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 UNIT GOAL SECTION  
 (Principles (II) / Rubric Items: **1, 2, 9, 10**)

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 PLANNED ACTION SECTION  
 (Principles (II) / Rubric Items: **8, 11**)

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 RESOURCE REQUEST SECTION  
 (Principles (II) / Rubric Items: **3, 7, 12**)



## Science - Biological Sciences

Unit Goal	Planned Action	Resource Request
Development of the Biological Science Di	Adopt virtual teaching tools and methodo	Purchase of Virtual Anatomy Software
Development of the Biological Science Di	Adopt virtual teaching tools and methodo	Purchase of Bio-Pac Virtual Physiology L
Creation of a Laboratory Science Technic	Creation of a basic skills biotechnology	Increase of Biological Sciences Lab Tech
Creation of a Laboratory Science Technic	Creation of a basic skills biotechnology	Purchase of Cell Imaging system

### Unit Goal

Development of the Biological Science Di	
PROVIDE A FULL DESCRIPTION OF THE GOAL	
Unit Goal	Development of the Biological Science Division's Virtual Teaching Methodologies
Goal Number	1
Description of the Goal	Goal 1 is the improvement of virtual teaching tools to be used with many of the existing traditional teaching methods already in use by the Division. These virtual tools will be used by our Anatomy and Physiology faculty. In addition, Goal 1 also describes the development of additional hybrid courses to our curriculum. This Goal is specific, realistic and attainable within a timely frame. It is also measurable as student enrollment, retention and success rates would improve with these modern teaching tools. It also links to several aspects of the Colleg* s Master Ed Plan.
Goal Initiation Year (YYYY)	2015
Goal Timeline	More than 1 year but less than 3 years
Goal Current Priority	

Describe the primary measurable objective for this goal. This is the measure that will assess the degree to which the goal has been met.	<p>A. The first measurable objective would be an increase in student enrollment within the Biological Sciences Division. The inclusion of more advanced teaching methods, such as virtual tools, would attract a wider range of students that wish to incorporate these methodologies into their learning. Offering more hybrid classes would also allow us to enroll students who wish to take our classes but cannot attend traditionally scheduled classes.</p> <p>B. The second measurable objective would be an increase in student success. While our overall Division success rate of 65% is on par with that of the college, success rates could improve. Offering non-traditional hybrid classes could improve student retention and success in Biology and Physiology by allowing students to view on-line lectures multiple times and on their own schedule. Incorporating virtual teaching tools to Anatomy and Physiology would also allow professors to make their teaching topics more relevant and impact their students' success without the need for</p>
Goal Status	
DESCRIBE THE NEED THIS GOAL ADDRESSES	
What issues, problems, or opportunities identified in your Program Review will this Goal address?	Enrollment trends over the last 5 years have recorded a steady decline in the success of those students who are enrolled in Physiology and Microbiology. In Anatomy, this decline was reversed last year a year the course saw a significant infusion of new teaching equipment. In Biology, success rates have remained constant over the last 5 years, with the hybrid format consistently posting higher levels of success versus conventional classroom. As such, this Unit Goal proposes the improvement of our Life Science courses through the creation of new hybrid sections and more modern teaching tools. Virtual dissection tools, in conjunction with our cadaver and models, would allow Anatomy faculty to teach human anatomy at a more relevant and advanced level without the need for cat dissections an anatomy tool that is outdated, expensive and can pose a significant biohazard following use. Virtual physiology programs like BIO-PAC would have a significant impact on our physiology students' success as it would allow our
What SLO assessment / reflection will this Goal address?	This Unit Goal directly addresses the Institution SLO of Technological Competence: Utilize the appropriate technology effectively for informational, academic, personal, and professional needs. The use of virtual teaching tools would allow faculty to impact the academic outcome of their classes. It would also allow the students themselves to improve their own academic needs. This Unit Goal also applies to the Biology Program SLO #2: Explain how living things are organized, (reproduce, acquire matter & energy and inherit & express genetic information). Specifically these virtual tools would allow faculty to more easily explain how living things are organized.
WITH WHICH EDUCATIONAL MASTER PLAN	
STRATEGIC DIRECTIONS OR STRATEGIC GOALS	
DOES THIS UNIT GOAL ALIGN?	
AT LEAST 1 DIRECTION/GOAL MUST BE CHOSEN	
USE THE 'LINK' BOX ABOVE TO LINK GOALS.	
EMP Strategic Direction 1: Dedication to Learning	Yes
Goal 1.1: Improve student achievement, both overall & among historically lower-achieving groups.	No

Goal 1.2: Create a culture in which faculty develop & apply expertise in proven, effective learner-centered teaching strategies.	Yes
Goal 1.3: Foster ethical & affective development as well as cognitive development in all student populations.	No
Goal 1.4: Inspire & increase the rate of faculty, staff, & administrators' involvement in professional learning activities.	No
EMP Strategic Direction 2: Culture of Continuous Improvement	Yes
Goal 2.1: Strengthen the processes for assessment & improvement of student learning outcomes & service area outcomes.	No
Goal 2.2: Systematize the evaluation & improvement of West's effectiveness, focusing on planning & resource allocation processes.	No
Goal 2.3: Exercise financial stewardship that ensures fiscal stability while supporting educational excellence & the College mission.	No
Goal 2.4: Enhance & maintain facilities & technology to promote effective teaching & learning.	Yes
EMP Strategic Direction 3: Programs and Services Responsive to Student Needs	No
Goal 3.1: Create clear completion pathways.	No
Goal 3.2: Develop & implement systematic services to help at-risk students identify goals early	No
Goal 3.3: Prepare students to enter a competitive workforce.	No
Goal 3.4: Enhance curriculum vitality, viability & relevance.	No
EMP Strategic Direction 4: Collaboration, Engagement, and Respect	No
Goal 4.1: Be collegial.	No
Goal 4.2: Eliminate organizational silos.	No
Goal 4.3: Celebrate the achievements of our entire community.	No
EMP Strategic Direction 5: Connections with Communities	No
Goal 5.1: Forge effective alliances with local schools, organization & individuals.	No
Goal 5.2: Open the College to the world.	No
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PLEASE COMPLETE ONE OF THE FOLLOWING	
SETS OF QUESTIONS DEPENDING ON THE	
STATUS OF THIS GOAL	
1) EVALUATION OF "IN PROGRESS" GOAL	

