

Spring 2016

Science 2016 Los Alamos Self-Study & Documents

University of New Mexico - Los Alamos Campus

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Academic Department and Program Review

The Academic Program Review process at UNM-Los Alamos has been developed to complement the on-going institutional effectiveness process and to become a vital part of institutional planning. The program review is a comprehensive, systematic method of evaluation and review of achievement conducted every 3-5 years within academic programs for the following purposes:

1. To improve teaching and learning
2. To evaluate and analyze current practices
3. To promote faculty discussion about curriculum within a program
4. To ensure that program planning is related to goals at the institutional, programmatic, and course levels
5. To evaluate program support in the areas of technology, equipment, supplies, facilities and staffing

The program review process at UNM-LA is comprehensive and cyclical and consists of the following components:

1. The development of a written report by program faculty and Department Chair
2. Submission to Dean of Instruction for review
3. Submission to Institutional Effectiveness Committee
4. Recommendation report from the IE committee to the department
5. Response from the department about planned changes as a result of the process

1. Academic Department and Program Information

Complete information regarding the Department

Full Official Name of Academic Department:

Science

Submission Date of Department/Program Review:

June 10, 2016

Names of Chairperson or Coordinator and any participating faculty:

Mary Martucci (Department Chair)

Purpose or Mission Statement for the Department

The mission of the Science Department is to serve students seeking an education in the sciences.

List the goals/objectives (measurable) for the Academic Department:

1. Prepare Science students for transfer to a four-year institution.
2. Prepare Science students to enter the workforce upon completion of their 2-year degree.
3. Increase enrollment in the Science Department degree programs.
4. Staff the department sufficiently to sustain high instructional standards.

Explain How the Mission and Goals for the Academic Department Support UNM-LA's Mission and Goals:

The goals (#1 and #2) of the Science Department align with the University mission of preparation for student transfer and pathways for careers. The goals (#3 and #4) align with the strategic goals of the University concerning increasing enrollment in degree programs and staff goals of sustaining high

instructional standards.

Complete for each Academic Degree program and certificate:

Program 1.

Full Official Name of Academic Program:

Science, AS

Names of Chairperson or Coordinator and any participating faculty:

Mary Martucci, Department Chair

Purpose or Mission Statement for the Academic Program:

The program prepares students to pursue a bachelor's degree in science or an entry level science technician careers through a foundation in physics, chemistry, critical thinking, and communication skills.

List the goals/objectives (measurable) for the Academic Program:

1. Demonstrated ability to solve problems and communicate the principles of basic physics.
2. Demonstrated ability to solve problems and communicate the principles of basic chemistry.
3. Demonstrated ability to solve a problem scientifically using the appropriate skills and equipment while employing ethical critical thinking skills.
4. Demonstrated ability to communicate effectively.

Explain How the Mission and Goals for the Academic Program Support UNM-LA's Mission and Goals:

The mission and goals of the academic program support the mission of preparation for student transfer and pathways for careers. The goals also align with the strategic goals of the University concerning increasing enrollment in degree programs and staff goals of sustaining high instructional standards.

Program 2.

Full Official Name of Academic Program:

Pre-Professional Health, AS

Names of Chairperson or Coordinator and any participating faculty:

Mary Martucci, Department Chair

Purpose or Mission Statement for the Academic Program:

The program prepares students to pursue a specialized degree in health care professions through a foundation in biology, chemistry, critical thinking, and communication skills.

List the goals/objectives (measurable) for the Academic Program:

1. Demonstrated ability to use principles of anatomy and physiology to identify form and function of body systems.
2. Demonstrated ability to solve a problem in chemistry scientifically using the appropriate skills and equipment while employing ethical critical thinking skills.
3. Demonstrated ability to communicate and analyze scientific information using ethical critical thinking.

Explain How the Mission and Goals for the Academic Program Support UNM-LA's Mission and Goals:

The mission and goals of the academic program support the mission of preparation for student transfer and pathways for careers. The goals also align with the strategic goals of the University concerning

increasing enrollment in degree programs and staff goals of sustaining high instructional standards.

Program 3.

