Annual Program Plan Fall 2020

Languages

Created on: 09/08/2020 12:25:00 PM EDT
Last Modified: 10/07/2020 08:49:37 PM EDT

Table of Contents

General Information (Annual Program Plan Fall 2020)

1. Mission Statement

1.1 MISSION STATEMENT

The RHC Languages Area seeks to provide quality student-centered instruction in life-long learning of foreign languages and culture. Students have the opportunity to learn several different Foreign Languages, take courses for transfer to 4-year universities, and/or complete AAT degrees in Spanish and in ASL, as well as complete Certificates of Achievement in ASL, French, and Spanish.

2. Program Description

2.1 PROGRAM DESCRIPTION

a. Services and Target Audience
The Foreign Languages Department serves Language majors and general education students.

b. Staffing, Space Allocation and Budget
The Languages department consists of 5 full-time faculty members: three in Spanish, one in French, and one in ASL. There are approximately 20-25 adjunct instructors. Staff and adminstirators are shared with Communications Division.

The department is located in room A201 as part of the Communications & Languages Division.

c. Grants and initiatives

We have a Perkins grant for $6,000 this year. We plan on using it to pay for ASLTA (ASL Teachers Association) Certification testing for all of the adjunct faculty. There is also a certification for interpreting we might pursue if the money is sufficient. One of our adjunct has the ASLTA certification and two of our adjunct have the interpreting certification.

d. Professional Development

Due to Covid-19 attendance at professional conferences has changed. Faculty member Mariano Zaro continues to have an active virtual pearticipation in the world of poetry. Faculty member Chris bowen is planning on attending the American Association of Teachers of French Conference in Paris in 2022.

All faculty members are seeking opportunities for remote instruction and online classsroom development.

e. Program Progress

- In the past several years the Department finished and approved the AA-T degree in Spanish.

- We also hired a new full-time ASL faculty. Now that we have a full time ASL faculty member, we have developed two AA degrees in ASL, as well as a Certificate of Achievement in ASL. We hope to hire at least one more full-time faculty member in ASL.

- We completed Certificates of Achievement in Spanish and in French.

- We hired new adjunct faculty members in Japanese and French.

- We have completed moving all the Lab components to the Language classes to

online delivery.

- The process of developing a new degree in French is being explored to see if we can do an AAT or an AA degree.

3. Outcomes

3.1 ASSESSMENT TIMELINE AND CLOSING THE LOOP

File Attachments:

1. **ASL 101 CTL Spring 2020.docx**

2. **ASL 102 CTL Spring 2020.docx**

3. **ASL 120 CTL Spring 2020.docx**

4. **ASL124 CTL Spring 2020.docx**

5. **ASL201 CTL Spring 2020.docx**

6. **ASL202 CTL Spring 2020.docx**

7. **ASL250 CTL Spring 2020.docx**

8. **CHIN 101 CTL Spring 2020.docx**

9. **Course Outcomes Timeline for Languages Courses (All).xlsx**

10. **FREN 101 CTL Spring 2020.docx**

11. **FREN 102 CTL Spring 2020.docx**

12. **JAPAN 101 CTL Spring 2020.docx**

13. **JAPAN 102 CTL Spring 2020.docx**

14. **SPAN 101 CTL Spring 2020.docx**

15. **SPAN 101S CTL Spring 2020.docx**

16. **SPAN 102 CTL Spring 2020.docx**

17. **SPAN 102S CTL Spring 2020.docx**

18. **SPAN 201 CTL Spring 2020.docx**

19. **SPAN 201H CTL Spring 2020.docx**

20. **SPAN 202 CTL Spring 2020.docx**

3.2 PROGRAM OUTCOME STATEMENTS

Foreign Languages Program Outcomes 2021-2022

Students will be able to perform tasks that are meaningful, personalized, and culturally relevant or appropriate in the target language.

Mapping

No Mapping

Productive (speech and writing) and receptive (reading and listening) skills in the target language.
Given oral questions, written prompts, and/or reading selections, students will demonstrate productive (speech and writing) and receptive (reading and listening) skills in the target language.

Mapping

No Mapping

4. Data Analysis

4.1 DATA ANALYSIS

1. In the last five years there has been an upwards trend in the success of the program. The goal is consistently met or surpassed.

Some of our sections appear to be under-enrolled. The explanation for this is that some of the courses are the third or fourth semester courses, or more specialized classes that see a smaller enrollment number overall. We belive we are still serving the needs of the students by providing enough classes at a variety of times and leveles to allow for completion of requirements and degrees.

2. While the succes rate of traditional campus classes has remained steady in the past six years, the success of the online classes has seen a more significant upward shift. The increase can be attributed to students as a whole being better prepared for the online environment. The hybrid classes saw a dip in success, but it has been rectified, and hybrid classes are now at the same level as fully online and campus classes. Now with the new hurdle of Covid-19 and remote instruction, the importance of solid online instruction has become a priority.

3. The Latina female population shows an upward trend of success over the past few years. The Latino male population shows more of a struggle, as is the case not just for Languages but for all programs. Still, overall there has been an increase in success in that group too. The campus as a whole is taking measures to bring up the Latino Male population in particular.

4. Since 2014 the rate of success has increased significantly, showing that the AAT degree in Spanish has been a consistent motivator for students in search for the opportunities that a degree in a language provides. The number of students graduating quadrupled from 2014 to 2017. Then it more than doubled from 2017 to 2019. The number of students obtaining the AAT degree in Spanish at the end of this school year is definitely expected to increase.

We have a new degree in ASL. The first cohort of students to graduate is expected in the Spring of 2021. We expect a good number that will only increase in subsequent years.

5. Our ASL program is a CTE program. LMI has demonstrated a need for qualified interpreters in our region.Ours is the only program available that is not yet impacted with students. We have successfully transferred four students to local CSU schools to pursue thier BA in the field. All of this has been done before we have been able to offer all classes needed to graduate. Our fisrt official cohort will graduate in Spring 2021.

5. Objectives & Resource Requests

5.1 OBJECTIVES

Languages Action Plan 2020-2021

Expand the ASL Program
The ASL Program has recently been expanded. In order to meet the needs of the program growth, a full-time faculty is needed.

Mapping

Institutional Goals & Objectives 2018-2019: Objective 1.1, Objective 1.2, Objective 1.4

Development of a degree in French
We are exploring the possibility of an AAT in French if the Chancellor's office has developed the template for it by this coming year. Otherwise we will simply develop our own AA degree in French.

Mapping

Institutional Goals & Objectives 2018-2019: Objective 1.4

To explore the creation of elective courses in Spanish and French.
We are working on being able to offer elective courses in Spanish and French. We make every attempt to schedule classes that meet the needs of a varied demographic in the area. We try to maximize student access and to service every segment of our student body, and we feel this is a segment of the campus population that we can serve better by offering courses that cover aspects of literature, culture, and conversation in French and in Spanish. In particular, elective courses in Spanish can be a great addition to the Spanish AAT degree's curriculum.

Mapping

Institutional Goals & Objectives 2018-2019: Objective 1.4

Recruitment of Language tutors in the Learning Assistance Center: ASL, Chinese, Spanish, and French tutors.
There is a need for students to have a way to practice the language with a tutor. We are aware that this goal has to be a long-term one, as budget limitations make this hard to accomplish in the present. There is the added hurdle of dealing with all instruction and support being remote due to the Covid-19 situation

Mapping

Institutional Goals & Objectives 2018-2019: Objective 1.1

Expansion of the Foreign Language Film Festival
Marked obsolete by Lydia Llerena on 10/07/2020 6:08:19 pm EDT

The Foreign Film Festival has traditionally taken place in the fall semesters with great success. It has taken place over one day. We hope to expand the number of films and days of the festival.(On hold since it is not feasible as a virtual experience at this point)

Mapping

Institutional Goals & Objectives 2018-2019: Objective 1.1

Streamline Language Lab operations

The Language Lab operations will be standardized to better serve the students. This standardization will follow a model of classes offered as distance education at RHC.All Language courses now conduct the lab requirement online (this was implemented even before the need for remote instruction)

Mapping

Institutional Goals & Objectives 2018-2019: Objective 1.1

Attendance at the American Association of Teachers of French Conference

The American Association of Teachers of French Conference will be held in Paris in 2022. In order for us as a college to remain competitive with current methodologies, practices and standards, we are requesting funding for travel to the conference for our full-time French faculty member.

Mapping

No Mapping

5.2 FULL-TIME FACULTY REQUEST

Actions

Languages Action Plan 2020-2021

Objective

Objective: Expand the ASL Program

The ASL Program has recently been expanded. In order to meet the needs of the program growth, a full-time faculty is needed.

Action: Hire Full-Time ASL Faculty

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Position Title & Program:	Faculty, ASL Program, Languages, Communication and Languages
Rationale:	The growth of the program and the low ratio of full-time to part-time faculty calls to the need for a new faculty member in this program. Justification: 1. Two full time ASL instructor positions 2. ASL courses offered online 3. Purchase site licences for GoReact 4. Purchase computer video recording equipment for student use In 2014 the ASL courses were not a program. Rio Hondo College offered ASL levels 1 and 2, courses 149 and 150 respectively. We employed only 2 adjunct and offered 6 sections of ASL per year. All of the sections were waitlisted and ended at or near

capacity. Since 2014 Rio Hondo has increased the offerings of ASL sections every semester, including intersession and summer session courses. Classes continued to be at or near capacity at course completion. In 2017 Rio Hondo hired a full time instructor, at this time we were able to add additional courses in ASL and alter the course numbering to include ASL levels 1-4 ASL 101, 102, 201, and 202 respectively. This allowed Rio Hondo to submit a request to the state chancellor's office for a Certificate of Achievement in ASL for completing these 4 courses. This is the first certificate of its type offered at Rio Hondo College. The certificate was approved and we have already had students receive it. Rio Hondo now offers 12 courses related to Deaf studies and ASL interpreting. These courses comprise two new degrees, Deaf Studies and Foundations of Interpreting. These degrees are new and as of this writing one course, Deaf Studies, has been offered for these degrees outside the ASL levels 1-4. The course was near capacity. Issues: We now officially have an ASL program, that includes CTE courses and a CTE degree. We now offer 32 sections in the ASL program courses per year. We only have one full time instructor. The ratio right now is 24 courses taught by adjunct and 8 taught by the full time instructor annually. There are three limiting factors. 1. We do not have enough instructors to teach additional courses. We have every adjunct instructor teaching at full capacity. Even if we wanted to offer additional sections we cannot. We have reached capacity every semester for the last 4 semesters despite hiring additional adjunct. As we hire more instructors we fill more sections. We will be hiring more adjunct in October. We already have 7 courses being offered in the Spring of 2020 that do not have instructors assigned to them. 2. Space is an issue. We do not have enough rooms to teach the sections we want to teach. ASL has already elected to offer courses during non-peak times in order to accommodate the room limitations. We are at a point where we have reached room saturation during off peak times. We need additional space to teach courses. 3. Current online software available through Rio Hondo, do not support instruction in ASL through distance education. Sign Language requires interactive video responses, with insert and live editing capabilities. Our current online program solution through Instructure does not have the technological capabilities to provide regular and effective contact in the target language, as required by Title V regulations. Solutions include: 1. We need at least two additional full time instructors. One instructor needs to be culturally Deaf to teach the applicable courses in Deaf Studies. The second instructor needs to be an experienced Sign Language interpreter. It is nearly impossible to find an individual who is qualified and competent in both of these areas. These are two related but very different fields of study. 2. ASL courses need to be approved and offered for online delivery using a program other than Canvas. 3. Programs for teaching ASL using current technology need to be purchased and supported at the college. This semester we were able to receive a grant through the Perkins CTE program to pilot offering a solution to every ASL student using a site license. The current program being used is developed specifically for ASL instruction. The program is GoReact. 4. We need oncampus video recording capabilities available to students upon request.

Budget request amount: $100,000.00

Priority: High

Supporting Attachments:

📎 Justification for full time ASL position(s) (Word Document (Open XML))

Justification for new position, issues, and solutions

5.3 FULL-TIME CLASSIFIED REQUEST

5.4 FULL-TIME ADMINISTRATOR REQUEST

5.5 FACILITIES REQUEST

5.6 TECHNOLOGY REQUEST

Actions

Foreign Languages Program Outcomes 2021-2022

Outcome

Objective: Students will be able to perform tasks that are meaningful, personalized, and culturally relevant or appropriate in the target language.