*****	
Estimate the % completion of this goal	
Describe the successes has the division/program/service had to date in the accomplishment of this goal.	
Describe the challenges has the division/program/service had to date in the accomplishment of this goal.	
2) EVALUATION OF "MODIFIED" GOAL	
*****	
Why was the goal modified?	
3) EVALUATION OF "COMPLETED" GOAL	
*****	
when was work on the goal completed? (year)	
Describe what was done to complete the goal.	
Evaluate the effectiveness of implementing the goal. Describe the impact on the division/program/service and on student success that completion of the goal has had.	
What would the division/program/service do differently in the future based on the evaluation of the success in implementing this goal?	
Will completion of this goal lead to developing another goal? If so, describe the new goal.	

Linked Planning Objects			
Link Type	Planning Object	Planning Element	User Description
Internal Link	Planned Action	Adopt virtual teaching tools and methods	

Planning Element Impacts			
Impact Type	Level Name	Is Impacted?	User Description
Level Impact	Strategic Goal 2.4: Enhance facilities & technology to		Impact student learning with more modern methodologies

Creation of a Laboratory Science Technic	
PROVIDE A FULL DESCRIPTION OF THE GOAL	
Unit Goal	Creation of a Laboratory Science Technician Certificate
Goal Number	2

Description of the Goal	Goal 2 is a modification of Goal 1 from last year's PR Development and Implementation of a Biotechnology Course. Before creating such a rigorous course, the Division will first create a basic skills course in the upcoming year that will become part of a future CTE Laboratory Science Technician Program. This Goal is a response to several reports that show technologies like Biotechnology are expanding within LA County. Goal 2 directly addresses this trend through the creation of a one-semester basic skills course that will give our students hands-on skills training. Subsequent semesters will see the addition of other courses to create a Laboratory Science Technician Program. The creation of this basic skills course and the eventual development of a Laboratory Science Technician Program is specific and measurable (in enrollment). Since it involves the creation of one course at this point and would use existing equipment, it is also attainable, realistic and timely.
Goal Initiation Year (YYYY)	2016
Goal Timeline	More than 1 year but less than 3 years
Goal Current Priority	1
Describe the primary measurable objective for this goal. This is the measure that will assess the degree to which the goal has been met.	<p>A. One measurable objective would be the enrollment of students in this Basic Skills course. An enrollment level of 18 students is targeted with a maximum enrollment of 24.</p> <p>B. The second measurable objective would be the eventual enrollment of students in a newly created Laboratory Science Technician CTE program and the awarding of certificates to successful students</p> <p>C. The third measurable objective would be an improved relationship with local businesses as successful students acquire positions within appropriate companies.</p> <p>D. A fourth measurable objective might be the retention of these students in the Division as they remain as enrolled students to take additional offerings.</p>
Goal Status	Changed
DESCRIBE THE NEED THIS GOAL ADDRESSES	
What issues, problems, or opportunities identified in your Program Review will this Goal address?	This year's Program Review describes the current state of the Biotech workforce in LA County and surrounding areas. Both Degree/Certificate Trends and Curriculum Impact describe a unique and significant opportunity that has been identified for LA community colleges in the training of workers. This training would provide our students with the relevant middle skills for employment in this workforce. As middle skills workers have a high school education but do not require a bachelor's degree, community colleges have been identified as a source of additional workers for these companies. Numerous colleges in the LA area, including those in the LACCD are now offering Biotechnology programs and basic skills courses to provide students with this middle skills training. West LA College is well positioned to begin the training of these workers. The offering of Biology 285 this past summer has provided the Division with valuable information as to how these workers can be effectively trained. This Unit Goal is a dire

What SLO assessment / reflection will this Goal address?	This Unit Goal directly addresses the Institution SLO of Technological Competence: Utilize the appropriate technology effectively for informational, academic, personal, and professional needs. The creation of a Laboratory Science certificate program would train lab technicians in the most relevant and modern of laboratory procedures, including the use of modern laboratory technology. Such training would have a direct impact on the student's academic and professional needs as they are given training that would directly impact the success within the workforce. This Unit Goal also applies to the Biology Program SLO #5: Perform basic laboratory procedures.
WITH WHICH EDUCATIONAL MASTER PLAN	
STRATEGIC DIRECTIONS OR STRATEGIC GOALS	
DOES THIS UNIT GOAL ALIGN?	
AT LEAST 1 DIRECTION/GOAL MUST BE CHOSEN	
USE THE 'LINK' BOX ABOVE TO LINK GOALS.	
EMP Strategic Direction 1: Dedication to Learning	Yes
Goal 1.1: Improve student achievement, both overall & among historically lower-achieving groups.	Yes
Goal 1.2: Create a culture in which faculty develop & apply expertise in proven, effective learner-centered teaching strategies.	No
Goal 1.3: Foster ethical & affective development as well as cognitive development in all student populations.	No
Goal 1.4: Inspire & increase the rate of faculty, staff, & administrators' involvement in professional learning activities.	No
EMP Strategic Direction 2: Culture of Continuous Improvement	No
Goal 2.1: Strengthen the processes for assessment & improvement of student learning outcomes & service area outcomes.	No
Goal 2.2: Systematize the evaluation & improvement of West's effectiveness, focusing on planning & resource allocation processes.	No
Goal 2.3: Exercise financial stewardship that ensures fiscal stability while supporting educational excellence & the College mission.	No
Goal 2.4: Enhance & maintain facilities & technology to promote effective teaching & learning.	No
EMP Strategic Direction 3: Programs and Services Responsive to Student Needs	Yes
Goal 3.1: Create clear completion pathways.	No
Goal 3.2: Develop & implement systematic services to help at-risk students identify goals early	No
Goal 3.3: Prepare students to enter a competitive workforce.	Yes
Goal 3.4: Enhance curriculum vitality, viability & relevance.	Yes
EMP Strategic Direction 4: Collaboration, Engagement, and Respect	No