Full Official Name of Academic Program:

Environmental Science, AS

Names of Chairperson or Coordinator and any participating faculty:

Mary Martucci, Department Chair

Purpose or Mission Statement for the Academic Program:

The program prepares students to pursue a bachelor's degree in environmental science or an entry level technician career in the environmental science field through a foundation in environmental science, biology, chemistry, physics, critical thinking, and communication skills.

List the goals/objectives (measurable) for the Academic Program:

1. Demonstrated ability to solve scientific problems through the application of scientific principles, solving numerical problems, and communicating their strategy.
2. Demonstrated ability to apply and communicate basic principles of biology.
3. Demonstrated ability to solve problems and communicate the principles of basic physics.

Explain How the Mission and Goals for the Academic Program Support UNM-LA's Mission and Goals:

The mission and goals of the academic program support the mission of preparation for student transfer and pathways for careers. The goals also align with the strategic goals of the University concerning increasing enrollment in degree programs and staff goals of sustaining high instructional standards.

Program 4.

Full Official Name of Academic Program:

Environmental Technology, AAS

Names of Chairperson or Coordinator and any participating faculty:

Mary Martucci, Department Chair

Purpose or Mission Statement for the Academic Program:

This program prepares students for careers as technicians in environmental science through science education, experience with professionals in the field, and required certification.

List the goals/objectives (measurable) for the Academic Program:

1. Demonstrated skills related to collecting and analyzing field samples utilizing the appropriate chain of custody procedures.
2. Identify safety hazards and apply appropriate controls and techniques for addressing hazardous situations in the field.
3. Demonstrated understanding of policies and laws related to environmental science through analysis of case studies and application of appropriate laws and policies.
4. Demonstrated ability to solve scientific problems through the application of scientific principles, solving numerical problems, and communicating their strategy.

Explain How the Mission and Goals for the Academic Program Support UNM-LA's Mission and Goals:

The mission and goals of the academic program support the mission of preparation for student transfer and pathways for careers. The goals also align with the strategic goals of the University concerning increasing enrollment in degree programs and staff goals of sustaining high instructional standards.

Program 5.

Full Official Name of Academic Program:

Health Science, CERT

Names of Chairperson or Coordinator and any participating faculty:

Mary Martucci, Department Chair

Purpose or Mission Statement for the Academic Program:

The program prepares students to pursue a specialized degree in health care professions through a foundation in biology, chemistry, critical thinking, and communication skills.

List the goals/objectives (measurable) for the Academic Program:

1. Demonstrated ability to use principles of anatomy and physiology to identify form and function of body systems.
2. Demonstrated ability to solve a problem in chemistry scientifically using the appropriate skills and equipment while employing ethical critical thinking skills.
3. Demonstrated ability to communicate and analyze scientific information using ethical critical thinking.

Explain How the Mission and Goals for the Academic Program Support UNM-LA's Mission and Goals:

The mission and goals of the academic program support the mission of preparation for student transfer and pathways for careers. The goals also align with the strategic goals of the University concerning increasing enrollment in degree programs and staff goals of sustaining high instructional standards.

2. Assessment

Has a Program Assessment Plan been created and submitted for each program in the department?

YES NO NA

If "YES", please give date of submission for each and explain any changes you expect to make to each plan. **(Please attach all plans to the end of this report.)**

Program 1: 10/31/2014
Program 2: 10/31/2014
Program 3: 10/31/2015
Program 4: 10/31/2014
Program 5: 5/8/2015

If "NO", when do you expect to have each plan completed?

Has a Program Assessment Report been submitted for each program in the department? (Please attach the most current Assessment Report to the end of this review.)

YES NO NA

If "YES", give the date of submission for each and describe any changes being planned as a result of the assessment?

Program 1: 10/31/2014
Program 2: 10/31/2014
Program 3: 10/31/2015
Program 4: 10/31/2014
Program 5: 5/8/2015

If "NO", when do you expect to have each report completed?

Does the use of assessment processes result in continuous improvement in the program/unit?

YES NO

If yes, describe some of the recent improvements that have come about in response to needs identified through these evaluation processes:

Instructors are using the results of the assessment to make needed changes to the instruction and delivery of courses.

