



Annual Administrative Leadership/Unit Review and Service Outcomes Assessment

Administrative Unit: **Science, Math, Technology** Prepared by: **Raymond Hernandez, Dean** Date: **7/15/2015**

Contact Aaron McVean for data, research and assessment assistance. Please submit your completed forms to McVeanA@smccd.edu in addition to forwarding them to your supervisor. Please submit only your Worksheets. Do not alter the forms, or eliminate pages. If a page does not apply simply mark N/A.

The Administrative/Leadership and Unit Review and Service Outcomes Assessment

The Administrative/Leadership and Unit Program Review and Service Outcomes Assessment should be developed with input from the staff within the unit. It is meant to provide a broad understanding of the unit, current trends related to the unit's mission, and how the unit serves to meet the overall mission or goals of Skyline College and the San Mateo County Community College District.

2. What are the Service Area Outcomes for your unit?

- a. *Students served will have access to a breadth and quality of lower division education to effectively complete certificates and associates degrees (including associate degrees for transfer), and to enable transfer to baccalaureate institutions*
- b. *Students served will receive quality career and technical education and training in cooperation with business, industry, labor, and public service agencies to become employable in their industry of choice*
- c. *Students served will receive support in developmental skills to support their success as they progress through their academic goals*
- d. *Students will experience a variety of services and division sponsored events related to science, math, and technology that will enhance and support their academic goals*

3. What is the mission of your unit? How does this mission serve the overall College and District Mission?

Skyline College's Science, Math, and Technology division serves a diverse community of learners and provides student-centered education leading to transfer to baccalaureate institutions and career employment. The division provides students with multi-disciplinary courses of study in science, math, and allied health and technology career programs. Students develop critical thinking, communicate in written and oral form, develop computer and information literacy, and engage in citizenship.

4. List the functions of your unit.

Function	Done in Collaboration with (leave blank if this function is not in collaboration with another unit)	Note if this is: development and enhancement of our communities, a leadership role, an advocacy role, resource development, planning or services
Support student success in all division programs		
Promote faculty and staff development of all division employees	Work with professional development committee and CTTL to identify appropriate professional development opportunities for faculty and staff.	
Provide support and resource allocation for all programs in division		
Coordinate the schedule of activities and classes for all division programs and services	Consultation and collaboration is done with all other course scheduling divisions to ensure students can meet their academic goals.	
Ensure quality of programs through and effective outcomes assessment measures and analysis	Consult and collaborate with SLOAC Coordinator/committee and PRIIE office to effectively assess using relevant and applicable data.	
Support curriculum and program development		
Ensure all regulations and accreditation standards are met		

5. Please provide an update on previous year goals and initiatives. What were the major goals and accomplishments?

College Goal	Strategy	Unit	Objective	Measurement Criteria	Outcome/Status (ongoing, completed)
1 6	1.1, 1.2, 1.3 6.1, 6.2, 6.3	SMT	Revise curriculum, certificates, and degrees for Biotechnology program	Convened advisory board, created visibility of program in community, High School Summer bridge Biotech program	Offered High School Summer Bridge Biotech program 6/15 – 6/26. Program served 25 students. NSF grant awarded to create Biotech Bridge Program. Ongoing.
1 4	1.1, 1.2 4.2	SMT	Add classroom and general laboratory space for science courses	Identified Environmental Studies building in facilities planning. District facilities bond measure	2 versatile classrooms/ dry labs have been incorporated along with an outdoor teaching space. Ongoing.
1 5	1.1, 1.2, 1.3 5.1	SMT	Increased online/hybrid course presence for SMT	Increased number of online hybrid courses: GEOL 100, HSCI 100, HSCI 130, OCEN 100, PHYS 210, PHYS 220.	Completed. Focus on BIOL 250, ENVS 100.
1 6	1.1, 1.2, 1.3 6.1, 6.2, 6.3	SMT	Discussion and plan development of Allied Health simulation lab	Developed plan for simulation lab	ongoing
1 4	1.1, 1.2 4.1	SMT	Increase tutor support for natural science students	Increase number of tutors dedicated to science course support	Ongoing. Collaborating with ASLT and tutoring center to provide supplemental instruction for first level sciences courses (BIOL 130, CHEM 210).
1	1.1, 1.2, 1.3	SMT	Development of a first level Engineering certificate pathway	Established department designator, development of ENGR 100 curriculum	Completed and ongoing. Physics faculty will develop ENGR pathway certificate in fall 2015.
1 2 4	1.1, 1.2 2.1 4.1	SMT	Identify and incorporate strategies to improve math success and retention rates, and progression in the sequence.	Convening of community of practice sections (Math 811, Math 200),	Ongoing.