Goal 4.1: Be collegial.	No
Goal 4.2: Eliminate organizational silos.	No
Goal 4.3: Celebrate the achievements of our entire community.	No
EMP Strategic Direction 5: Connections with Communities	Yes
Goal 5.1: Forge effective alliances with local schools, organization & individuals.	Yes
Goal 5.2: Open the College to the world.	No
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PLEASE COMPLETE ONE OF THE FOLLOWING	
SETS OF QUESTIONS DEPENDING ON THE	
STATUS OF THIS GOAL	
1) EVALUATION OF "IN PROGRESS" GOAL	
*****	
Estimate the % completion of this goal	
Describe the successes has the division/program/service had to date in the accomplishment of this goal.	
Describe the challenges has the division/program/service had to date in the accomplishment of this goal.	
2) EVALUATION OF "MODIFIED" GOAL	
*****	
Why was the goal modified?	Recent workforce analysis has identified a unique opportunity for community colleges - the training of workers with middle skills who have high school degrees but do not require bachelor's degrees for employment. Successful students with these skills could apply for jobs in the biotech, pharmaceutical and basic science research fields and earn a median wage of \$20 per hour. While the Division still wishes to create a more rigorous Biotechnology Program that would contain courses our students could use for transfer or for an associate's degree, the modification of last year's Unit Goal to the current one is a response to this workforce analysis. This modified Goal would be started through the creation of a 4 unit Basic Skills course that would use existing Biology and Chemistry equipment and facilities, thus allowing the Division to start enrolling students as early as spring 2016. This course would form the basis for a CTE program offering a 12-unit certificate.
3) EVALUATION OF "COMPLETED" GOAL	
*****	
when was work on the goal completed? (year)	
Describe what was done to complete the goal.	

Evaluate the effectiveness of implementing the goal. Describe the impact on the division/program/service and on student success that completion of the goal has had.	
What would the division/program/service do differently in the future based on the evaluation of the success in implementing this goal?	
Will completion of this goal lead to developing another goal? If so, describe the new goal.	

Linked Planning Objects			
Link Type	Planning Object	Planning Element	User Description
Internal Link	Planned Action	Creation of a basic skills biotechnology	

Planning Element Impacts			
Impact Type	Level Name	Is Impacted?	User Description
Level Impact	Objective 2.4.3		Introduction of up to date equipment
Level Impact	Objective 5.1.3		Establish strong connections with local Biotech businesses
Level Impact	Strategic Goal 2.4: Enhance facilities & technology to		Introduction of new equipment to Division
Level Impact	Strategic Goal 3.3: Prepare students to enter a		Students will be given skills in demand in today's workforce

Improve the multi-disciplinary approach	
PROVIDE A FULL DESCRIPTION OF THE GOAL	
Unit Goal	Improve the multi-disciplinary approach to the Biological Sciences curriculum
Goal Number	3
Description of the Goal	This Goal describes the creation of multi-disciplinary courses such as Biophysics and Bioengineering. These cross-over classes would offer our students a unique perspective on Biological Sciences by emphasizing how closely linked each of the major scientific fields are. They also fulfill many of the College's Master Ed plans. Specifically, section 1.1 improvement of student achievement through expansion of the science curriculum; Section 2.4 enhancement of facilities and technology through the purchase of new lab equipment and Section 3.3 preparation of students to enter a competitive workforce by providing our students with a strong academic foundation, in addition to hands-on laboratory skills that many science companies seek in prospective employees. Courses such as Biophysics would be taught by current Physics faculty or could be taught by a new Biosciences faculty hire.
Goal Initiation Year (YYYY)	2016
Goal Timeline	More than 1 year but less than 3 years
Goal Current Priority	3



Describe the primary measurable objective for this goal. This is the measure that will assess the degree to which the goal has been met.	A. One measurable objective would be the creation of a Biophysics course that would be taught by existing Physics faculty and/or a new Biosciences hire. This course would be taken by students in both the Life Sciences and Physical Sciences Divisions. As such, this objective would increase both the number of classes taught within the Science Division as a whole and its enrollment levels.
Goal Status	
DESCRIBE THE NEED THIS GOAL ADDRESSES	
What issues, problems, or opportunities identified in your Program Review will this Goal address?	Staffing Trends and Curriculum Impact describes the rationale for offering multi-disciplinary classes like Biochemistry and Biophysics. It also describes the need for the hiring of a Biosciences faculty member. The Program Review also describes the rationale for the addition of other multi-disciplinary courses like Biophysics and Bioengineering.
What SLO assessment / reflection will this Goal address?	This Unit Goal directly addresses the Institution SLO of Technological Competence: Utilize the appropriate technology effectively for informational, academic, personal, and professional needs. Today's technology is often a blending of more than one scientific field. The creation of multi-disciplinary courses like Biophysics and Bioengineering and the hiring of a Biosciences faculty member addresses this shift in technology and serves a growing need in today's academic environment.
WITH WHICH EDUCATIONAL MASTER PLAN	
STRATEGIC DIRECTIONS OR STRATEGIC GOALS	
DOES THIS UNIT GOAL ALIGN?	
AT LEAST 1 DIRECTION/GOAL MUST BE CHOSEN	
USE THE 'LINK' BOX ABOVE TO LINK GOALS.	
EMP Strategic Direction 1: Dedication to Learning	Yes
Goal 1.1: Improve student achievement, both overall & among historically lower-achieving groups.	No
Goal 1.2: Create a culture in which faculty develop & apply expertise in proven, effective learner-centered teaching strategies.	No
Goal 1.3: Foster ethical & affective development as well as cognitive development in all student populations.	No
Goal 1.4: Inspire & increase the rate of faculty, staff, & administrators' involvement in professional learning activities.	No
EMP Strategic Direction 2: Culture of Continuous Improvement	Yes
Goal 2.1: Strengthen the processes for assessment & improvement of student learning outcomes & service area outcomes.	No
Goal 2.2: Systematize the evaluation & improvement of West's effectiveness, focusing on planning & resource allocation processes.	No
Goal 2.3: Exercise financial stewardship that ensures fiscal stability while supporting educational excellence & the College mission.	No
Goal 2.4: Enhance & maintain facilities & technology to promote effective teaching & learning.	Yes

