (from six distance education classes to nine distance education classes.)

We are also considering adding an additional program, Biotechnology in the Biological Sciences.

The MSE Division has also aided the Advanced Technology and Education Park (ATEP) campus by offering an astronomy (General Astronomy) class the past three semesters.

### **Challenges**

The MSE Division is the largest division on campus personnel wise with 40 full-time faculty, twelve classified staff and between 60-70 associate faculty members. The MSE Division is also the largest generator of WSCH on campus with over 40,000 WSCH every semester. The Division includes six departments and department chairs. Some

department chairs have a number of full-time and associate faculty members and a large number of section offerings, while some departments are reasonably small. Staffing in the Division office is minimal considering the number of section offerings and students served. With the increase in recent growth in the MSE Division, current workload and class offerings, the Division and Departments find themselves understaffed with expectations that more growth and very limited support will be forth coming.

### **Strengths**

The Division of Mathematics, Science and Engineering take great pride in the way it quickly responds to questions and provides answers and solutions to problems. The telephone is always answered and very seldom goes to voice mail. The Division of Mathematics, Science & Engineering continually accommodate faculty, staff and students at the last minute with regards to classes, course offerings, curriculum and other changes for the Division. The Senior Administrative Assistants, Office Assistant and Dean have years of successful experience in dealing with the operations of the programs and office in the Division.

## **Section II: Review Report**

### **A. Staffing and Organization**

The staffing and organizational structure is shown in Appendix A. The current Dean has been in the permanent position since July 1999. One Senior Administrative Assistant has 26 years of experience and the second Senior Administrative Assistant was hired in October 2008. Our current part-time (29 hrs. /week) Office Assistant has two years of experience in the Division. Out of the 40 full-time faculty, the MSE Division has hired 12 new faculty in the past five years. The recruitment of a full-time Astronomy/Physics Instructor has not been successful since Dr. Yong Kim retired in the summer of 2004. Of the eight Senior Laboratory Technicians, four new ones have been hired in the past five years. Two of our Senior Laboratory Technicians positions were upgraded from part-time to full-time (40 hours/week) to help support the increase in enrollments in some of the science disciplines.

The Department Chairs recruit for new associate faculty. The Dean, Department Chair and Department faculty members interview and then make recommendations for new full-time faculty for hire. New full-time faculty members are encouraged to find a mentor in the Division to help them with their new assignments. Department Chairs recommend scheduling, loading and assignment. The Dean then considers the recommendations for final approval.

Program Reviews are performed by each department. The results are then reviewed and presented for acceptance by the Planning and Budget Council and the Academic Senate. The eight program reviews for the MSE are current and a new cycle of program reviews will commence starting in Fall 2009. The five column model for each program for Student Learning Outcomes (SLOs) has been reviewed and also for all courses in the Division and a complete cycle will be required by the end of Spring 2009 semester. Additional SLOs will be required for each class offered in the Division using the five column model. The Dean will allocate stipends for this effort as the funds are made available.

### **Programs and Services**

These are the current listings of the Associate of Arts and Associate of Science Degrees offered in the MSE Division:

Astronomy  
Biological Sciences (Biology)  
Chemistry  
Computer Science

Engineering  
Geology  
Mathematics  
Oceanography (Marine Science)  
Physics

In addition to these areas of offerings, the MSE Division has promoted the addition of selected course offerings in Distance Education (DE). Currently we are offering nine courses for the Spring 2009 semester by the Distance Education mode. This is an increase of 50% since the Spring 2006 semester. Some departments have student organizations or clubs that they sponsor.

## **B. Consistent Satisfaction**

A survey to the MSE faculty (both full-time and associate) and staff members was completed. Results and the survey used are shown in Appendix F. These results indicated that the major majority of the faculty and staff served by the Division office are most satisfied with the services being provided. The minimum weighted score was 3.92 and the maximum weighted score for a number of areas was 5 out of 5 maximum. Comments are included in the summary sheet. The Dean has an "open-door" policy and is available to any faculty or staff member. The satisfaction survey for the MSE Division office staff will be used to develop an action plan to better serve the faculty and staff in the Division.

## **C. Facilities, Technical Infrastructure and Resources**

The current Science/Mathematics (SM) building was designed and built in 1973. The SM building (65,000 sq. ft.) was finally dedicated in November 1974 at an original cost of \$4.1 million. A number of problems and needs have occurred over the years. Many of these were identified in a talking paper that is found in Appendix G.

It was decided two years ago that a new Sciences Building should be built to correct all the deficiencies. A Final Project Proposal (FPP) was submitted to the State Chancellor's Office on or before June 30, 2007 requesting approval and funding the new sciences building.

The FPP was re-submitted to the State Chancellor's Office on September 30, 2008 to recomplete for funding. Though final budget numbers will not be resolved until the State Chancellor's Office has completed the funding process, the overall project budget is anticipated at \$48,279,000 with \$27,693,000 anticipated from the state and \$20,586,000 proposed as funded through basic aid. With the current financial problems of the state, we do not know when funding will occur for the new Sciences Building.

A Final Project Proposal for the renovation of the SM Building to house Mathematics, Computer Science and other general classrooms was submitted to the State Chancellor's Office on or before June 30, 2008. Because of current State financial

problems the District re-submitted the initial project to the State Chancellor's Office on September 30, 2008. Though final budget numbers will not be resolved until the State Chancellor's office has completed the funding process, the overall project budget is anticipated at \$28,716,000 with \$18,000,000 anticipated from the state and \$10,716,000 proposed as funded through basic aid.

Another problem near the SM Building is the renovation of the plaza area. Uneven settlement under the plaza area between the Library and the Science/Mathematics building has resulted in slab heaving, cracking and water penetration at the SM building. R2A Architects have been enlisted to provide three options toward the design solution. Design is underway.

Classes are being taught Monday through Saturday from 7:30 am to 10:00 pm in the SM Building. Room utilization is becoming a major issue to scheduling of lecture and laboratory classes. Room assignment and responsibility is done through the MSE Division office and the Office of Instruction. Growth can not occur if there are no additional classrooms or laboratories.

