This form is used by departments and programs to request new or unfilled faculty positions relying on Program Review and/or other justifications. Submit one form for each position requested. For multiple

ST<u>EMPS Divisio</u>n as Positas College

	e priority of request (e.g., Subje 7 September 15, 2017.	ect Position 1, Subject Position 2, etc.). Forms are due to			
Position Requeste	d: General Biology Instru	ıctor			
Contact Person: Michal Shuldman					
Discipline/Division	MSEPS	Starting Term: Fall [18] Spring			
1. Number of If requesting 2. Percentage one year as position, so Fall 2014	tascollege.edu/researchandplant ase contact Rajinder Samra 925- crified by the Dean. Do not attact is a: Replacement or New cement: What is the position or Name of the person being Length of time position(s)  f Full-Time Faculty currently ing more than one position, add to of FTEF taught by full-time for the suming a successful hire. (Use the Rajinder Samra to determine the Spring 2015 Fall 2015 Spring 41.8 28.3 31.	code? (see Dean) replaced: unfilled:  CRITERIA  In Discipline: d 1 to this number for each subsequent position requested. faculty as load for the past six semesters, and projected for e data from link above. If requesting more than one the the projected numbers.)  Projected 2016 Fall 2016 Spring 2017 Fall 2018 Spring 2019			

b. For non-instructional faculty (librarians and counselors): Student/Faculty ratio for the past six semesters, and projected for one year assuming a successful hire. Divide headcount by number of full-time faculty. For example: 8000 students divided by 3 full-time faculty.								
(	(If requesting more than one position, see Rajinder Samra to determine the projected numbers).							
	Fall 2014 Spi	ring 2015 Fall	2015 Spring 20	016 Fall 2016 S	pr		Projected 1 2018 Spring	2019
F	Program Chara	acteristics:						
<ul><li>a. List the courses taught and/or work performed in the discipline.</li><li>(Be brief and specific. Use your Program Review to complete this section.)</li></ul>								
Courses taught in discipline: Anatomy, Botany, Cell Biology, Ecology, Human Biology, Introductory Biology, Marine Biology, Microbiology, Human Physiology, and Zoology. Biology is the largest science department. We serve pathways for transfer, CTE, and Allied Health as well as Gen Ed. Faculty must stay current in a rapidly changing discipline, and have expertise in laboratory pedagogy that is safe, engaging, and meets Student Learning Outcomes and industry standards.  b. Total number of primary sections as identified in data taught in the discipline in each of the last six semesters (use data from link above):								
8	Fall 2014	Spring 2015	Fall 2015	Spring 2016		Fall 2016	Spring 2017	1
	34	39	39	39		38	39	

4.

c. Student enrollments in the classes taught or number of students served in each of the last six semesters (use data from link above):

Fall 2014	Spring 2015	Fall 2015	Spring 2016	Fall 2016	Spring 2017
171	188	189	199	206	211

- d. List special characteristics of the discipline such as: (Be brief and specific. Use your Program Review to complete this section.)
  - Mandated class size limits due to state, contract, and accreditation standards.
  - Facilities
  - Number of courses out of the total number of courses in the discipline that meet General Education Requirements
  - Number of courses out of the total number of courses offered that are required as part of an AA/AS degree, certificate or transfer
  - Discipline provides basic skills courses
  - Discipline provides mandated and specialized services to students
  - Other

Mandated class size: Courses with labs are typically limited to 24 students, reflecting the number of lab stations available and ensuring safety and adequate and efficient student access to reagents, equipment, etc.

Facilities: Biology labs require specialized wet lab facilities, equipment, instrumentation, and safety protocols to deal with biological and chemical hazards. Faculty must be qualified to safely handle potentially dangerous materials and to ensure the safety of students working with these materials.

Courses that meet General Education requirements: 100% of our 12 courses satisfy AA/AS GE requirements and CSU and UC transfer requirements.

5. Describe how courses and/or services in this discipline impact other disciplines and programs. (Be brief and specific. Use your Program Review to complete this section.)