Action: Laptop computers placed in LRC Meeting Rooms

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	The Meeting Rooms in the LRC are used for the Creative Writing Club meetings. The laptops can be used to conduct the business of the club should the club meet in person in the future. They can also be used to conduct remote meetings from the LRC, with the Faculty advisor conducting the meeting from the campus location.
Budget request amount:	$2,000.00
Priority:	Medium

5.7 INSTRUCTIONAL EQUIPMENT REQUEST

Actions

Foreign Languages Program Outcomes 2021-2022

Outcome

Objective: Productive (speech and writing) and receptive (reading and listening) skills in the target language.

Given oral questions, written prompts, and/or reading selections, students will demonstrate productive (speech and writing) and receptive (reading and listening) skills in the target language.

Action: GoReact Video Coaching and Assessment Software

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	The program is remarkable for providing asynchronous interactive feedback to student submissions. It is user friendly and works on iPhones and iPads. The ASL program currently uses this program for all of the language homework assignments that involve expressive and receptive skills. One of the great things about his program is the ease of sharing, creating, and repeating assignments. The ASL department was able to take all current homework assignments and convert them to GoReact assignments with ease. Now that the list of assignments has been created once, we can copy them into a new section and share the entire list with videos and instructions with all of the adjunct faculty. This allows for collaboration and consistency in the ASL program. The company offers various pricing plans depending on the number of licenses we anticipate buying. This is an amazing tool for language acquisition.
	We can see using this program for the entire Foreign Languages Department. We have explored pricing for both scenarios. If the program were to only be used for ASL, the cost would be around $22,000.00 for the year.
	We will attach part of the proposal we received from GoReact specifying the items they can provide and the cost for the program use for a year.
Budget request amount:	$48,000.00
Priority:	High

Supporting Attachments:

GoReact Proposal for Rio Hondo (Adobe Acrobat Document)

This proposal includes a scenario fro licensing for a year for the whole Foreign Languages Dept. There are other scenarios where the number of licenses (and therefore the price) would decrease substantially.

5.8. BUDGET AUGMENTATION REQUEST

Actions

Foreign Languages Program Outcomes 2021-2022

Outcome

Objective: Students will be able to perform tasks that are meaningful, personalized, and culturally relevant or appropriate in the target language.

Action: Qualified Interpreters for Deaf Faculty in the Classroom

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	The ASL program needs to be involved in the selection process of who is hired to provide interpreting services for Deaf faculty in the classroom. The interpreting professionals and the Deaf community need to work together to handle peer evaluations on the appropriateness of interpreters for each situation. If we make this part of a program resource then we have better control over the selection process. An important and often missed distinction is where interpreters are used and the qualifications for those positions. Interpreters qualified to interpreter for our Deaf students are the purview of DSPS. The necessary qualifications for working with Deaf students are much lower than those needed to work with Deaf faculty. These two specialties are often confused as a single entity. The second distinction is those interpreters the college chooses to provide for campus wide events, meetings, and trainings. These interpreters should be highly qualified and should be screened by other highly qualified interpreters and the Deaf faculty. The reality is, these interpreters are under the purview of the administration to choose. While best practice is to include the people you are serving in the decision making process, this practice is not required. The third area is the one I am referring to. This is the situation where the interpreter is providing a voice to the lecture given by a Deaf faculty member. In that case the faculty MUST be involved in the process because this is directly related to instruction and curriculum, that, is under faculty purview. The budget request amount is posted assuming $75 per hour for an experienced professional interpreter. The average in California for such a professional is about $14,000.00 per year for one class per semester. This would be an ongoing and necessary expense for the college.
Budget request amount:	$14,000.00
Priority:	High

6. Program Plan Submission

6.1. ANNUAL PROGRAM PLAN ATTACHMENT

Annual Program Plan Fall 2020

Computer Information Technology Systems

Created on: 08/27/2020 12:57:00 PM EDT
Last Modified: 10/08/2020 08:24:03 PM EDT

Table of Contents

General Information (Annual Program Plan Fall 2020)

1. Mission Statement

1.1 MISSION STATEMENT

The Computer Information Technology program nurtures inquisitiveness and strives to inspire relentless learning in the dynamic field of information technology. The program enlightens students to many career opportunities through the acquisition of certificates, associate degrees, or transfer to four-year institutions.

2. Program Description

2.1 PROGRAM DESCRIPTION

a. Services and Target Audience

CIT programs offer students courses that can be used for learning "in-demand" skills in the Information Technology sector. Because our instructors are industry experts, they indirectly, through course lectures provide students insights as to how industry works and what industry look for in potential candidates for employment.

CIT program's target audience is mostly working adults. For this reason, most of the courses are offered during nights and weekends. Our students are often professionals already in the Information Technology sector looking to improve their skills for upward employment mobility.

This past year has shown a vast improvement in the possibility of offering advanced courses in a hybrid or on-line format. Hybrid courses have been successful for advanced courses – in addition, the improvements to Canvas (our student learning environment), available resources for quality on-line courses and the addition of NetLabs will contribute to the possibility of offering our students (working adults) another medium to increase their Information Technology skills. Note that due to newer technology available such as NetLabs, our CIT advisory committee has approved on a per course evaluation to allow hybrid or online delivery of the Cybersecurity Technician Certificate, Ethical Hacker Certificate, And Cloud Computing Practitioner Certificate courses.

This past year has shown that it is possible to offer many courses remotely. However, in order to not lose the instructor to student interaction, it is recommended that all courses continue with Zoom instruction in a synchronous fashion whenever possible. Synchronous Zoom lectures should be a requirement for all but advanced courses and have been approved by the Distance Education Committee at least once per academic year.

b. Staffing, Budget, & Space Allocation

The CIT department does not have a specific district budget to themselves and they share a budget with the rest of the Business division. The CIT department has three full time faculty members, all tenure or tenure track. We have 18 adjunct faculty that are offered courses based on their expertise. The CIT department prides itself on hiring industry experts to teach our courses. CIT shares the division secretary with the rest of the Business division. All of our courses are offered in the Business building in classrooms that have a 1:1 computer to student ratio. These classrooms are B111 and B113 through B117. Room B112 has been temporarily used by El Paisano for several years.

A virtual computer lab is needed that is accessed over the Internet to give students the ability to access a computer with all the software required for courses. This would provide students a virtual lab environment that mirrors the computers in the Library or B108 but would be available 24 hours a day.

This would increase equity by providing access to a virtual computer from anywhere at any time. Students would not be limited by on ground lab hours or library hours.

c. Grants, and Initiatives

CIT usually participates in Perkins, which is a grant for CTE programs. For 2019-2020, we opted to not participate due to funding from the Strong Workforce Program (SWP) regional grant in addition to the SWP local grant. However, in 2020 – 2021 we will revisit requesting funds from the Perkins grant.

For the last couple of years and for the next several years, we participate in the SWP grant. This grant is for CTE programs that can help students achieve a living wage. Rio Hondo College is the lead college for the NetLab Hub and Cybersecurity regional project with 13 participating colleges. Through these funds, the colleges that are members of this consortium are able to participate in the use of NetLab Hub equipment housed at Coastline Community College in Garden Grove. Due to the high cost of implementing a NetLab environment, as a consortium, it is more cost effective to share funds with Coastline to increase their existing NetLab Hub environment and provide this virtual lab services to members of the consortium.

This virtual lab environment (NetLabs) allows hands-on virtual labs to be offered to students in courses that are part of most Cybersecurity programs. These courses include (but not limited to) networking courses such as Cisco Networking and Network +, and Cybersecurity courses such as Security and Ethical Hacking, and programming courses such as Python and C++.

d. Professional Development

Due to the nature of computer technology, our full-time instructors must always participate in professional development. Part-time instructors in some areas such as Cloud, Cybersecurity, and programming are very difficult to find due to very high financial compensation and very low unemployment in the industry. This forces our tenured faculty to continuously learn about new technology. This can be a very hard burden for instructors as some technology has not existed and requires many hours, sometimes uncompensated, of self-learning since formal courses sometimes don't exist.

Rio Hondo College belongs to the Cisco Networking Academy, CompTIA academy, and in spring of 2020 we became an Amazon Web

Services Academy. These do provide resources for faculty to "learn at their own pace" and provide conferences that provide overviews and summaries of new technologies. As fantastic as these conferences are, the trainings are introductory, and faculty must still spend many hours of uncompensated "self-learning."

For the foreseeable future, Instructors must attend virtual conferences and training. Due to additional planning and recording of lessons, it is requested that additional time for such conferences be compensated.

e. Program Progress

The Computer Systems program continues to be the most awarded program followed by Office Technologies formerly known as Microcomputer Specialist. One of our newer degrees, Information Systems and Technology, which is part of the Cybersecurity program was the third most awarded degree.

Cybersecurity was developed as industry shows that a high percentage of positions in this field go unfilled. Last year we added a Cloud Computing offering, Cloud Computing Practitioner Certificate of Achievement. Cloud careers are predicted to be one of the highest growing in the Information Technology field. For now, this program focuses on Amazon Web Services, the industry leading cloud provider. This program will probably grow in offerings as the dynamics and opportunities in this field are changing dramatically. Rosemead High School launched the Cloud Computing Practitioner Certificate of Achievement as a dual enrollment program at their campus in the Fall 2019 term – by the time the high school students graduate, they will have a certificate of achievement as well as job-ready skills.

f. Additional Information

The System Administrator program will be modified. As more Information Technology departments are taking advantage of Cloud services, most IT models are becoming hybrid in nature. Systems are a combination of on-premise IT and Cloud services. A cloud services component will be added, but unsure if it will be based on Amazon Web Services, Microsoft Azure, or a combination of both. CIT Advisory Committee approved these modifications in the spring of 2020. Changes to the program will be done during the academic year 2020 – 2021.

3. Outcomes

3.1 ASSESSMENT TIMELINE AND CLOSING THE LOOP

File Attachments:

1. **CIT 051 CTL Fall 2020.docx** (See appendix)

2. **CIT 060 CTL Fall 2020.docx** (See appendix)

3. **CIT 101 CTL Fall 2020.docx** (See appendix)

4. **CIT 102 CTL Fall 2020.docx** (See appendix)

5. **CIT 103 CTL Fall 2020.docx** (See appendix)

6. **CIT 111 CTL Fall 2020.docx** (See appendix)

7. **CIT 114 CTL Fall 2020.docx** (See appendix)

8. **CIT 117 CTL Fall 2020.docx** (See appendix)

9. **CIT 119 CTL Fall 2020.docx** (See appendix)

10. **CIT 125 CTL Fall 2020.docx** (See appendix)

11. **CIT 126 CTL Fall 2020 .docx** (See appendix)

12. **CIT 127 CTL Fall 2020.docx** (See appendix)

13. **CIT 128 CTL Fall 2020.docx** (See appendix)

14. **CIT 130 CTL Fall 2020.docx** (See appendix)

15. **CIT 131 CTL Fall 2020.docx** (See appendix)

16. **CIT 133 CTL Fall 2020.docx** (See appendix)

17. **CIT 135 CTL Fall 2020 .docx** (See appendix)

18. **CIT 136 CTL Fall 2020 .docx** (See appendix)

19. **CIT 170 CTL Fall 2020.docx** (See appendix)

20. **CIT 171 CTL Fall 2020.docx** (See appendix)

21. **CIT 180 CTL Fall 2020.docx** (See appendix)

22. **CIT 192 CTL Fall 2020.docx** (See appendix)

23. **CIT 200 CTL Fall 2020.docx** (See appendix)

24. **CIT 210 CTL Fall 2020.docx** (See appendix)

25. **CIT 211 CTL Fall 2020.docx** (See appendix)

26. **CIT 212 CTL Fall 2020.docx** (See appendix)

27. **CIT 213 CTL Fall 2020.docx** (See appendix)

28. **CIT 221 CTL Fall 2020.docx** (See appendix)

29. **Timeline-CIT-Courses-2020-2021.xlsx** (See appendix)

3.2 PROGRAM OUTCOME STATEMENTS

Cloud Computing Practitioner

Objective 1: Problem-Solving
Students will be able to apply critical thinking and problem solving skills in a cloud computing environment.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material., I. E. Apply various problem-solving approaches., IV. A. Research, analyze, evaluate, and utilize relevant information., IV. B. Effectively use appropriate research or technology tools or sources.