EMP Strategic Direction 3: Programs and Services Responsive to Student Needs	Yes
Goal 3.1: Create clear completion pathways.	No
Goal 3.2: Develop & implement systematic services to help at-risk students identify goals early	No
Goal 3.3: Prepare students to enter a competitive workforce.	Yes
Goal 3.4: Enhance curriculum vitality, viability & relevance.	Yes
EMP Strategic Direction 4: Collaboration, Engagement, and Respect	No
Goal 4.1: Be collegial.	No
Goal 4.2: Eliminate organizational silos.	No
Goal 4.3: Celebrate the achievements of our entire community.	No
EMP Strategic Direction 5: Connections with Communities	No
Goal 5.1: Forge effective alliances with local schools, organization & individuals.	No
Goal 5.2: Open the College to the world.	No
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PLEASE COMPLETE ONE OF THE FOLLOWING	
SETS OF QUESTIONS DEPENDING ON THE	
STATUS OF THIS GOAL	
1) EVALUATION OF "IN PROGRESS" GOAL	
*****	
Estimate the % completion of this goal	
Describe the successes has the division/program/service had to date in the accomplishment of this goal.	
Describe the challenges has the division/program/service had to date in the accomplishment of this goal.	
2) EVALUATION OF "MODIFIED" GOAL	
*****	
Why was the goal modified?	
3) EVALUATION OF "COMPLETED" GOAL	
*****	
when was work on the goal completed? (year)	
Describe what was done to complete the goal.	

Evaluate the effectiveness of implementing the goal. Describe the impact on the division/program/service and on student success that completion of the goal has had.	
What would the division/program/service do differently in the future based on the evaluation of the success in implementing this goal?	
Will completion of this goal lead to developing another goal? If so, describe the new goal.	

Planning Element Impacts			
Impact Type	Level Name	Is Impacted?	User Description
Level Impact	Objective 5.2.1		Improvement of Environmental Science Course to better illustrate global concepts
Level Impact	Strategic Goal 3.3: Prepare students to enter a		Addition of multi-disciplinary courses provide students with unique education and training
Level Impact	Strategic Goal 3.4: Enhance curriculum vitality, viability &		Addition of multi-disciplinary courses in response to advances in science

## Planned Action

Adopt virtual teaching tools and methodo	
PROVIDE BASIC INFORMATION FOR	
EACH PLANNED ACTION	Expand Support of Life Science Curriculum
Planned Action	Adopt virtual teaching tools and methodologies for biological science curriculum
Action Number	1
Provide a description of this action. Include the critical steps required to accomplish this action.	To implement this Goal, the Division will purchase tablets (e.g. Microsoft Surface or Apple iPads) together with virtual human dissection tools and tablet apps that our anatomy students can use with existing human models and the cadaver. To improve our physiology program, the Division will purchase the virtual physiology lab system BIO-PAC. Bio-PAC will replace the time-consuming and complicated physiology experiments that frequently do not perform well and are often omitted from the curriculum. In addition to purchasing these virtual teaching tools, the Division will also expand its offerings of hybrid classes. Such courses would be added to the one hybrid section of Biology 3 that is already offered and is very successful. Additional hybrid classes for Biology 3 would be added, in addition to hybrid classes for Physiology and Biology 7. These hybrid classes would be comprised of on-line lectures, together with in-class lecture discussions and laboratories based on these lectures.
What are the expected measurable results of the Action?	<ul style="list-style-type: none"> <li>A. Increased performance and success rates of our anatomy students within this discipline</li> <li>B. Increased enrollment within our anatomy division from outside students</li> <li>C. Increased retention and enrollment within other health science pre-requisites e.g. physiology, microbiology</li> <li>D. Increased interaction with other campus divisions such as the Allied Health Division</li> </ul>
Action Initiation Year	2016

Action Priority	1
Action Status	New
Are additional resources needed by the Division/ Department / Program in order to accomplish the Action?	Yes

Linked Planning Objects			
Link Type	Planning Object	Planning Element	User Description
Internal Link	Unit Goal	Development of the Biological Science Di	
Internal Link	Resource Request	Purchase of Virtual Anatomy Software	
Internal Link	Resource Request	Purchase of Bio-Pac Virtual Physiology L	

Planning Element Impacts			
Impact Type	Level Name	Is Impacted?	User Description
Level Impact	Distance Learning		development of hybrid formats for biology courses
Level Impact	Strategic Goal 2.4: Enhance facilities & technology to		Addition of more up to date teaching methodologies to better impact student success

Creation of a basic skills biotechnology	
PROVIDE BASIC INFORMATION FOR	
EACH PLANNED ACTION	Expand Support of Life Science Curriculum
Planned Action	Creation of a basic skills biotechnology course for lab science certificate
Action Number	2
Provide a description of this action. Include the critical steps required to accomplish this action.	The first step in creating a Laboratory Science Technician Program will be the creation of a 4-unit Basic Skills course (e.g. Biotech 001) that would form the core of this program and is the focus of Goal 2. This course is planned for the fall of 2016 and would train students in basic laboratory procedures that are commonly used in a wide range of biotechnology, pharmaceutical and basic science research laboratories. This lecture/lab course would use existing Biology 6 and Biology 285/STEM materials, in addition to newer pieces of equipment. Additional courses would be added over time to this Basic Skills course, forming a 12-unit Laboratory Science Technician CTE program which you give students training that they could use to apply for middle skills jobs. This CTE program would offer certificates to its successful students. This course would be taught by Biology faculty or by a new Biosciences faculty member that would take a leading role in developing and implementing this program.