3. Personnel (Faculty)

Please answer these questions about your department.

Number of Core Faculty:

5

Number of Part Time Faculty:

7

Do the programs in the department have a "champion?" This could be a department/program chair or a volunteer. YES NO

If Yes, please enter name(s) for each program.

Program 1: Mary Martucci, Department Chair
Program 2: Mary Martucci, Department Chair
Program 3: Mary Martucci, Department Chair
Program 4: Mary Martucci, Department Chair
Program 5: Mary Martucci, Department Chair

Please list all existing Support positions: (Example: Lab Tech)

Laboratory Technician: Cindy Budge, MS Biology

Is the number of personnel adequate to support your department and program areas?

YES NO

If "NO", explain below.

We need additional core faculty support to support the mission and goals of the department and degree programs. We need additional support for recruitment, retention, and sustainability of these degree programs.

Does the evidence exist to show that faculty members teaching in this department have involved themselves with our in-service training (Faculty orientation and/or Faculty Assembly events) and other professional development?

YES NO

If "NO," please explain:

The majority of the faculty in the department are temporary part time (adjunct) faculty who teach one or two courses a semester. These instructors typical have part- or full-time jobs elsewhere. They do not typically participate in professional development activities.

Please complete the faculty information in the table on the next page, including faculty credentials and courses each faculty has taught.

Faculty Roster Form
Qualifications of Full-Time and Part-Time Faculty

Name of Department: **Science**
 Academic Term(s) Included: **Fall 2015-**
 Date Form Completed:

Complete the following table with faculty names (both core and TPT) and highest degree for each. Are Academic credentialing forms and transcripts and/or copies of relevant certifications on file?

Faculty Name	C, TPT D, UN, UT List all that apply	Courses Taught for the last 3 academic years (Include term & course number) List all that apply	Academic degrees & graduate coursework (if needed to qualify to teach); Include certifications, work experience if needed to qualify to teach a course	Completed Academic Credentialing form	Transcripts on file	Copies of certifications on file IF APPLICABLE
Beach, Tom	C* Core in IT, teaches for Science	ASTR 101, 101L; CS 150L; CT 102; MATH 121; MATH 107	PhD-Physics (Major: Astrophysics; BS-Physics; BS-Math; BS-Computer Science & Astronomy	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Dendy, Leslie	C	BIOL 201L; 202; 123/124L; 121/121L; 122/122L; 219/220; 221/222; 229; 110/112L; CHEM 237; 238; 212; NAT SCI 227L; 201L; 202L; 203L; 204L; 100	BA-Biochemistry; PhD-Biology (Cell Biology & Biochemistry)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Schauer, Susan	C	BIOL 237; BIOL 247L; BIOL 238; BIOL 248L	BA-Biology; MA-Biology (Minor- Environmental Animal Physiology)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
Martucci, Mary	C	CHEM 111, 121, 123L, 124L, 212	BS-Chemistry (Minor-French); PhD- Chemistry	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
McNaughton, Michael	C	PHYC 160; PHYC 161; PHYC 167; PHYC 168	BS-Physics/Math; MA-Math; PhD- Physics	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Belobrajdic, Katie	TPT	BIOL 123	BS-Genetics; PhD-Immunology	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Budge, Cindy	TPT	BIOL 124L; BIOL 123	BS-Biochemistry; MS-Biology	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Erkkila, Vicki	TPT	CHEM 121, CHEM 122; PHYC 102	BS-Physics; MS-Physics; PhD- Chemistry	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Willms, Patti	TPT	NUTR 120; NUTR 244	AA-Applied Science (Nursing); Alternative Licensure-Secondary Educ; MS-Home Econ. (Emphasis is Human Nutrition); BA-Dietetics	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Cooke, James	TPT	PHYC 160L; 151L;	BA-Physics (Minor-Math); PhD	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA

		161L; 152L; ELCT 203; 204L	Physics (Minor-Math)			
Hollowell, Brittany	TPT	BIOL 124L		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Morgan, Jiaming	TPT	PHYC 102; PHYC 160	BS-Physics/Microelectronics; MS- Physics; PhD-Physics	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA

C, TPT: Core, Temporary Part-time (adjunct); D, UN, UT: Developmental, Undergraduate Nontransferable, Undergraduate Transferable

4. Student Success and Achievement

Please answer these questions about each program within your department.
(Enrollment, Retention, Graduates and Licensing Exams)

Degree Program Name: **AS Environmental Science**

Academic Year (At least Past Three Years)	Fall number of Majors	Spring number of majors	Number of Annual Graduates	Name of State or National Licensing/Certification Examinations, # of Students Taking Examinations, and % of Students Passing Examinations for each academic year IF APPLICABLE		
				Name of Examination	Number of students taking exam	Number of students passing exam
2015-2016	11	11	0			
2014-2015	14	14	3			
2013-2014	12	10	0			
2012-2013	18	17	0			
2011-2012	18	13	0			
2010-2011	8	12	0			

Degree Program Name: **AAS Environmental Technology**

Year (At least Past Three Years)	Fall number of Majors	Spring number of majors	Number of Annual Graduates	Name of State or National Licensing/Certification Examinations, # of Students Taking Examinations, and % of Students Passing Examinations for each academic year IF APPLICABLE		
				Name of Examination	Number of students taking exam	Number of students passing exam
2015-2016	n/a	1	0			

Degree Program Name: **AS Science**

Year (At least Past Three Years)	Fall number of Majors	Spring number of majors	Number of Annual Graduates	Name of State or National Licensing/Certification Examinations, # of Students Taking Examinations, and % of Students Passing Examinations for each academic year IF APPLICABLE		
				Name of Examination	Number of students taking exam	Number of students passing exam
2015-2016	18	16	0			
2014-2015	15	16	0			
2013-2014	14	17	0			

2012-2013	16	16	0			
2011-2012	13	12	0			
2010-2011	22	22	0			

Degree Program Name: AS Pre-Professional Health Sciences

Year (At least Past Three Years)	Fall number of Majors	Spring number of majors	Number of Annual Graduates	Name of State or National Licensing/Certification Examinations, # of Students Taking Examinations, and % of Students Passing Examinations for each academic year IF APPLICABLE		
				Name of Examination	Number of students taking exam	Number of students passing exam
2015-2016	64	67	3			
2014-2015	73	71	2			
2013-2014	76	80	3			
2012-2013	45	59	3			
2011-2012	34	36	1			

Degree Program Name: CERT Pre-Professional Health Sciences

Year (At least Past Three Years)	Fall number of Majors	Spring number of majors	Number of Annual Graduates	Name of State or National Licensing/Certification Examinations, # of Students Taking Examinations, and % of Students Passing Examinations for each academic year IF APPLICABLE		
				Name of Examination	Number of students taking exam	Number of students passing exam
2011-2012	1	0	0			

Course Completion Rates

Please enter all courses taught by the department.