5	5.1			*Pilot program of SI for Math 110, 120, 130 *Provide access to open source textbook in Math 200 (Statistics). Multiple measure (high school) math placement.	Math 200 faculty have aligned sections. Open source textbook Math 200 established. Evaluation process established and open to all high school students.
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6. What are the key internal and/or external factors that have occurred in the last year that affect your area?

- a. District wide sector convening in healthcare and biotechnology
- b. Continuation of grant funding for Career Advancement Academies
- c. Increased student interest in STEM academic/career pathways
- d. State funding tied to collaboration across education systems (K-12, higher education) and industry
- e. Model practices in supporting acceleration and success through the math sequence.
- f. Legislation allowing baccalaureate degree offerings at CA community colleges
- g. Scheduling capacity has been achieved for science lab facilities

7. What are the upcoming leadership and operational goals and initiatives that will connect to the college goals for your unit?

(Before writing your goals and objectives be sure to review other Program Review documents related to your unit to discern if there are service needs.

College Goal	Strategy	Unit	Objective	Measurement Criteria	Resources Needed
1 6	1.1, 1.2, 1.3 6.1, 6.2, 6.3	SMT	Revise curriculum, certificates, and degrees for Biotechnology program	Certificates, Degree Advisory board response	Faculty coordinator NSF grant (\$175,000) awarded. Equipment inventory Facilities
1 4	1.1, 1.2 4.2	SMT	Establish STEM Center integrating science disciplines	Plan to establish STEM center	Faculty lead Facility space MESA integration
1 5	1.1, 1.2, 1.3 5.1	SMT	Increased online/hybrid course presence for SMT	# and variety of courses offered online/hybrid	Professional development Development stipend for faculty

1 6	1.1, 1.2, 1.3 6.1, 6.2, 6.3	SMT	Establishment of Respiratory Care baccalaureate degree	RC degree established First cohort commences Fall 2016	*Respiratory Care Director Lead curriculum/degree development. *Implementation of Allied Health Simulation Lab *Collaboration with articulation officer for GE pattern identification
1 4	1.1, 1.2 4.1	SMT	Increase tutor support for natural science students	Increase number of tutors dedicated to science course support	Collaboration between science faculty and learning center
1 6	1.1, 1.2, 1.3 6.1, 6.2, 6.3	SMT	Increase marketing and outreach for lower enrolled/revised CTE programs	Increased visibility and enrollment in CTE programs	Budget for materials development, printing, and advertisement. Collaboration with marketing department
1	1.1, 1.2, 1.3	SMT	Development of a first level Engineering certificate pathway	First level Engineering certificate Fall 2016	Faculty collaboration
1 2 4 5	1.1, 1.2 2.1 4.1 5.1	SMT	Identify and incorporate strategies to improve remedial and math sequence success, retention, and persistence rates	Improved success and retention in remedial math sequence	Increased time for discipline faculty to collaborate Professional development opportunities

8. Provide the official Organizational Chart of your unit and an ideal chart that includes all levels of services and positions.

Please provide a brief narrative descriptions by numbering the chart and including a numbered list with clarifications on a subsequent page. If you wish make this an appendix item.

Current staffing categories for SMT:

Administration: Dean Academic Supervisor – Allied Health, Respiratory Care	Raymond Hernandez Ijaz Ahmed	1.0 1.0
Classified Staff: Administrative Assistant Program Services Coordinator	Nadia Tariq Alana Utsumi	1.0 1.0