What are the expected measurable results of the Action?	A. Development and curriculum approval of Biotech Basic Skills course curriculum over the upcoming spring semester B. Enrollment of students in fall 2016 with a target of 12 to 18 students within the first year of its implementation would be acceptable. Expansion of enrollment to 24 students per semester would be the ultimate goal. C. Increased retention of many of our Biology and Chemistry students here at West as they remain at the college to take this Biotech course. D. Increased enrollment in our other Biological Sciences courses as Biotech students remain on campus to take other courses within the Division
Action Initiation Year	2016
Action Priority	2
Action Status	New
Are additional resources needed by the Division/ Department / Program in order to accomplish the Action?	Yes

Linked Planning Objects			
Link Type	Planning Object	Planning Element	User Description
Internal Link	Unit Goal	Creation of a Laboratory Science Technic	
Internal Link	Resource Request	Increase of Biological Sciences Lab Tech	
Internal Link	Resource Request	Purchase of Cell Imaging system	

Planning Element Impacts			
Impact Type	Level Name	Is Impacted?	User Description
Level Impact	Strategic Goal 5.1: Forge effective alliances with local		work with local biotech businesses to effectively train successful students
Level Impact	Strategic Goal 3.3: Prepare students to enter a		provide students with critical middle skills for biotech workforce
Level Impact	Strategic Goal 2.4: Enhance facilities & technology to		use of modern and relevant teaching methods to train students in current biological processes

Develop and enhance multi-disciplinary c	
PROVIDE BASIC INFORMATION FOR	
EACH PLANNED ACTION	Expand Support of Life Science Curriculum
Planned Action	Develop and enhance multi-disciplinary classes for biological science students
Action Number	3

Provide a description of this action. Include the critical steps required to accomplish this action.	This year will see consultation between the Biological Sciences and Physics faculty and the creation of a possible curriculum for a Biophysics course. New Bioscience and Physics hires will be an integral part of its development. A COR will be created for this new course and brought before the curriculum committee for approval. To expand and improve Environmental Sciences and how it intersects with Biology 10, faculty from Biology and Environmental Science will meet in order to identify and create key labs that both Field Biology and Environmental Science students would perform in their respective courses. Input from the Chemistry department will also be sought. Env Sci and Field Biology will participate in the establishment of a shared laboratory space containing common pieces of equipment shared between the two courses. This equipment will be purchased and is outlined in the attached Resource Request.
What are the expected measurable results of the Action?	A. Creation and utilization of a Field Biology/Environmental Sciences lab capable of modern environmental testing. B. Development of a Biophysics curriculum ready for implementation in 2016/2017 academic year
Action Initiation Year	2016
Action Priority	1
Action Status	New
Are additional resources needed by the Division/ Department / Program in order to accomplish the Action?	No

Linked Planning Objects			
Link Type	Planning Object	Planning Element	User Description
Internal Link	Resource Request	Development of a Field Biology/Environme	
Internal Link	Resource Request	Purchase of Biophysics Laboratory Equipm	

Planning Element Impacts			
Impact Type	Level Name	Is Impacted?	User Description
Level Impact	Strategic Goal 3.4: Enhance curriculum vitality, viability &		new multidisciplinary courses in response to advances in science

The Hiring of a Bio-Sciences Faculty	
USE THE 'LINK' BOX ABOVE TO LINK EACH	
PLANNED ACTION WITH 1 OR MORE	Expand Support of Life Science Curriculum
UNIT GOALS & RESOURCE REQUESTS IF NEEDED	Develop and enhance multi-disciplinary classes for biological science students
.	3

PROVIDE BASIC INFORMATION FOR	This year will see consultation between the Biological Sciences and Physics faculty and the creation of a possible curriculum for a Biophysics course. New Bioscience and Physics hires will be an integral part of its development. A COR will be created for this new course and brought before the curriculum committee for approval. To expand and improve Environmental Sciences and how it intersects with Biology 10, faculty from Biology and Environmental Science will meet in order to identify and create key labs that both Field Biology and Environmental Science students would perform in their respective courses. Input from the Chemistry department will also be sought. Env Sci and Field Biology will participate in the establishment of a shared laboratory space containing common pieces of equipment shared between the two courses. This equipment will be purchased and is outlined in the attached Resource Request.
EACH PLANNED ACTION	A. Creation and utilization of a Field Biology/Environmental Sciences lab capable of modern environmental testing. B. Development of a Biophysics curriculum ready for implementation in 2016/2017 academic year
Action Number	1
Provide a description of this action. Include the critical steps required to accomplish this action.	With increasing technology, comes increasing interactions among the major Science fields (i.e. Biology, Chemistry, Physics). Fields such as Biochemistry are long-standing and well established fields of study. Within the last decade, additional multi-disciplinary fields such as Environmental Science, Biotechnology, Biophysics and Bio-engineering have become very popular. As a result, the Biological Science Division needs to keep pace with such changes in the science curriculum if it wishes to continue to adequately prepare students for transfer to upper level academic institutions and professional schools, or simply transitioning graduates into work force as mid-level professional in the biotechnology industry..
What are the expected measurable results of the Action?	1. creation of a Biotech program by establishing a more formal Certificate program: (a) the creation of a basic skills course and (b) the eventual development of a Laboratory Science Technician certificate. This CTE certificate would be part of our Biotech program and would attract many new students to the campus.  2. large numbers of students entering clinical programs, such as nursing, respiratory therapy, physical therapy, or other advanced programs, including medical, dental and pharmacy schools.
Action Initiation Year	2016
Action Priority	1
Action Status	New
Are additional resources needed by the Division/ Department / Program in order to accomplish the Action?	No

