



**PROGRAM REVIEW OF LABS AND CENTERS**  
**Pilot Review – Phase I**

The Program Review process should serve as a mechanism for the assessment of performance that recognizes and acknowledges good performance and academic excellence, improves the quality of instruction and services, updates programs and services, and fosters self-renewal and self-study. Further, it should provide for the identification of weak performance and assist programs in achieving needed improvement. Finally, program review should be seen as a component of campus planning that will not only lead to better utilization of existing resources, but also lead to increased quality of instruction and service. A major function of program review should be to monitor and pursue the congruence between the goals and priorities of the college and the actual practices in the program or service.

~Academic Senate for California Community Colleges

**Name of Lab or Center: Anatomy Open Lab**  
**Division: Math Science**

**I. GENERAL PURPOSE OF THE LAB\*** (Data resources: CSM Course Catalog; Course Outline of Record; department records)

\*Note: The term "lab" will be used to refer to centers as well as labs in this document.

a. Briefly describe the general purpose of the lab.

- To provide anatomy students a space, time, resources and expertise to study their anatomy while taking anatomy (Biology 250) at CSM. It can also serve physiology students who would like tutoring from faculty.

b. List the courses that are linked to this lab.

Biology 250, anatomy

**II. STUDENT LEARNING OUTCOMES** (Data resources: SLOs listed on Course Outline of Record; records maintained by the department; CSM SLO/Assessment Coordinator; SLO Website – <http://www.collegeofsanmateo.edu/sloac/>; "Student Self-Assessment and Satisfaction Survey"; other lab surveys.)

a. Briefly describe the Student Learning Outcomes (SLOs) for the lab.

- Self-assess his/her anatomy or physiology study skills
- Master specific study strategies and know when and how to use them
- Be aware of his or her knowledge, and use strategies to learn concepts and facts

- Communicate concepts and knowledge clearly  
Use study tools and software appropriately

- b. **If an assessment of the lab's SLOs has been completed, briefly describe this evaluation. Which support services for courses or programs were assessed? How were they assessed? What are the findings of the assessment? Based upon this assessment, what changes to the lab will be considered or implemented in the future?**

This Spring, 26 students responded to the new campus wide lab survey which incorporated some of the lab's SLO content. The survey asks for student self report of progress toward each SLO and for narrative comments. When students were asked "To what extent did your work in this lab help your academic performance in courses linked to the lab or supported by this lab?" (n=22 respondents), 81.8% answered "Very helpful". In addition to the campus wide survey, during Spring of 2008 and Fall 2008 faculty involved with the lab also conducted assessment activities and developed and implemented a survey. See the attached 2008-2009 CSM Course SLO Form for Biology 880 (Anatomy Lab) for analysis, results and recommendations.

**2008-2009 CSM Course SLO Form**  
**Course Name: Bio 880, Anatomy Open Lab**

<b>Step 1. Student Learning Outcome(s) Defined (what students will learn, know, do or value at course end)</b>	<b>Step 2. Assessment Tool/ Measurement Instrument (identify methodology or tool for collection of evidence of learning e.g., pre/post tests, surveys, papers, anecdotal evidence, etc.)</b>	<b>Step 3. Assessment of SLO(s) (what were the assessment tool results e.g., raw data, scores, etc.?)</b>	<b>Step 4. Timelines/ Term Assessed (list dates when assessment tool will be administered and assessment data will be collected and analyzed)</b>	<b>Step 5. Analyze/Evaluate Assessment Results (identify who will review and analyze data from tests, surveys, etc. What do the measurement results reveal in relation to the learning outcome? )</b>	<b>Step 6. Recommendation/ Action</b>
1) Self-assess his/her anatomy or physiology study skills	Survey	See attached	Spring 2008  Fall 2008 revise survey	97% of student's responding said that the open lab made them aware of new strategies to study lab materials	Followup by interviewing students On their perception of their Study skills
2) Master specific study strategies and know when and how to use them	Survey	See attached	Spring 2008,  Fall 2008 revise survey	Survey really didn't get at this question	Instructors should meet to discuss Strategies to help students during Lab. Some instructors are providing Sample tests to students for practice.
3) Be aware of his or her knowledge, and use strategies to learn concepts and facts	Survey	See attached	Spring 2008  Fall 2008 revise survey	99% of students said the open lab made them aware of the usefulness of working in groups, learning possible test questions, asking their instructor questions	A survey question on "was the grade Commensurate with what you thought You knew."
4) Communicate concepts and knowledge clearly	Communication with lab instructors	See attached	Spring 2008  Fall 2008 Dialog with instructors	Most students developed a practice of using correct anatomical terms when speaking of concepts and knowledge	Could include data from tests?
5) Use study tools and software	Survey	See attached	Spring 2008	83% of respondents used the CSM	Followup by asking how they used these Resources.

appropriately			Fall 2008 revise survey	Anatomy website, 55% used the ISC, 33% used the library.	
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- c. If SLOs were assessed for courses or programs using the lab, briefly describe this evaluation. What are the findings of the assessment? Based upon this assessment, what changes to the lab will be considered or implemented in the future?