Lab Tech (Biology)	Kylin Johnson	1.0
Lab Tech (Chemistry)	Mousa Ghanma	1.0
Lab Tech (Biol/Chem)	Gary Cheang	1.0
<i>Hourly Staff: Short Term</i> (6) EMC Instr Aide I (4) EMC Instr Aide II (1) PHYS/Earth Sciences Lab Tech (1) RPTH Instr Aide II (1) SURG Instr Aide II (1) SURG Instruct Aide II Tutor	Lab practice and testing – assisting lab faculty (accred requirement) Lab assistant, materials preparation Lab assistant - lab instructional support Lab assistant - lab instructional support Tutoring to support successful completion	Short term hours vary throughout year
<i>Student workers:</i> (3) Biology - Federal Work Study (1) Biology – General Fund 1 TA (3) Chemistry – Federal Work Study (10) MESA – FedWrk Stdy/Gen Fnd 1 (1) Physics – General Fund 1 TA (1) NETX – General Fund 1 TA	Assist with lab stockroom and lab preparation Assist with lab preparation Assist with lab stockroom and lab preparation Provide peer tutoring support (MESA grant funded) Assist with lab stockroom and lab preparation Assist with lab support in instructional network labs	Hours vary
<i>FT - Faculty Reassigned Time:</i> Biotech Coordination CTE CAA Coordination ESTM Program Coordinator GEOL Program Coordination HSCI/CAA Coordination Math Department Coordination MESA Coordination SURG Coordination SAN Coordination NETX Coordination	Coordination of Biotech program restructuring (NSF Fund 3 grant) CAA Coordinator (CAA Fund 3 grant) Coordination of ESTM program Coordination of Earth Science program/restructure Coordination of CAA Programs (CAA fund 3 grant) Coordination of Math meetings and discipline focused work Coordination of MESA program (fund 1 and fund 3 grant) Coordination-various programmatic/ accreditation responsibilities Coordination of SAN activities Coordination of NETX program (Fund 3 VTEA)	0.4 1.0 0.3 0.2 0.8 0.14 1.0 0.2 0.2 0.1
<i>PT – Faculty Reassigned Time:</i> EMC Coordination MEDA Coordination SURG Clinical Coordination	Coordination-various programmatic/accreditation responsibilities Coordination-various programmatic responsibilities/clerkships Coordination-various programmatic responsibilities/clerkships	0.2 0.2 0.2

9. Staffing Profile (Please indicate the number in terms of FTE. (i.e. a full time staff =1 FTE / and a half time staff =.5 fte)

Position	Staffing Levels for Each of the Previous four years as of July 1					Anticipated total staff needed as of July 1				
	2011/12	2012/13	2013/14	2014/15		2015/16	2016/17	2017/18	2018/19	2019/20
Administration	1.0	1.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Classified Staff FT	5.0	5.0	6.0 *	5.0		5.0	6.0	6.0	6.0	6.0
Classified Staff PT	-	-	-	-		-	-	-	-	-
Confidential Staff FT	-	-	-	-		-	-	-	-	-
Hourly Staff	10	11	11	11		11	11	11	11	11
Student Workers	11	11	18	19		19	19	19	19	19
Faculty FTE Full time	23	22	25	27		26**	28	29	30	31
Faculty FTE Part time	26.7	27.7	24.7	22.9		19.1	18.1	17.1	16.1	15.1
Faculty Reassigned FTE Full time	2.14	2.14	2.34	5.14		4.34	4.34	4.34	4.34	4.34
Faculty Reassigned FTE Part time	0.3	0.3	0.2	.2		0.6	0.6	0.6	0.6	.06
Total Full Time Equivalent Staff	58.14	58.14	54.24	55.24		50.04	51.04	51.04	51.04	51.04

*CALT and Classified Staff FT position transferred to Division of Learning Support and Technology Resources

** Retirement replacement Math (Daisy Araica)

10. Outcomes Assessments

Outcomes Assessed	Outcomes data and interpretation	Conclusions Reached	Action steps	Program review conclusions
1. Quality CTE and Training Programs	<p>Respiratory Care, Surgical Technology, and EMT Annual External Accreditation submissions – Threshold data.</p> <p>Administrative Medical Assisting (AMA) Curriculum Launched</p>	<p>All programs reached threshold goals. Respiratory Care holds high certification and employment rates.</p> <p>Surgical Technology site visit identifies need for *clinical coordinator *100% ST certification attempts</p> <p>AMA needs developed clerkship sites for clerkship courses</p>	<p>*Part time clinical coordinator position * Provide ST cert prep course to include cert testing</p> <p>Provide coordinator to develop clerkship sites</p>	Annual report provides for plan.
2. Variety of services and division sponsored events related to science, math, and technology that will enhance and support their academic goals	# and breadth of division sponsored events in SMT.	<p>Expanding your Horizons, Science Symposium, SMT Scholarship, MESA center, SACNAS student attendance, Science in Lecture Series, Respiratory Care – Surgical Technology job fairs, Sustainability Action Network meetings, Earth Day. Habitat X sponsored conference, Clubs - Phi Theta Kappa, American Medical Student Association, SACNAS, Skyline Environmental Go Green, Respiratory</p>	Continue to provide division support for events and services to enhance and support student academic goals	