The Division Dean requests each Department to prioritize their requests for personnel, equipment, technology needs and budget. The Department Chairs then are involved in the recommendations and in the final decision of prioritization for the MSE Division.

## **D. Outreach and Collaboration**

The MSE Division has a website that is maintained by one of the Division Senior Administrative Assistants. Division and some Department brochures are created and maintained by the Division and Departments. The Division takes an active role and is involved in various college outreach programs such as Parent's night, High School Counselor's Day and Senior Day. At times the Division provides guest speakers to various community organizations such as Rotary and Clubs at Leisure World.

## **Section III: Needs Assessment**

### **A. Human Resource Needs**

The hiring of a new Administrative Assistant for 40 hours per week is needed to assume some of the duties of the two Senior Administrative Assistants. This would be an upgrade and replacement for the part-time (29 hours per week) Office Assistant position that the Division currently has. The MSE Division had a full-time Administrative Assistant prior to 2004 when the person in this position retired after twenty-five years in the position. Additional classified needs for each department have been identified in their respective program reviews. The Division is at the point that additional sections in the science discipline can not be added without more classified help. There is not a current process for promotion for classified personal from within the Division or the College.

### **B. Instructional/Service Needs**

There was an increase in hours the past year for two Senior Laboratory Assistants to 40 hours per week to help with the increase in student enrollment in the Biology Department. If additional course offerings are to occur in the Chemistry and Biology Departments, more classified help will be necessary.

The training of Department Chairs for administrative duties needs to be enacted to help with the work requirements and retention of faculty and chairs. The establishment of training for new associate faculty hires for improvement of instruction and retention of faculty needs to be considered. The associate faculty for the MSE Division has one small office area and workspace across from the Division office. Additional space needs to be made available for these instructors.

### **C. Research Needs**

Should the MSE Division require assistance with research, the Division would make a request and work with the Research Department personnel in the Office of Instruction. It would be most helpful that the tracking of the MSE students for completions, drop-outs and transfers be considered as a priority for the College. Updated information on all students is needed to help students reach their goals.

### **D. Technical, Equipment and Other Resource Needs**

The updating of computers to dual monitors for the office staff for the new Student Information System (SIS) database and for Vista operating system and for Microsoft Office 2007 updates will need to be completed in 2009. Replacement of the refrigerator and microwave in the MSE Division staff lounge with energy efficient

appliances will help reduce energy consumption. In the associate faculty office a computer work center with scanner and printer is needed to help our associate faculty personnel.

## **E. Facilities Needs**

The remodeling of the MSE Division office area will occur when the SM Building is renovated following the completion of a new sciences building in the near future. The repair and updating of energy efficient windows should all be part of the renovation efforts.

## **F. Marketing and Outreach Needs**

Upon hiring the new Administrative Assistant, responsibilities for certain project such as brochures and flyers, printing and updates can be made. Other activities such as monthly newsletter and classroom utilization can be assigned.

## **G. Retention Needs**

The training of new faculty hires for improvement of instruction and retention of faculty needs to be enacted. Additional training of Department Chairs for administrative duties also needs to occur.

## **Section IV: Appendices**

### **A. Unit Organizational Chart**

### **B. Five-Year Program Staffing Profile**

### **C. MSE Division Course Changes Brought to Curriculum**

### **D. Distance Education (DE) Offerings in the MSE Division**

### **E. Supporting Data**

1. Four-Year Comparison for MSE Division (FTES, WSCH and Productivity)

### **F. Survey and Results**

1. Satisfaction Survey for MSE Division Sample
2. Survey Results
3. Comments from the MSE Division Office Survey

### **G. Facilities**

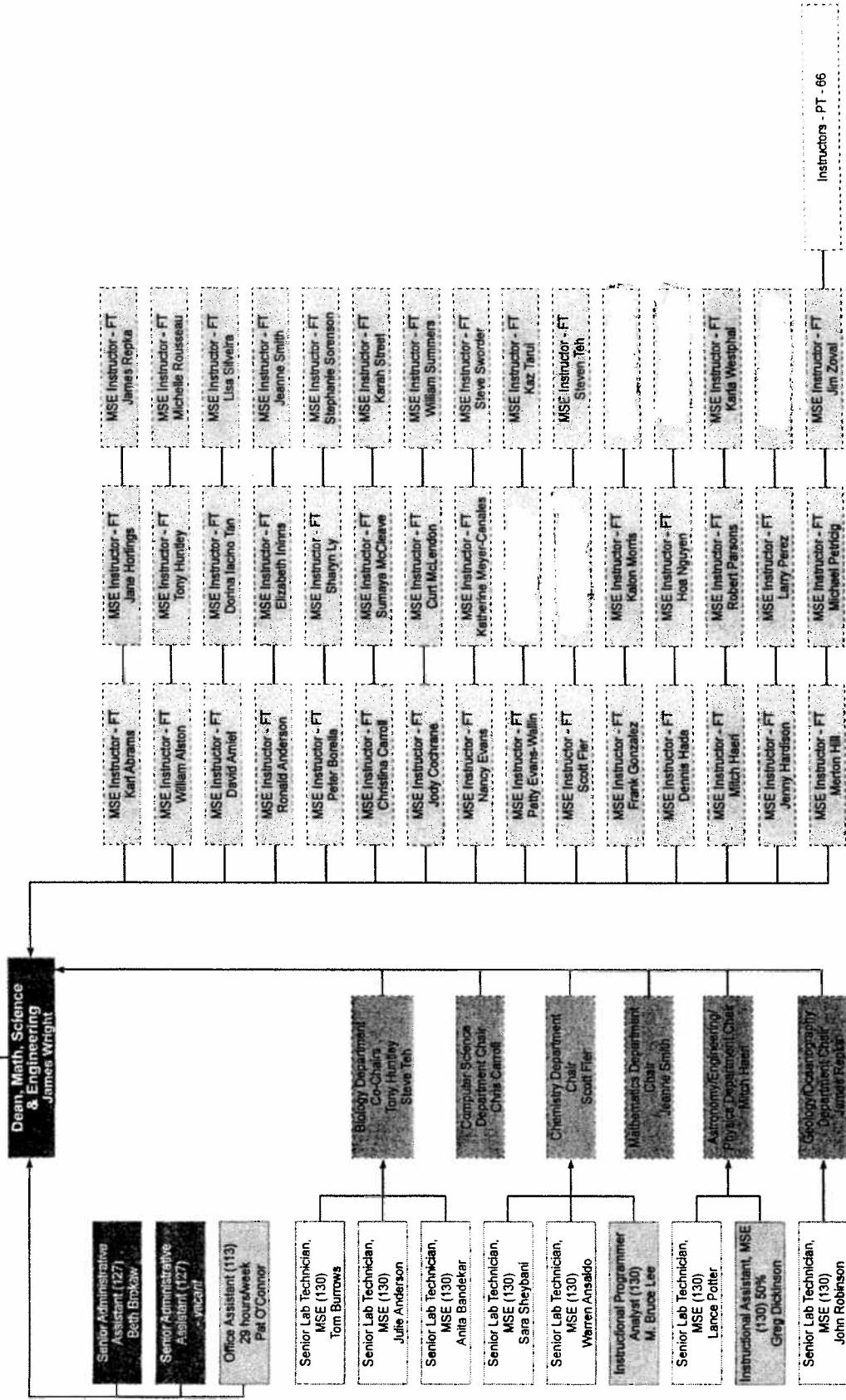
1. Talking Paper SM Building
2. Facilities Upgrades Needed for SM Building, 09-29-08
3. Facilities Improvements for SM Building, 11-25-03

