



Natural Science: Biology

Instruction

Vision/Narrative

The Biological Science Program at Gavilan College offers a variety of courses for science and non-science majors. We offer A.S. degrees in Biological Science and Health Science. Our course offerings attempt to reflect the diversity of fields in this Program. Measure E and STEM grants (I, II, and III) have been instrumental in renovating our facilities, purchasing new equipment, and developing curriculum.

The Biology Program has many strengths:

- Our greatest strength is improved student-faculty interaction and student contact hours through the addition of our Biology Study Center (LS 109) and the open work area in LS 115.
- STEM II and III have also supported a faculty-managed Supplemental Instruction (SI) program. SI helps to bridge the communication gap between student and instructor.
- Other efforts support vital cohesion and faculty-faculty collaboration, including MESA, TRiO, the STEM Center, Natural Science internships and stipends, and student organizations like Rho Alpha Mu and the SACNAS/STEM club.

We continue to update and develop our curriculum:

- We are revamping our core sequence of three 4-unit courses (BIO 1, 4, 5) to become a 2-semester sequence of two 5-unit courses (BIO 1A and 1B). The vast majority of CCCs articulate with the 2-semester sequence, and we are updating our degree requirements to better balance the Program curriculum (BIO 1: Cell and Molecular Biology will be BIO 1A; BIO 4: Zoology and BIO 5: Botany will be BIO 1B: Organismal Biology). This will also shorten time to degree completion for our Bio majors.
- Service Learning (SL) has become a vital component of our Biology curriculum. The newly-developed Gavilan bird nesting box project on the main campus and off-campus sites provides a wonderful opportunity for our students to take an active role in helping animals affected by human impact. The continued development and management of the arboretum, native garden (grass meadow), and the outdoor classrooms will allow us to build stronger collaboration efforts with the community, industry, and universities.

In order to accomplish our Program Plan Objectives, Biology needs to:

- Hire a third full-time Biology instructor so the Program can adequately meet the needs of the campus and community.
- Have TWO full-time Lab Technician positions so we can adequately meet program growth in Biology and Chemistry.
- Increase lab classroom availability. Lab space is a severe bottleneck in offering more courses, both on the main campus and satellite campuses.



Feedback from Supervisor / Dean

Present Biology resources and staff can't meet the student needs; given the unmet demand, the development of these areas should be given the highest priority.



Program Objective 1: Secure adequate staffing levels to sustain the Program.

Strategy and Goal(s):

Strategy #2: Increase student completion and meet institutional goals, improve student services and enhance curriculum and programs.

Goal #1: Increase student, institutional and programmatic outcomes as defined by Institutional Effectiveness, Equity, and other college benchmarks.

IEC Program Review:

Yes, this Objective is based from the last IEC Program Review.

Progress:

Yes: Third FT Biology hire is scheduled for fall 2019

Activity 1: Hire third FT Biology faculty

Personnel Request

Job Classification	Quantity	FTE	Amount (\$)	Fund Source / Type
Faculty	1	100%	\$ 70000.00	General Fund / On-Going

Non-Personnel Request - *none*

Activity 2: Hire two FT Lab Technicians for Biology and Chemistry

Personnel Request

Job Classification	Quantity	FTE	Amount (\$)	Fund Source / Type
Classified	1	50%	\$ 30000.00	General Fund / On-Going

Non-Personnel Request - *none*

Activity 3: Create student Lab Assistant/Intern position for Biology

Personnel Request



Job Classification	Quantity	FTE	Amount (\$)	Fund Source / Type
Other: <i>Student worker</i>	1	25%	\$ 10000.00	General Fund / On-Going

Non-Personnel Request - *none*

Activity 4: Hire SI leaders for Biology and Chemistry

Personnel Request

Job Classification	Quantity	FTE	Amount (\$)	Fund Source / Type
Other: <i>Student worker</i>	5	%	\$ 10000.00	General Fund / On-Going

Non-Personnel Request - *none*

Rankings:

Ranker	Comments	Rank
Dean	The need for Biology classes exceeds the present offerings; appropriate funding for staff will be a key factor in offering additional classes.	12
Vice-President		
Budget Committee		
President's Council		



Program Objective 2: Update and modernize the Biology curriculum and degree requirements.