		Therapy, Skyline Science and Research.		
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What were the Service Area Outcomes (SAOs) you assessed last year?	How did you assess progress? Please list the methods you used in the assessment.	When: In what timeframe was the assessment completed?	What was the target or benchmark you hoped to achieve or did achieve in the assessment?	Have you used the results from the assessment to make improvements? Please describe these improvements here.
Students will receive quality career and technical education and training in cooperation with business, industry, labor, and public service agencies to become employable in their industry of choice Focus on Medical Assisting and Biotechnology	Advisory Board assessment Course development based on industry needs	Fall 2014/ Spring 2015	Development of Biotech high school summer bridge program.	Summer bridge offered Summer 2015

Department/Unit:	Science, Math, Technology		Date: July 14, 2015	
Assessment Facilitator:	Raymond Hernandez, Dean		Ext. 4354	Email: hernandezr@smccd.edu
Unit Mission Statement:	Skyline College’s Science, Math, and Technology division serves a diverse community of learners and provides student-centered education leading to transfer to baccalaureate institutions and career employment. The division provides students with multi-disciplinary courses of study in science, math, and allied health and technology career programs. Students develop critical thinking, communicate in written and oral form, develop computer and information literacy, and engage in citizenship.			
Current year’s assessment plan (2015-2016)				
Anticipated Service Area Outcomes (SAO): What are you trying to do, or what SAO are you planning to assess? NO MORE THAN 2	Assessment Methods: What assessment methods do you plan to use?	Timeframe: When Will Assessment Be Conducted and Reviewed?	Targets/Benchmarks: What is the minimum result, target, or value that represents success at achieving this outcome?	Use of Results: How do you anticipate using the results from the assessment?

1. Increase on time completion of certificates, AA/AS and ADT degrees, and transfer	<p>Certificate, AA/AS/ADT degree, transfer data</p> <p>Survey discipline faculty / counselors to identify ways in which SMT office can support goal</p>	Spring 2016	10% increase in on time issued certificates, AA/AS/ADT degree, transfer compared to 14/15 academic year.	Identify what strategies have helped improve attainment of certificates, degrees, transfer and scale up.
2. Increase placement rates of incoming students into transfer level math	<p>Effectiveness of multiple measures vs. placement testing.</p> <p>Successful progression in math sequence</p>	Spring 2016	20% increase for incoming students placing at transfer level course	Confirm multiple measures is successful at determining placement and success in transfer level course.

ALUR--Resources Needed

Unit Name: Science, Math, Technology

11. Staff Needs

NEW OR REPLACEMENT STAFF (Faculty or Classified)

<p style="text-align: center;">List Staff Positions Needed for Academic Year 15-16 Place titles on list in order (rank) or importance.</p>	<p style="text-align: center;">Indicate (N) = New or (R) = Replacement</p>	<p style="text-align: center;">Annual TCP*</p>
<p>1. Math TriO Instructor <u>Reason:</u> The previous Math TRiO instructor retired the beginning of Spring 2014. Replacement is essential to support TriO programmatic functions and is essential to grant requirements.</p>	(R)	
<p>2. Physics/Astronomy/Earth Sciences Lab Technician <u>Reason:</u> Physics, Astronomy, Earth Sciences have identified a need for laboratory support to effectively and efficiently run instructional labs. These programs have grown over the last 5 years and require this support for student success. Current lab technicians in other departments are unable to provide this support.</p>	(N)	
<p>3. ENGR/COMP/PHYS Instructor <u>Reason:</u> There has been an increase of students pursuing STEM pathways particularly in engineering and computer science. Skyline has requested a new department designator in ENGR and has introduced a first level engineering course (ENGR 100). Computer Science offerings are also be increased. A full time faculty member with minimum qualifications versed in both areas will be needed to support instruction and programmatic functions.</p>	(N)	
<p>4. Chemistry Instructor <u>Reason:</u> The previous Chemistry instructor resigned at the end of Spring 2014 and has significantly reduced the FT/PT ratio. Replacement is essential to support department sections and programmatic functions.</p>	(R)	
<p>5. Biology Instructor <u>Reason:</u> The previous Biology instructor resigned at the end of Spring 2014 and has significantly reduced the FT/PT ratio. Replacement is essential to support department sections and programmatic functions.</p>	(R)	
<p>6. Medical Assisting Instructor <u>Reason:</u> The program has undergone complete revision and launched new curriculum in Fall 2014. The program will includes a new suite of classes, internship rotations, and an ongoing advisory board. A full time faculty member is required to meet programmatic needs.</p>	(N)	
<p>7. Surgical Careers Instructor <u>Reason:</u> Increase employer and external accreditation requirements require an additional full time faculty member to support classroom instruction and clinical coordination. Program Director is unable to effectively provide clinical</p>	(N)	

