



**Program Review Data**

**Chemistry**

**Spring 2011**

- Programs are based on the categories used in the 2010 Comprehensive Master Plan.
- If a course is cross-listed between two programs, the designated “parent” course is credited with all associated data.
- References to “College-Wide” totals are specific to totals within the Credit, Noncredit and Adult High School Programs.
- All data, with the exception of the degrees awarded and discipline budgets, are based on Fall and Spring terms only. Summers are excluded.
- Enrollment figures for credit courses are based only on those students who were enrolled in the course at census. Noncredit enrollment is based on those students receiving 1 or more positive attendance hours in that course.

**Program Performance**

*1. Weekly Student Contact Hours (WSCH)*

	WSCH Fall 2009	WSCH Fall 2010	CMP Target WSCH Fall 2015	CMP Target WSCH Fall 2020
<b>Fall WSCH</b>	4,434.35	4,880.75	5,276.00	6,252.00
<b>College-wide WSCH</b>	127,312.64	136,378.91		

Note: Not all programs were assigned a specific WSCH target as a part of the master planning process. If those cells are empty, no data was available at the time of this report.

	WSCH 2009-2010	WSCH 2010-2011
<b>Annual WSCH</b>	9,011.38	9,882.13
<b>College-wide Annual WSCH</b>	258,834.45	277,107.82

2. *Weekly Student Contact Hours/Full-time Equivalent Faculty (WSCH/FTEF)*

	WSCH/FTEF Fall 2009	WSCH/FTEF Fall 2010	CMP Target WSCH/FTEF Fall 2015	CMP Target WSCH/FTEF Fall 2020
<b>Fall WSCH/FTEF</b>	443.43	451.92	434	434
<b>College-wide WSCH/FTEF</b>	407	414		

Note: Not all programs were assigned a specific WSCH/FTEF target as a part of the master planning process. If those cells are empty, no data was available at the time of this report.

	WSCH/FTEF 2009-2010	WSCH/FTEF 2010-2011
<b>Annual WSCH/FTEF</b>	437	453
<b>College-wide Annual WSCH/FTEF</b>	410	415

3. *Fill Rate*

	Fill Rate Fall 2009	Fill Rate Fall 2010	CMP Target Fill Rate Fall 2015	CMP Target Fill Rate Fall 2020
<b>Fall Fill Rate</b>	98%	99%	95%	95%
<b>College-wide Fill Rate</b>	89%	94%		

Note: Not all programs were assigned a specific fill-rate target as a part of the master planning process. If those cells are empty, no data was available at the time of this report.

	Fill Rate 2009-2010	Fill Rate 2010-2011
<b>Annual Fill Rate</b>	96%	99%
<b>College-wide Annual Fill Rate</b>	90%	92%

4. *Weekly Faculty Contact Hours (WFCH)*

	2009-2010	2010-2011
<b>WFCH</b>	309	327
<b>College-wide WFCH</b>	9,625.88	9,517.87

5. *Full-Time Equivalent Students (FTES)*

	2009-2010	2010-2011
<b>FTES</b>	300.38	329.40
<b>College-wide FTES</b>	8,627.81	9,236.93

6. *Full-Time Equivalent Students/Weekly Faculty Contact Hours (FTES/WFCH)*

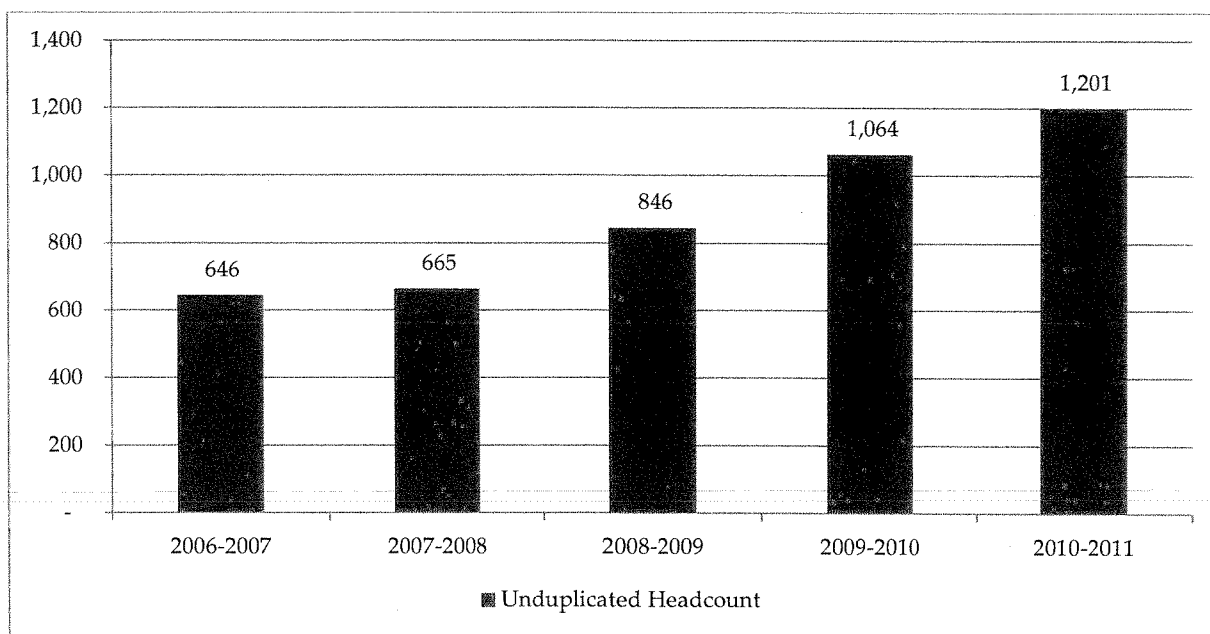
	2009-2010	2010-2011
<b>FTES/WFCH</b>	0.97	1.01
<b>College-wide FTES/WFCH</b>	0.90	0.97

7. *Student Headcount (Unduplicated)*

The student headcount is number of students taking at least one course within the discipline, excluding 292 and 299 courses.