### **H. Others**

1. Degree and Graduate Report by Major
2. Grade Distribution and Success Rate
3. ARCC 2009 Report College Level Indicators Saddleback College

# **Appendix A**

To Vice President for Instruction



Instructors - PT - 66

# **Appendix B**

## MSE Five-Year Program Staffing Profile

### Division of Mathematics, Science & Engineering

#### Staffing Profile

<b>Year</b>	<b>Full-Time Faculty</b>	<b>Classified Staff</b>	<b>Administrator/Dean</b>
2008/2009	40	12	1
2007/2008	38 (fall) /37 (spring)	12	1
2006/2007	39	12	1
2005/2006	39	12	1
2004/2005	36	12	1

# **Appendix C**

## **MSE Division Course Changes Brought to Curriculum**

<b>Year</b>	<b>Number of Courses</b>
Fall 2008	19
Fall 2007	29
Fall 2006	31
Fall 2005	11

\* Indicated deleted, revised courses  
new and requested to be revised

# **Appendix D**

## **Distance Education Offerings in the MSE Division**

### **Spring 2006**

- 2 Sections of Biology 20
- 3 Sections of Mathematics (Math 351, Math 251 and Math 253)
- 1 Section of Physics 20

### **Spring 2009**

- 2 Sections of Astronomy 20
- 3 Sections of Biology (Bio 20, Bio 20 and Bio 40)
- 3 Sections of Mathematics (Math 351, Math 251 & Math 253)
- 1 Section of Physics 20

# **Appendix E**

## Four-Year Comparison for MSE Division

### Full-Time Equivalent Students for MSE (Academic Year)

Year	Fall	Spring	Summer	Total Fall/Spring
2005-2006	1448	1287	209	2735
2006-2007	1421	1339	206	2760
2007-2008	1442	1344	208	2786
2008-2009	1510	1530	---	3040

### Enrollments (C1) for MSE (Academic Year)

Year	Fall	Spring	Summer	Total Fall/Spring
2005-2006	7777	6938	1271	14,715
2006-2007	7872	7331	1239	15,203
2007-2008	8023	7385	1254	15,408
2008-2009	8371	8311	---	16,682

### Weekly Student Contact Hours for MSE (Academic Division)

Year	Fall	Spring	Summer	Total Fall/Spring
2005-2006	41,951	38,063	7109	80,014
2006-2007	42,093	39,710	6713	81,803
2007-2008	42,423	39,528	6705	81,951
2008-2009	44,909	45,047	---	89,956

### WSCH per FTEF for MSE (Academic Year)

Year	Fall	Spring	Summer	Total Fall/Spring
2005-2006	589	522	591	556
2006-2007	583	551	578	567
2007-2008	585	543	564	564
2008-2009	611	588	---	599.5

# **Appendix F**

Please rate the following questions about the **Mathematics, Science and Engineering Division Office Staff** by circling the number that represents your perception. Please return your questionnaire to a box in the Division Office by December 17<sup>th</sup>. The results will be used in our Division Administrative Staff/Unit Review. This was announced in our last MSE Division meeting.

Thank you.

1=strongly disagree, 2=disagree, 3=undecided, 4=agree, 5=strongly agree

Friendly and courteous office staff	1	2	3	4	5
Division office hours are convenient	1	2	3	4	5
Timely return of calls and emails from office	1	2	3	4	5
Technology and equipment in office and workroom are sufficient	1	2	3	4	5
Office staff is available for answering questions correctly	1	2	3	4	5
Office staff is knowledgeable	1	2	3	4	5
Office staff provides quick response to issues or questions	1	2	3	4	5
Dependable service performance is important	1	2	3	4	5
I feel free to discuss my needs with the staff	1	2	3	4	5
The office staff treats me fairly	1	2	3	4	5
The office staff keeps me informed	1	2	3	4	5
The division website is useful	1	2	3	4	5
The division handbook is useful	1	2	3	4	5
Office supplies are readily available in Division Office	1	2	3	4	5
The office staff is available to help when necessary	1	2	3	4	5

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Please circle:            Full time faculty/staff            Associate faculty

Additional Comments:

**Office Administrative Staff Survey  
Full-Time Faculty/Staff**

SURVEY QUESTION	N/A	1	2	3	4	5	%
Friendly and courteous office staff						20	5
Division office hours are convenient				1	2	17	4.80
Timely return of calls and emails from office						20	5
Technology and equipment in office and workroom are sufficient				1	5	14	4.65
Office staff is available for answering questions correctly					2	18	4.90
Office staff is knowledgeable					2	18	4.90
Office staff provides quick response to issues or questions					2	18	4.90
Dependable service performance is important						20	5
I feel free to discuss my needs with the staff						20	5
The office staff treats me fairly						20	5
The office staff keeps me informed						20	5
The division website is useful	3		1	4	4	8	4.11
The division handbook is useful	2		1	2	6	9	4.27
Office supplies are readily available in the Division Office					3	17	4.85
The office staff is available to help when necessary					2	18	4.90

1= strongly disagree 2= disagree 3=undecided 4=agree 5= strongly agree  
(20 survey's turned in)

**Office Administrative Staff Survey**  
**Associate Faculty**

SURVEY QUESTION	N/A	1	2	3	4	5	%
Friendly and courteous office staff						17	5
Division office hours are convenient				1	1	15	4.82
Timely return of calls and emails from office					2	15	4.88
Technology and equipment in office and workroom are sufficient				1	4	12	4.64
Office staff is available for answering questions correctly						17	5
Office staff is knowledgeable					1	16	4.94
Office staff provides quick response to issues or questions						17	5
Dependable service performance is important						17	5
I feel free to discuss my needs with the staff						17	5
The office staff treats me fairly						17	5
The office staff keeps me informed					1	16	4.94
The division website is useful	3		1	5	2	6	3.92
The division handbook is useful					3	3	4.47
Office supplies are readily available in the Division Office					4	13	4.76
The office staff is available to help when necessary						17	5

1= strongly disagree 2= disagree 3=undecided 4=agree 5= strongly agree  
(17 survey's turned in)

## **Comments from the MSE Division Office Survey**

### **Full-Time Faculty/Staff**

"I honestly don't think there is much more room for improvement. In my experience everything to do with the office runs extremely smoothly!"

"The greatest."

"Beth, Pat and Suzanne are fantastic!!"

"They are the greatest. True for all staff in this office."

"Everyone is wonderful! Keep up the great work."

"The best division ever! Staff are extremely helpful and friendly. I am grateful to have them."

"The office staff in our division (MSE) is extremely efficient and helpful. Too bad some of the other divisions don't have such helpful people working for them."

"Great support staff, including the Dean! I need to look over the Division website and handbook."

### **Associate Faculty**

"All good."

"The office staff is great."

"It is a great pleasure to work with everyone I have come in contact with in the MSE Division. The office staff is exceptionally friendly, helpful, and always available."

"I love the staff!!"

"Super staff."

"Greatest staff possible."

# **Appendix G**

**Talking Paper**  
**Science/Mathematics (SM) Building**  
**Saddleback College**

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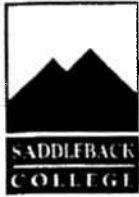
- SM Building (65,000 sq ft) designed and built in 1973
- Dedicated November 1974 (original cost - \$4.1 million)

Problems/Needs

- Thirty five year old SM building that does not meet current code standards.
- Upgrade HVAC as evidenced by:
  - Low exhaust of 2<sup>nd</sup> floor laboratories
  - Unbalanced air distribution/handling
  - Deteriorated conditions
  - Continued debris/dirt noted on 2<sup>nd</sup> floor
- Additional fume hoods in Biology and Chemistry Prep areas.
- Fume hoods upgrades needed in Biology laboratories.
- Vacuum systems for Chemistry laboratories – no longer functioning.
- Lack fire suppression systems/devices to meet current code.
- Lack fire sprinkler systems for hazardous chemical use/storage.
- Over 27 facilities upgrades submitted.
- Curriculum changes and upgrades to Biology laboratories require use of more chemicals.
- Cannot perform certain laboratory experiments because of inadequate ventilation.
- Unable to teach Pro-section laboratory course.
- Numerous water intrusion leaks on second floor of SM Building.

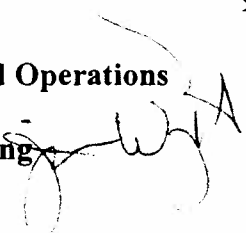
Possible Solutions

- Renovation/upgrade to HVAC system (cost estimate in 2001 - \$6.1 million).
  - Does not address other issues that do not meet current code.
  - Do not have rooms to re-locate labs to during renovation/upgrade.
- Build a modern laboratory facility near existing SM Building for Biology/Chemistry labs (parking lot 11 – 29,500 sq ft at cost estimate of \$18.5).
  - Will need additional funds to retrofit 2<sup>nd</sup> floor of SM Building.
- Design/build a new modern sciences facility (cost estimate - \$54 million).
  - Allows the upgrades/renovation to the existing SM Building to be down scaled.
  - Proposed in phase one (2009-2012) of the South Orange County Community College District 2006 Educational and Facilities Master Plan for Saddleback College.



**MATHEMATICS, SCIENCE & ENGINEERING DIVISION**

**MEMORANDUM**

**DATE:** Septembers 29, 2008 949.582.4820  
**TO:** John Ozurovich, Director of Maintenance and Operations  
**FROM:** Jim Wright, Dean, Math/Science & Engineering   
**SUBJECT:** Facilities Upgrades Needed for SM Building

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**In addition to the scheduled maintenance items listed for 2008-2009 (SM Façade Removal, SM Ventilation Upgrade and SM Process Piping Replacement) and SM 313 renovation, the following additional list of facilities upgrades are needed for the SM Building:**