Outcome 2: Configuration of Cloud Computing
Student will learn installation and configuration of cloud computing resources for an enterprise environment.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material.

Outcome 3: Cybersecurity Skills
Student will be able to demonstrate basic knowledge in cybersecurity.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material., IV. B. Effectively use appropriate research or technology tools or sources.

Computer Science

Outcome 1: Math & Logic Problem-Solving
Student will be able to demonstrate ability to use math, physics, and logic for solving problems in technology.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material., I. D. Demonstrate the ability to use mathematics., I. E. Apply various problem-solving approaches.

Outcome 2: Transfer
Student will be able to complete lower division courses for transfer to a CSU or other four year institution.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills, Objective 3: CIT Goals, Objective 4: Increase Enrollment,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material., V. A. Identify the steps necessary to accomplish their educational goals.

Outcome 3: Computer Programming

Student will be able to design and write usable and effective computer programs using a high-level language.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills

Computer Systems

Outcome 1: Computer Literacy

Demonstrate basic computer literacy including input/output devices and MS Office Suite of applications. (Computer Information Technology: Co

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material.

Outcome 2: Critical Thinking Skills

Student will be able to apply critical thinking and problem solving skills required by employers and four year universities in the computer

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material., I. E. Apply various problem-solving approaches., IV. B. Effectively use appropriate research or technology tools or sources.

Outcome 3: Problem-Solving

Student will be able to analyze a problem, and identify and define the computing requirements appropriate to its solution.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material., I. E. Apply various problem-solving approaches., IV. B. Effectively use appropriate research or technology tools or sources.

Cybersecurity

Outcome 1: Security Policies

Students will be able demonstrate knowledge of security policies for businesses. Students will understand objectives of security policies for business and their IT infrastructure.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. A. Apply theory to data., I. B. Demonstrate an understanding of course material., I. E. Apply various problem-solving approaches., II. B. Comprehend and interpret various types of written information., III. B. Evaluate civic, social, and environmental policies.

Outcome 2: Securing Infrastructure

Students will be able to demonstrate proficiency in IT Infrastructure security. Students will learn to identify risks and use tools for prevention, detection, mitigation, recovery, and accountability of systems.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. A. Apply theory to data., I. B. Demonstrate an understanding of course material., I. E. Apply various problem-solving approaches., II. B. Comprehend and interpret various types of written information., IV. B. Effectively use appropriate research or technology tools or sources.

Outcome 3: Critical Thinking

Students will be able to apply critical thinking in applying cybersecurity solutions.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. A. Apply theory to data., I. B. Demonstrate an understanding of course material., I. E. Apply various problem-solving approaches., IV. B. Effectively use appropriate research or technology tools or sources.

Information Systems and Technology

Outcome 1: Problem-Solving

Student will be able to demonstrate problem solving skills in a business environment.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material., I. E. Apply various problem-solving approaches., IV. B. Effectively use appropriate research or technology tools or sources.

Outcome 2: Business Operations

Student will be able to demonstrate fundamentals of business operations.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material.

Outcome 3: Security Policies & Procedures
Student will be able to demonstrate basic knowledge of policies and procedures for securing a business environment.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material., I. E. Apply various problem-solving approaches., IV. B. Effectively use appropriate research or technology tools or sources.

Network Administrator

Outcome 1: Knowledge of Networks
Student will be able to demonstrate knowledge of computer networks in a business environment.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material., I. E. Apply various problem-solving approaches., IV. B. Effectively use appropriate research or technology tools or sources.

Outcome 2: Problem-Solving
Students will be able to apply critical thinking and problem solving skills in a computer network environment.

Mapping

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material., I. E. Apply various problem-solving approaches.

Outcome 3: Knowledge of Security
Student will be able to demonstrate basic knowledge in cybersecurity.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material.

Office Technologies

Outcome 1: Computer Literacy
Students will be able to demonstrate computer literacy

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material., IV. B. Effectively use appropriate research or technology tools or sources.

Outcome 2: Office Technologies

Students will be able to demonstrate proficiency in using industry leading suite of office applications. Students will learn to use the most prevalent tools used in an office environment, including MS Word, MS Excel, MS PowerPoint, and MS Access.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material.

Outcome 3: Problem Solving

Students will be able to apply critical thinking and problem solving skills in an office environment.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material., I. E. Apply various problem-solving approaches.

System Administrator

Outcome 1: Security Policies

Student will be able to demonstrate knowledge of client and server operating systems. Student will learn installation and configuration of client and server operating systems in an enterprise environment.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material., I. E. Apply various problem-solving approaches., IV. B. Effectively use appropriate research or technology tools or sources.

Outcome 2: Securing Infrastructure

Student will be able to demonstrate basic knowledge in cybersecurity.

Mapping

CIT Action Plan 2020 - 2021: Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material.

Outcome 3: Critical Thinking

Students will be able to apply critical thinking and problem solving skills in a computer system environment.

Mapping

**CIT Action Plan 2020 - 2021:** Objective 2: Core CIT Skills,

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material., I. E. Apply various problem-solving approaches., IV. B. Effectively use appropriate research or technology tools or sources.

4. Data Analysis

4.1 DATA ANALYSIS

File Attachments:

1. **Program Completion by Degree.pdf** (See appendix)
2. **Rio Hondo College Course Success and Retention.pdf** (See appendix)
3. **Success_Retention by Retention.pdf** (See appendix)
4. **Success_Retention by Success.pdf** (See appendix)
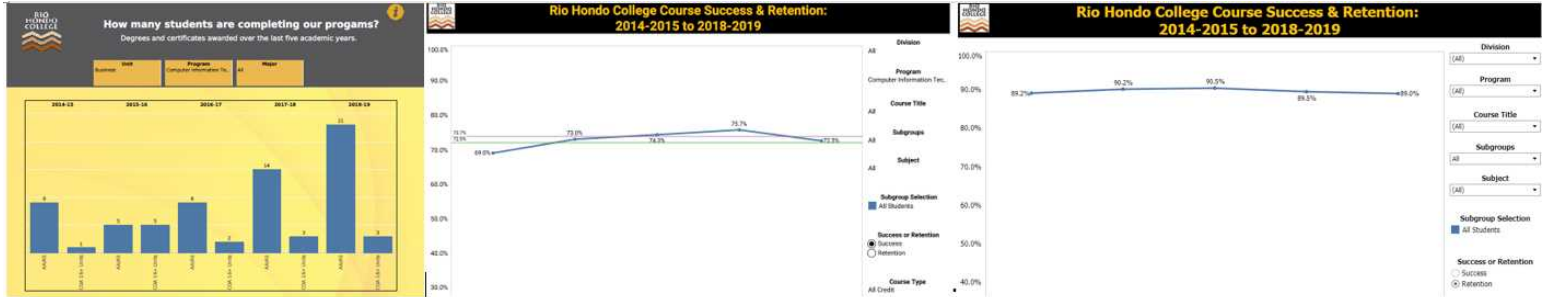
Degrees and certificates awarded continue to increase through 2019, especially in the during the last three years. Some programs were modified to be better aligned with industry needs. This also reflects the adjustments made to the Computer Information Technology/Computer Systems program that were recommended by the CIT Advisory Committee.

Enrollment, success, and retention are stable. Success exceeds 72% and Retention is almost at 90%.

5. Objectives & Resource Requests

5.1 OBJECTIVES

CIT Action Plan 2020 - 2021

Objective 1: Educational Goals
Students will take at least one skills focused, job readiness course or courses that transfer into a higher degree.

Mapping

Institutional Goals & Objectives 2018-2019: Objective 1.1

Objective 2: Core CIT Skills
Students will acquire core information technology skills. The department will increase course completion of introduction courses.

Mapping

Institutional Goals & Objectives 2018-2019: Objective 1.1, Objective 1.4

Objective 3: CIT Goals
The department will increase number of students completing certificates and degrees.

Mapping

Institutional Goals & Objectives 2018-2019: Objective 1.4

Objective 4: Increase Enrollment
New programs have been added by the CIT Department. Visibility of these programs will be increased.

Mapping

Institutional Goals & Objectives 2018-2019: Objective 3.4

5.2 FULL-TIME FACULTY REQUEST

Actions

CIT Action Plan 2020 - 2021

Objective

Objective: Objective 3: CIT Goals
The department will increase number of students completing certificates and degrees.

Action: Hire Full-Time Counselor

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Position Title & Program:	Full-Time Counselor / Business Division
Rationale:	A full-time counselor is needed for the Division. We currently share two counselors on a part-time basis, and it is not fair for students trying to navigate the number of degrees and certificates available in the Business Division. Many new degrees and certificates have been created in the Business Division, especially in the Accounting and the CIT departments. The number of opportunities available to students is diverse and complicated. It takes embedded counselors up to a year to become familiar with the programs and many of our students work full time. A full-time counselor can adjust hours to be available to our students
Budget request amount:	$100,000.00
Priority:	High

Objective: Objective 4: Increase Enrollment

New programs have been added by the CIT Department. Visibility of these programs will be increased.

Action: Hire Full-Time Instructor

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Position Title & Program:	Full-Time Instructor / CIT Department
Rationale:	A full-time instructor is needed for the CIT department. With the increased enrollment across the CIT classes and programs, the department has been relying increasingly on part-time adjunct instructors. Current full-time instructors have been shifting from teaching general IT courses to more specialized courses in Cybersecurity, Cloud and AD-T Computer Science courses. A Cybersecurity subject matter expert is needed to satisfy the demand of the existing and projected program growth. Three programs were recently approved to start the process for going fully online including Cybersecurity Technician and Ethical Hacker.
Budget request amount:	$100,000.00
Priority:	Medium

5.3 FULL-TIME CLASSIFIED REQUEST

5.4 FULL-TIME ADMINISTRATOR REQUEST

5.5 FACILITIES REQUEST

Actions

CIT Action Plan 2020 - 2021

Objective

Objective: Objective 2: Core CIT Skills

Students will acquire core information technology skills. The department will increase course completion of introduction courses.

Action: Reconfiguration of Classrooms

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	System Admin, Network Admin and Cybersecurity programs have higher levels of success when students collaborate in projects. This is more easily done when desks/workstations can be formed as "pods" or open environment.
	Classrooms must be remodeled to allow for the reconfiguration of classrooms from lecture to group work and back to lecture as needed. This remodel will also allow for the ability to host cyber competitions.
Budget request amount:	$200,000.00
Priority:	Medium

5.6 TECHNOLOGY REQUEST

Actions

CIT Action Plan 2020 - 2021

Objective

Objective: Objective 2: Core CIT Skills

Students will acquire core information technology skills. The department will increase course completion of introduction courses.

Action: Virtual Computer Lab for Online Technology Courses

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	Technology based courses, such as those in CIT, require students to be able to access specific software, tools, and operating systems to complete courses. This is difficult for students in an online environment where the available technology varies.
	A virtual computer lab that is accessed over the Internet via a Cloud Provider would give students the ability to access a computer with all the software required by courses. This would provide students a lab, like that of the Library or B108, but would be available 24 hours a day.
	This would increase equity through providing students the means to access a virtual computer from anywhere at any time without having to rely on coming to campus at a specific time or needing a specific computing requirements.
Budget request amount:	$0.00
Priority:	High

5.7 INSTRUCTIONAL EQUIPMENT REQUEST

5.8. BUDGET AUGMENTATION REQUEST

Actions

CIT Action Plan 2020 - 2021

Objective

Objective: Objective 1: Educational Goals
Students will take at least one skills focused, job readiness course or courses that transfer into a higher degree.

Action: Hire new core CIT course instructors

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	As new programs are being developed, full time instructors will shift from teaching general IT courses to more specialized courses in Cybersecurity and AD-T courses. There will be an increased need for instructors that can teach introduction to information system courses and office technologies courses. These courses provide job ready skills and transfer to higher degrees.
Budget request amount:	$60,000.00
Priority:	Low

Objective: Objective 2: Core CIT Skills

Students will acquire core information technology skills. The department will increase course completion of introduction courses.