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
<b>Unduplicated Headcount</b>	646	665	846	1,064	1,201
<b>College-Wide Unduplicated Headcount</b>	14,922	15,465	17,024	18,786	19,414

### Unduplicated Headcount

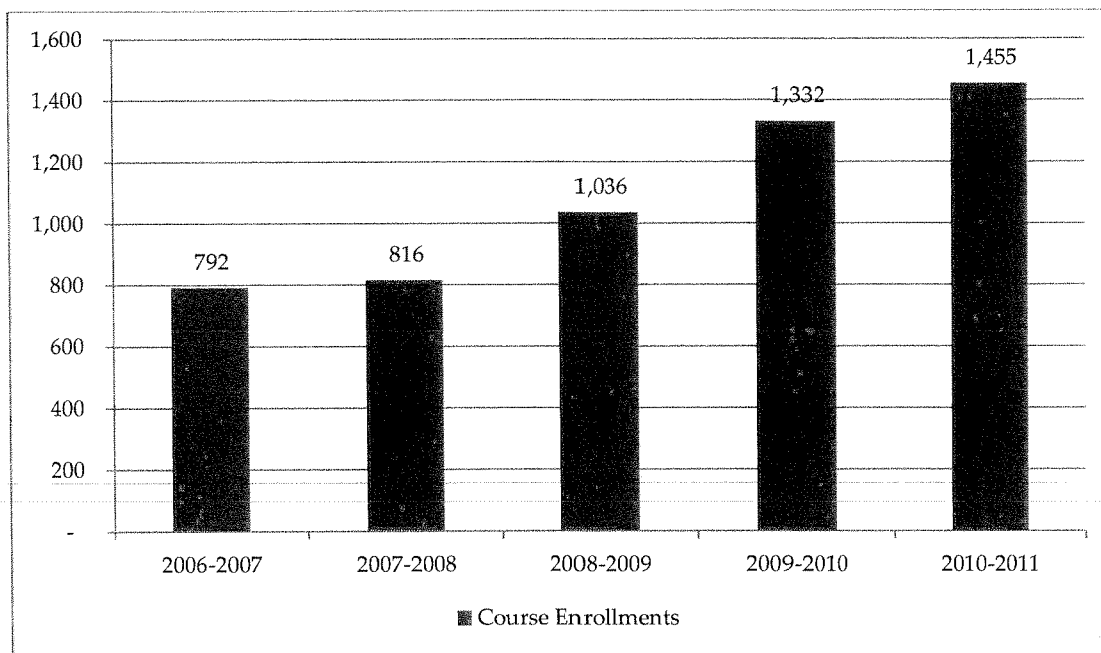


### 8. Total Course Enrollments

The count of total course enrollments is the total number of times students enroll in a class within the discipline.

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
<b>Course Enrollments</b>	792	816	1,036	1,332	1,455
<b>College-wide Enrollments</b>	55,394	58,211	65,119	74,561	77,245