1. **Replace the wooden storage cabinets in SM 227 used for flammable materials.**
2. **Handicapped ramp for SM 309B. There is no handicapped access to the classroom.**
3. **Hood and exhaust needs for SM 233.**
4. **Emergency shutoff valves for natural gas and de-ionized water.**
5. **Thorough cleaning of the outside floors and stairways of the SM Building. There are numerous areas where gum is on the outside floors.**
6. **Sound proof wall in SM 309 A/B**
7. **Sound proof wall in SM 122/123**
8. **Install false ceiling in SM 109**
9. **Re-carpet hallway of computer science laboratory area (SM 346-348) on 3<sup>rd</sup> floor of SM Building.**
10. **Provide automatic door closures in office area for fire or emergencies.**
11. **Replace carpet in many facilities offices.**
12. **Re-key and/or re-do the locks in the SM Building.**
13. **Place floor numbers signs in front of elevators.**

**cc: Dr. Tod Burnett, President  
Dr. Rajen Vurdien, Vice President of Instruction**

Facilities Improvement for the Division of Mathematics, Science & Engineering  
November 25, 2003  
College Facilities Committee

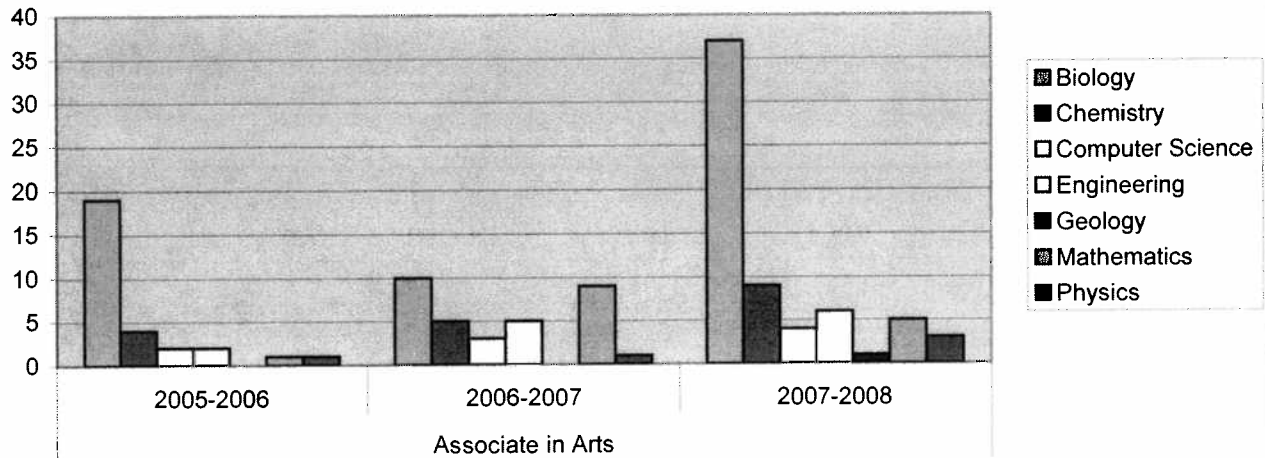
1. Air handling system for SM Building
2. Maintenance and housekeeping for air handling system
3. Fume hood for Bio Prep (SM 234)
4. Fume hood upgrades in Biology Laboratory classrooms
5. GFI electrical Upgrade
6. Large hood and DI water in SM 226
7. "Popcorn" ceilings in office areas
8. New carpet for classrooms
9. Upgrades to SM 313
10. Emergency shutoff valves
11. Hood and exhaust system for SM 233
12. Handicapped ramp for SM 309B
13. Re-key SM Building
14. Automatic door closures for Division offices
15. Automatic door openers on glass doors
16. New carpet for faculty offices
17. Soundproof wall SM 309A/SM 309B
18. Soundproof wall SM 122/123
19. Shut off switches for mini hoods in SM 240, 241, 242
20. Separate SM 332 into two faculty offices
21. All cast iron drain pipe replaced
22. Seal floor in Biology prep area
23. False ceiling for SM 109
24. Upgrade ceiling for SM 207
25. False ceiling in Chemistry work area
26. Upgrade men's and woman's restrooms
27. Paint all rusted building equipment on roof
28. Thorough clean up of SM Building area
29. Beautification – dead plants
30. Repair sprinklers around SM Building

# Appendix H

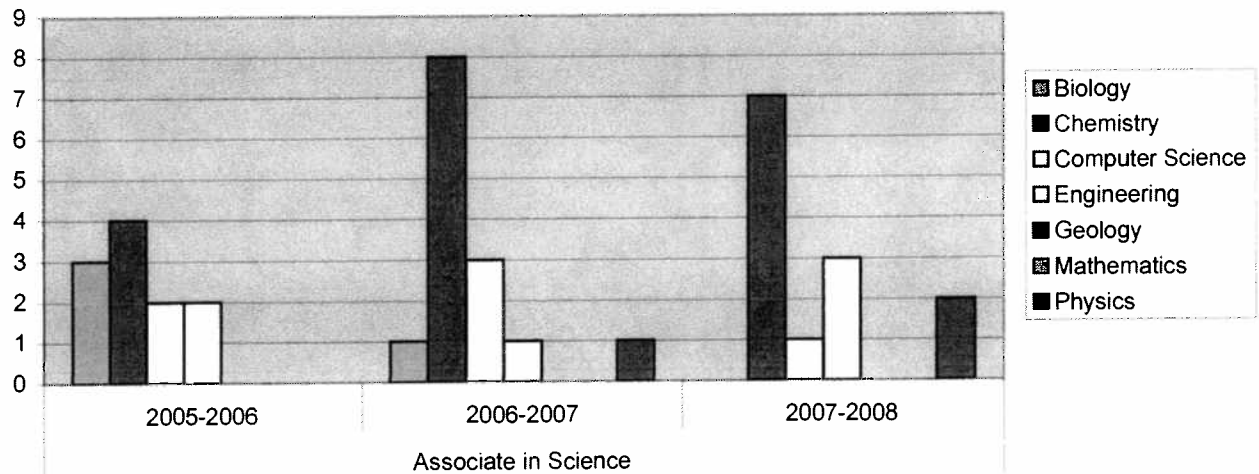
Awarded Degrees for the Division of Math, Science and Engineering by academic year						
	Associate in Arts			Associate in Science		
	2005-2006	2006-2007	2007-2008	2005-2006	2006-2007	2007-2008
Biology	19	10	37	3	1	
Chemistry	4	5	9	4	8	7
Computer Science	2	3	4	2	3	1
Engineering	2	5	6	2	1	3
Geology			1			
Mathematics	1	9	5			
Physics	1	1	3		1	2
Grand Total	29	33	65	11	14	13

Note: The majors Astronomy and Oceanography did not have any awarded degrees for the years shown.