Action: Hire a new programming faculty

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	Two new programs were added to CIT, Cloud Computing and a Computer Science for Transfer. Both programs require students to learn programming, specifically, for now, the Python programming language. We will need to increase the number of sections offered and it takes a substantial amount of time to attract qualified candidates. This will probably be an ongoing objective.
Budget request amount:	$30,000.00
Priority:	High

Objective: Objective 4: Increase Enrollment

New programs have been added by the CIT Department. Visibility of these programs will be increased.

Action: Hire new Cloud Computing Faculty

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	Increase dual enrollment and Rio Hondo College courses in Cloud Computing in support of the new Cloud Computing Practitioner CoA and future changes to the System Administrator program to include cloud. Currently Rosemead High School has the new Cloud Computing Practitioner program and will need 2 classes per semester at their campus once they are fully running in addition to running the classes at Rio Hondo.
Budget request amount:	$30,000.00
Priority:	Medium

6. Program Plan Submission

6.1. ANNUAL PROGRAM PLAN ATTACHMENT

Appendix

A. **CIT 101 CTL Fall 2020.docx** (Word Document (Open XML))
B. **CIT 102 CTL Fall 2020.docx** (Word Document (Open XML))
C. **CIT 103 CTL Fall 2020.docx** (Word Document (Open XML))
D. **CIT 111 CTL Fall 2020.docx** (Word Document (Open XML))
E. **CIT 114 CTL Fall 2020.docx** (Word Document (Open XML))
F. **CIT 117 CTL Fall 2020.docx** (Word Document (Open XML))
G. **CIT 119 CTL Fall 2020.docx** (Word Document (Open XML))
H. **CIT 125 CTL Fall 2020.docx** (Word Document (Open XML))
I. **CIT 126 CTL Fall 2020 .docx** (Word Document (Open XML))
J. **CIT 127 CTL Fall 2020.docx** (Word Document (Open XML))
K. **CIT 128 CTL Fall 2020.docx** (Word Document (Open XML))
L. **CIT 130 CTL Fall 2020.docx** (Word Document (Open XML))
M. **CIT 131 CTL Fall 2020.docx** (Word Document (Open XML))
N. **CIT 133 CTL Fall 2020.docx** (Word Document (Open XML))
O. **CIT 135 CTL Fall 2020 .docx** (Word Document (Open XML))
P. **CIT 136 CTL Fall 2020 .docx** (Word Document (Open XML))
Q. **CIT 170 CTL Fall 2020.docx** (Word Document (Open XML))
R. **CIT 171 CTL Fall 2020.docx** (Word Document (Open XML))
S. **CIT 180 CTL Fall 2020.docx** (Word Document (Open XML))
T. **CIT 192 CTL Fall 2020.docx** (Word Document (Open XML))
U. **CIT 200 CTL Fall 2020.docx** (Word Document (Open XML))
V. **CIT 210 CTL Fall 2020.docx** (Word Document (Open XML))
W. **CIT 211 CTL Fall 2020.docx** (Word Document (Open XML))
X. **CIT 212 CTL Fall 2020.docx** (Word Document (Open XML))
Y. **CIT 213 CTL Fall 2020.docx** (Word Document (Open XML))
Z. **CIT 221 CTL Fall 2020.docx** (Word Document (Open XML))
AA. **Timeline-CIT-Courses-2020-2021.xlsx** (Excel Workbook (Open XML))

AB. **CIT 051 CTL Fall 2020.docx** (Word Document (Open XML))
AC. **CIT 060 CTL Fall 2020.docx** (Word Document (Open XML))
AD. **Success_Retention by Retention.pdf** (Adobe Acrobat Document)
AE. **Success_Retention by Success.pdf** (Adobe Acrobat Document)
AF. **Program Completion by Degree.pdf** (Adobe Acrobat Document)
AG. **Rio Hondo College Course Success and Retention.pdf** (Adobe Acrobat Document)

Annual Program Plan Fall 2020

Biology Majors

Created on: 08/14/2020 05:49:00 PM EDT
Last Modified: 10/08/2020 04:38:05 PM EDT

Table of Contents

General Information (Annual Program Plan Fall 2020)

1. Mission Statement

1.1 MISSION STATEMENT

The Biology Department is committed to preparing students to pursue rewarding careers in biology and related disciplines. Students may earn the Associate of Science in Biological Sciences for Transfer degree. This degree provides for the completion of general lower-division preparation associated with the requirements for a bachelor's degree in biology, biochemistry, botany, ecology, forestry, zoology, microbiology, medicine, and other fields. It provides a broad, comprehensive overview of the main areas of biological science.

2. Program Description

2.1 PROGRAM DESCRIPTION

A. Services and Target Audience

The Biology Major's Program provides undergraduate preparation for those pursuing both biological and related degrees. It also provides required courses for other areas, such as psychology and environmental science. Courses currently offered include Biology 200 (Principles of Biology I), offered once per semester; Biology 201 (Principles of Biology II) offered once per semester; and Biology 206 (Principles of Genetics) offered once per year. Molecular Biology and Technology (BIOL 205) is not currently being offered, primarily due to a lack of instructor availability, in addition to the uncertainty relating to local demand. The Biology Major's Program currently offers an Associate of Science Degree for Transfer in Biology, as well as an Associate of Science Degree in Biology.

A change for the 2020 - 2020 academic year has been the offering of two sections of Biology 200 in both fall and spring semesters. Both sections filled early in the registration process with waitlists. For the spring 2021 semester, two sections each of Biology 200 and Biology 201 will be offered to meet student needs and enhance enrollment for Biology 201 in the fall 2021 semester.

B. Staffing, Space Allocation and Budget

The Biology Major's Program budget is integrated within the budget of the Math, Science and Engineering Division. The current number of full-time faculty is seven, shared among the three areas within the Biology Department. Four of the current seven Biology Department faculty have taught courses in the Biology Major's Program, but all seven are qualified.

Currently, there are no part-time faculty teaching in the Biology Major's Program. One full-time laboratory technician is shared among the three areas within the Biology Department. There is one dean shared among the other departments within the Math, Science and Engineering Division. The program is located in the first floor of the Science Building. The Biology Major's Program primarily utilizes Room S 132, as well as S 102.

C. Grants and Initiatives

A current project is to develop new laboratory activities for appropriate use and application of the Polymerase Chain Reaction (PCR) equipment previously obtained through the Biotechnology Program.

D. Professional Development

Professional development over the course of the last year by members of the Biology Majors Program has included the items listed below:

- Attended meetings and field trips of natural history organizations, including Lorquin Entomological Society and California Native Plant Society
- Visited museums, regional parks, national monuments, national forests, and botanical gardens to observe wildlife and take photographs for use in courses

- Read biological journals to keep informed of current developments and research trends
- Faculty met to discuss course improvements, including the use of open educational resources (OER) and equity issues
- Attended the September cohort for the Equity NOW webinar series provided by the USC Race and Equity Center
- Attended monthly campus-wide discourse events on the topic of anti-racism
- Attended the five-part "Black Minds Matter" program hosted by CORA Learning (via Zoom)
- Attended the webinar "White People Talking to White People about Racism", hosted by the USC Race and Equity Center and
- Attended the "Anti-racism Webinar" hosted by A2MEND
- Completed the QI Safe Zone training (LGBTQIA+ ally training)
- Completed the Online Education Certificate training through Rio Hondo Distance Education
- Completed Camtasia training (2-part series)
- Participated in professional, field-related groups on social media as a means of keeping abreast of current developments and maintaining a professional network

E. Program Progress

Program faculty has been trained in the use of the Polymerase Chain Reaction (PCR) equipment obtained through the Biotechnology Program. As this equipment is now available for use by the Biology Majors Program, the program faculty are working to coherently incorporate a PCR laboratory activity into the existing curriculum.

Demonstration compound microscopes obtained in the prior academic year by the Biotechnology Program are being used by Biology Major's in conjunction with the A/V equipment (ceiling-mounted projector, AV controller and screen) installed during the previous cycle to facilitate laboratory investigations.

Lab materials were supplemented with the purchase of models for the chloroplast, leaf cross-section and plant cell, as well as posters for topics such as osmosis.

The following items remain to be addressed:

- Replacement of two autoclaves
- A/V equipment installation in S 102
- Augmentation of one laboratory technician position
- Instructional workstation (iMac) installation in S 132
- Instructional laptop computers
- Microscope maintenance (for ongoing needs)
- Probe sets and associated student computers
- Repair to greenhouse – Did this get done or did we opt to scrap it last year?
- Replacement of additional plastomount specimens
- Replacement of prepared microscope slides
- Replacement of preserved specimens
- Remodel of S 102 and S 129 to accommodate lab activities

F. Additional Information

As of October 5, 2020, Banner lists 1000 declared Biology Majors Students for the Fall 2020 semester. Of those

students, 75 are enrolled in credit courses at Rio Hondo for the Fall 2020 semester. Although there is concern as to the validity of these numbers, course enrollment and waitlist trends each semester would seem to indicate that there is considerable demand for the offering of courses within the Biology Majors Program beyond the current annual provision.

3. Outcomes

3.1 ASSESSMENT TIMELINE AND CLOSING THE LOOP

File Attachments:

1. **BIOL 200 CTL Fall 2020.pdf** (See appendix)

2. **BIOL 201 CTL Fall 2020.pdf** (See appendix)

3. **BIOL 206 CTL Fall 2020.docx** (See appendix)

4. **Six-Year Course Outcomes Assessment Timeline_Fall 2020.pdf** (See appendix)

3.2 PROGRAM OUTCOME STATEMENTS

Biology Program Outcomes

Outcome 1.1 Evaluation of Scientific Information

Students develop the ability to evaluate scientific information critically, using analyticalreasoning and quantitative skills.

Mapping

Institutional level Outcomes (ILO): I. A. Apply theory to data., I. D. Demonstrate the ability to use mathematics., I. E. Apply various problem-solving approaches., I.C. Demonstrate the ability to employ the scientific process., II. A . Communicate effectively in written or spoken forms., II. B. Comprehend and interpret various types of written information., II. C. Utilize various media formats., IV. A. Research, analyze, evaluate, and utilize relevant information., IV. B. Effectively use appropriate research or technology tools or sources.

Outcome 1.2 Communication Skills

Students strengthen their skills in reading, writing, oral communication, and critical thinking.

Mapping

Institutional level Outcomes (ILO): I. A. Apply theory to data., I. B. Demonstrate an understanding of course material., I. E. Apply various problem-solving approaches., I.C. Demonstrate the ability to employ the scientific process., II. A . Communicate effectively in written or spoken forms., II. B. Comprehend and interpret various types of written information., II. C. Utilize various media formats., II. D. Recognize, interpret, and actualize creative expression., IV. A. Research, analyze, evaluate, and utilize relevant information., IV. B. Effectively use appropriate research or technology tools or sources.

Outcome 1.3 Knowledge of cellular and molecular biology, organismal biology, and ecology and evolution

Students demonstrate knowledge in three major sub-disciplines of biology: cellular andmolecular biology, organismal biology, and ecology and evolution.

Mapping

Institutional level Outcomes (ILO): I. B. Demonstrate an understanding of course material., I.C. Demonstrate the ability to employ the scientific process., II. A . Communicate effectively in written or spoken forms., II. B. Comprehend and interpret various types of written information., II. C. Utilize various media formats., II. D. Recognize, interpret, and actualize creative expression., IV. A. Research, analyze, evaluate, and utilize relevant information., IV. B. Effectively use appropriate research or technology tools or sources.

Outcome 1.4 Scientific Methodology

Students will understand and use scientific methodology.

Mapping

Institutional level Outcomes (ILO): I. A. Apply theory to data., I. B. Demonstrate an understanding of course material., I. E. Apply various problem-solving approaches., I.C. Demonstrate the ability to employ the scientific process., II. A . Communicate effectively in written or spoken forms., II. B. Comprehend and interpret various types of written information., II. C. Utilize various media formats., II. D. Recognize, interpret, and actualize creative expression., IV. A. Research, analyze, evaluate, and utilize relevant information., IV. B. Effectively use appropriate research or technology tools or sources.