coordination with all other administrative and classroom duties. Attracting qualified and available adjunct faculty is challenging as they hold full time positions in the health care setting. Success rates have declined. The addition of a full time faculty member to support intensive skills and abilities training as well as clinical over site can help support and improve student learning outcomes.		
8. HSCI Instructor <u>Reason:</u> The department is without a full time instructor. HSCI has proposed expanding offerings, an associate degree and ADT connecting to 4 year degrees in health education and public health.	(N)	
9. Biology Instructor <u>Reason:</u> Over the past 5 years, 17 sections of BIOL 250 have been offered and over 660 students annually have been taught fully by adjunct faculty. Biology has identified a need for full time faculty both in comprehensive program review and their annual plan	(N)	
10. Chemistry Instructor <u>Reason:</u> Even with the replacement of the resigned FT faculty member, the FT/PT ratio (50%/50%) continues to be disproportionately lower than other departments. Addition of full time faculty is needed for support classroom instruction and programmatic functions.	(N)	
11. EMC Instructor <u>Reason:</u> The department is without a full time instructor. EMC has grown and offers EMT training, CPR, and early responder courses. Assignment offerings are over 1.5 FTE. A full time faculty member is required to conduct programmatic functions (advisory board, coordination of clinical affiliates, accreditation).	(N)	
12. Math Instructor Mathematics department has received approval for two full time positions in the last two years, one of these was a retirement replacement. Even at eleven full time faculty in 2014/2015, the ratio of full time Faculty to FTEF is only 63.4%. In Spring 2014, of the 68 sections which were offered, full time Faculty taught 39 while 29 sections were taught by adjunct faculty. There is still a significant need for full time faculty in the department not only to teach sections but also to participate in ever increasing learning Communities and collaborate across disciplines and the college. The Math department touches Most every student who comes to Skyline.	(N)	
13. Biotechnology Instructor <u>Reason:</u> The department has separated from Biology and is developing new courses, certificates, and degrees. The program will require a full time position to coordinate curriculum development, career bridge programs, connect with industry partners, coordinate internships, and teach courses.	(N)	

** TCP = "Total Cost of Position" for one year is the cost of an average salary plus benefits for an individual. New positions (not replacement positions) also require space and equipment. Please be sure to add related office space, equipment and other needs for new positions to the appropriate form and mention the link to the position.*

12. Additional Equipment Needs (excluding technology)

List Equipment or Equipment Repair Needed for Academic Year 14-15 Please provide a brief list of the needs of your unit on your campus below. Place items on list in order (rank) or importance.	Equipment: • (I)-instructional • (n) non-instructional	Annual TCO**		
		Cost per item	# Requested	Total Cost of Request
1. Autoclave	(I)	\$40,000	1	\$40,000
2. Licor Algae Chamber	(I)	\$10,000	1	\$10,000
3. 8 person tents (field trips)	(I)	\$250	2	\$500
4. Microscope camera	(I)	\$5,000	1	\$5,000
5. Fluorescent Microscope	(I)	\$40,000	1	\$40,000
6. Anatomy models	(I)	\$500	10	\$5,000
7. Real time PCR	(I)	\$20,000		\$20,000
Reason: Majors and Field Biology need				
8. Nuclear Magnetic Resonance Machine 80 MHz	(I)	\$61,000	1	\$61,000
Reason: Chemistry equipment for students to conduct hands on experiments. SJSU requires lab equipment and COR instruction for transferability.				
9. Red Hat Linux Server	(I)	\$3,500	1	\$3,500
10. Aruba AP's		\$5,000	1	\$5,000
11. Fiber Splicer		\$5,500	1	\$5,500
12. Windows Server Upgrade		\$4,250	1	\$250
13. IP Video Equipment		\$8,000	1	\$8,000
14. VM software suite		\$5,000	Site license	\$5,000
Reason: Update equipment to meet current industry standards				
15. Ventilator – Respiratory Care	(I)	\$40,000	1	\$40,000
Simulation mannequin	(I)	\$60,000	2	\$120,000
Reason: Update technology for student use in allied health lab				

* Instructional Equipment is defined as equipment purchased for instructional activities involving presentation and/or hands-on experience to enhance student learning and skills development (i.e. desk for student or faculty use). Non-Instructional Equipment is defined as tangible district property of a more or less permanent nature that cannot be easily lost, stolen or destroyed; but which replaces, modernizes, or expands an existing non-instructional program. Furniture and computer software, which is an integral and necessary component for the use of other specific instructional equipment, may be included (i.e. desk for office staff) ** TCO = "Total Cost of Ownership" for one year is the cost of an average cost for one year. If equipment needs are linked to a position please be sure to mention that linkage.