Total Enrollments

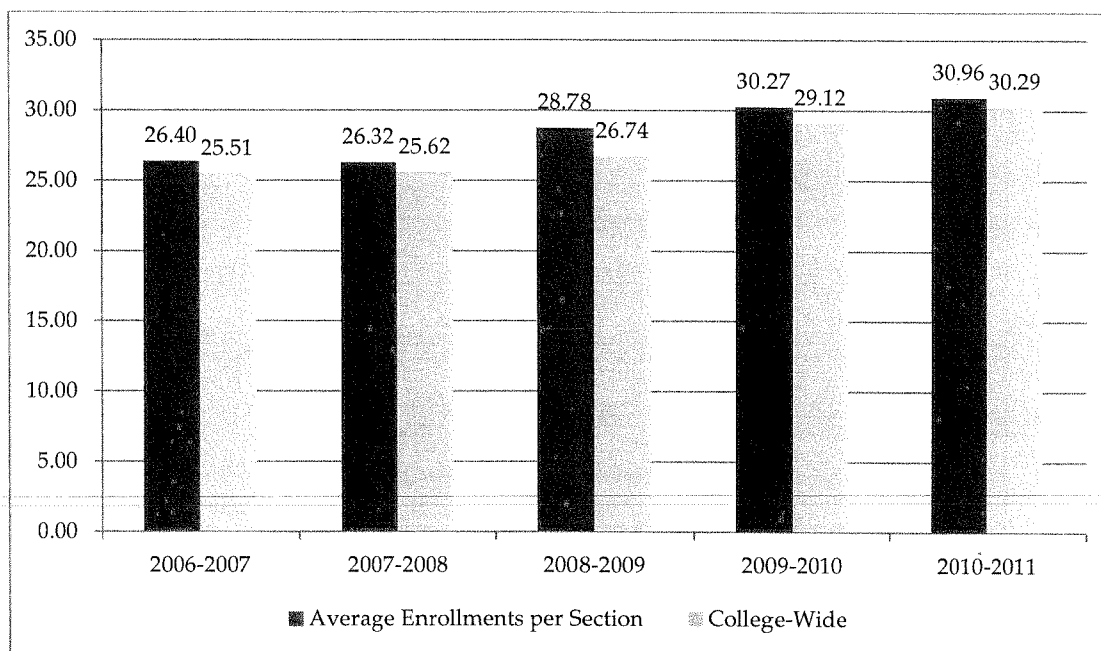


9. Average Enrollments per Section

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
Average Enrollments per Section	26.40	26.32	28.78	30.27	30.96
Average Enrollments per Section College-wide	25.51	25.62	26.74	29.12	30.29

Note: WKEX and classes with 100+ students enrolled have been removed from the college-wide averages.

Average Enrollments Per Section



10. Number of Course Offerings per Academic Year

The number of course offerings jumped between 2008-2009 and 2009-2010 due to the modification of certain course catalog numbers to include the unit amounts.

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
<b>Course Offerings per Academic Year</b>	7	8	8	8	8
<b>Course Offerings College-wide</b>	596	610	639	691	682

11. Number of Course Sections per Academic Year

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
<b>Course Sections per Academic Year</b>	30	31	36	44	47
<b>Course Sections College-wide</b>	2,190	2,298	2,473	2,623	2,656

12. Number of Unduplicated Courses in Catalog

	2010-2011
<b>Unduplicated Courses</b>	11
<b>College-wide Unduplicated Courses</b>	909

13. Successful Course Completion

Within the credit program, successful course completion is the percentage of students who complete a course with a grade of "C" or better. In the Adult High School program, it is based on those students who complete a course with a grade of "D" or better.

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011 <sup>1</sup>
<b>Successful Course Completion</b>	70%	71%	72%	73%	69%
<b>College-wide Successful Course Completion<sup>2</sup></b>	66%	66%	68%	68%	68%
<b>Statewide Successful Course Completion</b>	66%	65%	66%	66%	66%

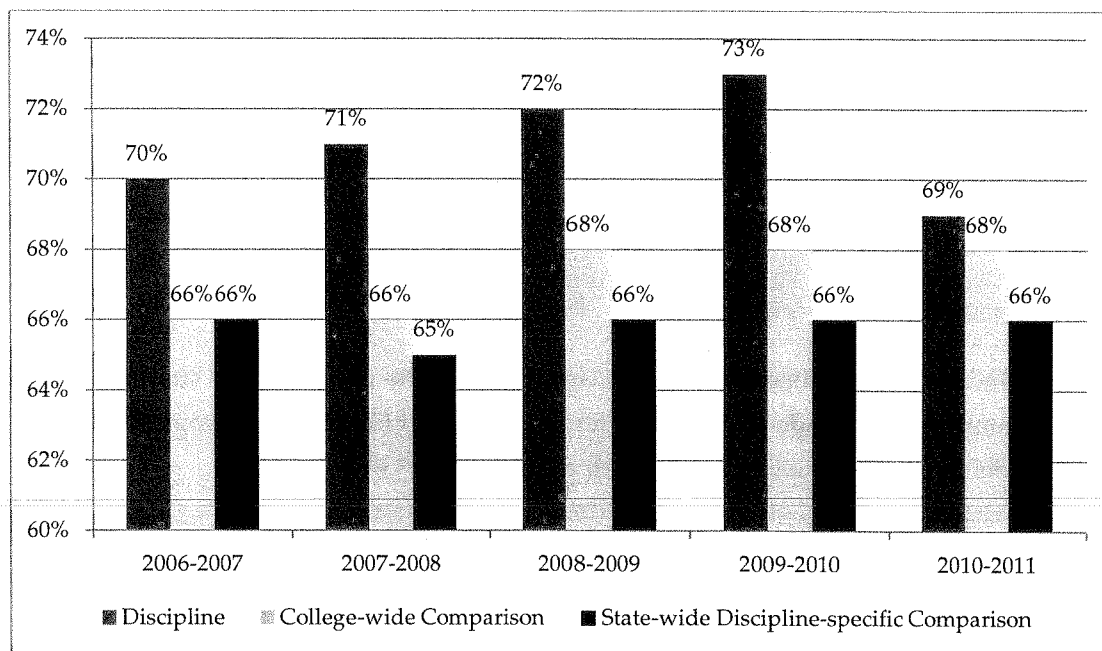
Source: Statewide figures are from the California Community College's Chancellor's Office Datamart and are specific to the individual discipline.

Note: If cells are empty, it means that there were no comparable data available.

<sup>1</sup> Spring 2011 is not yet available from the Datamart. Statewide figure is based on Fall only

<sup>2</sup> College-wide comparisons are made against only other appropriate credit/noncredit programs.

## Successful Completion



### 14. Retention

For both credit and noncredit programs, retention is defined as the percentage of students who complete a course with any grade other than a W or MW.