Students taking Biology classes directly increase enrollments in related fields (e.g., Chemistry, Physics, Math). Continued growth of both the Biology majors and Allied Health pathways has resulted in several new sections of Chemistry and higher enrollment in Physics. The focus of this additional full- time faculty member would be on our GE and introductory courses. We think this will increase the enrollment, retention, and completion rates in our non-major GE biology courses (Bio 10, Bio 20, Bio 40, Bio 50, Bio 60). Most students are taking these courses to complete a certificate, degree or transfer pathway. An increase in student success would speed up completion rates of these certificates or degrees.

High demand exists for Bio 30 (entry class into various degrees and pathways), but we had not added a new section for many years until Summer 2015. We offered two sections of Bio 30 in Summer 2017 and they filled to 95% of capacity. This new faculty member would help with the demand for teaching Bio 30, in addition our non-major biology courses. As outlined in our 2015 Program Review: Biology courses are required in 6 AA degrees (e.g., Env Studies, Physical Education, Psych, Biology, Biology-Allied Health, Liberal Arts and Sciences, 5 AS degrees (Occupational Safety, Viticulture, Enology, EMSEMT) 5 Certificates of Achievement, and other Career Certificates (Sports Medicine) and preparation for transfer for CSU and UC programs (Viticulture, Enology, Chemistry, Environmental Science and Environmental Studies). Biology courses are also required in the new AS-T in Public Health Science.

- 6. If this is the first full-time position in the discipline, discuss: (Be brief and specific. Use your Program Review to complete this section.)
  - b. Justification for the position.
  - c. Projected start-up costs for equipment, facilities, and support staff for the first three years.
  - d. Projected enrollment growth for the next three years, starting with the first semester of the projected faculty hire.

NA		

7. What are the impacts on students, the discipline and the college of NOT filling this faculty position? What are the programs/courses/services that have not been or cannot be offered due to the vacancy? (Be brief and specific. Use your Program Review to complete this section.)

This faculty member would take a lead in teaching and coordinating our non-majors classes (Bio 10, Bio 20, Bio 40, Bio 50, and Bio 60). Bio 20 and Bio 40 are our most productive classes, yet they have higher attrition rates and lower student success compared to our other courses. In our 2015 Program Review we analyzed why Bio 40 did not meet the Program Set Standard: "We think the low success rates in Bio 40 may be attributed to the fact that this course primarily serves non-science freshman who do not receive the more individualized attention and instructor coaching as is provided in our lab courses." Since then, one of our full-time faculty members taught Bio 40 DE in the Summer 2016. The typical success rate in our Bio 40 DE class was an average of 38% and the withdrawal rate was 36% (for Fall 2015, Spring 2016, Spring 2017). When a full-time faculty member taught the class the success rate was 68% (Summer 2016) and the withdrawal rate was 19%. After teaching the class, the full-time faculty was able to work with part-time faculty to rewrite SLOs for Bio 40 that were more in line with the course content. While this is just one of our classes, and just a few sections of data, the results are promising that the involvement of full-time faculty can improve student outcomes in GE classes.

We have seen similar trends in our Bio 50 class when a full-time faculty member was able to teach one section and then work with part-time faculty on developing new SLOs, assessing them, and reflecting on the assessments to change practices in the class. From Fall 2011 to Spring 2015 the success rate in Bio 50 was about 68%, but from Fall 2015 to Spring 2017 the success rate has been about 80%. Currently our full-time faculty can occasionally teach some of our GE classes but this is becoming more difficult as we have added sections to our growing Biology Majors and Allied Health pathways. Some of our GE classes are entirely taught by part-time faculty (Bio 10 and Bio 60). Our efforts to date indicate that having a full-time faculty lead working with our part-time faculty will help these non-majors courses improve their enrollments, their attrition rates, and the number of students successfully completing the course. This is why we are requesting a faculty member to focus on our non-majors classes.

8. Any additional information that addresses justification of the position. If multiple positions are being requested, this is an opportunity to differentiate the justifications for additional positions.

The Biology program continues to experience steady growth. Since 2014, the number of sections has increased 15% and we have increased number of students served by 23%.

Signatures:

Requestor

Dean

Vice President