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Columbia College

Annual Instructional Program Review 2015 - 2016

Program (generally the awards discipline):

Biological and Physical Sciences

Department (YCCD)

Biology

Program Mission:

Biological and Physical Sciences courses at Columbia College include Biological Sciences, Chemistry, Earth Sciences and Physics. Students pursuing coursework in these subjects will benefit from a rich and in-depth science experience that can lead

Staffing description:

3 FT Faculty
1 Classified Support

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Responsible Party	Type Name	Date Submitted

Person assigned as the lead faculty for this program review. If the program review is completed via a collaborative or group process, please provide the email of the person to contact should questions arise regarding the resources being requested.

If updating the resource requests for a previously completed program review, go to Section 4.

Section 1. Trend Analysis

Three Year Trends:

19 - Biology

Academic Year	FTES	Full-Time % =FT Hrs/Total Classroom Hours Taught	Fill Rate % =1st Census/Capacity	Success Rate =Passing grades / (All grades - Ws)	Awards
2013-14	185.38	0.407000000000000...	0.1368	0.741	10
2014-15	170.51	0.366	0.136	0.789	9
2015-16	141.60	0.528	0.1629	0.743	6
Trends:	Select...	Select...	Select...	Select...	Select...

1.1 Describe how these trends have affected student achievement and student learning:

The Biological Science Department will increase the number of students who have selected a degree with an emphasis in Biological Science on their Student Educational Plan (SEP). Additionally, the department will increase the percentage of students that earn degrees in their programs each year.

1.2 Other relevant quantitative/qualitative information used in the evaluation of this program.

Average of about 1.7 Degrees per year, recent increase to 4 in 2011. Would like to sustain the increase. See Figure 1

As of fall 2012, Degrees with and emphasis in Biological Science have averaged about 1.7 per year. Fall 2011 showed 4 such degrees completed - this will be tracked to see if the increase is a trend that can be maintained.

Evaluation File Attachments: No file attached No file attached

For CTE programs

1.3CTE information and relevant documentation:

Section 2. Student Learning and Curriculum

Program/ Department:

2.1 Course Level

Each course listed within the Program/Department for this review :

Academic Year	% of Courses with SLOs Identified	% of Courses Assessed	% of Courses with Ongoing SLO Assessment	% of Courses Reviewed for Outline Changes
2013-2014	1	1	1	

Please comment on the percentages above.

we are awesome-huh!

Academic Year	% of Courses with SLOs Identified	% of Courses Assessed	% of Courses with Ongoing SLO Assessment	% of Courses Reviewed for Outline Changes
2015-2016	1	1	1	

Please comment on the percentages above.

2.2 How has assessment of course-level student learning outcomes led to the improvement in student learning.

Concepts Maps have been integrated into Fundamentals of Biology (Biol 17) which has helped them make connections and deepen their knowledge of biology.

2.3 Course Level

All courses reviewed in the last academic year.*Note:Curriculum Review is required by the Chancellors Office every 6 years.*

Course	*Title*	*Last Review*	*Next Review*
BIOL 10	Human Anatomy	2/21/2017	1/24/2022
BIOL 17	Fundamental of Biology	09/29/2015	09/29/2020
BIOL 150	Elementary Anatomy and Physiology	04/08/2014	04/08/2019
BIOL 158	Birds of Central California	02/21/2017	02/21/2022
BIOL 159	Wildflowers of the Mother Lode	11/10/2015	11/10/2020
BIOL 160	Mushrooms of the Mother Lode	11/10/2015	11/10/2020
BIOL 179	Fishing and fishery Biology of the Sierra Nevada	12/06/2011	12/06/2016
BIOL 198	A Natural History of California	03/10/2015	03/10/2020
BIOL 2	Principles of Biology	10/20/2015	10/20/2020
BIOL 24	General Ecology	11/10/2015	11/10/2020
BIOL 39	Field Biology	10/20/2015	10/20/2020
BIOL 4	Principles of Animal Biology	10/28/2014	10/28/2020
BIOL 40	Field Biology: Ecosystems	11/27/2012	11/27/2017
BIOL 50	Nutrition	09/24/2013	09/24/2018
BIOL 60	Human Physiology	01/17/2017	01/17/2021
BIOL 65	Microbiology	1/24/2012	1/24/2017
BIOL 99	Independent Study in Biology	11/22/2016	11/22/2021

2.4 Program Level

All awards listed within this program.

		Where in the assessment cycle and status.	
Degree or Certificate		*PLO Phase of Cycle*	*Status*
Science Emphasis in Biology - AS	AA/AS, AS-T/AA-	Select phase...	Not started
Post Secondary Emphasis in Biology	Transfer AA/AS	Select phase...	Not started
Allied Health	Transfer AA/AS	Select phase...	Select status...

2.5 How has assessment of program-level student learning outcomes led to certificate/degree program improvements? Your summary should include a summation of the results of all degrees, certificates, and other programs which were recently assessed. If any of the above are not started, please explain why.

Classes are getting better aligned towards the C-ID requirements. This will streamline our offerings and make it easier for students to transfer.

2.6 List all degree/certificate programs that are reviewed by your Program/Department.

1.

2.7

What recent activities, dialogues, discussions, etc. have occurred to promote student learning or improved Program/Department processes in the last year?