Biology 250, Anatomy has a set of SLOs that are assessed on a semester by semester basis. The SLO assessment has not yet been directly related to the Anatomy Open Lab for Spring semester, 2009. Responses to Question # 12 of the Student Satisfaction Survey stating "Based on your overall experience in the Anatomy Lab this semester, please indicate the extent to which you have made gains or progress in the following learning objectives identified below:" does indicate student perceptions of progress on SLOs that also apply to Biology 250. See results below:

	Major/Moderate Progress	Minor/No Progress
Express ideas and provide supporting evidence effectively in writing (n= 20)	80.0%	20.0%
Express ideas and provide supporting evidence effectively orally (n=21)	81.0%	19.0%
Comprehend, interpret, and analyze information I read (n=24)	91.7%	8.3%
Comprehend, interpret, and analyze information I hear (n=24)	91.7%	8.3%
Communicate effectively in a group or team situation (n=22)	100.0%	%
Comprehend, interpret, and analyze numerical and or quantitative calculations (n=16)	75.0%	25.0%
Interpret graphical representations of quantitative information (e.g. graphs) (n=15)	80.0%	20.0%
Effectively identify, develop, and evaluate arguments (n=19)	63.2%	36.8%
Effectively assess the legitimacy or adequacy of different types of information (n=21)	76.2%	23.8%
Work effectively with others of diverse backgrounds (n=22)	90.9%	9.1%
Identify ethical issues and evaluate their consequences (n=18)	72.2%	27.8%
Acknowledge the value of diverse opinions and perspectives (n=21)	76.2%	23.8%

- d. Using the results from the “Student Self-Assessment and Satisfaction Survey,” summarize the findings in the grid below on how students rated their progress on general education Student Learning Outcomes.

The column headings identify the GE-SLOs. The first row headings indicate the matrix/scale students used to self-assess progress.

GE SLOs→	Effective Communication	Quantitative Skills	Critical Thinking	Social Awareness and Diversity	Ethical Responsibility
Matrix/Scale:					
Major Progress/	87%	77.5%	80.7%	88.6%	72.2%
Moderate Progress					
Minor Progress/	13%	22.5%	19.3%	11.4%	17.8%
No Progress					
Does Not Apply to Lab					

Note that data combines “Major Progress with Moderate Progress” and “Minor Progress with No Progress”.

- e. If general education Student Learning Outcomes have been measured using another type of assessment, such as student surveys, summarize the findings in the grid below on how students rated their progress on these Student Learning Outcomes. (Please identify data sources.)

GE SLOs→	Effective Communication	Quantitative Skills	Critical Thinking	Social Awareness and Diversity	Ethical Responsibility
Matrix/Scale:					
Major Progress					
Moderate Progress					

Minor Progress					
No Progress					
Does Not Apply to Lab					

Only the general assessment as described in d. has been measured at this point.

III. **DATA EVALUATION** (Data resources: "Student Self-Assessment and Satisfaction Survey"; other lab surveys; "Student Profile Data for Labs, Spring 2009"; "Core Program and Student Success Indicators" for department(s) using lab obtained from the Office of Planning, Research, and Institutional Effectiveness – see website at [http://www.smccd.net/accounts/csmresearch/prie/program\\_review.html](http://www.smccd.net/accounts/csmresearch/prie/program_review.html).)

- a. Referring to all lab usage data available, evaluate the proportion of students using the facility versus the potential population of users. If data is available, indicate the number of users and specify whether this is a duplicated or unduplicated count. If applicable, discuss programmatic, course offering or scheduling changes being considered as a result of lab usage projections? Will any major changes being implemented in the program (e.g. changes in prerequisites, hours by arrangement, lab components) require significant adjustments to lab operations?

Since only 26 students completed the surveys in Spring 2009, the profile in the survey represents a very small segment of the student population that uses the Anatomy Open Lab. Attendance is logged on a computer in the lab that uses the SARS program. Log-in and log out compliance is estimated at 90%. There were 1,300 contact hours logged into SARS and another 257 hours recorded manually for a total of 1,557 hours. The number of unduplicated users was 130 students. This is approximately 100% of students in Bio 250 at 1<sup>st</sup> census. Students have requested more available hours in both the narrative portion of the survey and in class discussions. Weekend hours are especially popular and continue to be requested, especially by students enrolled in the evening sections of anatomy. In the future we should implement a survey asking students to designate best hours for open lab. At present hours are determined by room and staff availability. At this time there are no proposed changes in prerequisites, hours by arrangement or lab components that would require significant adjustment to lab operations.

- b. Discuss staffing of the lab. Obtain FTE data for classified and certificated personnel assigned to staff the lab (available from division deans). Evaluate the current data and departmental projections as indicated on the "Core Program and Student Success Indicators." If applicable, how does the full-time and part-time FTE affect program action steps and outcomes? What programmatic changes do trends in this area suggest? If student assistants work in the lab, discuss hours of employment, job duties, and how they support program services and scheduling.

Currently all hours in the anatomy lab are staffed by classified faculty. All assigned faculty members also teach Biology 250, Anatomy. This staffing pattern provides an appropriate academic environment for hour-by-arrangement assignments and other course related work, including cadaver work in the lab. Adjunct hours are paid 0.7 FTE per hour and full time faculty use the lab for office

hours or part of their load. The FLC cap for the anatomy staffing is currently .15 FTC. There are no student assistants working in the lab at this time.

- c. Report on student satisfaction as indicated in the “Student Self-Assessment and Satisfaction Survey” and, if applicable, as indicated in other student surveys.

See responses to questions 2-10 on the Student Self-Assessment and Satisfaction Survey.

Additional narrative comments by students included many positive experiences in the open laboratory and some possible misunderstandings of the purpose of the lab. Recurring comments included the following:

Provide more models and more time to work with cadavers

Not enough open labs.

