<table>
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<tr>
<th>Unit Goals</th>
<th>Unit Actions/Strategies</th>
<th>Measurable Outcomes</th>
<th>Persons responsible</th>
<th>dates for review</th>
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<tr>
<td>1. Advance critical thinking skills, mastery of content areas, effective communication and effective use of technology (tie to Goal 5)</td>
<td>1. Continue regularly scheduled academic outcomes assessment and undergraduate/graduate program review while integrating the results to promote improvement of the curriculum and instructional delivery systems</td>
<td>See outcomes assessment plan. Report results. Meets criteria set in outcome assessments.</td>
<td>Department outcomes assessment coordinator</td>
<td>Fall 2018</td>
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<td>2. Integrate student research as a HIP as part of curriculum (courses, independent research, capstone)</td>
<td>Research is integrated into the curriculum map (introduced, reinforced, mastered). Students communicate results professionally and to the community.</td>
<td>Department faculty</td>
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<td>2. Advance knowledge in the sciences and professions via research and scholarly activity in conjunction with educational opportunities</td>
<td>1. Develop a plan for procedures/criteria for reassigning time (25%) for faculty with grants</td>
<td>A plan is developed for reassigning time for faculty with grants.</td>
<td>Department Chair, Department Faculty</td>
<td>Annually</td>
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2. Support professional development for grant writing, maintaining grants
   Coordinate with the ORSP and other STEM departments to develop a STEM grant professional development program. Regular interdepartmental communication related to opportunities for PD. Interdepartmental agreement reached. Faculty participation each semester.
   INBRE liaison and active researchers in department
   Annually

3. Provide professional development for student research mentorship
   Faculty members participate in mentoring workshop in conjunction with CTE.
   Graduate Coordinator
   Annually

4. Support Animal Facilities
   Report created on all the costs and requirements associated with the facility.
   Department members actively involved in research using animal facilities and IACUC
   Spring (initially), Annually (thereafter)

   A budget plan was developed to include funding from the biology budget and from Dr. Snow’s AHA grant.
   Department members actively involved in research using animal facilities and IACUC
   Spring 2019

   First year: increase funding in biology budget to cover all supplies for animal research facility. Animal facilities funded as part of University infrastructure. Partnership between researchers, facilities, ORSP.

3. Curriculum development linked to current professional schooling, STEM environment at NMHU and job market demands
   1. Yearly department meeting to revise curriculum in cooperation with ARMAS and CTE
   1. Admissions rates of former students to professional schools, graduate schools, jobs. Diversity of jobs obtained... Outcomes assessment job placement data used.

   Department Chair, Department Faculty
   Annually

   Note: CTE activities were suspended while searching for a new director.

   2. Compare student performance against national standards to identify need for improved student content support
   Compare available tests. Select a test that provides comparison to national standards and data challenges.
   Capstone course instructor
   Fall 2018
A major field test from the national testing service ETS was administered in Fall 2018. The tests were purchased with the biology budget. The results indicated that we had made progress in preparing our students since the last time the test was administered in fall 2017. We interpret this as support for the reorganization of our curriculum.

Evaluate improvement of our students' performances versus national standards and data challenges.

Capstone course instructor Fall 2018

3. Develop a database of Biology majors to track job/school placement after graduate (tie to Goal 5) with the goal of improving employability (social media will be used to track graduates).

The database continues to be developed. The main difficulty is in obtaining the information needed to track students. No budget considerations.

Database has been established and 50% of graduated majors from the last 2 years accounted for. Update database twice a year.

Department chair, department webmaster Annually

4. Gather information about employability through contacts with relevant employers.

Employability data will be incorporated into curriculum.

Department faculty Annually

A field trip in the genetics class to Integrated Genetics in Santa Fe provided the students with the opportunity to see the facilities and meet with students from NMHU who are employed there. The funds for the trip were provided from the biology budget.

4. Support success for underrepresented students in STEM

1. Provide high impact learning activities for students, including internships and professional development opportunities for underrepresented students in STEM

Summer internships and PD is available each year for STEM students (report numbers). Opportunities are communicated back and forth with ARMAS.

All faculty communicate opportunities to students and ARMAS Annually

Currently have more than 10 students involved in State and Federal internships including those associated with USGS, NIH and NSF.
5. Develop a PULSE/AAAS Vision and Change Recognition Program in Biology

1. Grant 25% release to a Biology faculty member to partner with PULSE program in determining priorities for attaining PULSE Recognition

One faculty member has been given 25% release time by Fall 2017 to determine standing using PULSE Program Inventory Rubrics. Department has obtained PULSE recognition by Fall 2018

PULSE Coordinator

Fall 2018

Ongoing activity

2. Strategic enrollment management

1. Integrate high impact practices in biology courses to improve retention and increase enrollment

Biology faculty attend PD workshops and adapt lesson plans to include HIPs

Department chair

Fall 2018

See information under Strategic Goal #1, Action #2

2. Increase recruitment of students to biology program

1. Grant 25% release each Fall and Spring semester for a Biology faculty member to develop a recruitment strategy and coordinate recruitment activities for the department

Recruitment strategy is developed; Increase/improve partnerships with schools, colleges and centers; number of visits to local institutions; overall observed increase in students enrolled in biology program.

Faculty member assigned to recruitment

Spring 2019

2. Improve recruitment for local community including high schools; improve retention of dual enrollment students

Biology student numbers from local community increases by 5% -10%.