4. Data Analysis

4.1 DATA ANALYSIS

Program Efficiency Data

With respect to the 2019-2020 academic year in the area of average FTES per section, the Biology Majors program increased from 6.4 in the preceding academic year to 6.8. The average FTES per section is the highest recorded for this program in the last five academic years and is more than double the Rio Hondo average FTES per section of 3.2. Please refer to Figure 1 below.

Figure 1. Biology Majors Program FTES / Section

The fill rates for Biology Majors program courses vary widely when disaggregated. The first semester biology course, BIOL 200, far exceeds the institutional five-year average of 83.4%, with an average of 118.8% for the academic year. The second semester course, BIOL 201 appears to have a sharp decline in spring term enrollment in 2018-2019, which represents the most recent fill rate data available in Tableau. However, upon closer inspection, the course capacity was changed between the two academic terms from 24 to 48. Given that one of the two instructors who teaches the majors course sequence was on sabbatical during the 2018-2019 academic year, only one section of this course was offered per semester. Considering the current enrollment cap of 24, not 48, the course capacity for the academic year should be indicated as 24. When the mathematical adjustment is made for this factor, the fill rate for the spring 2019 term is 120.8%, not 60.4%. This is not only well above the institutional average of 83.4%, but also in line with trends from the spring semester in prior academic years. To meet enrollment demands and boost enrollment for BIOL 201 in the fall term, two sections of BIOL 200 are now offered each term. Additionally, Biology Majors program instructors have been actively working to promote the relatively new genetics course to students in the interest of increasing enrollment. Please refer to Figures 2-4 below.

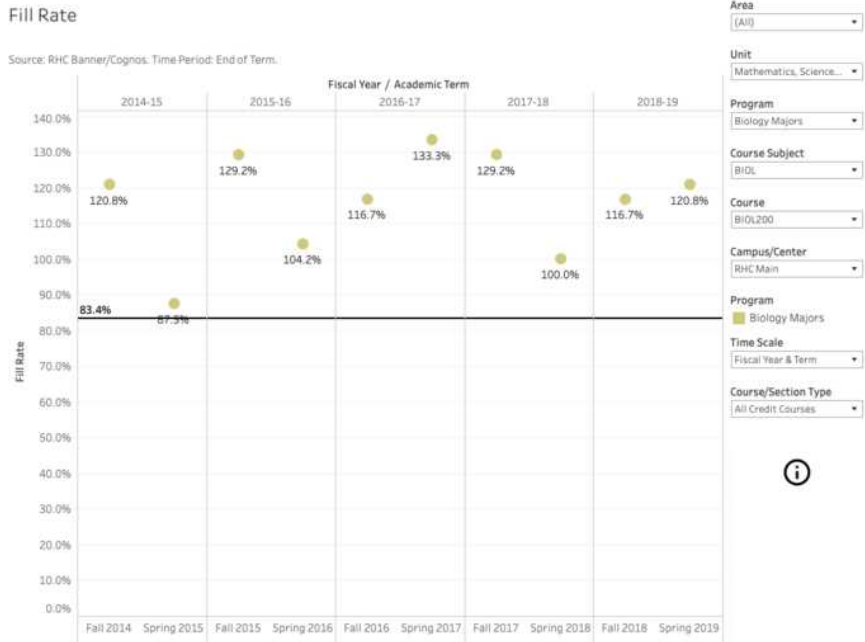### Figure 2. Biology Majors Program Fill Rates, BIOL 200

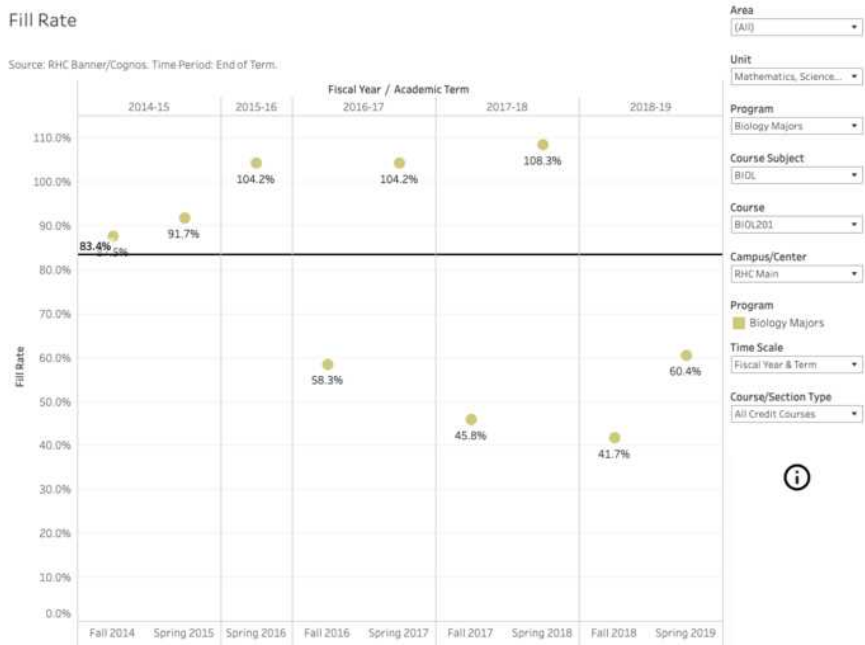**Figure 3. Biology Majors Program Fill Rates, BIOL 201**

Figure 4. Biology Majors Program Fill Rates, BIOL 206

Fill Rate

Data for FTES / FTEF Efficiency and WSCH / FTEF Efficiency indicate that the Biology Majors program is approaching the institutional average for both measures. When the data are disaggregated by course, BIOL 200 has exceeded (16.9) or nearly met (16.5) the five-year average for Rio Hondo (16.6) for FTES / FTEF. BIOL 201 is below the average during the fall term (11.5) and approaching the average for the spring term (14.6). BIOL 206 is also below the average (10.8). Program instructors, as indicated previously, are working to recruit students and increase enrollment in both BIOL 201 and BIOL 206. Please refer to Figure 5 below.

Figure 5. Biology Majors Program FTES / FTEF and WSCH / FTEF Efficiency
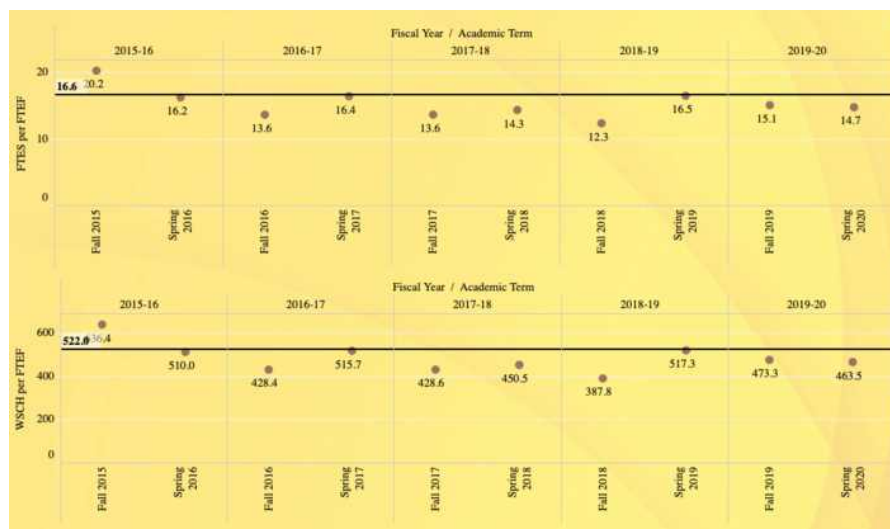

Program Success and Retention Data

During the 2019-2020 academic year, the Biology Majors program continued to demonstrate high levels of success,

with an overall program success rate of 92.7%. This far exceeds the institution-set minimum of 72% and the institution-set aspirational standard of 73.65%. The high rate of student success may be attributed to the nature of the enrolled students. The majority of the students who enroll in Biology Major program courses do so as part of their pre-requisite requirements for higher level STEM courses at a transfer institution. As a result, they have a tendency to be heavily invested in their own success, seeking help from instructors and campus support systems such as tutoring programs when they believe their academic performance to be less competitive. Please refer to Figure 6 below.

Figure 6. Biology Majors Program Success Rates
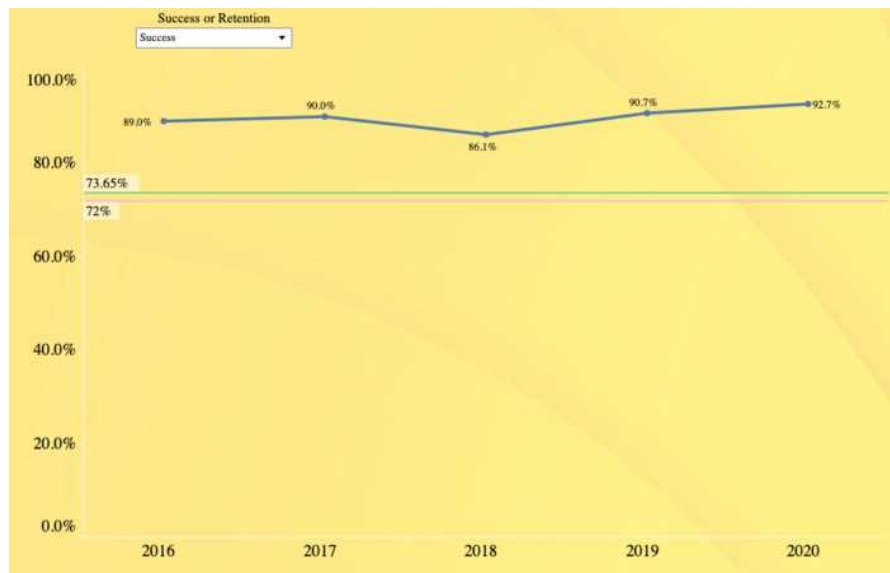
When the data for program success are disaggregated by course, success rates are maintained at or above the 90th percentile. Further disaggregation of the data shows no evidence of concerning discrepancies between sections. With the exception of a single course section of BIOL201, the success rates for all sections of courses in the Biology Majors program range between 88.5% and 100%. The single exception still exceeded the institution-set aspirational standard at 77%.

During the spring 2020 term, the disparity in the success rate may be attributed to circumstances relating to the personal challenges faced by students after the transition to remote learning due to COVID-19. The failure of one or two students can have a significant impact on data for a course with an enrollment cap of 24 students, which may explain the figure for this section. When compared to data disaggregated by section from recent prior academic years, the success rates for the 2019-2020 academic year are generally equivalent or improved. Please refer to Figures 7 and 8 below.

Figure 7. Biology Majors Program Success Rates, Disaggregated by Course

	2015-16	2016-17	2017-18	2018-19	2019-20
BIOL200	89.3%	91.7%	83.6%	91.2%	90.8%
BIOL201	88.0%	94.9%	91.9%	87.2%	93.3%
BIOL206		63.6%	77.8%	100.0%	100.0%
BIOL299	100.0%				

Figure 8. Biology Majors Program Success Rates, Disaggregated by Section

	2015-16	2016-17	2017-18	2018-19	2019-20
BIOL200	88.0%	84.4%	79.2%	86.2%	95.7%
	90.3%	100.0%	87.1%	96.4%	88.5%
					88.9%
BIOL201	88.0%	92.0%	92.3%	86.2%	100.0%
					100.0%
		100.0%	90.9%	90.0%	77.8%
BIOL206		63.6%	77.8%	100.0%	100.0%
BIOL299	100.0%				

The retention rates for the Biology Majors program overall for the 2019-2020 academic year was 98.75%; there is no institution-set minimum or aspirational standard for comparison. It is highly likely that the factors contributing to student success in program courses also contribute to program retention rates. STEM students generally demonstrate greater intrinsic motivation to succeed in their courses, which requires the grit to see the courses to fruition rather than withdrawing when and if the course becomes challenging. Please refer to Figure 9 below.