Not enough structures for the amount of students.

The teachers were a lot of help but there were not too many times to choose from.

Some students felt that a more structured atmosphere in the open lab would be helpful while other students enjoyed the opportunity to form their own study groups and use the materials at their own pace. The recurring request was for more hours, especially before testing dates. There were hours where students were turned away from the laboratory or their time was limited due to overcrowding and high demand. The demand was highest on weekends.

IV. **STUDENT SUCCESS EVALUATION AND ANALYSIS** (Data resources: “Student Self-Assessment and Satisfaction Survey”; other lab surveys; “Student Profile Data for Labs, Spring 2009”; “Educational Master Plan, 2008” – see website at [http://www.smccd.net/accounts/csmresearch/prie/institutional\\_documents.html](http://www.smccd.net/accounts/csmresearch/prie/institutional_documents.html) ; student success data from departmental “Core Program and Student Success Indicators” – see website at [http://www.smccd.net/accounts/csmresearch/prie/program\\_review.html](http://www.smccd.net/accounts/csmresearch/prie/program_review.html) ; previous Program Review and Planning reports; other department records.)

- a. Based on findings from the “Student Self-Assessment and Satisfaction Survey” and other student surveys administered by the lab, briefly describe how effectively the lab addresses students’ needs relative to overall college student success rates. If applicable, identify unmet student needs related to student success and describe programmatic changes or other measures the department will consider or implement in order to improve student success. (Note that item IV b, below, specifically addresses equity, diversity, age, and gender.)

Please identify the survey instruments used and the number of respondents.



Among the 26 respondents to the surveys and data resources addressed above, average success and retention rates of the users of the anatomy lab were significantly higher than campus wide rates. Respondent' "Success" percentage was 91.8% as compared to the collegewide percentage of 68.7%. Retention of respondents was 95.1% compared to a retention percentage collegewide of 82.3%. Success rates could be improved by additional hours and staffing at times identified by students in future surveys.

- b. Briefly discuss how effectively the lab addresses students' needs specifically relative to equity, diversity, age, and gender. If applicable, identify unmet student needs and describe programmatic changes or other measures that will be considered or implemented in order to improve student success with specific regard to equity, diversity, age, and gender.

A review of the chart entitled "CSM Labs & Learning Centers: Student Profile, Spring 2009, Anatomy Lab/Number of Respondents:26" indicates that the only category with retention rates and non-success rates lower than the collegewide rates is under the demographic variable of "Ethnicity", Asian. With only 5 respondents in this category the data may not be statistically significant. Attempts are continually made to address the special needs of student users of the laboratory. Students with learning and physical disabilities are identified and appropriate accommodations are provided as needed.

V. REFLECTIVE ASSESSMENT OF INTERNAL AND EXTERNAL FACTORS AND PROGRAM/STUDENT SUCCESS (*Data Resources: "Student Self-Assessment and Satisfaction Survey"; other lab surveys; "Student Profile Data for Labs, Spring 2009"; "Educational Master Plan, 2008"; "2008-2013 College of San Mateo Strategic Plan" – see website at [http://www.smccd.net/accounts/csmresearch/prie/institutional\\_documents.html](http://www.smccd.net/accounts/csmresearch/prie/institutional_documents.html) ; student success data from departmental "Core Program and Student Success Indicators" – see website at [http://www.smccd.net/accounts/csmresearch/prie/program\\_review.html](http://www.smccd.net/accounts/csmresearch/prie/program_review.html) ; previous Program Review and Planning reports; department records; other environmental scan data.*)

- a. Using the matrix provided below and reflecting on the lab relative to students' needs, briefly analyze the lab's strengths and weaknesses and identify opportunities for and possible threats to the lab (SWOT). Consider both external and internal factors. For example, if applicable, consider changes in our community and beyond (demographic, educational, social, economic, workforce, and, perhaps, global trends); look at the demand for the lab; review program links to other campus and District programs and services; look at similar labs at other area colleges; and investigate auxiliary funding.

Note: Please indicate the source of the data that was used to complete this section.

	INTERNAL FACTORS	EXTERNAL FACTORS
Strengths	The lab provides a resource for students who need access to anatomy models and cadavers. In addition the lab provides expertise in the form of student tutors and expert faculty. Students in CSM's Biol 250 and Bio 260, and students taking	Funding for the lab is currently through the division. We are able to pay faculty to provide student help and mentoring.

	these courses elsewhere have a source of help that s face-to-face, and one-on-one.	
<b>Weaknesses</b>	The lab has a limited number of available hours because of space limitations, and other classes using the lab. Faculty interest in staffing the lab is also limited, especially for weekend hours. Students request more hours of availability. Students complain that some of the models are old, and there are not enough of them.	Funding for faculty hours seems tenuous given the current state budget situation, which affects faculty's ability to make a commitment to staffing the lab. Faculty may be reluctant to make it a part of their load in fear of a funding cut. They may also be reluctant to do it as an overload because it requires excess time on top of an already full schedule.  Budget constraints also limit our ability to provide up-to-date models and other materials
<b>Opportunities</b>	The lab has the opportunity to draw in students who have successfully completed anatomy or physiology, to act as tutors. This creates a win/win situation for students, faculty, and the tutor by introducing a peer-peer interaction. We would like to have funding for this	The lab would benefit from having paid tutors, and additional models and other resources. External sources of funding can be searched for
<b>Threats</b>	Lack of interested staff, or staff who are too busy with other teaching or administrative commitments to have time to serve in the lab. Lack of available times to open the lab if we increase our other lab offerings. Degradation of models and specimens from increased usage	Funding problems may limit pay for faculty hours. In which case the lab may be open only when faculty volunteer to do their office hours in the lab. Inability to replace damaged or degraded models and specimens due to budget constraints.