Face-to-Face courses

Course/Cr Hr	Number and % of Students with A, B, C						Number and % of Students with D, F						Number and % of Students with W or I					
	2013-2014		2014-2015		2015-2016		2013-2014		2014-2015		2015-2016		2013-2014		2014-2015		2015-2016	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
ASTR 101 (3)	6-46%		7-64%		8-80%		4-31%		3-27%		1-10%		3-23%		1-9%		1-10%	
ASTR 101L (1)	4-57%		7-78%		5-63%		0		1-11%		1-12%		3-43%		1-11%		2-25%	
BIOL 123 (3)	15-58%	17-77%	13-59%	6-40%	16-73%	15-75%	7-27%	5-23%	8-36%	4-27%	5-23%	1-5%	4-15%	0	1-5%	5-33%	1-4%	4-20%
BIOL 124L (1)	19-86%	12-71%	14-67%	8-47%	18-86%	16-73%	1-5%	3-18%	5-24%	6-35%	2-10%	1-4%	2-9%	2-11%	2-9%	3-18%	1-4%	5-23%
BIOL 201L (4)	9-100%		6-86%		7-78%		0		0		1-11%		0		1-14%		1-11%	
BIOL 202L (4)		7-100%		5-100%		3-60%		0		0		0		0		0		2-40%
BIOL 239 (4)		3-60%				8-89%		1-20%			0		1-20%					1-11%
BIOL 247L (1)	4-80%		4-50%		9-60%		0		2-25%		2-13%		1-20%		2-25%		4-27%	
BIOL 248L (1)		4-100%		2-67%		2-67%		0		0		0		0		1-33%		1-33%
CHEM 111(4)	10-82%	9-90%		5-50%		12-71%	1-9%	1-10%		4-40%		3-18%	1-9%	0		1-10		2-11%
CHEM 121 (3)	16-80%		19-83%		19-83%		1-5%		3-13%		4-17%		3-15%		1-4%		0	
CHEM 122 (3)		12-86%		18-90%		14-88%		1-7%		1-5%		1-6%		1-7%		1-5%		1-6%
CHEM 123L (1)	15-75%		26-84%		16-67%		4-20%		3-10%		6-25%		1-5%		2-6%		2-8%	
CHEM 124L (1)		11-79%		16-80%		12-80%		2-14%		3-15%		1-7%		1-7%		1-5%		2-13%
CHEM 212 (4)	6-100%						0						0					
ENVS 101 (3)		13-62%	8-62%		14-93%			7-33%	4-31%		0			1-5%	1-7%		1-7%	
ENVS 102L (1)		5-42%	7-70%		11-92%			4-33%	2-20%		0			3-25%	1-10%		1-8%	
EPS 101 (3)	9-82%			11-58%			2-18%			5-26%			0			3-16%		
EPS 105L (1)	5-71%			5-38%			2-29%			3-24%			0			5-38%		
PHYC 102 (3)	8-100%	12-92%		9-82%		14-100%	0	0		0		0	0	1-8%		2-18%		0
PHYC 102L (1)	7-100%	6-60%		7-70%		11-92%	0	1-10%		2-20%		1-8%	0	3-30%		1-10%		0
PHYC 151L (1)				0						0						1-		

																			100%		
PHYC 152L (1)		1-100%						0							0						
PHYC 160 (3)	10-91%		9-69%		12-100%			1-9%	0		0			0		4-31%			0		
PHYC 160L (1)	7-100%		6-67%		7-88%			0	0		1-12%			0		3-33%			0		
PHYC 161 (3)		8-100%		10-91%		13-93%		0	0		0			0		1-9%			1-7%		
PHYC 161L (1)		6-86%		7-88%				1-14%	0					0		1-12%					
PHYC 167 (1)			9-69%		8-100%				0		0				4-31%			0			
PHYC 168 (1)		6-100%		10-91%		7-100%		0	0		0			0		1-9%			0		
PHYC 262 (3)	8-89%							0						1-11%							
PHYC 267 (1)	7-100%							0						0							

Online Instruction, if applicable

Course	Number and % of Students with A, B, C						Number and % of Students with D, F						Number and % of Students with W or I							
	2013-2014		2014-2015		2015-2016		2013-2014		2014-2015		2015-2016		2013-2014		2014-2015		2015-2016			
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring		
BIOL 123 (3)				9-75%	8-80%	11-79%				3-25%	0	3-21%				0	2-20%	0		
BIOL 237 (3)	19-86%		14-58%		14-48%		1-5%		4-17%		6-21%		2-9%		6-25%		9-31%			
BIOL 238 (3)		17-85%		10-77%		25-76%		1-5%		0		4-12%		2-10%		3-23%		4-12%		
CHEM 121 (3)			13-59%						3-14%						6-27%					
CHEM 212 (4)				12-92%	9-82%				1-8%	1-9%					0	1-9%				
NUTR 120 (3)	29-66%	23-59%	19-63%	18-67%	22-73%	23-66%	12-27%	1-3%	3-10%	2-7%	1-4%	3-8%	3-7%	15-38%	8-27%	7-26%	7-23%	9-26%		
NUTR 244 (3)	18-75%	23-96%	23-79%	29-88%	25-78%	30-86%	5-21%	0	2-7%	0	4-13%	4-11%	1-4%	1-4%	4-14%	4-12%	3-9%	1-3%		
PHYC 151 (3)	5-50%		8-62%				0		1-7%				5-50%		4-31%					
PHYC 152 (3)		10-77%		7-54%				1-8%		1-8%				2-15%		5-38%				

Please describe any observed trends in the enrollment and retention of students in the program.