**Resource Request**

Purchase of Virtual Anatomy Software	<b>*** RR # 51 ***</b>
USE THE 'LINK' BOX ABOVE TO LINK EACH	Purchase additional indoor and outdoor education equipment/materials

RESOURCE REQUEST WITH 1 OR MORE	Purchase additional indoor and outdoor education equipment/materials (each classroom \$ 5,000 X 3 = 15,000) based on the Thelma Harms Rating scale, which will include having both indoor & outdoor learning centers (math, science, art, language, dramatic play, etc.) and having additional gross motor materials, helmets, bikes, etc.).
PLANNED ACTION.	Non-Salary
.	One-Time
PROVIDE A DESCRIPTION OF THE REQUEST	6
Provide a description of the Resource Request	This resource request outlines the purchase of 8 tablet computers loaded with clinically relevant virtual anatomy software programs and apps for the teaching of human anatomy by means of more modern methodologies.
Resource Request Status	New
Type of Request	Non-Salary
Funding Type	One-Time
Resource Request Priority	1
Does this Resource Request meet requirements for health, safety and essential services?	No
If yes, cite the requirement details.	
Does this Resource Request meet local, state or federal regulations or other mandates?	No
If yes, cite the relevant Regulations.	
DETAILED COST BREAKDOWN	
*****	
CERTIFICATED SALARY (INCL. FPIP)(100000)	
Position Title	
Class Code	
Check ONE appropriate category based on the majority of the assigned classes. (Note: If none of these categories applies, select Student and Instructional Support Service category.)	
How will this position support or sustain other disciplines and programs?	
Type	
Total Cost of Certificated Benefits	
Total Cost of Certificated Salaries	
CLASSIFIED SALARIES (200000)	
Position Title	
Class Code	
Basis	



Shift	
Permanent or temporary	
Rate	
Hours per pay period	
UNCLASSIFIED SALARIES (200000)	
Assignment	
Rate	
Hours per Pay Period	
NON-SALARY COSTS	
Instructional media materials (Supplies and Printing, 400000)	\$800
Non-instructional supplies (Supplies and Printing, 400000)	
Printing/copying (Supplies and Printing, 400000)	
Equipment (Instructional and non-instructional) (Capital Outlay, 600000)	\$5,400
Maintenance of equipment )Other Operating Expense, 500000)	
Contracts/personal services (Other Operating Expense, 500000)	
Alteration and improvement (A & I) (Capital Outlay, 600000)	
Other Expense:	
Other expense GL Account:	
TOTAL FIRST YEAR COST OF REQUEST (EST.)	
Total estimated cost for the first year of the resource request	\$6,200
ADDITIONAL COMMENTS	
Please note all sources for cost information for the Resource Request that serves to justify the estimated expense.	<p>This Resource Request of \$6200 is for the purchase of 8 Microsoft Surface 3 tablets at a reduced educational cost of \$540 per unit plus the purchase of relevant and modern virtual anatomy programs and tablet apps. Since many programs and apps are reasonably priced (approximately \$20) they must be purchased for each individual tablet. Therefore, a cost of \$100 per tablet is requested for these programs and apps.</p> <p>Microsoft Surface 3 Tablet (128GB, 4GB RAM, Wi-Fi) = \$540.00 with educational discount - 8 total = \$4320.00  Microsoft Surface 3 Pen = \$45.00 with educational discount - 8 total = \$360.00  Virtual anatomy programs &amp; apps - \$100 per tablet = \$800  Total cost (without taxes) = \$5480  Anticipated Total cost (with taxes &amp; shipping) = \$6200</p>
What are the proposed funding sources?	Grants

Please provide any additional information that was not covered above.	Acland Anatomy Iso-form Bone Box Essential Anatomy 5 - 3d4 medical suite inc. Muscle System Pro - 3d4 medical suite inc. Human Anatomy Atlas - Visible body
Resource Request Responsible Person(s)	Patricia Zuk, PhD Bryon Curletto, MS

Linked Planning Objects			
Link Type	Planning Object	Planning Element	User Description
Internal Link	Planned Action	Adopt virtual teaching tools and methodo	

Planning Element Impacts			
Impact Type	Level Name	Is Impacted?	User Description
Level Impact	Strategic Goal 2.4: Enhance facilities & technology to		Upgrade teaching methodologies to better impact students
Level Impact	Strategic Goal 3.3: Prepare students to enter a		Improve students preparation for professional jobs

<b>Purchase of Bio-Pac Virtual Physiology L</b>		<b>*** RR # 48 ***</b>
USE THE 'LINK' BOX ABOVE TO LINK EACH RESOURCE REQUEST WITH 1 OR MORE PLANNED ACTION.		Purchase additional indoor and outdoor education equipment/materials
PROVIDE A DESCRIPTION OF THE REQUEST	6	Purchase additional indoor and outdoor education equipment/materials (each classroom \$ 5,000 X 3 = 15,000) based on the Thelma Harms Rating scale, which will include having both indoor & outdoor learning centers (math, science, art, language, dramatic play, etc.) and having additional gross motor materials, helmets, bikes, etc.).
Resource Request		Purchase of Bio-Pac Virtual Physiology Laboratory
Provide a description of the Resource Request		This resource request is for the purchase of four BIO-PAC virtual Human Physiology lab systems and computer stations for incorporation into our Physiology curriculum. These systems would allow our students to perform multiple diagnostic labs that illustrate major physiologic concepts without the difficulty and time needed to properly set-up conventional labs.
Resource Request Status		New
Type of Request		Non-Salary
Funding Type		One-Time
Resource Request Priority		1
Does this Resource Request meet requirements for health, safety and essential services?		No