- b. If applicable, discuss how new positions, other resources, and equipment granted in previous years have contributed towards reaching program action steps and towards overall programmatic health (you might also reflect on data from Core Program and Student Success Indicators). If new positions have been requested but not granted, discuss how this has impacted overall programmatic health (you might also reflect on data from Core Program and Student Success Indicators).

This discussion can be found in the program reviews of the Biology Dept.

VI. **Action Steps and Outcomes** (Data Resources: "Student Self-Assessment and Satisfaction Survey"; other lab surveys; "Student Profile Data for Labs, Spring 2009"; "Educational Master Plan, 2008"; "2008-2013 College of San Mateo Strategic Plan" – see website at [http://www.smccd.net/accounts/csmresearch/prie/institutional\\_documents.html](http://www.smccd.net/accounts/csmresearch/prie/institutional_documents.html); student success data from departmental "Core Program and Student Success Indicators" – see website at [http://www.smccd.net/accounts/csmresearch/prie/program\\_review.html](http://www.smccd.net/accounts/csmresearch/prie/program_review.html); previous Program Review and Planning reports; department records; other environmental scan data.)

- a. Identify the lab's action steps. Action steps should be broad issues and concerns that incorporate some sort of measurable action and should connect to the "Educational Master Plan, 2008"; "2008-2013 College of San Mateo Strategic Plan"; the Division work plan; and GE- or certificate SLOs.

1. Continue to evaluate student usage each semester.
2. Evaluate student success and satisfaction through data analysis, surveys, and personal exchanges between faculty and students.
3. Maintain the current hours of operation.
4. Investigate funds to hire tutors, replace and improve our models and specimens.
5. Actively recruit student volunteers to serve as tutors.

- b. Briefly explain, specifically, how the lab's action steps relate to the Educational Master Plan.

Goal 1: Program and Services – CSM will match its programs and services – and the manner in which they are delivered – to the evolving needs and expectations of our students. Action steps 1 – 5 strive to meet the students needs as expressed in the satisfaction survey. Feedback is also garnered about student and community needs through personal exchanges between faculty and students.

Goal 2: Enrollment Management - CSM will develop and implement a comprehensive research-based enrollment management initiative that addresses all the states of enrollment management, including marketing, outreach, recruitment, and retention. The actions steps taken will all serve to increase student retention. The lab also has recruitment benefits, since other campuses may not provide this service.

Goal 3: Diversity – CSM will promote a diverse learning and working environment that encourages tolerance, mutual respect, and the free exchange of ideas. Action steps 1, 2, and 5 will promote tolerance and mutual respect between colleagues, student-student, and faculty student.

Goal 4: Assessment – CSM will ensure continuous quality improvement by integrating and promoting evidence-based assessment throughout the institution. Steps 1 and 2 ensure that the quality of

instruction provided in the lab will be assessed using evidence based practices.

- c. Identify and explain the lab's outcomes, the measurable "mileposts" which will allow you to determine when the action steps are reached.

The student surveys, and cataloging of student usage reports and student success data will serve as points of reference for the action step outcomes. Faculty schedules will serve as an indicator of hours of availability. Purchase of new models and specimens, and the implementation of a paid tutor program will provide evidence of success for action step 4. Volunteer student tutors (action step 5) can be accounted for through sign in on the reporting computer, and/or enrollment in the Biol 880 course or 680 course for credit.

VII. SUMMARY OF RESOURCES NEEDED TO REACH LAB ACTION STEPS (Data Resources: "Student Self-Assessment and Satisfaction Survey"; other lab surveys; "Student Profile Data for Labs, Spring 2009"; "Educational Master Plan, 2008"; "2008-2013 College of San Mateo Strategic Plan" – see website at [http://www.smccd.net/accounts/csmresearch/prie/institutional\\_documents.html](http://www.smccd.net/accounts/csmresearch/prie/institutional_documents.html); student success data from departmental "Core Program and Student Success Indicators" – see website at [http://www.smccd.net/accounts/csmresearch/prie/program\\_review.html](http://www.smccd.net/accounts/csmresearch/prie/program_review.html); previous Program Review and Planning reports; department records; other environmental scan data.)

- a. In the matrices below, itemize the resources needed to reach lab action steps and describe the expected outcomes for program improvement.\* Specifically, describe the potential outcomes of receiving these resources and the programmatic impact if the requested resources cannot be granted.

\*Note: Whenever possible, requests should stem from assessment of SLOs and the resulting lab changes or plans. Ideally, SLOs are assessed, the assessments lead to planning, and the resources requested link directly to those plans.

Faculty Time Requested	Expected Outcomes if Granted and Expected Impact if Not Granted	If applicable, <u>briefly</u> indicate how the requested resources will link to achieving lab action steps based on SLO assessment.
A continuation of the .15 FTE staffing that we currently have	If granted the lab hours will continue much as they are. If not granted, lab hours will likely decrease	Input text here.