5. Curriculum, Facilities, Equipment, and Financials

Curriculum

In the first box, list all catalog courses which are service courses in the department. This would include course taught by the department which are general education courses or other courses for general use, and not necessarily for a specific degree in the department. For areas such as Math and Communications, this would include most of the courses. In the remaining boxes, list courses which are specific to departmental degrees. Do not include courses taught by a different department. Indicate how many sections were successfully offered during each of the last six semesters (3 years); include courses that have not been taught at all.

Department Service Courses:

Course Number	Fall Semester			Spring Semester		
	2015	2014	2013	2016	2015	2014
ASTR 101	1	1	1	X	X	X
ASTR 101L	1	1	1	X	X	X
BIOL 123	2	1	1	1	2	1
BIOL 124L	2	2	1	2	2	2
CHEM 111	X	X	1	1	1	1
CHEM 121	1	1	1	X	X	X
CHEM 123L	2	1	1	X	X	X
CHEM 122	X	X	X	1	2	1
CHEM 124L	X	X	X	2	2	1
EPS 101	X	X	1	X	1	X
EPS 105L	X	X	1	X	1	X
EPS 201L	X	X	X	X	X	1
ENVS 101	1	1	X	X	X	1
ENVS 102L	1	1	X	X	X	1
PHYC 102	X	X	1	1	1	1
PHYC 102L	X	X	1	1	1	1
PHYC 151	1	1	1	X	X	X
PHYC 151L	1	1	1	X	X	X
PHYC 152	X	X	X	X	1	1
PHYC 152L	X	X	X	X	1	1
PHYC 160	1	1	1	X	X	X
PHYC 160L	1	1	1	X	X	X
PHYC 161	X	X	X	1	1	1
PHYC 161L	X	X	X	1	1	1

Program Name: Environmental Science, AS

Course Number	Fall Semester			Spring Semester		
	2015	2014	2013	2016	2015	2014
BIOL 202I	X	X	X	1	1	1
BIOL 203	X	X	X	X	X	X
BIOL 203L	X	X	X	X	X	X
BIOL 204	X	X	X	X	X	X
BIOL 204L	X	X	X	X	X	X
CHEM 212	1	X	1	X	1	X
EPS 251	X	X	1	X	X	X
PHYC 167	1	1	1	X	X	X
PHYC 168	X	X	1	1	1	1

Program Name: Pre-Professional Health Science, AS

Course Number	Fall Semester			Spring Semester		
	2015	2014	2013	2016	2015	2014
BIOL 201L	1	1	1	X	X	X
BIOL 202L	X	X	X	1	1	1
BIOL 237	1	1	1	X	X	X
BIOL 238	X	X	X	1	1	1
BIOL 239L	X	X	X	1	X	1
BIOL 247L	1	1	1	X	X	X
BIOL 248L	X	X	X	1	1	1
CHEM 212	1	X	1	X	1	X
NUTR 120	2	2	2	1	2	2
NUTR 244	1	1	2	1	1	1

Program Name: Science, AS

Course Number	Fall Semester			Spring Semester		
	2015	2014	2013	2016	2015	2014
BIOL 201L	1	1	1	1	X	X
BIOL 202L	X	X	X	2	1	1
BIOL 203	X	X	X	X	X	X
BIOL 203L	X	X	X	X	X	X
BIOL 204	X	X	X	X	X	X
BIOL 204L	X	X	X	X	X	X
CHEM 212	1	X	1	X	1	X
PHYC 167	1	1	1	X	X	X
PHYC 168	X	X	X	1	1	1
PHYC 262	X	X	1	X	X	X
PHYC 262L	X	X	X	X	X	X
PHYC 267	X	X	1	X	X	X