Figure 9. Biology Majors Program Retention Rates
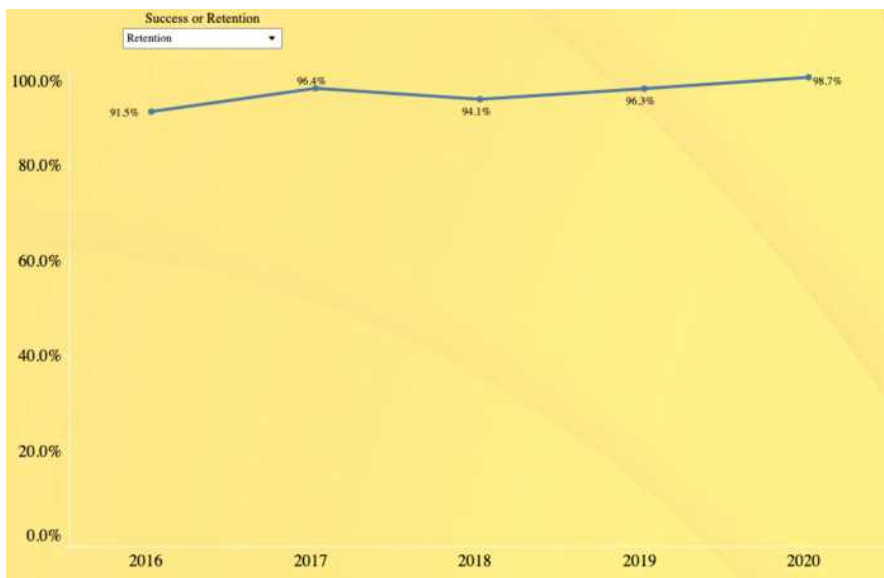
Disaggregation of program retention data demonstrates consistency by both course and by sections within each program course. For the 2019-2020 academic year, 98.7% of students were retained in BIOL 200, 98.3% in BIOL 201 was 98.3% and 100% in BIOL 206. There are no disparities that would be cause for alarm in the disaggregated data, likely because there is a great deal of collegiality and dialogue that occurs between program instructors as to best practices and expectations for laboratory investigations and examinations. Please refer to Figures 10 and 11 below.

Figure 10. Biology Majors Program Retention Rates, Disaggregated by Course

	2015-16	2016-17	2017-18	2018-19	2019-20
BIOL200	91.1%	96.7%	94.5%	96.5%	98.7%
BIOL201	92.0%	100.0%	97.3%	94.9%	98.3%
BIOL206		81.8%	77.8%	100.0%	100.0%
BIOL299	100.0%				

Figure 11. Biology Majors Program Retention Rates, Disaggregated by Section

	2015-16	2016-17	2017-18	2018-19	2019-20
BIOL200	92.0%	93.8%	91.7%	93.1%	100.0%
	90.3%	100.0%	96.8%	100.0%	96.2%
					100.0%
BIOL201	92.0%	100.0%	100.0%	93.1%	100.0%
					100.0%
		100.0%	90.9%	100.0%	94.4%
BIOL206		81.8%	77.8%	100.0%	100.0%
BIOL299	100.0%				

There are no differences to discuss with respect to success by instructional modality, as the Biology Majors program does not currently offer courses in distance education format.

Program Equity Data

Upon examination of the data for the 2019-2020 academic year, no equity gaps could be identified in the success rates of different ethnicities within the Biology Majors program. Enrollment consisted solely of students identifying as either Hispanic or Asian / Pacific Islander, and both populations performed above the 90th percentile. This far exceeds the institution-set aspirational standard of 73.65%. The success of students identifying as Asian / Pacific Islander shows an increase over the prior academic year, but this is likely due to this ethnicity representing a smaller proportion of the student population at Rio Hondo and thus also a smaller proportion of the Biology Majors program enrollment. Please refer to Figure 12 below.

Figure 12. Biology Majors Program Success Rates, Disaggregated by Ethnicity

A five-year trend in the Biology Major program data disaggregated by gender indicate that females tend to be more successful in program courses than males; however, the success rates for both groups consistently exceed the institution-set aspirational standard of 73.65%. During the 2019-2020 academic year, both groups were well above the aspiration standard, with females demonstrating a success rate of 94.6% and males demonstrating a success rate of 89.7%. Although not an indication of an equity gap between genders, it is possible that the success rate of male enrollees has a greater impact due to the ratio of females to males in program courses. For the aforementioned academic year, there were 96 females enrolled versus 64 males. Please refer to Figure 13 below.

Figure 13. Biology Majors Program Success Rates, Disaggregated by Gender
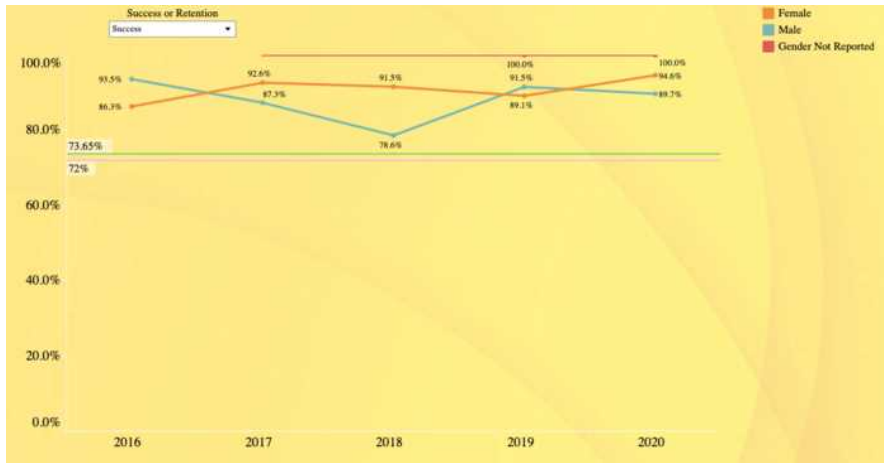
There are likewise no equity gaps identified when the Biology Majors program data are disaggregated by special population. At first glance, it may appear that there is a gap for the foster youth population; however, comparison with data from prior academic years indicates that success rates have traditionally been on-par with the rest of the student population. For example, in the prior academic year, 100% of foster youth were successful compared to 90.6% of the non-foster youth population. The strong shift in success rate for the 2019-2020 academic year may be attributed to the foster youth representing a small proportion of the enrollment; thus, the data from a single student can have a significant impact on the overall success rate for the group. Please refer to Table 1 below.

Table 1. Biology Majors Program Success Rates, Disaggregated by Special Population

Special Population Type	Success Rate	
	Special Population – Yes	**Special Population – No**
DSPS	100%	92.5%
EOP&S	87.1%	94.2%
Foster Youth	50%	93.3%
Veteran	100%	92%

In reviewing the disaggregated 2019-2020 data for equity gaps with respect to retention rates, no gaps were identified with respect to ethnicity, gender or special population. Of the students identifying as Asian / Pacific Islander, 100% were retained in the program; 98.2% of the student identifying as Hispanic were retained. One hundred percent of females and 96.6% of males were retained in the program. The retention rates for all special populations were 87.7% or higher and comparable to the non-special population retention rates. Please refer to Figures 14 and 15, as well as Table 2 below.

Figure 14. Biology Majors Program Retention Rates, Disaggregated by Ethnicity

Figure 15. Biology Majors Program Retention Rates, Disaggregated by Gender
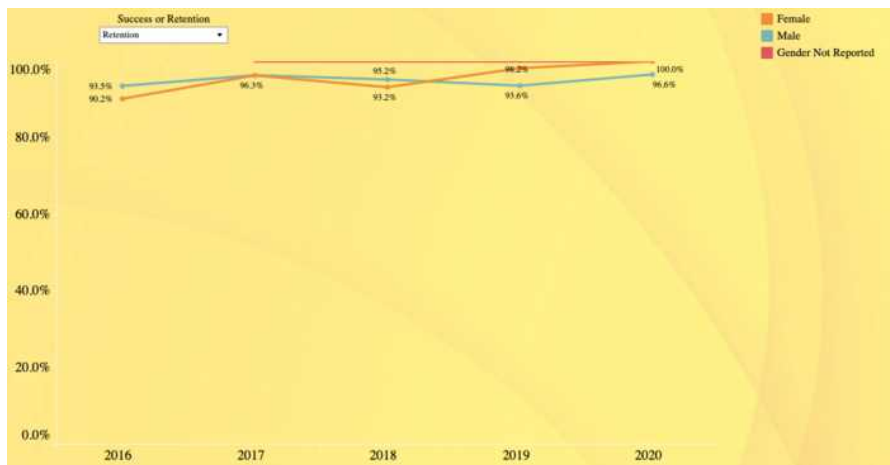
Table 2. Biology Majors Program Retention Rates, Disaggregated by Special Population

Special Population Type	Success Rate	
	Special Population – Yes	**Special Population – No**
DSPS	91.6%	91.5%
EOP&S	91.8%	91.5%
Foster Youth	87.7%	91.6%
Veteran	95.7%	91.5%

Program Completion Data

Based on the most current available data in Taskstream, the number of degrees and certificates awarded for the

Biology Majors program has increased by 20%. The faculty of the Biology Majors program has a goal of continuing to increase the number of degrees awarded by encouraging students to attend Transfer Center workshops and complete their transfer applications in a timely manner. Please refer to Figure 16 below.

Figure 16. Biology Majors Degrees and Certificates
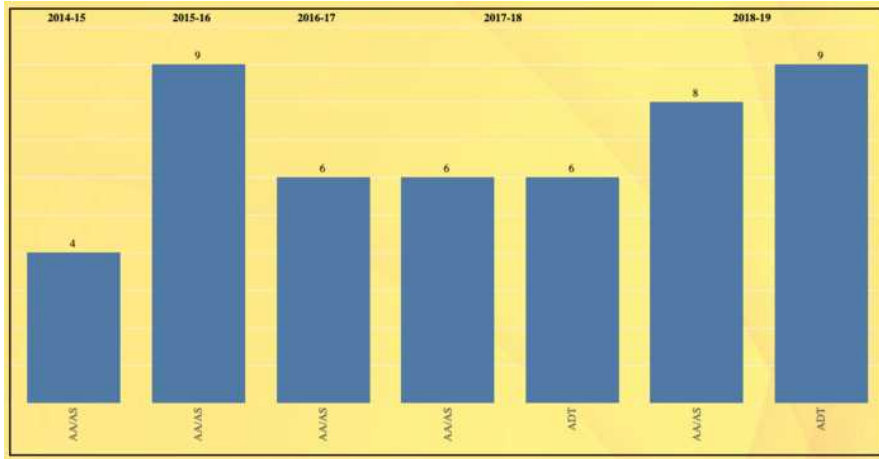
5. Objectives & Resource Requests

5.1 OBJECTIVES

Biology Majors Action Plan 2018 - 2019

Maintain current high levels of student successful course completion.
Expand enrollment by offering additional sections, especially of Biol 200.

Mapping

Institutional Goals & Objectives 2018-2019: Objective 1.1

Modernize technology and equipment to serve the district needs.

Mapping

Institutional Goals & Objectives 2018-2019: Objective 3.1

5.2 FULL-TIME FACULTY REQUEST

Actions

Biology Majors Action Plan 2018 - 2019

Objective

Objective: Maintain current high levels of student successful course completion.
Expand enrollment by offering additional sections, especially of Biol 200.

Action: Augmented Full-Time Biology Faculty

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Position Title & Program:	Augmented Full-Time Biology Faculty
Rationale:	Expanded offerings in the Biology Major's Program (and all areas of the Biology Department) are being limited due to current full-time faculty availability. An augmentation of Full-Time Biology Faculty will allow more sections to be offered, and thus to serve more students.
Budget request amount:	$100,000.00
Priority:	High

Objective: Modernize technology and equipment to serve the district needs.

No actions specified

5.3 FULL-TIME CLASSIFIED REQUEST

Actions

Biology Majors Action Plan 2018 - 2019

Objective

Objective: Maintain current high levels of student successful course completion.
Expand enrollment by offering additional sections, especially of Biol 200.