Classified Positions Requested	Expected Outcomes if Granted and Expected Impact if Not Granted	If applicable, <u>briefly</u> indicate how the requested resources will link to achieving lab action steps based on SLO

		assessment.
None	Input text here.	Input text here.

- b. For instructional resources including equipment and materials, please list the exact items you want to acquire and the total costs, including tax, shipping, and handling. Include items used for instruction (such as computers, furniture for labs and centers) and all materials designed for use by students and instructors as a learning resource (such as lab equipment, books, CDs, technology-based materials, educational software, tests, non-printed materials). Add rows to the tables as necessary. If you have questions as to the specificity required, please consult with your division dean. Please list by priority.

Resources Requested	Expected Outcomes if Granted and Expected Impact if Not Granted	If applicable, <u>briefly</u> indicate how the requested resources will link to achieving lab action steps based on SLO assessment.
Item: New Models Number: 10 Vendor: Carolina, Wards Unit price: Average cost \$300 Total Cost: \$3300. Status*: new and replacement	If granted, greater access for students to top level, modern models. If not granted, the students will have lower quality, insufficient models to work with.	Improve our service to students

\* Status = New, Upgrade, Replacement, Maintenance or Repair.

VIII. **Course Outlines – for labs that are discrete courses** (Data Resources: department records; Committee On Instruction website – <http://www.smccd.net/accounts/csmcoi> ; Office of the Vice President of Instruction; Division Dean)

- a. If applicable to the lab, list by course number (e.g. CHEM 210) all department or program courses included in the most recent college catalog, the date of the current Course Outline for each course, and the due date of each course’s next update.

Course Number	Last Updated	Six-year Update Due
Biol 880	2007	2013

Upon its completion, please email this Program Review of Labs and Centers report to the Vice President of Instruction, the appropriate division dean, and the CSM Academic Senate President.

Date of evaluation: 9/20/09

Please list the department’s Program Review of Labs and Centers report team:

Primary program contact person: Theresa Martin and Carlene Tonini  
Phone and email address: X6252 martin@smccd.edu X6250 tonini@smccd.edu

Full-time faculty: Theresa Martin, Carlene Tonini,  
Part-time faculty: LK Sengupta  
Administrators: Charlene Fronteira  
Classified staff: Kim Meyer  
Students:

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Faculty's signatures	<i>Theresa Martin</i>	9/17/09	Date
	<i>Carlene Tonini-Boutacoff</i>	9/19/09	

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Dean's signature \_\_\_\_\_ Date \_\_\_\_\_

References:

College of San Mateo Program Review:Anatomy Lab  
Student Satisfaction Survey Quantitative Responses: Spring 2009  
Office of Planning Research, and Institutional Effectiveness  
7/06/09 v.1

College of San Mateo Program Review:Anatomy Lab  
Student Satisfaction Survey Narrative Comments: Spring 2009  
Office of Planning Research, and Institutional Effectiveness  
7/06/09 v.1

College of San Mateo Program Review:Anatomy Lab  
Student Profile/Student Satisfaction Survey: Spring 2009  
Office of Planning Research, and Institutional Effectiveness  
7/06/09 v.1

SARS TRAK Software, an automated check-in, check-out system.  
2008.

# LABS & LEARNING CENTERS STUDENT SATISFACTION SURVEY SPRING 2009 QUANTITATIVE DATA

## Anatomy Lab

*Note: The number of responses for each survey item varies. Students were provided with the option to complete only those survey items in which they had sufficient experience to comment. Narrative comments to open-ended questions are provided in a separate document.*

### Question #2: "Overall, how would you rate the quality of the lab services you received?"

(n=26 respondents)

#### Count Percent

Excellent	11	42.3%
Very Good	10	38.5%
Good	2	7.7%
Fair	2	7.7%
Poor	1	3.8%

### Question #3: "Overall, was the lab staff helpful?"

(n=26 respondents)

#### Count Percent

Yes	25	96.2%
No	1	3.8%

### Question #4: "Were the procedures for using the lab clear and easy to follow?"

(n=26 respondents)

Yes	24	92.3%
No	2	7.7%
Yes	22	84.6%
No	4	15.4%

ities were expected of you?"



**Question #6: "Was the lab available when you needed it?"**

(n=26 respondents) Count Percent

Always	8	30.8%
Most of the time	13	50.0%
Sometimes	5	19.2%
Rarely	0	0%
Never	0	0%

**Question #7: "Were you able to get help when you needed it in this lab?"**

(n=26 respondents)

Count Percent

Always	16	61.5%
Most of the time	7	26.9%
Sometimes	2	7.7%
Rarely	1	3.8%
Never	0	0%
*Does not apply	0	0%

\*Note: Percentages reported above exclude students who responded "Does not apply"

**Question #8: "If applicable, were individual meetings with faculty helpful?"**

(n=11 respondents)

Count Percent

Very helpful	9	81.8%
Somewhat helpful	2	18.2%
Not helpful	0	0%
*I did not have individual meetings	15	57.7%

\*Note: Percentages reported above exclude students who did not have individual meetings

**Question #9: "Were the learning resources (e.g., workbooks, course materials) you needed to co**

(n=26 respondents)

\*Note: Percentages reported above exclude students who responded "Does not apply"

Count Percent

**Question #10: “Were the learning resources (e.g., workbooks, course materials) you needed to complete your lab activities or classroom assignments readily available?”**

(n=25 respondents)

	<b>Count</b>	<b>Percent</b>
Always	12	48.0%
Most of the time	12	48.0%
Sometimes	1	4.0%
Rarely	0	0%
Never	0	0%
*Does not apply	1	3.8%

