**Unit Goal Progress and Revisions**

**2018- 2019**

Every two years, during spring semester, programs/departments/service units are asked to develop Unit Strategic Plans. These plans need to be closely aligned with the Institutional Action Priorities, the College’s Long-Range Goals, and/or the College’s strategic plan. The Strategic Plans incorporate and reflect the operation of that unit at all campuses and instructional sites. Each unit’s budget needs to reflect the fiscal implications associated with the unit’s identified goals and objectives.

Following the first year each unit submits a goal progress report and revises their unit goals for the second year.

**Name of Program/Department: Biological Sciences/Shelby**

**2017-2018 Accomplishments and Goals Progress:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Goals** | **Request & Justification/Resources** | **Goal Progress** | **Strategies Implemented and Follow-Up** |
| **Oder of Overhead Projectors for HSB-234 & HSB-217** | **Replace improperly functioning projector.** | **Overheads were ordered and replaced!** | **Use of overheads for instruction delivery.** |
| **Upgrade dissection models for A&P labs.** | **To increase the number of models for student/instruction use.** | **Quotes are currently being obtained for Ocular/Eye and Heart lab models.** | **The models will be used as part of the laboratory study & exams; to be assessed informally through conversation and formally, through end of semester evaluations.** |
| **Replace autoclave in Microbiology lab.** | **Replacement of old and inoperable equipment** | **Quote was obtained, and Autoclave has been ordered (From STERIS, instead of Primus)** | **The autoclave is used to provide sterile media and lab isolates needed for Microbiology experimentation; to prevent a lag in set schedules.** |
| **Introduce Innovative Lab Experiments!** | **Ordering of new genetic and metabolic testing equipment through Secondary grant.** | **Some equipment has been ordered and obtained; seeking training from Vernier so novel techniques can be incorporated into lab work.** | **Training by the Vernier associate will ensure our ability to incorporate novel techniques within our laboratory components; will be used to engage students in techniques that are being utilized in the research and medical arena.** |

**Revised Unit Goals (plans for the unit for the second year of the two-year plan):**

1. **Objectives – the activities through which the goal will be achieved. Each Unit Goal should have at least one objective.**
2. **Method of Assessment – how the unit will determine if the objective has been met.**
3. **Additional Funding Requests – provide an estimate of the cost of achieving the objective. Also, include a description of how these funds will be used to accomplish the objective.**

**Revised Unit Goals for 2018-2019**

**Goal #1: Upgrade dissection models for Anatomy & Physiology Labs**

* + - 1. Objectives
* To add additional models for Biology 201 laboratory
  + Increase the number ocular system models
* To add additional models for the Biology 202 laboratory
  + Increase the number of heart models
    - 1. Method of Assessment
* New models will be included on laboratory exams
* Informal feedback and conversation between students and instructors
* End of the semester course evaluation forms

1. Additional Funding requests- Funds are requested to be used to purchase the following laboratory specimen/items.

* Biology 201 – 3 Eye Models (Fisher/S17118B) @ $562.00 each/$1682 (Est)
* Biology 202 - 4 Heart Models (Fisher/S171572) @ $561.80 each/$2247 (Est)

**Goal #2: Setup Training for New science lab equipment obtained under** Alabama Community College System’s Workforce Development Division **Grant.**

* 1. **Objective:** The biology department purchased equipment to conduct the following activities:
     + DNA Fingerprinting – Exploring Electrophoresis and Forensics
     + Backyard Brains – Neurobiology lab kits that can be used in both General Biology and Anatomy Courses.
     + Cellular Respiration – Fermentation tubes will allow student to complete several different activities related to fermentation.
     + Classroom Polymerase Chain Reaction Laboratory Station - Experiments include but are not limited to gene cloning, genotyping, PCR- testing of water contaminants, and mitochondrial DNA analysis.