Program Name: Environmental Technology, AAS

Course Number	Fall Semester			Spring Semester		
	2015	2014	2013	2016	2015	2014
BIOL 201L	1	1	1	X	X	X
BIOL 202L	X	X	X	1	1	1
BIOL 203	X	X	X	X	X	X
BIOL 203L	X	X	X	X	X	X
BIOL 204	X	X	X	X	X	X
BIOL 204L	X	X	X	X	X	X
BIOL 239L	X	X	X	1	X	1
CHEM 212	1	X	1	X	1	X
CHEM 253L	X	X	X	X	X	X
ENTC 150	1	X	X	1	X	X
ENTC 201L	X	X	X	X	X	X
ENTC 202L	X	X	X	X	X	X
ENTC 204L	X	X	X	X	X	X
ENTC 204L	X	X	X	X	X	X
ENTC 196	X	X	X	X	X	X
ENTC 296	X	X	X	X	X	X
ENTC 281	X	X	X	1	X	X
EPS 203	X	X	X	X	X	X
GEOG 281L	X	X	X	1	X	X
PHYC 167	1	1	1	X	X	X
PHYC 168	X	X	X	1	1	1
PHYC 262	X	X	1	X	X	X

PHYC 262L	X	X	X	X	X	X
PHYC 267	X	X	1	X	X	X

Program Name: Pre-Professional Health Science, CERT

Course Number	Fall Semester			Spring Semester		
	2015	2014	2013	2016	2015	2014
BIOL 237	1	1	1	X	X	X
BIOL 238	X	X	X	1	1	1
BIOL 239L	X	X	X	1	X	1
BIOL 247L	1	1	1	X	X	X
BIOL 248L	X	X	X	1	1	1
NUTR 244	1	1	2	1	1	1

Facilities and Equipment

Briefly describe the facilities occupied by your Department/Academic program. (i.e. classrooms, offices, labs, etc.)

Laboratories/Chemical Stockroom: the Science Department has two classrooms used specifically for science labs. Room 312 (lab classroom) and 312A (balance room and storage) are used for wet labs (such as Chemistry and Biology) and room 515 is used for other labs (Physics, Earth and Planetary Science, and Environmental Science). Room 515 also stores all of the equipment and supplies needed for these lab courses. Room 310, attached to room 312, is the chemical stockroom for all of the chemistry and biology chemicals, equipment and supplies. These are the only classrooms on campus the science labs can be held, as they are the only rooms set up with the necessary emergency safety equipment.

Classrooms: In addition to the lab spaces described above, additional classrooms on campus are used for course lectures: including rooms 608, 625, 627, and 412.

Offices: Office 623G is shared by the Science Department Chair. Office 623C is shared by one of the core faculty members. Office 305 is shared by the lab technician, one of the Science core faculty members, and the biology temporary part time adjunct faculty members.

Is the space adequate to support the mission of your program for day and evening classes, if applicable?

YES NO

If no, please explain

Although classroom space is sufficient, storage space is not. Last year, the Science Department was able to purchase a stream table for use in the Earth and Planetary Science and Environmental Science courses. This piece of equipment is currently stored in classroom 515 in building 5. It delays access to the only eyewash in the room. This past year, two pieces of the stream table went stolen/missing as this classroom is not locked when not in use. It would be better to store this expensive piece of equipment in a locked storage room.

Briefly describe current types equipment (does not need to be extremely detailed) used by your Department/Academic program and indicate.

The Science department has most of the standard equipment, supplies and lab glassware needed for introductory chemistry, biology, physics, geology, and environmental science lab courses.

Is the equipment adequate to support the mission of your program for day and evening classes, if applicable?

YES NO

If no, please explain

The University does not currently have a set of reliable Arc-GIS/GPS units. This equipment is required for the Environmental Technology degree program. Students in enrolled in this degree program are required to take a course in which they become certified in the use of this equipment. We currently have a one-year software license for the required software but do not have the proper units that

accompany scientists on field studies.

Financial Information

Is the budget information available to department and program chairs?

YES NO

What is the total budget for the department including adjunct faculty (TPT) for the last academic year (2015-2016)?

\$143,221

Indicate departmental (program courses and/or departmental support courses) enrollment for the past 5 years for fall and spring.