\*Note: Percentages reported above exclude students who did not have individual

\*Note: Percentages reported above exclude students who were not enrolled in a linked course

**QUESTION #12: “Based on your overall experience in the Anatomy Lab this semester, please indicate the extent to which you have made gains or progress in the following learning objectives identified below:**

*I can...*

	Major/Moderate Progress	Minor/No Progress
Express ideas and provide supporting evidence effectively in writing (n= 20)	80.0%	20.0%
Express ideas and provide supporting evidence effectively orally (n=21)	81.0%	19.0%
Comprehend, interpret, and analyze information I read (n=24)	91.7%	8.3%
Comprehend, interpret, and analyze information I hear (n=24)	91.7%	8.3%
Communicate effectively in a group or team situation (n=22)	100.0%	%
Comprehend, interpret, and analyze numerical and or quantitative calculations (n=16)	75.0%	25.0%
Interpret graphical representations of quantitative information (e.g. graphs) (n=15)	80.0%	20.0%
Effectively identify, develop, and evaluate arguments (n=19)	63.2%	36.8%
Effectively assess the legitimacy or adequacy of different types of information (n=21)	76.2%	23.8%
Work effectively with others of diverse backgrounds (n=22)	90.9%	9.1%
Identify ethical issues and evaluate their consequences (n=18)	72.2%	27.8%
Acknowledge the value of diverse opinions and perspectives (n=21)	76.2%	23.8%

**Student Satisfaction Survey**  
**Narrative Comments – Anatomy Lab**  
 Spring 2009

**Note:** This component of the Student Satisfaction Survey includes responses to open-end questions only. Names of individuals have been redacted.

**2. Overall, how would you rate the quality of the lab services you received?**

- All of the professors who have been here for open lab have been extremely helpful in my understanding of the material.
- Some of the models are not the best but overall, most of them are clear.
- There was a good amount of Open Lab times, however, I wish

there had been more weekend Lab Times.

- The teachers were a lot of help but there were not too many times to choose from
- Need more models with answer keys
- No structured activities. Lab was really only self-study time.
- 3 Cadavers = great to compare between. I was able to help in the dissection, hands-on! Lots of reference materials available. Some models could be replaced with newer ones. Histology slides, some good, some very old faded, should replace with a newer high-end stained selection to use as a reference, and test.
- The teacher explains things very well during lectures. She is very patience and answers students questions very well.
- ENJOYED DR.XXXX TEACHING IN THE CADAVER ROOM
- Great lab benches & models, microscope slides are decent, cadavers are incredible useful learning tools - could use a few more actual dissections of animals to really see where things are
- Excellent exposure to Lab materials. Instructors readily available for assistance at any time. The open Labs were very useful.
- Not enough open labs. Not enough structures for the amount of students.

### **3. Overall, was the lab staff helpful?**

- They always were able to answer my questions
- Very helpful
- Open lab hours were great.
- Helpful with explanations
- Prof. xxxx was helpful in the cadaver lab
- Enjoyed mr. xxxx help.
- The teacher mainly conducts the lab herself and she is always very helpful and very thorough in conducting the lab.
- Lab staff was more than willing to answer questions and set up lab.
- Only if it was the professor you have class with

#### **4. Were the procedures for using the lab clear and easy to follow?**

- Sometimes not as clear as they could have been
- And if they were not the teachers would explain them clearly
- Yes.
- The lab procedures are very clear and the teacher ensures that students follow the procedure and offers assistance whenever needed
- Easy access to lab materials- video clips, models, cadavers etc.

## **5. Did you understand what lab activities were expected of you?**

- Not all the time.
- It was pretty easy to know what to do
- Directions from professor
- There really were no structured activities
- I did prep work for the lab and often something else was done in lab
- Lab manual probably could be revised, so page numbers are consecutive.
- The teacher makes it very clear what is expected of her students when she never hesitated to explain and assist when needed
- The lab manual, exit quizzes, microscopy and all lab procedures were clear.

## 6. Was the lab available when you needed it?

- Would be nice if they had open lab towards the beginning of the week as well as at the end of the week or on the weekends
- Whenever I needed an open lab, there was always one conveniently for everyone
- Work and other class schedules would conflict.
- There should have been more open labs esp. Before practicums. Like the day before
- I just wish there were more times available
- More open labs would have been helpful, the science lab study room was also very helpful.
- Need more morning hours or Sunday hours
- Wish it was open later in afternoons
- Especially weekends, Sunday!
- The lab is always available during lab hours and during open lab hours and the teacher encourages students to attend the open lab hours. The teacher always attend the open lab hours and answers the student questions very well.
- FOR THE MOST TIME LAB HOURS WERE CONVENIENT, BUT WOULD BE NICER TO HAVE SOME OPEN LAB TIMES DURING THE WEEK AND NOT ALL ON THE WEEKENDS
- A few more open labs on the weekends instead of the week days on weeks that are not right before a lab test would be more useful since I work full time during the week
- The lab was always available on schedule and not on individual schedules. For example, I may want to use the lab after work when most staff have left campus.
- We need more open labs!!!!



## **7. Were you able to get help when you needed it in this lab?**

- Professor xxxx is the best when it comes to helping out!
- The teacher is always available during lab hours and always willing to help when needed
- Profs. xxxx, xxxx & xxxx were helpful & informative.
- See # 3 above.