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011 <sup>3</sup>
<b>Student Retention</b>	82%	82%	82%	83%	79%
<b>College-wide Retention<sup>4</sup></b>	80%	81%	81%	82%	82%
<b>Statewide Student Retention</b>	79%	79%	80%	80%	80%

Source: Statewide figures are from the California Community College's Chancellor's Office Datamart and are specific to the individual discipline.

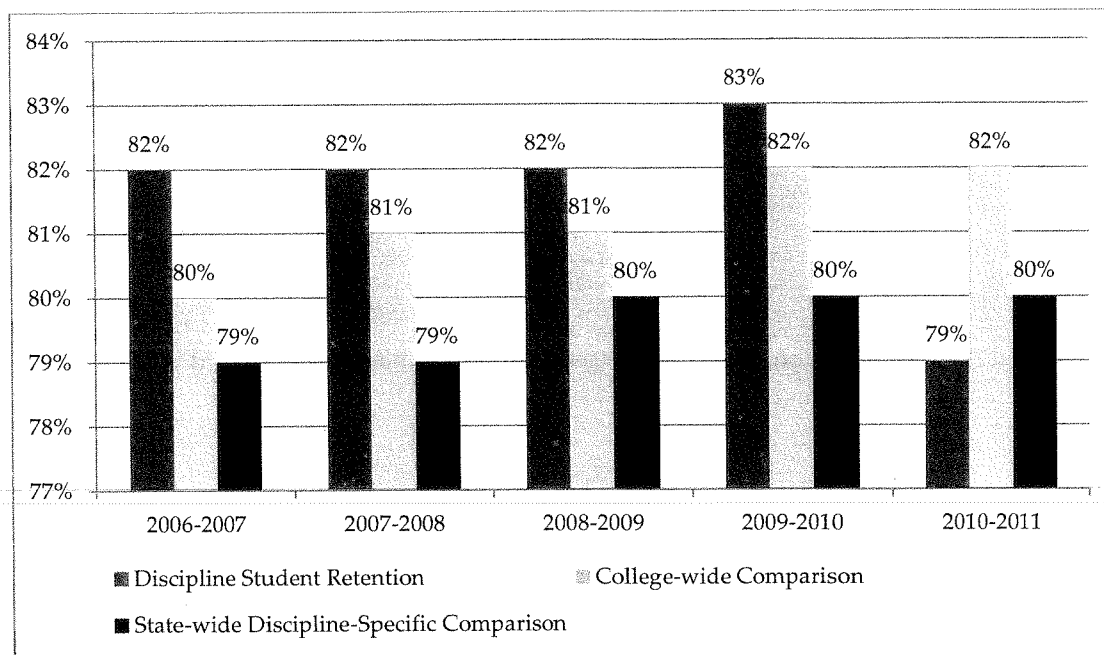
Note: If cells are empty, it means that there were no comparable data available.

<sup>3</sup> Spring 2011 is not yet available from the Datamart. Statewide figure is based on Fall only.

<sup>4</sup> College-wide comparisons are only made against other Credit/Noncredit courses.



## Retention



### 15. Average Units Attempted per Academic Year (Credit Programs Only)

The average units attempted refers to the total units enrolled by students taking at least one course within the discipline.

This data element is under construction.

### 16. Average Units Earned per Academic Year (Credit Programs Only)

The average units earned refers to the total units completed with a grade of "C" or better by students taking at least one course within the discipline.

This data element is under construction.

### 17. Annual Grade Point Average (Credit Programs Only)

What is the overall grade point average of students taking at least one course within the discipline?

This data element is under construction.

18. Average Cumulative Grade Point Average (Credit Programs Only)

This data element is under construction.

19. Number of Completed Student Learning Outcome (SLO) Assessment Cycles this Academic Year

For the latest SLO information, please refer to the SLO summary report dated 9-22-2011.

20. Degrees and Certificates Awarded

	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011
<b>CHEM</b>					
Associate in Arts	7	4	9	7	2
Associate in Arts in University Studies: BioChemistry	3	1	4	1	1
Associate in Arts in University Studies: Chemical Engineering			1	2	
Associate in Arts in University Studies: Chemistry	3	1	3	2	
Associate in Arts in University Studies: Environmental Systems/Chemistry				1	1
Associate in Arts in University Studies: MAE - Chemical Engineering				1	
Associate in Arts in University Studies: Pharmacological Chemistry	1	2	1		
<b>Grand Total</b>	<b>7</b>	<b>4</b>	<b>9</b>	<b>7</b>	<b>2</b>

Degrees and certificate counts may differ from previous reports due to a change in the reporting period. All degrees are accurately reflected, but may be counted in a different year.

It should be noted that some degrees are included that are no longer offered by MiraCosta College. In these cases, students started the degree several years ago, and completed it within the current time-frame.

In addition to the list of degrees awarded above, degrees covering multiple disciplines are included in the next table. These may or may not be applicable to your program.