1. **Method of Assessment**: Students will be assessed via laboratory test and surveys. Instructors will provide feedback based on their experiences.
2. **Additional Funding Request**

* Funds requested for equipment/use training by the company, Vernier, for faculty that will be utilizing said equipment. The cost of training includes representative travel and training fees. **Fund Request=$2000**

**Goal 3: Hire new faculty members to fill vacancy due to loss of a full-time faculty member and/or the anticipated retirement of current faculty member.**

1. Objective
   1. Maintain the full-time/part-time ratio of faculty within the department.
2. Method of Assessment
   1. The new faculty member will be formally evaluated annually by department chairperson
   2. The new faculty member will be evaluated formally by students at the end of each semester.
3. Additional Funding Request
   1. Education and experience will determine the salary of the new faculty according to the D-1 salary scales.

**Goal 4: Introduce peer instructor evaluations to improve faculty instruction.**

1. Objective

* Implement peer instructor evaluations 1-2 times during an academic year to allow partnering instructors an opportunity to evaluate each other’s online resources, in-class experiences, resources, and assessment results. The peer review process will allow instructors to share ideas and identify best practices.

1. Method of Assessment

* Participant feedback

1. Additional Funding Requests

* No funding resources requested.

**Internal Conditions:**

1. **Technology**

* Every instructor is assigned Blackboard course management shell for each course they teach. Over 60% of the faculty utilizes the Blackboard course management system within their courses. Minimal use includes the posting of the course syllabus, grades, and class communications. Instructors that maximize Blackboard in the class not only use it for the posting of course materials but also provide links to outside resources that are valuable to student success.

Additionally, several instructors utilize the technology options provided by the textbook companies. Assessments and ancillary resources are utilized to improve student learning.

* All lecture classrooms in the Health Sciences Building are equipped with a computer and projector for instructor use. This equipment allows instructors to present lecture material to the students using alternative formats such as PowerPoint, animations, and videos. Four of the five biology laboratories contain 9-10 desktop computers that are used to complete virtual biological and physiological simulations.

1. **Budget**

* The academic budget for the office and classroom supplies have met the needs of the department.

\*\* Requested Funds Utilized Thus Far: 2017/2018

2 Projectors = $4378.92

Autoclave = $38000(Equipment, Freight and Installation)

1. **Staffing**

* The department employs four full-time faculty, one full-time temporary, an office manager, and a lab coordinator. On average, the department employs seventeen adjunct instructors during the fall and spring semesters and nine during the summer. A full-time instructor from the Jefferson campus currently teaches at the Shelby campus to help maintain full-time part-time ratios.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Full-Time*** | | | | **Part-Time** | | | | **Total** | |
| ***Sections*** | ***Enrolled*** | ***Credit Hr. Production*** | ***Credit Hr. %*** | **Sections** | **Enrolled** | **Credit Hr. Production** | **Credit Hr. %** | **Total Number of Sections** | **Total Credit Hr. Production** |
| ***50*** | ***1,339*** | ***5,356*** | ***54.7%*** | **45** | **1,110** | **4,440** | **45.3%** | **95** | **9,796** |

**Table 1. Fall 2017-18 – Summer 2017-18 Credit Hour Production by Faculty Status**

1. **Resources**

* Several resources are available to faculty members for professional development. These resources include professional science and teacher organizations, publisher-supported seminars/webinars, Alabama Community College System sponsored events, and library-supported resources.

1. **Enrollment**

* Students pursuing degrees in Nursing and allied health programs contribute significantly to steady enrollment in Anatomy and Physiology and Microbiology courses. Enrollment in non-majors science sequence (Introduction to Biology I & II) remains constant because these courses are chosen to meet general science requirements for both the AS and AAS degrees. Additionally, the online and hybrid courses provide accessibility and flexibility to another cohort of students that may not be able to enroll in the traditional campus course offering.
* Overall enrollment patterns show a slight decrease when comparing 2016-2017- to 2107-2018 results (5.3%). Most courses showed a slight decrease in enrollment except for Biology 103(3.16%) and Biology 201(.14%); which had a slight increase. Although online courses are still very popular with students, there was a slight decrease in enrollment when comparing to the prior year(1.2%). Hybrid enrollment increased by 27.5% for BIO 201; but, comparatively had an overall decrease with total courses offered(8.18%).