Numbers	2013-2014		2014-2015		2015-2016	
	Fall	Spring	Fall	Spring	Fall	Spring
Course Enrollments (number of students)	307	267	309	284	299	271
Total Course Enrollments for Academic year	574		593		570	
	2013-2014		2014-2015		2015-2016	
	Fall	Spring	Fall	Spring	Fall	Spring
Student Credit Hours for Department/Program	784	681	716	717	724	726
Total Student Credit hours for Academic year	1465		1433		1450	

Please give an approximate cost of the department per credit hour. (Budget ÷ number of credit hours generated) for each academic year.

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Amount expended for the year	\$144,890.60	\$160,888.90	\$162,234.29	\$138,265.38	\$126,829.87
Cost per credit hour			\$110.74	\$96.49	\$87.47

Has the department pursued any external sources of funding such as grants?

YES NO

Please explain.

This year the Science Department Chair co-wrote a grant to get funding for scholarships for our STEM students. Unfortunately, this grant was not submitted.

Does the department have any plans to pursue external sources of funding?

YES NO

Please explain.

The grant discussed in the above answer will be re-submitted in the next round in 2017.

Indicate the approximate amount of fee dollars generated for the last 3 years.

Course fees collected (live)	2013-2014	2014-2015	2015-2016
ASTR	\$105	\$135	\$120
BIOL	\$2645	\$2380	\$3335
CHEM	\$2240	\$2440	\$2240
ENVS	\$300	\$250	\$300
EPS	\$105	\$325	\$0
PHYC	\$800	\$600	\$500
Totals	\$6195	\$6130	\$6495

Is adequate financial support available to meet the needs of this program?

YES NO

If "NO", please explain.

The department would benefit from funding for a 0.25 FTE faculty position in Environmental Science. The two degree programs in this area would benefit from a dedicated faculty member to teach the classes in this area and also serve as a champion for these degrees. Although the Science Department Chair also works to champion the degree programs, this area, which includes five different degree programs, would benefit from additional personnel dedicated to these two.

The Science department would also benefit from additional funding for instructors teaching laboratory courses or designing an online course for the first time. Lab courses are assigned at 1.5 credits although these classes are scheduled for 3 hours. Providing lab instructors with a small additional stipend could help with retention of TPT adjunct faculty in this department, as there a general sense of inequality for amount of time spend dedicated to teaching a lab for the assigned credit hours/pay scale. Providing an additional stipend to instructors teaching a laboratory course for the first time also has the potential to help with retention of faculty, as these courses require a significant amount of time and effort into planning the curriculum and testing the labs to make sure they work properly etc before the students complete them in class.

6. SUMMARY

After completing the above review of your program, synthesize the data you have provided, focusing on both the program's strengths and weaknesses. Answer the following questions:

- a. Is the program contributing to the mission/strategic plan?
- b. Is the program contributing to the general education of students?
- c. Describe the overall strengths of the program.
- d. Describe the overall weaknesses (opportunities for improvement) of the program.
- e. Within existing resources, how can the program be improved, more students recruited, obtain certification (if applicable)?
- f. Describe actions to be taken as a result of this review, including instructional resource and practices, and curricular changes to be made.

- a. Yes, the program is contributing to the mission of the University as outlined in the previous sections.
- b. Yes, the program is contributing to the general education of students as outlined in the previous sections.
- c. The strengths of this program include the faculty who are dedicated to our students and continually work to improve our science curriculum.
- d. One of our weaknesses is the difficulty we have retaining faculty in the long term, particularly temporary part-time adjunct faculty. This is the result of non-competitive salaries and competing with the National Lab for science professionals.
- e. Realistically, it would be very challenging to add new tasks or goals to our Science staff and faculty without any additional resources, as the staff and faculty are already, although extremely dedicated and willing to help and improve our department, overextended.
- f. The department chair will research potential external funding sources.

7. Subsequent reviews

After completing the above template, compare it to your most recent past review and answer the following questions

1. Describe and evaluate any major changes in the program (a. changes in the overall discipline or field; (b) student demand; (c) societal need; (d) institutional reason for offering the degree; (e) other elements appropriate to the discipline in questions; and (f) other)

2. Describe actions taken since the last review, including instructional resources and practices, and any curricular changes.