**Awarded Associate in Arts degrees for Math, Science and Engineering by academic year**



**Awarded Associate in Science degrees for Math, Science and Engineering by academic year**



<b>Grade distribution and success rate for Saddleback College by academic year</b>				
		<b>2005-2006</b>	<b>2006-2007</b>	<b>2007-2008</b>
<b>Saddleback College</b>	<b>A</b>	36,109	37,037	40,370
	<b>B</b>	21,849	22,466	23,715
	<b>C</b>	13,785	14,349	14,510
	<b>Credit</b>	7,118	7,747	7,820
	<b>D</b>	4,399	4,487	4,719
	<b>Fail</b>	10,823	12,160	12,598
	<b>No Credit</b>	1,894	2,175	2,341
	<b>Withdrawal</b>	11,845	12,219	12,525
	<b>Grand Total</b>	107,822	112,640	118,598
	<b>Success Rate</b>	<b>73%</b>	<b>72%</b>	<b>73%</b>

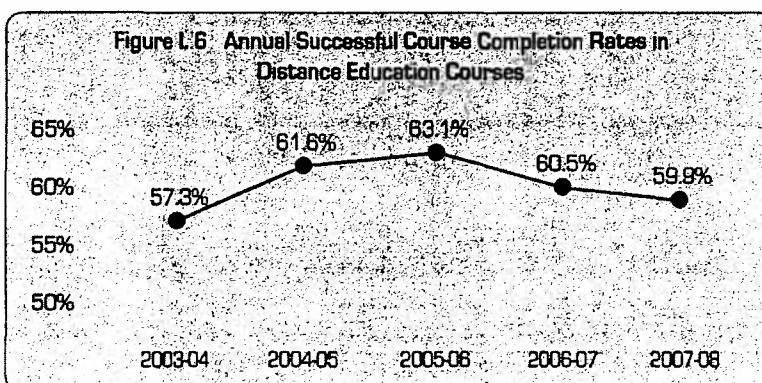
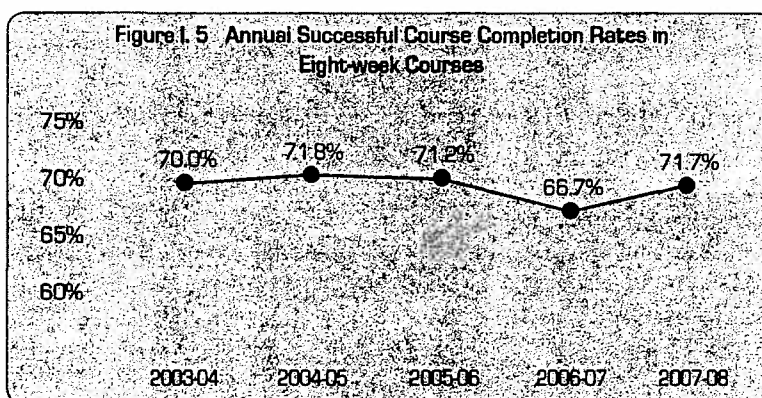
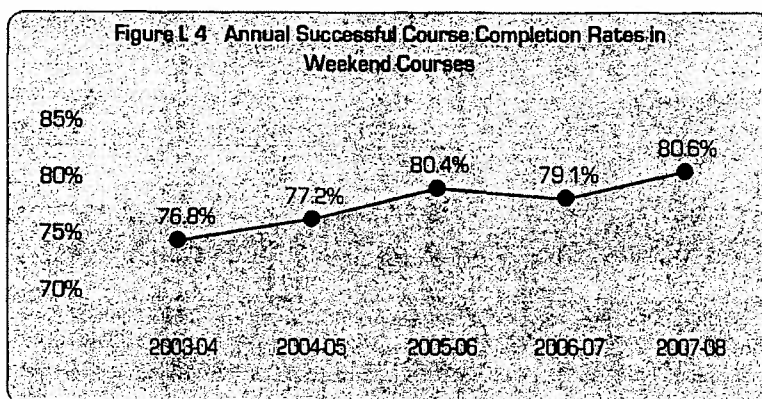
<b>Grade distribution and success rate for the MS Division by academic year</b>				
		<b>2005-2006</b>	<b>2006-2007</b>	<b>2007-2008</b>
<b>MS Division</b>	<b>A</b>	2,794	2,903	3,056
	<b>B</b>	2,845	2,970	3,078
	<b>C</b>	3,021	3,007	2,924
	<b>Credit</b>	211	203	242
	<b>D</b>	1,263	1,272	1,237
	<b>Fail</b>	2,028	2,097	2,201
	<b>No Credit</b>	165	170	193
	<b>Withdrawal</b>	2,525	2,695	2,462
	<b>Grand Total</b>	14,852	15,317	15,393
	<b>Success Rate</b>	<b>60%</b>	<b>59%</b>	<b>60%</b>

<b>Grade distribution and success rate for DE courses for Saddleback College by academic year</b>				
		<b>2005-2006</b>	<b>2006-2007</b>	<b>2007-2008</b>
<b>Saddleback College</b>	<b>A</b>	3,643	4,901	6,137
	<b>B</b>	2,143	3,088	4,062
	<b>C</b>	1,279	1,878	2,229
	<b>Credit</b>	278	308	371
	<b>D</b>	403	541	809
	<b>Fail</b>	2,027	3,409	3,549
	<b>No Credit</b>	123	188	185
	<b>Withdrawal</b>	1,670	2,464	2,628
	<b>Grand Total</b>	11,566	16,777	19,970
	<b>Success Rate</b>	<b>63%</b>	<b>61%</b>	<b>64%</b>