If yes, cite the requirement details.	
Does this Resource Request meet local, state or federal regulations or other mandates?	No
If yes, cite the relevant Regulations.	
DETAILED COST BREAKDOWN	
*****	
CERTIFICATED SALARY (INCL. FPIP)(100000)	
Position Title	
Class Code	
Check ONE appropriate category based on the majority of the assigned classes. (Note: If none of these categories applies, select Student and Instructional Support Service category.)	
How will this position support or sustain other disciplines and programs?	
Type	
Total Cost of Certificated Benefits	
Total Cost of Certificated Salaries	
CLASSIFIED SALARIES (200000)	
Position Title	
Class Code	
Basis	
Shift	
Permanent or temporary	
Rate	
Hours per pay period	
UNCLASSIFIED SALARIES (200000)	
Assignment	
Rate	
Hours per Pay Period	
NON-SALARY COSTS	
Instructional media materials (Supplies and Printing, 400000)	\$2,900
Non-instructional supplies (Supplies and Printing, 400000)	
Printing/copying (Supplies and Printing, 400000)	

Equipment (Instructional and non-instructional) (Capital Outlay, 600000)	\$10,600
Maintenance of equipment )Other Operating Expense, 500000)	
Contracts/personal services (Other Operating Expense, 500000)	
Alteration and improvement (A & I) (Capital Outlay, 600000)	
Other Expense:	
Other expense GL Account:	
TOTAL FIRST YEAR COST OF REQUEST (EST.)	
Total estimated cost for the first year of the resource request	\$13,500
ADDITIONAL COMMENTS	
Please note all sources for cost information for the Resource Request that serves to justify the estimated expense.	This resource request of \$15,000 will allow for the purchase of four MP45 Introductory BioPac Student Lab (BSL) systems from BIOPAC Systems. Each system has been quoted by the BIOPAC representative at \$2650 (including shipping and taxes) and includes all materials for multiple physiology labs and the required software. Included in this Resource Request is the projected cost of 4 Dell desktop stations (monitor, hard drive and printer) that will run the included BSL4 software. BIO-PAC BSL MP45 Introductory System \$2650 per unit = \$10,600.00 4 Desktop packages (Dell Optiplex - hard drive, monitor, printer) - \$550 per package = \$2,200.00 4 HP laser jet printers with USB cable and toner cartridge - \$175 per package = \$700.00 Total cost = \$13,500.00
What are the proposed funding sources?	Grants
Please provide any additional information that was not covered above.	Each BSL MP45 System includes: MP45 2 channel data acquisition system BSL4 Software package Searchable PDF manuals 2X Electrode Sets Disposable Electrodes Headphones Electrode abrading pads
Resource Request Responsible Person(s)	Patricia Zuk, PhD Bryon Curletto, MS

Linked Planning Objects			
Link Type	Planning Object	Planning Element	User Description
Internal Link	Planned Action	Adopt virtual teaching tools and methods	

Planning Element Impacts			
Impact Type	Level Name	Is Impacted?	User Description
Level Impact	Strategic Goal 2.4: Enhance facilities & technology to		Improve physiology curriculum to better impact student success

<b>Development of a Field Biology/Environme</b>	<b>*** RR # 47 ***</b>
.	
USE THE 'LINK' BOX ABOVE TO LINK EACH	Purchase additional indoor and outdoor education equipment/materials
RESOURCE REQUEST WITH 1 OR MORE	Purchase additional indoor and outdoor education equipment/materials (each classroom \$ 5,000 X 3 = 15,000) based on the Thelma Harms Rating scale, which will include having both indoor & outdoor learning centers (math, science, art, language, dramatic play, etc.) and having additional gross motor materials, helmets, bikes, etc.).
PLANNED ACTION.	Non-Salary
.	One-Time
PROVIDE A DESCRIPTION OF THE REQUEST	6
Resource Request	Development of a Field Biology/Environmental Laboratory
Provide a description of the Resource Request	This request outlines the purchase of Environmental Science & Field Biology equipment that would form the core of a new Field Biology & Environmental Science Lab. This equipment would be used in the instruction of both the Biological Science Division's Biology 10/Field Biology students and Environmental Science students. It would be capable of teaching students in relevant and timely multi-disciplinary science topics such as air and water pollution and their effect on biological life.
Resource Request Status	New
Type of Request	Non-Salary
Funding Type	One-Time
Resource Request Priority	1
Does this Resource Request meet requirements for health, safety and essential services?	No
If yes, cite the requirement details.	
Does this Resource Request meet local, state or federal regulations or other mandates?	No
If yes, cite the relevant Regulations.	
DETAILED COST BREAKDOWN	
*****	
CERTIFICATED SALARY (INCL. FPIP)(100000)	
Position Title	
Class Code	
Check ONE appropriate category based on the majority of the assigned classes. (Note: If none of these categories applies, select Student and Instructional Support Service category.)	
How will this position support or sustain other disciplines and programs?	
Type	

Total Cost of Certificated Benefits	
Total Cost of Certificated Salaries	
CLASSIFIED SALARIES (200000)	
Position Title	
Class Code	
Basis	
Shift	
Permanent or temporary	
Rate	
Hours per pay period	
UNCLASSIFIED SALARIES (200000)	
Assignment	
Rate	
Hours per Pay Period	
NON-SALARY COSTS	
Instructional media materials (Supplies and Printing, 400000)	
Non-instructional supplies (Supplies and Printing, 400000)	
Printing/copying (Supplies and Printing, 400000)	
Equipment (Instructional and non-instructional) (Capital Outlay, 600000)	\$5,350
Maintenance of equipment )Other Operating Expense, 500000)	
Contracts/personal services (Other Operating Expense, 500000)	
Alteration and improvement (A & I) (Capital Outlay, 600000)	
Other Expense:	
Other expense GL Account:	
TOTAL FIRST YEAR COST OF REQUEST (EST.)	
Total estimated cost for the first year of the resource request	\$5,350
ADDITIONAL COMMENTS	