### 13. Which activities or services in this lab did you find helpful? (Please explain)

- Working with the cadavers and models was very helpful.
- Having hands on help with the cadavers, slides, models etc.
- All the models that were available were very helpful. Also my professor was always able to answer any questions I had.
- Open labs, the example questions for practical exams
- The cadaver was really helpful learning the body
- The overall instruction
- The slides from the microscope that xxxx went over on the overhead through his computer
- Open labs were very helpful because it was possible for the teachers to get more hands on with the students and help out.
- The models and the group work.
- Using models/cadavers
- The models were very helpful. Some were damaged or just hard to identify, but I got the hang of it
- Models microscopes
- Working with the cadavers and models was very helpful.
- None. I was really looking forward to a structured Anatomy lab with activities to help us understand the concepts, but it was three hours of self-study time instead. Even when the cadaver room was available there were usually too many people in at one time to see anything worthwhile.
- Dissection of heart/eye
- Models, Microscopes, Charts, and most important Cadavers!
- CADAVER ROOM, OPEN LABS, LECTURE DURING LABS-HISTOLOGY OVERVIEW
- Cadaver

- Open labs, cadavers (especially for muscles and organs), microscopes
- The cadavers, models, histology slides very helpful.
- Cadaver examination and anatomical models.
- The keys for the structures

**14. Which activities or services in this lab do you wish we could provide? (Please explain)**

- Provide more models and more time to work with cadavers.
- Fresher cadavers!!
- Maybe more open labs but other than that nothing much.
- I wish there were more models available. During open labs, there are long waits to work with the models or diagrams.
- I wish there would've been more model for the open lab since all the classes from different teachers were there but overall it was good
- More open lab hr available to working people. Perhaps open labs in the evenings.
- None that I can think of
- Just more times
- Everything was great
- More weekend or later night hours...
- Better microscopes - ones that have digital cameras so we can take pictures and share with class
- Provide more models and more time to work with cadavers.
- Everything as it is looks good
- MORE ONE-ON-ONE TIME DURING OPEN LABS AND IN THE CADAVER ROOM
- Better quality slides
- More hands-on work with either animals or cadavers in not such a large group setting
- A printer. Fee = 5 cents per page.
- Having access to open lab more often

### **15. Please feel free to provide additional comments or suggestions about your learning experiences in this lab?**

- Fun. Professor xxxx rocks!
- Not enough models to study from when open labs were available. At times really crowded and could not get to look at certain models during open lab hrs.
- It was overall very good
- Thanks you xxxx, you were a great help to us and made our experience more fun during lecture and lab.
- Fun. Professor xxxx rocks!
- I was able to openly share my knowledge with other students, thank you.
- The teacher has great sense of humor, excellent teaching skills, and very thorough in her explanation of anatomy which makes the class and the lab experience wonderful!!
- I thought the labs were very good overall.

## Anatomy Lab/Total Number of Respondents: 26

Demographic Variable	Count	% of Total	Collegewide (%)
<b>Ethnicity</b>			
Asian	2	7.7	15.3
African American	1	3.8	3.8
Filipino	2	7.7	5.8
Hispanic	3	11.5	19.3
Native American	0	0	0.6
Pacific Islander	0	0	2.3
White	8	30.8	37.2
Other	0	0	0.1
Unrecorded	10	38.5	15.7
<b>Total</b>	<b>26</b>	<b>100</b>	<b>100</b>

Gender	Count	% of Total	Collegewide (%)
Female	19	73.1	47.7
Male	6	23.1	47.2
Unrecorded	1	3.8	5.1
<b>Total</b>	<b>26</b>	<b>100</b>	<b>100</b>

Age	Count	% of Total	Collegewide (%)
19 or less	4	15.4	20.4
20-24	8	30.8	27.5
25-29	1	3.8	12.4
30-34	2	7.7	8.1
35-39	3	11.5	6.2
40-49	5	19.2	10.3
50+	2	7.7	12.2
Unrecorded	1	3.8	2.9
<b>Total</b>	<b>26</b>	<b>100</b>	<b>100</b>

Enrollment Profile	Count	% of Total	Collegewide (%)
<b>Total Number of Courses Enrolled</b>			
1	8	30.8	47.9
2	10	38.5	17.3
3	2	7.7	12.2
4	4	15.4	11.6
5	1	3.8	6.9
6	1	3.8	2.9
7	0	0	0.9
8	0	0	0.3
8+	0	0.0	0
<b>Total</b>	<b>26</b>	<b>100</b>	<b>100</b>

Total Units Enrolled	Count	% of Total	Collegewide (%)
0.5 – 3.0	0	0	43.6
3.5 – 6.0	8	30.8	18
6.5 – 12.0	12	46.2	23.2
12.5+	6	23.1	15.2
<b>Total</b>	<b>26</b>	<b>100</b>	<b>100</b>

Day/Evening Course Enrollments*	Count	% of Total	Collegewide (%)
Day Courses	17	65.4	68.6
Evening Courses	9	34.6	31.1
<b>Total</b>	<b>26</b>	<b>100</b>	<b>100</b>

**DEFINITIONS AND NOTES:** This data gathered about student users of the lab who completed the Student Satisfaction Survey and provided valid "G" numbers. All demographic and enrollment data were derived from the student academic database using students' "G" numbers.

**Retention %:** Percentage of course enrollments with a grade of A, B, C, D, F, P, NP, I. (Only excludes W's.) Hence, an 80% retention rate = a 20% "W" rate.