Strategy and Goal(s):

Strategy #2: Increase student completion and meet institutional goals, improve student services and enhance curriculum and programs.

Goal #1: Increase student, institutional and programmatic outcomes as defined by Institutional Effectiveness, Equity, and other college benchmarks.

IEC Program Review:

Yes, this Objective is based from the last IEC Program Review.

Progress:

Yes: Curriculum is being updated this year. Once courses are approved, AD-T will follow.

Activity 1: Support Liaisons with 4-year campuses to support and develop new curriculum and activities

Personnel Request - *none*

Non-Personnel Request - *none*

Activity 2: Work with other disciplines (Chemistry/Physics/Math) to increase transfer/graduation success rates

Personnel Request - *none*

Non-Personnel Request - *none*

Activity 3: Support campus activities that promote STEM and Biology in particular, such as the Health Fair and Science Alive

Personnel Request - *none*

Non-Personnel Request - *none*

Activity 4: Maintain Supplemental Instruction (SI) efforts, currently funded by STEM III

Personnel Request - *none*

Non-Personnel Request - *none*

Activity 5: Update BIO 1, 4, and 5 curricula to BIO 1A and 1B

Personnel Request - *none*

Non-Personnel Request - *none*



Activity 6: Create a Biology AD-T

Personnel Request - *none*

Non-Personnel Request - *none*

Rankings:

Ranker	Comments	Rank
Dean	Much has been completed.	8
Vice-President		
Budget Committee		
President's Council		



Program Objective 3: Maintain and expand Biology lab facilities, the Gavilan Arboretum, Native Garden, and Grass Meadow.

Strategy and Goal(s):

Strategy #3: Provide students with expanded and upgraded facilities that support the campus and community needs as defined by the Facilities Master Plan.

Goal #1: Complete new Facilities Master Plan to develop Fairview Corners, expand Coyote Valley Center, replace failing infrastructure and provide for new/upgraded educational and support facilities at the Gilroy main campus.

IEC Program Review:

Yes, this Objective is based from the last IEC Program Review.

Progress:

Yes: There is a long history (2010-2015) which led to the creation of the Arboretum, Native Garden, and Grass Meadow. Please see the 2017-18 Biology Program Plan for details.

STEM III is funding renovations to LS 106 to convert it into a lab classroom. Work to be done at some future point.

Activity 1: Investigate potential funding sources to help maintain the Arboretum, including local groups such as California Native Plant Society, California native Grass Society, Local water districts, Natural Resource conservations District, etc.

Personnel Request

Job Classification	Quantity	FTE	Amount (\$)	Fund Source / Type
Other: <i>release time</i>	1	20%	\$ 20000.00	General Fund / One-Time

Non-Personnel Request - *none*

Activity 2: Develop and implement management strategies for the Arboretum, Native garden and Grass Meadow

Personnel Request

Job Classification	Quantity	FTE	Amount (\$)	Fund Source / Type
Other: <i>release time</i>	1	20%	\$ 20000.00	General Fund / One-Time



Non-Personnel Request - *none*

Activity 3: Increase lab classroom availability

Personnel Request - *none*

Non-Personnel Request - *none*

Activity 4: Update BIO 9 lab equipment

Personnel Request - *none*

Non-Personnel Request

Specific Item(s) Needed	Amount Requested (\$)	Fund Source / Type
ADI Instruments LabStation software	\$ 10000.00	Instructional Equipment / One-Time
<i>Total Requested</i>	<i>\$ 10000.00</i>	

Rankings:

Ranker	Comments	Rank
Dean	These “materials” are a critical part of the instructional program and contribute to student success.	11
Vice-President		
Budget Committee		
President's Council		