13. Technology (Computers and equipment attached to them)++ Needs Not Covered by Current Budget:

NOTE: Technology; excludes software, network infrastructure, furniture, and consumables (toner, cartridges, etc)

Priority	EQUIPMENT REQUESTED	New (N) or Replace ment (R)?	Program: New (N) or Continuing (C) ?	Location	Is there existing Infrastruct ure?	Has it been repaired frequently?	Cost per item	Number Requested	Annual TCO* Total Cost of Request
1. Math 30 laptop computers / portable cart Provide in class portability to support technology mediated instruction	Math 30 laptop computers Portable cart	(N)	(C)				\$500 \$500	30 1	\$15,000 \$ 500
2. Justification									

- TCO = “Total Cost of Ownership” for one year is the cost of an average cost for one year. If equipment needs are linked to a position please be sure to mention that linkage. ++Technology is (1) equipment that attaches to a computer, or (2) a computer is needed to drive the equipment.

14. Facilities Needs Not Covered by Current Building or Remodeling Projects*

List Facility Needs for Academic Year_13-14 (Remodels, Renovations or added new facilities) Place items on list in order (rank) or importance.	Annual TCO*
	Total Cost of Request
1. Acquisition of center classrooms on 3rd floor, building 7. Remodel to one lab and one classroom space <u>Reason:</u> Need increased classroom/lab space for growing physics/earth sciences programs and STEM center.	TBD
2. Additional building for science/allied health classrooms / laboratories <u>Reason:</u> Current space is used to capacity (specifically lab space). Ramp up of Biotechnology, Medical Assisting, Geology ADT, anticipated additional programs (Pharmacy Technology, Anesthesia Technician).	TBD
3. Adjunct Office Space <u>Reason:</u> space is needed to schedule private sessions when adjunct faculty need to conference confidentially with students.	

15. Professional or Organizational Development Needs Not Covered by Current Budget

List Professional Development Needs. Reasons might include in response to assessment findings or the need to update skills to comply with state, federal, professional organization requirements or the need to update skills/competencies. Please be as specific and as brief as possible. Some items may not have a direct cost, but reflect the need to spend current staff time differently. Place items on list in order (rank) or importance.	Annual TCO*		
	Cost per item	Number Requested	Total Cost of Request
1. Surgical Technology CTE professional organization conferences/accreditation meeting Reason: <u>Maintain licensure/program currency / networking</u>	\$1500	2	\$3000
2. Respiratory Therapy CTE professional organization conferences/accreditation Reason: <u>Maintain licensure/program currency / networking</u>	\$1500	2	\$3000

16. OTHER NEEDS not covered by current budget

List Other Needs that you are certain do not fit elsewhere. Please be as specific and as brief as possible. Not all needs will have a cost, but may require a reallocation of current staff time. Place items on list in order (rank) or importance.	Annual TCO*		
	Cost per item	Number Requested	Total Cost of Request
1. <u>Reason:</u>			
2. <u>Reason:</u>			

17. Long Term Planning Needs (2 – 5 years from now)

If your unit anticipates a significant* additional needs for personnel, equipment or facilities will occur two to five years from now please list those here*			
	Fiscal Year Needed	Number Requested	Total Cost of Request
1. Engineering Certificate Program <u>Reason:</u> Meet grown STEM pathway student interest and need	15-16		
2. Biotechnology Certificate/Degree Program <u>Reason:</u> Meet employer demand for qualified technicians in the South San Francisco and greater Bay Area.	15-16		
3. Respiratory Care Baccalaureate Degree Program <u>Reason:</u> new legislation allowing community college offering of targeted baccalaureate degrees. Develop should Skyline be chosen to participate in pilot program.	16-17		
4. Pharmacy Technician Program <u>Reason:</u> complement current allied health programs. Needs assessment will be conducted prior to development of program	17-18		
5. Anesthesia Technician Program <u>Reason:</u> complement current allied health programs. Needs assessment will be conducted prior to development of program	17-18		

**Significant needs are generally those with annual costs over \$20,000. They may be the result, for example, of institutionalizing a grant, anticipated growth, or major equipment coming to the end of its life.*