	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011
<b>Arts and Humanities</b>					
Associate in Arts in General Studies with an Area of Emphasis in Arts and Humanities				5	5
Associate in Arts in Liberal Arts with an Area of Emphasis in Arts and Humanities					59
<b>Arts and Technology</b>					
Associate in Arts in University Studies: Arts and Technology		1			
Certificate of Proficiency in Arts and Technology	1	1	1		
<b>Creative and Applied Art</b>					
Associate in Arts in Liberal Arts with Area of Emphasis in Creative and Applied Arts					7
<b>CSU General Education</b>					
Certificate of Achievement in CSU General Education					161
<b>English and Literature</b>					
Associate in Arts in University Studies: English and Literature				1	5
<b>General Studies/Liberal Arts</b>					
Associate in Arts in General Studies	95	104	81	66	29
Associate in Arts in University Studies: Liberal Studies	6	4	7	9	2
<b>IGETC Certification</b>					
Certificate of Achievement in IGETC					117
<b>Math and Economics</b>					
Associate in Arts in University Studies: Joint Major in Math and Economics		1			
<b>Math and Sciences</b>					
Associate in Arts in Liberal Arts with Area of Emphasis in Mathematics and Sciences					27
<b>Multicultural Studies</b>					
Associate in Arts in Liberal Arts with an Area of Emphasis in Multicultural Studies					2
<b>Social and Behavioral Sciences</b>					
Associate in Arts in General Studies: Area of Emphasis in Social and Behavioral Sciences				5	6
Associate in Arts in Liberal Arts Area of Emphasis in Social and Behavioral Sciences					49
Associate in Arts in Social/Behavioral Sciences	1				
<b>Visual and Performing Arts</b>					
Associate in Arts in University Studies: Visual and Performing Arts	1		2	5	

21. Grade Distribution – 2010-2011

	A	B	C	CR	P	D	F	NC	NP	I	IP	MW	W	Total Grades
<b>CHEM</b>	25%	26%	18%	0%	0%	5%	5%	0%	0%	0%	0%	0%	21%	1455
<b>CHEM100</b>	25%	17%	21%	0%	0%	7%	5%	0%	0%	0%	0%	0%	25%	237
<b>CHEM102</b>	34%	28%	16%	0%	0%	5%	2%	0%	0%	0%	0%	0%	16%	58
<b>CHEM104</b>	30%	25%	8%	0%	0%	6%	4%	0%	0%	0%	0%	0%	28%	145
<b>CHEM108</b>	18%	22%	16%	0%	2%	4%	10%	0%	0%	0%	0%	0%	29%	385
<b>CHEM110</b>	27%	31%	19%	0%	0%	5%	3%	0%	0%	0%	0%	0%	15%	306
<b>CHEM111</b>	19%	31%	28%	0%	1%	5%	3%	0%	0%	0%	0%	0%	13%	154
<b>CHEM210</b>	40%	35%	13%	0%	0%	2%	0%	0%	0%	0%	0%	0%	10%	88
<b>CHEM211</b>	40%	29%	16%	0%	0%	2%	4%	0%	0%	0%	0%	0%	9%	82

22. Student Equity- 2010-2011

Pass Percentages by Age Category

	Pass		In Progress		Fail		Withdrawn		Total	
	n	%	n	%	n	%	n	%	n	%
<b>CHEM</b>	1010	69%	1	0%	144	10%	300	21%	1455	100%
<b>17 and Under</b>	54	75%		0%	6	8%	12	17%	72	100%
<b>18-24</b>	655	69%		0%	102	11%	188	20%	945	100%
<b>25-29</b>	190	70%		0%	26	10%	54	20%	270	100%
<b>30-34</b>	51	65%	1	1%	8	10%	18	23%	78	100%
<b>35-39</b>	19	59%		0%		0%	13	41%	32	100%
<b>40-44</b>	19	73%		0%	1	4%	6	23%	26	100%
<b>45-54</b>	17	71%		0%	1	4%	6	25%	24	100%
<b>55-64</b>	5	63%		0%		0%	3	38%	8	100%

Pass Percentages by Gender

	Pass		In Progress		Fail		Withdrawn		Total	
	n	%	n	%	n	%	n	%	n	%
<b>CHEM</b>	1,010	69%	1	0%	144	10%	300	21%	1455	100%
<b>Female</b>	526	68%		0%	84	11%	164	21%	774	100%
<b>Male</b>	484	71%	1	0%	60	9%	136	20%	681	100%

Pass Percentages by Ethnicity

	Pass		In Progress		Fail		Withdrew		Total	
	n	%	n	%	n	%	n	%	n	%
<b>CHEM</b>	1,010	69%	1	0%	144	10%	300	21%	1,455	100%
<b>African-American/Black</b>	20	63%		0%	5	16%	7	22%	32	100%
<b>American Indian/Alaskan Native</b>	5	50%		0%	1	10%	4	40%	10	100%
<b>Asian/Pac Island</b>	141	75%		0%	23	12%	24	13%	188	100%
<b>Hispanic</b>	141	59%	1	0%	34	14%	61	26%	237	100%
<b>Multiple</b>	114	66%		0%	23	13%	36	21%	173	100%
<b>Other Non White/Unknown</b>	56	78%		0%	4	6%	12	17%	72	100%
<b>White</b>	533	72%		0%	54	7%	156	21%	743	100%

## Program Resources

### 1. Budget

	2006-07	2007-08	2008-09	2009-10	2010-11
<b>Dept Chair, Physical Sciences</b>	<b>\$1,825,644</b>	<b>\$1,772,683</b>	<b>\$2,150,301</b>	<b>\$2,370,026</b>	<b>\$2,177,569</b>
Astronomy	\$59,567	\$59,259	\$104,035	\$128,674	\$112,849
Chemistry	\$1,019,843	\$1,070,828	\$1,281,994	\$1,309,152	\$913,662
Earth Science	\$25,228	\$0	\$0	\$0	\$87,212
Geology	\$105,284	\$147,879	\$159,757	\$183,757	\$94,251
Oceanography	\$220,732	\$192,673	\$212,634	\$260,869	\$206,863
Physical Science	\$118,535	\$185,827	\$153,506	\$190,431	\$511,575
Physics	\$276,455	\$116,217	\$238,375	\$297,143	\$251,157