Faculty member assigned to recruitment

Fall 2018

3. Review/develop transfer agreements with Santa Fe Community College, Luna Community College, UNM Taos to ensure ease of transfer credits

Track number of transfer students enrolled annually. Revised transfer agreements with SFCC and LCC. UNM Taos transfer agreement in place.

Faculty member assigned to recruitment

Spring 2019

4. Identify new recruitment partnerships with schools/colleges

One or more new partnerships are identified and activities are developed each year

Faculty member assigned to recruitment

Spring 2019
1. Working with Luna Community College STEM director on transfer and recruiting activities. 2. Participated in Rio Mora STEM recruitment event. 3. Participated in Rio Mora recruitment event. 4. Participated in UNM-Taos recruitment event.

<table>
<thead>
<tr>
<th>3: Vibrant campus life</th>
<th>1. Support linked clubs including Sigma Xi, Conservation Club, and International Service Group</th>
<th>1. Support visiting guest lectures including Science Cafes for the public</th>
<th>Guest scientists and professionals visit and give lectures, honorarium funded in part by Biology Dept</th>
<th>Faculty member/Sigma Xi representative</th>
<th>Spring 2019</th>
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<td></td>
<td>2. Promote community projects among Biology students and faculty using social media.</td>
<td>Community events are well-attended (faculty and students)</td>
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<td>Club advisors</td>
<td>Fall 2018</td>
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<td>The Conservation Club set up an educational presentation at the HU at the Zoo event at the Albuquerque Zoo.</td>
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<td>3. Encourage student participation in cross-disciplinary activities on campus</td>
<td>Faculty regularly inform students of dynamic on-campus activities</td>
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<td>Fall 2018</td>
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<td>4: Community partner</td>
<td>1. Identify and strengthen partnerships in the community</td>
<td>Inventory current partnerships; Students and faculty participate in community science events</td>
<td>Summarized calendar of community events per semester; communicate events to students and public</td>
<td>All faculty</td>
<td>Annually</td>
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<td>1. Faculty and students participated in the regional science fair and the New Mexico Academy of Science Paper Competition. 2. Faculty involved in hands-on learning activities with Girl Scouts from troops in northern New Mexico. 3. Faculty member involved in a high altitude balloon project with West Las Vegas High School</td>
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<td>2. Improve student activities in the community including local professional organizations and institutions</td>
<td>Identify job shadowing, internships available in the community; invite student participants to give peer presentations yearly</td>
<td>List of local job shadowing/internship opportunities; list of students who have completed these activities; students share experience with peers</td>
<td>Department Chair</td>
<td>Annually</td>
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<td>5: Technical advancement &amp; innovation</td>
<td>1. Utilize existing technology and communication infrastructure (Banner, D2L, DegreeWorks) to track enrolled student progress and provide iterative feedback with students</td>
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<tr>
<td>1. All faculty in biology are trained in cooperation with CTE in NMHU technology infrastructure (D2L, Banner, DegreeWorks, Zoom)</td>
<td>1. Percentage of faculty actively using technology platforms Department Chair Annually</td>
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<td>This goal has been met since all faculty are currently using the infrastructure. However, the activities are ongoing since more technology may become available and there may be changes in the infrastructure.</td>
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<td>2. Students are trained in state-of-the-art Biology technology critical to career success</td>
<td>2. New faculty participate in newly developed D2L Certificate training program Department Chair Annually</td>
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<td>1. Develop technological resources including a mobile computer lab for biology majors for data collection, simulation, analysis</td>
<td>1. Create proposal, plan, and identify resources to procure computer lab All faculty Fall 2018</td>
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<td>A budget request for the FY 20 budget for $8000 for a mobile computer lab (laptops and carts) was made, but was not funded. Participated in writing the proposal for the Sherman Fairchild Equipment Grant. The proposal has advanced to the next step with a visit planned for next fall.</td>
<td>2. Mobile computer lab for biology is established; computer lab integrated in biology coursework All faculty Annually</td>
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<td>2. Develop a Biology outcomes assessment item to measure our technology training and student proficiency</td>
<td>1. Technology outcomes assessment item included Department outcomes assessment coordinator Annually</td>
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<td>3. Reassess technology training in the Biology curriculum during curriculum development and mapping during yearly sessions that comply with AAAS Vision and Change guidelines (Goal 1)</td>
<td>1. Prescribe a course of action to meet AAAS guidelines PULSE Coordinator Fall 2018</td>
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2. Technology training is improved incrementally on a yearly basis based on current AAAS guidelines.

6: Communication efficiency

1. Fully utilize technology infrastructure on campus to communicate student progress, outcomes, grades, etc.

1. Improve record keeping procedures in Degree Audit

1. All biology majors meet every semester with advisor, tracked in Degree Audit

Ongoing activity

2. Provide access to a biology faculty member to reassign biology majors advisors and maintain an active list of biology majors

All biology majors have been assigned advisors for the active list of biology majors.

2. Maintain web presence for Biology Dept.

1. Evaluate current website and improve online information for biology students and faculty

The web site will be updated once the new web platform is completed. The poster listing required and elective courses is currently being updated with the new course numbers and names. The poster will be put on the department web site and placed on a bulletin board in the science building. No budget considerations

Current website contains up to date information each semester.

PULSE Coordinator

Department Chair, All faculty

Department Chair

Department Webmaster

Annually

Annually

Annually

Annually