<b>Grade distribution and success rate for DE courses in the MS Division by academic year</b>				
		<b>2005-2006</b>	<b>2006-2007</b>	<b>2007-2008</b>
<b>MS Division</b>	<b>A</b>	88	180	207
	<b>B</b>	85	137	181
	<b>C</b>	68	92	94
	<b>Credit</b>	4	11	10
	<b>D</b>	28	19	38
	<b>Fail</b>	26	75	66
	<b>No Credit</b>	2	4	7
	<b>Withdrawal</b>	89	126	111
	<b>Grand Total</b>	390	644	714
	<b>Success Rate</b>	<b>63%</b>	<b>65%</b>	<b>69%</b>

Note: The success rate is calculated by dividing the numerator (number of students with A, B, C, CR) by the denominator (number of students with A, B, C, D, F, CR, NC, W, I). Source: Data Warehouse, INFORM, Enrollment Cube, January 28, 2009

The college has made a commitment to providing instruction via alternative delivery modes to meet the educational needs of students. Weekend courses have the highest rates of successful completion, exceeding the rates of any other type of courses (see Figure I. 4). Short courses experienced a decline in success rates in 2006-07 but rebounded in 2007-08. (see Figure I. 5). Distance education courses continue to have success rates lower than the college wide rates (see Figure I. 6). While success rates in Distance Education classes appear to be lower than in traditional classes, this is due in part to the high number of "F" grades caused by the difficulties instructors have in dropping students who stop logging into classes. In traditional classes, lack of attendance is far easier to ascertain and students are dropped accordingly.



**Progression from Basic Skills to College Level Courses**

Basic Skills courses are defined as courses that are two or more levels below college level English or Math courses. Students enrolled in any basic skills English or Math courses in three consecutive fall semester cohorts were tracked over a three-year period to determine the extent to which they a) progressed into college level English or Math and b) completed with grades of C/CR or better. Over the five year period, the average rate for students who completed a basic skills English course and then completed a college level English course was 67%. For students who started in basic skills Math and succeed at a college level Math course the average rate over five years was 56% (see Table I.1).

**Table I.1 Progression from Basic Skills to College Level English or Math Courses**

ENGLISH	Number		Rate
	in Cohort	Completing College Level English in 3 Years	
Fall 98	998	681	68.2%
Fall 99	1,057	746	70.6%
Fall 00	1,047	687	63.7%
Fall 02	1,090	699	64.1%
Fall 03	1,060	728	68.7%

MATH	Number		Rate
	in Cohort	Completing College Level Math in 3 Years	
Fall 98	908	484	53.3%
Fall 99	858	477	55.6%
Fall 00	805	440	54.7%
Fall 02	1,008	580	57.5%
Fall 03	967	585	56.4%

Saddleback's rates for four of the seven ARCC performance indicators exceed the average of corresponding peer groups (see Table I. 5). Saddleback has the highest rate within its peer group for the improvement rate of credit basic skills courses.

**Table I. 5 ARCC Peer Grouping**

ARCC Indicator	SC's Rate	Peer Group Average	Peer Group Low	Peer Group High	Peer Group
Student Progress and Achievement Rate	59.8	57.4	50.1	65.6	Alameda; Berkeley City College; Cabrillo; Foothill; Irvine Valley; Laney; Marin; MiraCosta; Ohlone; Saddleback; San Diego; Miramar; San Francisco City; San Mateo; West Valley
Percentage of Students who Earned at Least 30 units	76.9	74.0	67.6	79.8	American River; De Anza; Diablo Valley; Moorpark; Mt. San Antonio; Orange Coast; Palomar; Pasadena City; Riverside; Saddleback; San Francisco City; Santa Ana; Santa Monica City; Santa Rosa
Persistence Rate	72.1	70.7	63.5	78.1	Canada; Evergreen Valley; Foothill; Irvine Valley; Las Positas; Marin; Mission; Ohlone; Saddleback; San Jose City; San Mateo; West Valley
Annual Successful Course Completion Rate for Credit Vocational Courses	77.9	75.4	65.8	86.8	Allan Hancock; Barstow; Berkeley City College; Canada; Cerro Coso; Coastline; Columbia; Compton; Contra Costa; Cuyamaca; Feather River; Folsom Lake; Glendale; Irvine Valley; LA City; Lake Tahoe; Laney; Marin; Mendocino; Merced; Merritt; Mission; Monterey; Napa Valley; Saddleback; Santa Rosa; Southwest LA; West LA; West Valley
Annual Successful Course Completion Rate for Credit Basic Skills Courses	64.0	66.9	57.9	81.9	Canada; De Anza; Diablo Valley; Foothill; Irvine Valley; Marin; Ohlone; Saddleback; San Mateo; West Valley
Improvement Rate for Credit Basic Skills Courses	56.8	43.5	24.2	56.8	Diablo Valley; Orange Coast; Saddleback; Santa Monica
Improvement Rate for Credit ESL Course	31.8	51.6	28.9	71.6	American River; De Anza; Diablo Valley; Foothill; Palomar; Saddleback; San Diego Mesa; San Francisco City; Santa Monica City; Santa Rosa

<b>Saddleback College</b> South Orange County Community College District
<b>College Performance Indicators</b>

## Student Progress and Achievement: Degree/Certificate/Transfer

**Table 1.1:** Student Progress and Achievement Rate  
Percentage of first-time students who showed intent to complete and who achieved any of the following outcomes within six years: Transferred to a four-year college; or earned an AA/AS; or earned a Certificate (18 units or more); or achieved "Transfer Directed" status; or achieved "Transfer Prepared" status. (See explanation in Appendix B.)

	2000-2001 to 2005-2006	2001-2002 to 2006-2007	2002-2003 to 2007-2008
<b>Student Progress and Achievement Rate</b>	60.9%	60.5%	60.8%

**Table 1.1a:** Percent of Students Who Earned at Least 30 Units  
Percentage of first-time students who showed intent to complete and who earned at least 30 units while in the California Community College System. (See explanation in Appendix B.)