Action: Hire 10 tutors for pre-health science majors

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Position Title & Program:	tutors for pre-health science majors
Basic Job Description:	tutors for pre-health courses
Rationale:	Hire students/alumni that have taken the pre health courses and received either an "A" or "B" in the class to serve as tutors.
Budget request amount:	$40,000.00
Priority:	High

Action: Instructional Laboratory Technician

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Position Title & Program:	Instructional Laboratory Technician
Basic Job Description:	Under general supervision, provides non-instructional technical support for instructional laboratories. Prepares and issues instructional materials, supplies and equipment; maintains organization and storage of all materials, supplies and equipment in stock room and laboratories; assists with chemical hygiene, waste disposal and laboratory safety programs.
Rationale:	Each semester, the Biology Department runs dozens of sections of laboratory courses from early morning to late night and Saturdays. These sections cover 10 different subjects. We currently have only one technician servicing all of those sections and there is not adequate time to properly do the job with only one

technician.

Budget request amount:	$50,000.00
Priority:	High

Objective: Modernize technology and equipment to serve the district needs.

No actions specified

5.4 FULL-TIME ADMINISTRATOR REQUEST

5.5 FACILITIES REQUEST

Actions

Biology Majors Action Plan 2018 - 2019

Objective

Objective: Maintain current high levels of student successful course completion.
Expand enrollment by offering additional sections, especially of Biol 200.

Action: Remodel S 102

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	Addition of two sinks with water, electrical outlets, internet access and twelve students desks with electrical outlets to current room. This remodel would allow the room to be used for traditional laboratory classes and may increase the departments enrollment numbers. Currently, we could fill more class sections but we don't have the lab space to conduct them. Biology lost a lab room many years ago when the science building was remodeled.
Budget request amount:	$100,000.00
Priority:	Medium

Objective: Modernize technology and equipment to serve the district needs.

Action: Ventilation to preserved animal room

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	Adding adequate ventilation to the preserved animal room. We are fortunate to have a large collection of preserved animals to use in the classroom. Some of these specimens are almost impossible to replace. These specimens need to be stored in a room with adequate ventilation for safety purposes.
Budget request amount:	$25,000.00
Priority:	High

Action: Reconstruct Greenhouse

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	Current greenhouses are not operational for conducting experiments. Students would benefit from ability to conduct experiments over the course of a semester, rather then just having activities that are completed within a 3 hour and 10 minute time frame. Activities could easily be incorporated into the general education curriculum in biology 101 and environmental biology that make use of a functional greenhouse to design and conduct longer term experiment.
Budget request amount:	$20,000.00
Priority:	Low

Action: Remodelling of anatomy/microbiology prep rooms

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	The shared preparation space for anatomy and microbiology labs needs to be remodeeled and upgraded furniture and equipment added to fully provide for the adjacent laboratory spaces. Equipment such as autoclaves and dishwashers together with upgraded storage space and benchtops will faciltate the added student use of the adjacent labs.
Budget request amount:	$100,000.00
Priority:	

Action: S 129 Remodel

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	S129 Remodel for Human Anatomy Lab: a) 6 large rectangular lab resin tables with electrical outlets, internet access b) 30 adjustable height stools c) Storage cabinets for microscope and anatomy models d) Rear and side counter space with resin surface
Budget request amount:	$100,000.00
Priority:	Medium

5.6 TECHNOLOGY REQUEST

Actions

Biology Majors Action Plan 2018 - 2019

Objective

Objective: Maintain current high levels of student successful course completion.

Expand enrollment by offering additional sections, especially of Biol 200.

No actions specified

Objective: Modernize technology and equipment to serve the district needs.

Action: Alternative learning styles S 130

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	Presenting material to students in a variety of formats. Student learning modes vary and current students are more visual and technologically savvy. Subject matter needs to be presented in a variety of formats. Computers are needed in the lab room to allow computer-based exercises as part of lab activities.
Budget request amount:	$6,000.00
Priority:	High

Action: Instructional laptop computers

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	Discipline faculty require instructional laptops to be effective in the classroom. Cost

estimate is for 6 computers.
Many lab rooms in the science building, first floor, have projectors but no supporting computers. Instructors are expected to provide a computer to project power points and show animations, etc. Instructor laptop computers were last issued over 10 years ago and many are no longer functioning.

Budget request amount:	$18,390.00
Priority:	High

5.7 INSTRUCTIONAL EQUIPMENT REQUEST

Actions

Biology Majors Action Plan 2018 - 2019

Objective

Objective: Maintain current high levels of student successful course completion.
Expand enrollment by offering additional sections, especially of Biol 200.

Action: Biology Major's Program Needs

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	Replacement equipment used for the Biology Major's and other programs respirometer replacement (10) ($2,000) lighting for photosynthesis experiments (10) ($500) preserved specimen replacement (vaires by item) ($2,500)
Budget request amount:	$5,000.00
Priority:	High

Action: Biology Major's Program Needs

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	The current microscopes (Rooms S 132) are aging should be scheduled for. replacement (25) ($2,000 each)
Budget request amount:	$50,000.00
Priority:	Medium

Objective: Modernize technology and equipment to serve the district needs.

Action: Anatomy Posters

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	a. Microscope ($20.40/unit; 2X = $40.80) b. Epithelial Tissues ($20.40/unit; 2X = $40.80) c. Connective Tissues ($20.40/unit; 2X = $40.80) d. Cartilage ($20.40/unit; 2X = $40.80) e. Bone ($20.40/unit; 2X = $40.80) f. Blood ($20.40/unit; 2X = $40.80) g. Eye poster ($20.40/unit; 2X = $40.80) h. Spinal nerves ($20.40/unit; 2X = $40.80) i. Ear poster ($20.40/unit; 2X = $40.80) j. Lymphatic system ($20.40/unit; 2X = $40.80) k. Digestive system ($20.40/unit; 2X = $40.80) l. Respiratory system ($20.40/unit; 2X = $40.80) m. Heart ($20.40/unit; 2X = $40.80) n. Blood vessels ($24.48/unit; 2X = $48.96) o. Urinary system ($20.40/unit; 2X = $40.80) p. Reproductive system ($20.40/unit; 2X = $40.80) q. Endocrine System ($20.40/unit; 2X = $40.80)
Budget request amount:	$702.00
Priority:	Medium

Action: Anatomage Virtual Dissection Table

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	The Anatomage Table is the only fully segmented real human 3D anatomy system. Users can visualize anatomy exactly as they would on a fresh cadaver. Individual structures are reconstructed in accurate 3D, resulting in an unprecedented level of real accurate anatomy, dissectible in 3D. The Table allows for exploration and learning of human anatomy beyond what any cadaver could offer.
Budget request amount:	$84,000.00
Priority:	Medium

Action: Audio Visual System in S129

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	See AVS cost breakdown attachment. in pre-health plan

Budget request amount: $21,000.00

Priority: High

Action: Instructional materials, prepared microscope slides

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale: Prepared microscope slides, mostly for replacement of damaged slides.
These slides are used in Principles of Biology, Human Biology, Marine Biology, Microbiology, Anatomy

Replacement Microscope Slides with tax $6,722.80 (noctiluca 12 @ 8.40, Paramecium fission 12 @ 25.00, Paramecium conjugation 12 @ 8.50, Plasmodium falciparum, ring stages 24 @ 24.80, Trypanosoma rhodesiense 12 @ 14.40, Entamoeba histolytica trophozoites 10 @ $12.20, Entamoeba histolytica Cysts 10 @ $11.60, Giardia lamblia 10 @ 12.10, radiolarians 10 $ 5.60, sponge spicules 10 @ $5.20 = $52.20, commercial sponge 10 @ $9.05 = $90.50, Planaria plain and Carbon-Fed 10 @ $11.00 = $110.00, Planaria, Three regions 10 @ $11.70 = $117.00, Taenia pisiformis, composite 20 @ 37.00, Ascaris Lumbricoides Male/Female 10 @ 20.00, Enterobius vermicularis, adult 20 @ 9.50, Trichinella spiralis, encapsulated larvae 18 @ 10.70, clam, glochidia 12 @ 10.10, snail, radula 12 @ 13.20, copepod, male and female 12 @ 14.80, Daphnia 12 @ 9.70, Gammarus 12 @ 8.20, ostracod 12 @ 7.70, insect cornea 12 @ 8.05, sponging type, housefly 12 @ 11.70, starfish 12 @ 7.80, human blood 24 @ 6.37), Adipose Tissue 10 @ 7.00, Hyaline Cartilage 20 @ 7.20, Bone, ground 20 @ $20.00, kidney 10 @ 11.00, smooth muscle 20 @ 8.00, skeletal muscle 20 @ 11.00, nervous tissue 10 @ 7.30, trachea 10 @ 13.70, simple squamous epithelium 10 @ 11.20, simple cuboidal epithelium 10 @ 8.60, simple ciliated columnar epithelium 20 @ 5.90, stratified squamous epithelium 10 @ 8.50, pseudostratified ciliated columnar epithelium 10 @ 9.10, Obelia, hydroids 10 @ 9.10, Obelia meduase 10 @ 10.20

Budget request amount: $6,720.00

Priority: Medium

Action: Laboratory Support Equipment

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale: These items are needed for the operation of the Biology Stockroom to prepare items for the Biology Department Laboratory Courses
21.9 cu. ft. Top Freezer Refrigerator in Stainless Steel 1549
Proficlave PC10 Media Preparator 31,000
Steamscrubber Undercounter 120 6,689
Automatic Pipette Burette Washer, Complete Kit 433
Laboratory Glassware Drying Rack, 72 Place, Removable Pegs, High Impact

Polystyrene (2) 435
FastPette Pipette Controller by Labnet 711
Wood Casework, 2 doors, 42 in. (9) 6,732
Wood Casework, 1 door, 24 in. (3) 1,363
1.6 cu. ft. White All-in-One Vented Electric Washer Dryer Combo with 6-Wash Cycles and Wrinkle Shield 1259

Budget request amount: $50,171.00

Priority: High

Action: Laboratory Support Equipment

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale: This item is needed for the operation of the Biology Stockroom to prepare items for the Biology Department Laboratory Courses
Autoclave Steam Sterilizer 150,000

Budget request amount: $150,000.00

Priority: High

Action: Laboratory Support Equipment

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale: These items are needed for the operation of the Biology Stockroom to prepare items for the Biology Department Laboratory Courses
Fisherbrand Pipet Holder (11) 500
Brother TZE2412PK Label Maker Tapes, 0.7", Black on White, 2/Pack (5) 201
Nalgene 6917-0127 Autoclaving Basket, Polypropylene, 105 x 123 x 154mm, case/6 (5) 787
Nalgene 6917-0230 Autoclaving Basket, Polypropylene, 233 x 230 x 239mm, case/6 228

Budget request amount: $1,716.00

Priority: Medium

Action: Microbiological preparation equipment

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale: The Pre-Health Science program is in need of new autoclaves and proper ventilation

in the prep area.