## Program Personnel

### 1. Number of Classified Staff, Full and Part-Time

	2007	2008	2009	2010	2011
<b>CHEM</b>					<b>2</b>
<b>Instructional Assistant I</b>					
<b>Full-Time</b>					
Brown					1
<b>Instructional Associate</b>					
<b>Part-Time</b>					
Thiyagarajah					1

Note: The 2010-2011 academic year is the first year classified staff was identified specifically with the Chemistry program. There is also a generic "Physical Sciences" group that refers to multiple programs.

	2007	2008	2009	2010	2011
<b>Physical Sciences</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>1</b>
<b>Instructional Assistant I</b>					
<b>Part-Time</b>					
Brown				1	
<b>Instructional Associate</b>					
<b>Full-Time</b>					
Harrell	1	1	1	1	
Hernandez Jr	1	1	1	1	1
Thiyagarajah	1	1	1	1	

2. Full-Time Equivalent Faculty (FTEF)

	Fall 2009	Spring 2010	2009-2010 Total	Fall 2010	Spring 2011	2010-2011 Total
<b>FTEF Generated</b>	10.00	10.60	20.60	10.80	11.00	21.80

FTEF is normally calculated on a semester basis. When terms are added together to make up an academic year, adjustments need to be made so that a full-time faculty member is counted only once per year.

	2009-2010	2010-2011
<b>Annualized FTEF</b>	10.30	10.90

3. Reassigned Time (in FTEF)

	2009-2010	2010-2011
<b>Reassigned Time</b>	0.39	0.56

4. Full-Time Equivalent Faculty, Part-Time/Full-Time – Reassigned Time Excluded

	2009-2010			2010-2011		
	Full-Time	Part-Time	% Part-Time	Full-Time	Part-Time	% Part-Time
<b>FTEF</b>	5.63	4.67	45%	5.16	5.74	53%

5. Full-Time Equivalent Faculty, Part-Time/Full-Time – Reassigned Time Included

	2009-2010			2010-2011		
	Full-Time	Part-Time	% Part-Time	Full-Time	Part-Time	% Part-Time
<b>FTEF</b>	4.61	5.69	55%	3.94	6.96	64%

6. Untenured Faculty

	2009-2010			2010-2011		
	Total Faculty	Untenured Faculty	% Untenured	Total Faculty	Untenured Faculty	% Untenured
<b>Faculty</b>	5	1	20%	5	1	20%

Many faculty teach in more than one program (Humanities & Literature, for example), or are not attributed to a specific program.

## Program Curriculum

### 1. Compliance with 6-Year Updates

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**Per the Office of Instruction, credit and noncredit programs are in compliance with all 6-year updates.**

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### 2. Number and Percent of Approved Program Catalog Online/Hybrid – Credit only

		Courses	College-wide Total
2010-2011	Total Courses	11	909
	Online	2	289
	% Online	18%	32%

### 3. Courses with California State University/University of California Transfer Articulations.

		Courses	College-wide Total
2010-2011	Total Courses	11	909
	Articulated Courses	11	724
	% Articulated	100%	80%

### 4. Proportion of Catalog Courses with a Lab Component – Credit Only

		Courses	College-wide Total
2010-2011	Total Courses	11	909
	Lab	9	397
	% with Lab	82%	44%