	2000-2001 to 2005-2006	2001-2002 to 2006-2007	2002-2003 to 2007-2008
<b>Percent of Students Who Earned at Least 30 Units</b>	77.3%	77.0%	76.6%

**Table 1.2:** Persistence Rate  
Percentage of first-time students with a minimum of six units earned in a Fall term and who returned and enrolled in the subsequent Fall term anywhere in the system. (See explanation in Appendix B.)

	Fall 2004 to Fall 2005	Fall 2005 to Fall 2006	Fall 2006 to Fall 2007
<b>Persistence Rate</b>	73.8%	72.2%	74.5%

NA: This performance indicator is not applicable for schools of continuing education



<b>Saddleback College</b> South Orange County Community College District
<b>College Performance Indicators</b>

## Student Progress and Achievement: Vocational/Occupational/Workforce Development

**Table 1.3:**  
Annual Successful Course  
Completion Rate for  
Credit Vocational Courses

See explanation in Appendix B.

	2005-2006	2006-2007	2007-2008
<b>Annual Successful Course Completion Rate for Vocational Courses</b>	78.5%	77.9%	76.2%

## Pre-Collegiate Improvement: Basic Skills, ESL, and Enhanced Noncredit

**Table 1.4:**  
Annual Successful Course  
Completion Rate for  
Credit Basic Skills Courses

See explanation in Appendix B.

	2005-2006	2006-2007	2007-2008
<b>Annual Successful Course Completion Rate for Basic Skills Courses</b>	63.7%	64.0%	61.9%

**Table 1.5:**  
Improvement Rates for ESL  
and Credit Basic Skills Courses

See explanation in Appendix B.

	2003-2004 to 2005-2006	2004-2005 to 2006-2007	2005-2006 to 2007-2008
<b>ESL Improvement Rate</b>	36.3%	35.3%	36.1%
<b>Basic Skills Improvement Rate</b>	58.5%	56.9%	59.5%

**Table 1.6:**  
Career Development and  
College Preparation (CDCP)  
Progress and Achievement Rate

See explanation in Appendix B.

	2003-2004 to 2005-2006	2004-2005 to 2006-2007	2005-2006 to 2007-2008
<b>CDCP Progress and Achievement Rate</b>	15.9%	13.5%	14.0%

Blank cell (% only) = No CDCP data for cohort (college may not have CDCP courses)  
0% in cell = CDCP cohort data, but no outcome data as of report date

NA: This performance indicator is not applicable for schools of continuing education



<b>Saddleback College</b> South Orange County Community College District
<b>College Profile</b>

**Table 1.7:**  
Annual Unduplicated Headcount and Full-Time Equivalent Students (FTES)

	2005-2006	2006-2007	2007-2008
<b>Annual Unduplicated Headcount</b>	33,278	33,957	35,401
<b>Full-Time Equivalent Students (FTES)*</b>	14,186	15,311	16,169

Source: The annual unduplicated headcount data are produced by the Chancellor's Office, Management Information System. The FTES data are produced from the Chancellor's Office, Fiscal Services 320 Report.  
 \*FTES data for 2005-2006 and 2006-2007 are based on the FTES recalculation. FTES data for 2007-2008 are based on the FTES annual data. The 2007-2008 recalculation data were not available at the time of this report.

**Table 1.8:**  
Age of Students at Enrollment

	2005-2006	2006-2007	2007-2008
<b>19 or less</b>	22.9%	23.2%	23.7%
<b>20 - 24</b>	24.2%	25.3%	24.8%
<b>25 - 49</b>	27.5%	26.4%	26.4%
<b>Over 49</b>	25.3%	25.0%	25.0%
<b>Unknown</b>	0.1%	0.1%	0.1%

Source: Chancellor's Office, Management Information System

**Table 1.9:**  
Gender of Students

	2005-2006	2006-2007	2007-2008
<b>Female</b>	59.8%	59.9%	59.9%
<b>Male</b>	40.1%	39.7%	39.5%
<b>Unknown</b>	0.1%	0.4%	0.6%

Source: Chancellor's Office, Management Information System



**Saddleback College**

South Orange County Community College District

**College Profile****Table 1.10:**  
Ethnicity of Students

	2005-2006	2006-2007	2007-2008
<b>African American</b>	1.6%	1.6%	1.6%
<b>American Indian/Alaskan Native</b>	0.6%	0.7%	0.6%
<b>Asian</b>	8.4%	8.8%	8.9%
<b>Filipino</b>	2.0%	2.0%	1.9%
<b>Hispanic</b>	12.6%	12.6%	12.6%
<b>Other Non-White</b>	1.1%	1.4%	1.7%
<b>Pacific Islander</b>	0.6%	0.6%	0.6%
<b>Unknown/Non-Respondent</b>	8.0%	9.0%	10.0%
<b>White Non-Hispanic</b>	65.1%	63.2%	62.0%

Source: Chancellor's Office, Management Information System



**Saddleback College**

South Orange County Community College District

**College Peer Grouping**

Table 1.11: Peer Grouping

	Indicator	College's Rate	Peer Group Average	Peer Group Low	Peer Group High	Peer Group
A	Student Progress and Achievement Rate	60.8	55.4	42.6	68.0	A4
B	Percent of Students Who Earned at Least 30 Units	76.6	73.9	67.9	82.7	B4
C	Persistence Rate	74.5	71.3	63.0	78.1	C6
D	Annual Successful Course Completion Rate for Credit Vocational Courses	76.2	75.1	62.3	84.6	D1
E	Annual Successful Course Completion Rate for Credit Basic Skills Courses	61.9	63.7	53.9	81.5	E3
F	Improvement Rate for Credit Basic Skills Courses	59.5	52.6	36.5	62.0	F2
G	Improvement Rate for Credit ESL Courses	36.1	49.7	32.4	68.2	G4

Note: Please refer to Appendices A and B for more information on these rates. The technical details of the peer grouping process are available in Appendix D.