Budget request amount:	$70,000.00
Priority:	Medium

Action: Microscopes for S129 Anatomy Lab

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	Olympus CX43 ($2,802.00; 25X = $70,050.00)
Budget request amount:	$70,050.00
Priority:	Medium

Action: Microscopic specimen slides

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	Commercially preapared slides of human parasites for Microbiology labs
Budget request amount:	$2,000.00
Priority:	High

Action: New Models for S129 Anatomy Lab (Part 1)

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	1. Anatomical Dolls ($300.00; 6X = $1,800.00) 2. Torso Models a. AS 6: SOMSO Torso with Head and Interchangable Male and Female Genitalia ($16,626.00/unit; 2X = $33,252.00) b. AS 4/1: SOMSO Torso with Head and Interchangable Male and Female Genitalia ($4,448.00/unit; 2X = $8,896.00) c. AS 7: SOMSO Muscular Torso with Head and Open Back ($11,337.00/unit; 2X = $22,674.00) d. AS 23/2: SOMSO Torso with Head and Open Back ($6,303.60/unit; 2X = $12,607.20) 3. Cell Models a. 3B276: 3B The Animal Cell ($385.50/unit; 6X = $2,311.20) 4. Skulls a. QS 3: SOMSO Artificial Skull of a Newborn ($193.20/unit; 6X = $1,159.20) b. QS 3/2: SOMSO Artificial Skull of a Child ($435.60/unit; 6X = $2,613.60) c. QS 3/3: SOMSO Artificial Skull of a Fetus ($98.40/unit; 6X = $590.40)

d. QS 8/318 C+M: SOMSO 18-Part Colored Model of the Skull with Cervical Vertebral Column Hyoid Bone and Muscles of Mastic ($1,323.60/unit; 6X = $7,941.60)
e. QS 65/6: SOMSO Artificial Base of Skull with Arteries ($564.00/unit; 6X = $3,384.00)
5. Vertebrae models
a. BS 28: SOMSO Lumbar Vertebrae (L II) with Lumbar Region of Spinal Cord ($222.00/unit; 6X = 1,332.00)
b. BS 28/1: SOMSO Thoracic Vertebrae (TH II) with Spinal Cord ($180.00/unit; 6X = $1080.00)
c. BS 29: SOMSO Cervical Vertebrae (C VI) with Spinal Cord ($183.60/unit; 6X = $21,101.60)
d. QS 17: SOMSO Vertebrae ($12.00/unit; 6X = $360.00)
e. QS 62: SOMSO Cervical Vertebral Column ($193.20/unit; 6X = $5,796.00)
6. Muscle Fiber Models
a. BS 36/1: SOMSO Skeletal Muscle Fiber with Neuromuscular Junction ($1,376.40/unit; 6X = $8,258.40)
b. BS 36: SOMSO Transversely Striated Muscular Fiber with Moter End-Plate ($730.80/unit; 6X = $4,384.80)

7. Arm/Leg muscles model
a. NS 10: SOMSO Muscles of the Leg with Base of Pelvis ($2,972.40/unit; 6X = $17,834.40)
b. NS 15: SOMSO Muscles of the Arm with Shoulder Girdle ($2,682.00/unit; 6X = $16,092.00)
8. Brain models
a. BS 23/1: SOMSO Brain with Arteries ($1,149.60/unit; 6X = $6,897.60)
b. BS 23/4: SOMSO Brain model with Arteries, Falx Cerebri and Cryoarchitectural Areas ($1,503.60/unit; 6X = $751.80)
c. BS 25/T: SOMSO Transparent Brain Model ($1,663.20/unit; 6X = $9,979.20)
9. Spinal cord cross-section model
a. BS 32/37: SOMSO Spinal Cord with Nerve Brances ($306.00/unit; 6X = $1,836.00)
b. BS 33: SOMSO Spinal Cord with Nerve Branches ($316.80/unit; 6X = $1,900.80)
10. Spinal nerves model
a. BS 31: SOMSO Spinal Cord in Spinal Canal ($1,842.00/unit; 6X = $11,052.00)
11. Ear model
a. DS 3: SOMSO Ear ($445.20/unit; 6X = $2,671.20)
b. DS 10: SOMSO Section through the Central Spiral of the Cochlea ($628.80/unit; 6X = $3,772.80)
c. DS 14: SOMSO Labyrinth ($561.60/unit; 6X = $3,369.60)
d. QS 8/54: SOMSO Artificial Temporal Bone ($498.00/unit; 6X = $2,988.00)
12. Eye model
a. CS1: SOMSO Eyeball ($482.40/unit; 6X = $2,894.40)
b. CS 2/2: SOMSO Eyeball with Part of Orbit ($915.60/unit; 6X = $5,493.60) c. DS 18: SOMSO Ossicles ($216.00/unit; 6X = $1296.00)
13. Nasal and Oral Cavities model
a. FS 5: SOMSO Cavities of Nose, Mouth, and Throat with Larynx ($4,405.20/unit; 6X = $26,431.20)

b. FS 4: SOMSO Median Section of the Cavities of Nose, Mouth, and Throat ($710.40/unit; 6X = $4,262.40)

c. FS 8: SOMSO Tongue ($337.20/unit; 6X = $2,023.20)

14. Digestive System

a. JS 4: SOMSO Stomach ($553.20/unit; 6X = $3,319.20)

b. JS 5: SOMSO Liver ($196.80/unit; 6X = $1,180.80)

c. JS 8: SOMSO Liver and Gall Bladder ($445.20/unit; 6X = $2,671.20)

d. JS 8/1: SOMSO Vasculature Architecture of the Liver ($446.40/unit; 6X = $2,678.40)

e. JS 11: SOMSO Pancreas with Spleen and Duodenum ($355.20/unit; 6X = $2,131.20)

15. Integumentary System

a. KS 1: SOMSO Section of Skin ($829.20/unit; 6X = $4,975.20)

b. KS 3: SOMSO Block Model of Section of Skin ($846.00/unit; 6X = $5,076.00)

16. Articulated Skeletons

a. QS 10/9: SOMSO Artificial Human Skeleton ($3,066/unit; 6X = $18,396.00) b. QS 16: SOMSO Skeleton of Male Pelvis ($153.60/unit; 6X = $921.60)

c. QS 26: SOMSO Skeleton of Female Pelvis ($153.60/unit; 6X = $921.60)

17. Larynx /Trachea model

a. GS 7: SOMSO Larynx ($826.80/unit; 6X = $4,960.80)

b. GS 4/2: SOMSO Larynx with Trachea ($780.00/unit; 6X = $4,680.00)

18. Lung model

a. HS 8/4: SOMSO Bronchial Tree ($307.20/unit; 6X = $1,843.20)

19. Alveoli model

a. HS 23/1: SOMSO Lobule of the Lung ($1,030.80/unit; 6X = $6,184.80)

20. Heart model

a. HS 6/1: SOMSO Heart with Conducting System ($1,188.00/unit; 6X = $7,128.00)

b. HS 1: SOMSO Heart ($1,632.00/unit; 6X = $9,792.00)

c. HS 22: SOMSO Heart on Diaphragm Base ($1,674.00/unit; 6X = $10,044.00)

d. HS 24: SOMSO Fetal Heart ($1,194/unit; 6X = $7,164.00)

e. OS 7/4: SOMSO Total Atrioventricular Canal ($613.20/unit; 6X = $3,679.20)

21. Circulatory system model

b. HS 10: SOMSO Circulatory System ($942.00/unit; 6X = $5,652.00)

c. HS 19/1: SOMSO Lymphatic System ($1,696.80/unit; 6X = $10,180.80) d. HS 25/2: SOMSO Artery and Vein ($1,556.40/unit; 6X = $9,338.40)

e. Vascular Arm ($884.88/unit; 6X = $5,309.28)

Budget request amount:	$390,000.00
Priority:	Medium

Action: New Models for S129 Anatomy Lab (Part 2)

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	22. Urinary system models
	a. LS 1: SOMSO Right Kidney and Adrenal Gland ($274.80/unit; 6X = $1,648.80) b. LS 3: SOMSO Urinary Organs ($1,072.80/unit; 6X = $6,436.80)

23. Nephron model
a. LS 6: SOMSO Nephron ($163.20/unit; 6X = $979.20)
b. LS 7: SOMSO Glomerulus ($274.80/unit; 6X = $1,648.80)
24. Female reproductive model
a. MS 1: SOMSO Median Section of the Female Pelvis ($645.60/unit; 6X = $3,873.60)
b. MS 5: SOMSO Female Genital Organs ($1,042.80/unit; 6X = $6,256.80)
c. MS 7: SOMSO Mammary Gland in Resting Position ($532.80/unit; 6X = $3,196.80)
d. MS 7/1: SOMSO Mammary Gland of a Nursing Woman ($594.00/unit; 6X = $3,564.00)
e. MS 8/1: SOMSO Female Pelvis ($1,885.20/unit; 6X = $11,311.20)
f. MS 12: SOMSO Series Showing Pregnancy ($1,795.20/unit; 6X = $10,771.20)
g. MS 13: SOMSO Pelvis with Uterus in Ninth Month of Pregnancy ($994.80/unit; 6X = $5,968.80)
h. MS 51: SOMSO Relief Model of the Ovary ($558.00/unit; 6X = $3,348.00)
25. Male reproductive model
a. MS 2: SOMSO Median Section of the Male Pelvis ($836.40/unit; 6X = $5,018.40) b. MS 3: SOMSO Male Genital Organs ($1,405.20/unit; 6X = $8,431.20)
26. Neuron model
a. BS 35: SOMSO Neuron ($582.00/unit; 6X = $3,492.00)
b. BS 35/3: SOMSO Model of a Synapse ($412.80/unit; 6X = $2,476.80)

Budget request amount:	$79,000.00
Priority:	Medium

Action: New Slides for Second Anatomy Lab (S129

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	a. Simple squamous epithelium ($6.72; 30X = $201.60) a. Simple cuboidal epithelium ($9.60; 30X = $288.00) b. Simple columnar epithelium ($10.80; 30X = $324.00) c. Pseudostratified ciliated columnar epithelium ($8.04; 30X = $241.20) d. Stratified squamous epithelium ($8.70; 30X = $261.00) e. Stratified cuboidal epithelium ($11.16; 30X = $334.80) f. Stratified columnar epithelium ($9.00; 30X = $270.00) g. Transitional epithelium ($5.64; 30X = $169.20) h. Areolar CT ($8.28; 30X = $248.40) i. Adipose CT ($8.04; 30X = $241.20) j. Reticular CT ($10.02; 30X = $300.60) k. Dense regular CT ($10.50; 30X = $315.00) l. Dense irregular CT ($9.42; 30X = $282.60) m. Dense elastic CT ($8.10; 30X = $243.00) n. Hyaline cartilage ($11.20; 30X = $336.00) o. Fibrocartilage ($10.80; 30X = $324.00) p. Elastic cartilage ($10.80; 30X = $324.00) q. Compact bone ($13.80; 30X = $414.00) r. Spongy bone ($11.70; 30X = $351.00)

s. Scalp ($11.40; 30X = $342.00)
t. Pigmented skin ($8.04; 30X = $241.20)
u. Thick skin ($9.12; 30X = $273.60)
v. Longitudinal/Cross-section of a nerve ($6.96; 30X = $208.80) w. Astrocytes ($21.00; 30X = $630.00)
x. Spinal cord Cross-section ($9.30; 30X = $279.00)
y. Neurons ($6.30; 30X = $189.00)
z. Cochlea ($16.20; 30X = $486.00)
aa. Jejunum ($9.42; 30X = $282.60)
bb. Artery ($10.80; 30X = $324.00)
cc. Vein ($10.80; 30X = $324.00)
dd. Aorta ($7.62; 30X = $228.60)
ee. Ovary ($8.58; 30X = $257.40)
ff. Testes/Seminiferous tubules ($8.40; 30X = $252.00)
gg. Semen ($10.74; 30X = $322.20)
hh. Smooth muscle ($9.60; 30X = $288.00)
ii. Skeletal muscle ($8.70; 30X = $261.00)
jj. Cardiac muscle ($9.90; 30X = $297.00)
kk. Kidney ($10.80; 30X = $324.00)

Budget request amount:	$11,000.00
Priority:	High

5.8. BUDGET AUGMENTATION REQUEST

Actions

Biology Majors Action Plan 2018 - 2019

Objective

Objective: Maintain current high levels of student successful course completion.
Expand enrollment by offering additional sections, especially of Biol 200.

No actions specified

Objective: Modernize technology and equipment to serve the district needs.

Action: Revise Environmental Biology lab

This Action is associated with the following Findings

No supporting Findings have been linked to this Action.

Rationale:	This lab has not undergone a complete update in more than 10 years. Some activities predate that revision. Current Full-Time Faculty are working on revisions,

but the process is slow as a faculty member with a full load doesn't have free time to devote themselves exclusively to this project. Perhaps a stipend to work on updating laboratory activities would attract input from Part-Time Faculty.

Environmental Biology was once one of the departments more popular offerings. Enrollment and success has dropped in the last 5 years. The subject matter is relevant and should be of interest to many students. Time needs to be invested in updating the lab activities and more oversight of the course as a whole is needed by full-time faculty.

Budget request amount:	$2,500.00
Priority:	Medium

6. Program Plan Submission

6.1. ANNUAL PROGRAM PLAN ATTACHMENT

Appendix

A. **BIOL 200 CTL Fall 2020.pdf** (Adobe Acrobat Document)
B. **BIOL 201 CTL Fall 2020.pdf** (Adobe Acrobat Document)
C. **Six-Year Course Outcomes Assessment Timeline_Fall 2020.pdf** (Adobe Acrobat Document)
D. **BIOL 206 CTL Fall 2020.docx** (Word Document (Open XML))