## Program Students – 2010-2011

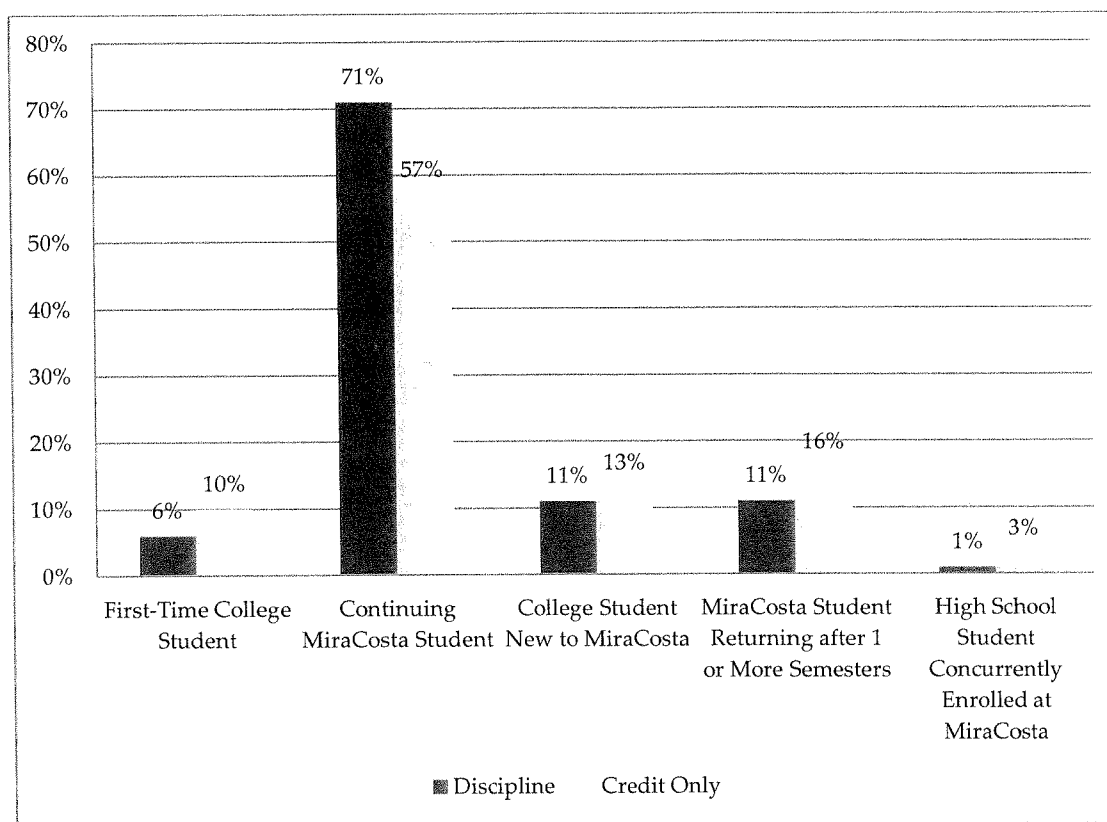
The following tables reflect the demographic characteristics of those students enrolled in at least one program course in Fall 2010 or Spring 2011. In cases where an enrollment status can change from one semester to the next, (i.e. educational goal, enrollment status, etc) the characteristic from the first enrolled semester is used.

### 1. Student Enrollment Status

	Discipline	Credit Only
First-Time College Student	6%	10%
Continuing MiraCosta Student	71%	57%
College Student New to MiraCosta	11%	13%
MiraCosta Student Returning after 1 or more semesters	11%	16%
High School Student Concurrently Enrolled at MiraCosta	1%	3%

Note: Due to the variability in the noncredit program, only credit disciplines will have comparative data.