**2017 -2018 Enrollment by Class Offering Format (Shelby Only)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Course** | **Traditional** | | | **Method** | **Internet** | | | **Method** | **Hybrid** | | | **Method** | **Yearly Total** |
| **F** | **SP** | **SU** | **Total** | **F** | **SP** | **SU** | **Total** | **F** | **SP** | **SU** | **Total** |
| **BIO 101** | **151** | **138** | **52** | **341** | **68** | **60** | **28** | **156** | **0** | **0** | **0** | **0** | **497** |
| **BIO 102** | **24** | **30** | **10** | **64** | **33** | **31** | **27** | **91** | **0** | **0** | **0** | **0** | **155** |
| **BIO 103** | **123** | **94** | **46** | **263** | **0** | **0** | **0** | **0** | **27** | **26** | **0** | **53** | **316** |
| **BIO 104S** | **0** | **34** | **25** | **59** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **59** |
| **BIO 111** | **0** | **-** | **-** | **0** | **0** | **-** | **-** | **0** | **0** | **-** | **-** | **0** | **0** |
| **BIO 201** | **291** | **241** | **108** | **640** | **0** | **0** | **0** | **0** | **31** | **20** | **0** | **51** | **691** |
| **BIO 202** | **130** | **176** | **59** | **365** | **0** | **0** | **0** | **0** | **21** | **18** | **31** | **70** | **435** |
| **BIO 220** | **85** | **98** | **73** | **256** | **0** | **0** | **0** | **0** | **18** | **21** | **0** | **39** | **295** |
| **TOTAL** | **804** | **811** | **373** | **1988** | **101** | **91** | **55** | **247** | **97** | **85** | **31** | **213** | **2448** |

**External Conditions**

All Biology courses are regulated by the Department of Postsecondary Education. A statewide syllabus and competencies are established for every course. The competencies are reviewed and updated as changes occur.

**2017-2018 Accomplishments:**

**The Biology Department continues to examine ways in which to diversify student learning and improve instruction. The following items reflect ways by which the department and individuals have made strides:**

**2017-2018 Accomplishments:**

* **Tom Baker-**Mr. Baker stays abreast of current topics related to Anatomy and Physiology courses. He also noted an improvement in Student Learning Outcomes (SLOs) with the inclusion of an extra credit case studies after each unit exam. He is updating his course material with the newest edition of the text.
* **Meena Bej –** Dr. Bej stays abreast of current research in the biological sciences and medicine through literature searches and attending seminars at the University of Alabama at Birmingham.
* **Julie Maharrey-** Dr. Maharrey usually participates in professional development activities related to Anatomy and Physiology; but this Summer 2018 was a repeat of the GATE program that she has attended the past three years. She did implement new resource technology in her classrooms: EdPuzzles and HHMI Biointeractive labs as class assignments to help engage her students; these resources supplied videos, worksheets and quizzes that featured class discussion topics. For Introduction to Biology (BIO 101), Dr. Maharrey assigned an online Pocket Mouse lab resource.Additionally, she requested to serve on the Jeff State Recycling Committee.
* **Stephanie Miller –** Ms. Miller represented Jefferson State Community College at the 2017 Alabama Community College System Human Resource Management Association Diversity Conference. She continues as a member of Jefferson State’s Selection Committee for the college’s Leadership Academy. Ms. Miller attended a Digital Learning Summit: Mastering, hosted by Pearson in Orlando Florida. Stephanie was also selected/appointed as the new Chairperson for the Shelby Campus Biology Department.
* **Nakia R. Robinson -** Dr. Robinson is no longer employed with the College.
* The Shelby Biology Department along with the Jefferson, Pell City, and Clanton campuses continue to partner successfully with one another to collect, analyze and review student learning outcome data.