Mark an "X" in front of all that apply.

a. ☑ Curricular development/revisions of courses
b. ☑ Curricular development/revision of programs
c. ☑ Increased improved SLO/PLOs in a number of courses and programs
d. ☑ Other dialog focused on improvements in student learning
e. ☐ Documented improvements in student learning
f. ☐ Increased/improved SLO/PLOs in a number of courses and programs
g. ☑ New degree or certificate development
h. ☑ Best Practices Workshops
i. ☑ Conference attendance geared towards maintaining or improving student success
j. ☑ Professional development activity geared towards maintaining or improving student learning
k. ☐ Technical Advisory Committee meetings and recommendations

Describe how the activities, dialogues, discussions, etc. have improved student learning.

Section 3. Evaluation of Previous Goals

3.1

For the purpose of this program review cycle refer to the previous Program Review reports, EMP, UPT, SLO, and VTEA plans. What have been the result (measurable outcomes) due to the activities of objectives, or actions taken?

• Program Goal from previous program review cycle.	Increase Biological Science Program Completions
• What action was taken to meet the goal?	Work with students from Claim Jumper Day Oct 25 2012.,
• What was the outcome?	Determine most appropriate offerings for students and take action to see that student enrollments in those
• Program Goal from previous program review	Success in Pre-Nursing Track - Need to investigate scheduling patterns and sequential offerings to see if they

cycle.

- What action was taken to meet the goal?
  Analyze Anatomy and Micro Sequence
- What was the outcome?
  Still waiting for C-ID completion to figure out how things will shake out.

- Program Goal from previous program review cycle.
  Hire more Biology and Chemistry staff
- What action was taken to meet the goal?
  Full-time faculty postions have decreased college-wide over the past few years, and the Full-time Biology Fa
- What was the outcome?
  In Fall 2016 we have a new chemistry faculty member (Colin Thomas) and physics (Anca Huser). We are thrill

- Program Goal from previous program review cycle.
  Recruit and retain more students in Biology and Allied Health programs
- What action was taken to meet the goal?
  Working with Brandon Price and Ami Nelson on writing an NSF grant that will allocate funds for students sch
- What was the outcome?
  Pending.

- Program Goal from previous program review cycle.
  Hire an awesomely effective full time Physics and Chemistry faculty to support the science department.
- What action was taken to meet the goal?
  Individuals were hired: Anca Husher and Colin Thomas
- What was the
  One month in, and they have both challenged science misconceptions held by the biology faculty. We are lea

outcome?

3.2

Evaluate the success of the above actions. Did the actions taken lead to improved student learning or program improvements; and if resources were allocated, what was the effect/result of the additional resource(s)?

New instructional staff have been hired and are making innovative recommendations and improvements for the science department

Section 4. Future Goals and Resource Request

4.1 New or Existing Goal

As a result of this program review, please identify a program goal that addresses actions to be taken based on the analysis of the evidence. (Additional goals can be added by clicking the blue drop down arrow below.)

Hire a Lab Specialist for the Sciences. Currently there is no Lab Specialist to aid with the demands of setting up and cleaning up labs in p

Anticipated action leading to changes or improvements:

Hiring a Lab Specialist for the Sciences. Hiring a temporary full time replacement Erin's classroom absence. This will give continuity to o

What College Goal is best met by this program goal:

Goal 2 - High Quality Programs and Services

4.2 Resource(s) Requested

Describe the resource request in detail:

Help students with more access to teahers and lab help

What measurable outcome is expected if this resource request is funded?

Better retention and pass rates

Consider the type of resources and potential funding sources needed to fill this request (if exact dollar amounts are unknown, provide an estimate).

Type of Resource Requested	*Amount Requested*	*Description*	*Justification*

Personnel	$50,000	Lab Specialist	Support is needed for physics, chemistry, earth science, a
Facilities	$250,000	Space for Adjuncts	We need to give the adjunct in the sciences and math dec
Personnel	$7,000	11 month Lab Specialist	Increase current Lab Specialist (Doreen Bass) from 10 to 1
Equipment	$2,000	Data Acquisition Equipment	Additional probes and data collection devices to employ r
Equipment	$5,000	Software	For simulated lab activities, experiments, and staff produ
Supplies	$8,000	Sharks, Pigs and Frogs, and other Bic	Perishable Supplies for all biology courses with lab
Other	$5,550	Maintenance Contracts Repairs	Replacement, maintenance and repair of lab equipment
Equipment	$800	Service 60 Microscopes annually	We would use these in both Biol 17 and Biol 60 to explore
Equipment	$500	Histology Slides	The slide collection needs to be updated and expanded fo
Equipment	$15,000	Boat Dock	Safety and access to the water ecosystem for labs in vario
Equipment	$20,000	Computer replacement	Technology upgrades for bank of laptops, classrooms, fac
Supplies	$1,500	Outreach supplies and hopitality	Outreach and recruitment to/of students and local scienc

Other	$500	Repair Growth Chambers	Growth chambers are not working properly, which impac
Facilities	$5,000	Gravel parking area behind Sugar Pir	Faculty and staff could utilize more space to load and unl
Supplies	$1,500	Supplies & hospitality	Outreach and recruitment to students and local schools, s
Equipment	$20,000	Computer replacement	Technology upgrades for Faculty, staff, labs
Equipment	$5,000	Software	For lab activities and productivity enhancement
Facilities	$500	Electrical Outlets	Needed for ultracentrifuge and subzero freezer.
Personnel	$80,000	Split Faculty position with HHP	Biology and HHP share many students, especially in the g

NOTE: All personnel request(s) must go through the existing **priority hiring process**.

Section 5. Print this Form

Use your browser's "Print Preview" to send this print version of the Program Review form to your printer. You can also use your browser's Print Preview to send this to a .pdf file for a digital copy of this submission of your Program Review.

Submitted by:

naeglee@yosemite.edu

(email of the person submitting this form)

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