#### Student Enrollment Status



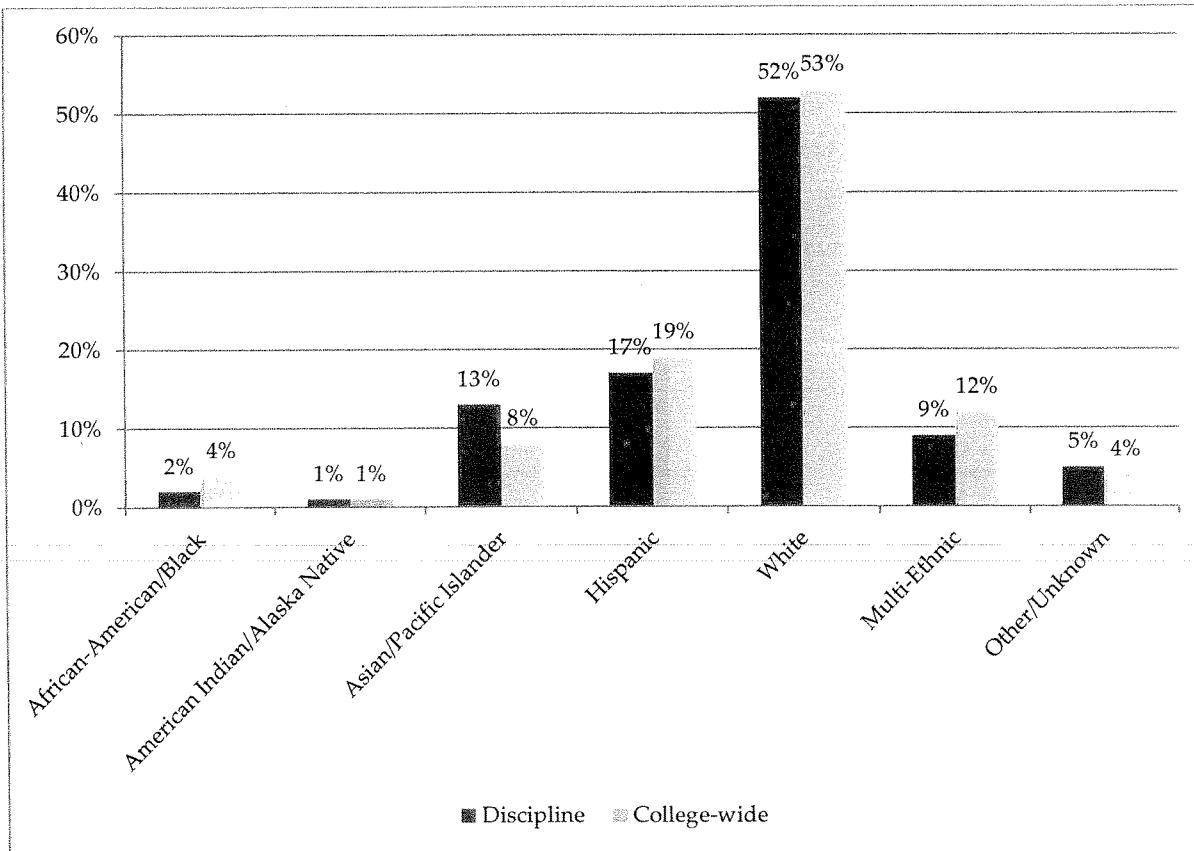
## 2. Student Goal Orientation

	Discipline	Credit Only
Obtain an associate degree and transfer to a 4-year institution	45%	39%
Transfer to a 4-year institution WITHOUT an associate's degree	26%	15%
Obtain a two-year associate's degree WITHOUT transfer	4%	8%
Obtain a two-year vocational degree WITHOUT transfer	1%	2%
Earn a vocational certificate WITHOUT transfer	0%	4%
Discover/formulate career interests, plans, goals	1%	2%
Prepare for a new career	5%	4%
Advance in current job/career (update job skills)	1%	3%
Maintain certificate or license (e.g. Nursing/Real Estate)	0%	1%
Educational Development (intellectual, cultural)	3%	4%
Improve basic skills in English, reading or math	1%	2%
Complete credits for high school diploma or GED	2%	1%
Undecided	6%	10%
To move from noncredit coursework to credit coursework	0%	0%
4-year college student taking courses to meet 4 year college requirements	5%	5%
Unknown	0%	0%

Note: Due to the variability in the noncredit program, only credit disciplines will have comparative data.

## 3. Student Demographics – Ethnicity

	Discipline	Credit Only
African-American/Black	2%	4%
American Indian/Alaska Native	1%	1%
Asian/Pacific Islander	13%	8%
Hispanic	17%	19%
White	52%	53%
Multi-Ethnic	9%	12%
Other/Unknown	5%	4%

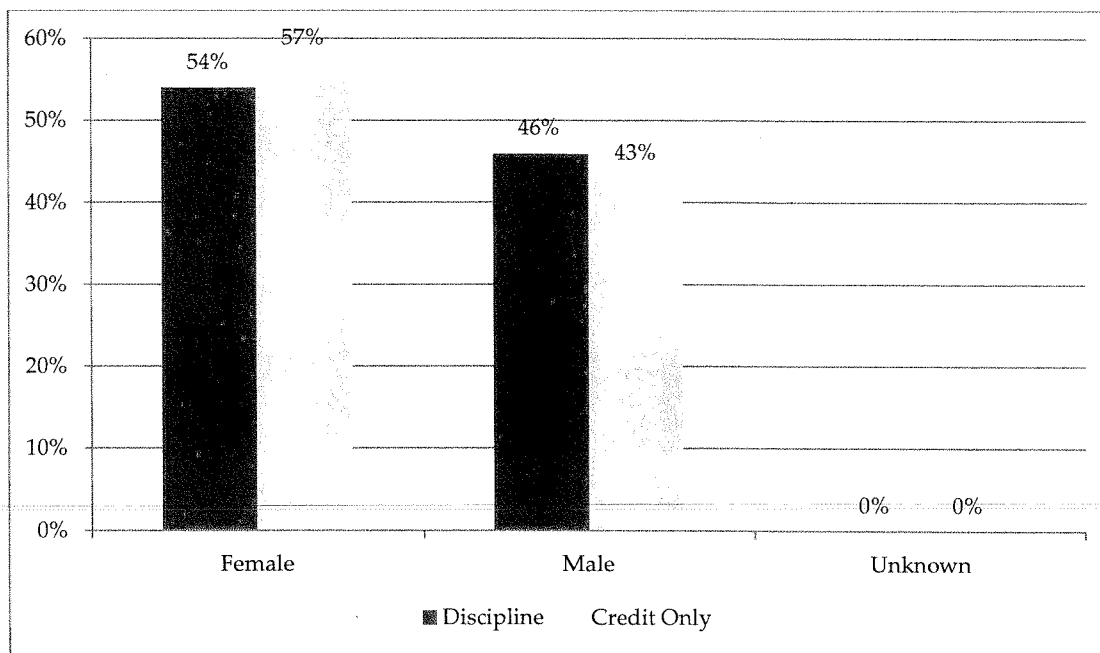


#### 4. Student Demographics – Gender

	Discipline	Credit Only
<b>Female</b>	54%	57%
<b>Male</b>	46%	43%
<b>Unknown</b>	0%	0%

Note: Due to the variability in the noncredit program, only credit disciplines will have comparative data.

Enrollment by Gender



5. Student Demographics – Age

	Discipline	Credit Only
17 and Under	4%	4%
18-20	37%	30%
21-24	27%	25%
25-29	19%	15%
30-34	6%	7%
35-39	2%	4%
40-44	1%	6%
45-54	2%	3%
55-64	1%	1%
65 and Older	0%	0%

Note: Due to the variability in the noncredit program, only credit disciplines will have comparative data.

6. Student Education Attainment Level

	Discipline	Credit Only
Not a graduate of, and no longer enrolled in high school	2%	2%
Special Admit student currently enrolled in K-12	1%	3%
Currently enrolled in Adult School	0%	0%
Received High School Diploma	74%	70%
Passed the GED or Received a High School Certificate of Equivalency/Completion	3%	5%
Received a Certificate of California High School Proficiency	2%	1%
Foreign Secondary School Diploma/Certificate of Graduation	3%	2%
Received an Associate's Degree	5%	5%
Received a Bachelor's degree or Higher	11%	12%
Unknown	0%	0%

Note: Due to the variability in the noncredit program, only credit disciplines will have comparative data.