**Success %:** The percentage of course enrollments with a grade of A, B, C, or P.

**Non-Success:** The percentage of course enrollments with a grade of D, F, NP, I, or W.

**\*Day/Evening Course Enrollments:** 66.5% of all the courses enrolled by student respondents were day courses.

Prepared by CSM's Office of Planning, Research, and Institutional Effectiveness  
<http://collegeofsanmateo.edu/PRIE>

Demographic Variable	Count	Column %	Respondent Count Success Non-success Retention			Respondent Percentage Success Non-success Retention			Collegewide Percentage Success Non-success Retention				
<b>Ethnicity</b>													
Asian African	5	8.2		3	2	4	60	40	80		74	26	84.1
American	1	1.6		1	0	1	100	0	100		58.4	41.6	80.3
Filipino	6	9.8		5	1	5	83.3	16.7	83.3		67.5	32.5	80.3
Hispanic	5	8.2		5	0	5	100	0	100		67.5	38.3	78.5
Native American	0	0		0	0	0	0	0			65.2	34.8	82.6
Pacific Islander	0	0		0	0	0	0	0			61	39	81.1
White	17	27.9		16	1	17	94.1	5.9	100		71.6	28.4	83.7
Other	0	0		0	0	0	0	0			73.7	26.3	89.5
Unrecorded	27	44.3		26	1	26	96.3	3.7	96.3		70.8	29.2	83.9
<b>Total</b>	<b>61</b>	<b>100</b>		<b>56</b>	<b>5</b>	<b>58</b>	<b>91.8</b>	<b>8.2</b>	<b>95.1</b>		<b>68.7</b>	<b>31.3</b>	<b>82.3</b>
<b>Gender</b>													
Female	39	63.9		34	5	36	87.2	12.8	92.3		70.4	29.6	83
Male	17	27.9		17	0	17	100	0	100		66.4	33.6	81.1
Unrecorded	5	8.2		5	0	5	100	0	100		74.5	25.5	85.6
<b>Total</b>	<b>61</b>	<b>100</b>		<b>56</b>	<b>5</b>	<b>58</b>	<b>91.8</b>	<b>8.2</b>	<b>95.1</b>		<b>68.7</b>	<b>31.3</b>	<b>82.3</b>
<b>Age</b>													
19 or less	16	26.2	14	2	15	87.5		12.5	93.8	65	35	81.7	
20-24	20	32.8	17	3	18	85		15	90	64.1	35.9	79.5	
25-29	2	3.3	2	0	2	100		0	100	70	30	81.6	
30-34	3	4.9	3	0	3	100		0	100	72.8	27.2	82.6	
35-39	5	8.2	5	0	5	100		0	100	73.2	26.8	83.2	
40-49	7	11.5	7	0	7	100		0	100	77.9	22.1	87.8	
50+	3	4.9	3	0	3	100		0	100	79.9	20.1	88.2	
Unrecorded	5	8.2	5	0	5	100		0	100	79.3	20.8	88.5	
<b>Total</b>	<b>61</b>	<b>100</b>	<b>56</b>	<b>5</b>	<b>58</b>	<b>91.8</b>		<b>8.2</b>	<b>95.1</b>	<b>68.7</b>	<b>31.3</b>	<b>82.3</b>	

## CSM Labs & Learning Centers: Student Profile Spring 2009

### Anatomy Lab Course Enrollments: Sorted by Discipline Area

Dept.	Course	Title	Count	Percent	Dept.	Course	Title
<b>BIOL</b>	BIOL 250	Anatomy	26	100.0		MATH 252	Calcu/Analytic Geom
	BIOL 240	General Microbiology	1	3.8	<b>PHIL</b>	PHIL 100	Introduction to Philosophy
<b>CA&amp;S</b>	CA&S 310	Nutrition	1	3.8		PHIL 244	IssuesContemporary
<b>CHEM</b>	CHEM 192	Elementary Chemistry	1	3.8	<b>PLSC</b>	PLSC 110	Govt
	CHEM 210	General Chemistry I	1	3.8			National, State & Local
<b>COOP</b>	COOP 640	General Work Experience	1	3.8		PLSC 200	Govt
		Principles of Macro			<b>PSYC</b>	PSYC 200	Developmental Psychology
<b>ECON</b>	ECON 100	EconomicsComposition	1	3.8		PSYC 100	General Psychology
<b>ENGL</b>	ENGL 100	and Reading Intro to Ethnic	2	7.7		PSYC 410	Abnormal Psychology
<b>ETHN</b>	ETHN 101	Studies I Introduction to	1	3.8		PSYC 121	Statistical Concepts
	ETHN 300	LaRaza Studies					
<b>FITN</b>						PSYC 201	Child Development
	FITN 237	Total Core Training Weight			<b>SOCI</b>	SOCI 100	Introduction to Sociology
	FITN 215	Conditioning Vars Track	1	3.8			Interpersonal
<b>HSCI</b>	HSCI 100	General Health Science	2	7.7	<b>SPCH</b>	SPCH 120	Communication
<b>MATH</b>	MATH 200	Elem. Probability & Statistics	2	7.7	<b>VAR</b>	VAR 185	Track & Field (M & F)
	MATH 112	Elementary Algebra II	1	3.8			
	MATH 123	Intermediate Algebra II	1	3.8			
	MATH 251	Calcu/Analytic Geometry I	1	3.8			