Please note all sources for cost information for the Resource Request that serves to justify the estimated expense.	The Resource Request for \$5350 is for the purchase of the following lab materials that would be used by both Field Biology and Environmental Sciences. Photovoltaic cells = \$150 DC ammeter & voltmeter = \$200 High voltage electrodes, wires and clamps = \$200 Air quality analysis equipment (5 packages at \$800 each) = \$4000 Water quality analysis equipment (2 set-ups at \$250 each)= \$500 Aquarium & chemicals for marine ecosystems = \$300 Total cost = \$5350
What are the proposed funding sources?	Grants
Please provide any additional information that was not covered above.	
Resource Request Responsible Person(s)	Patricia Zuk, PhD Vered Mirmovitch, PhD

Linked Planning Objects			
Link Type	Planning Object	Planning Element	User Description
Internal Link	Planned Action	Develop and enhance multi-disciplinary c	

Planning Element Impacts			
Impact Type	Level Name	Is Impacted?	User Description
Level Impact	Strategic Goal 2.4: Enhance facilities & technology to		Upgrade field bio and environmental science labs
Level Impact	Strategic Goal 3.3: Prepare students to enter a		Upgraded equipment will train students in key scientific processes

Purchase of Biophysics Laboratory Equipm		*** RR # 49 ***
USE THE 'LINK' BOX ABOVE TO LINK EACH RESOURCE REQUEST WITH 1 OR MORE	PLANNED ACTION.	
		Purchase additional indoor and outdoor education equipment/materials (each classroom \$ 5,000 X 3 = 15,000) based on the Thelma Harms Rating scale, which will include having both indoor & outdoor learning centers (math, science, art, language, dramatic play, etc.) and having additional gross motor materials, helmets, bikes, etc.).
		Non-Salary
		One-Time
PROVIDE A DESCRIPTION OF THE REQUEST	Resource Request	6 Purchase of Biophysics Laboratory Equipment

Provide a description of the Resource Request	This request outlines the purchase of Biophysics lab materials that could not only be used in the development of a Biophysics course over the next academic year but could be used in other Science Division courses such as Physics, Anatomy and Physiology. Such pieces of equipment would be used to show students how muscles act as levers and how the eye refracts and focuses light rays. These pieces of equipment will be incorporated into the existing Physics and Physiology curricula and used to determine how best to develop a separate Biophysics course.
Resource Request Status	New
Type of Request	Non-Salary
Funding Type	One-Time
Resource Request Priority	2
Does this Resource Request meet requirements for health, safety and essential services?	No
If yes, cite the requirement details.	
Does this Resource Request meet local, state or federal regulations or other mandates?	No
If yes, cite the relevant Regulations.	
DETAILED COST BREAKDOWN	
*****	
CERTIFICATED SALARY (INCL. FPIP)(100000)	
Position Title	
Class Code	
Check ONE appropriate category based on the majority of the assigned classes. (Note: If none of these categories applies, select Student and Instructional Support Service category.)	
How will this position support or sustain other disciplines and programs?	
Type	
Total Cost of Certificated Benefits	
Total Cost of Certificated Salaries	
CLASSIFIED SALARIES (200000)	
Position Title	
Class Code	
Basis	
Shift	
Permanent or temporary	
Rate	



Hours per pay period	
UNCLASSIFIED SALARIES (200000)	
Assignment	
Rate	
Hours per Pay Period	
NON-SALARY COSTS	
Instructional media materials (Supplies and Printing, 400000)	
Non-instructional supplies (Supplies and Printing, 400000)	
Printing/copying (Supplies and Printing, 400000)	
Equipment (Instructional and non-instructional) (Capital Outlay, 600000)	\$3,000
Maintenance of equipment )Other Operating Expense, 500000)	
Contracts/personal services (Other Operating Expense, 500000)	
Alteration and improvement (A & I) (Capital Outlay, 600000)	
Other Expense:	
Other expense GL Account:	
TOTAL FIRST YEAR COST OF REQUEST (EST.)	
Total estimated cost for the first year of the resource request	\$3,000
ADDITIONAL COMMENTS	
Please note all sources for cost information for the Resource Request that serves to justify the estimated expense.	PASCO Human Eye model = $\$235.00 \times 2 = \$470$ PASCO light sensors - $\$125 \times 3 \text{ sensors} = \$375$ PASCO calipers - $\$60 \times 10 = \$600$ PASCO Human Arm contraction model = $\$560$ PASCO Force Platform = $\$275.00 \times 2 = \$550$ Total cost = $\$2,555$ Total approximate cost (with taxes and shipping) = $\$3,000$
What are the proposed funding sources?	Grants

<p>Please provide any additional information that was not covered above.</p>	<p>The requested Force platform is capable of measuring large forces applied over a wide area, Force Platforms are an excellent tool for exploring forces on the human body.</p> <p>The Human Arm Model simulates the muscles and motion of an actual human arm. The Arm can perform many types of motion such as extending and lifting an object, curling, or throwing a ball overhand. Different arm muscles can be activated and static force measured at various arm positions. Changes in position can be measured at the shoulder and elbow and the torque applied when lifting an object determined. Also, students can evaluate the work done by the arm in throwing a ball and the resulting kinetic energy delivered to the ball.</p> <p>The Human Eye Model can be used to study how the eye create images for normal vision, far-sightedness, near-sightedness and astigmatism. Additional lenses can placed in front of the eye to correct for vision problems.</p>
<p>Resource Request Responsible Person(s)</p>	<p>Patricia Zuk, PhD Elizabeth Bell, MS</p>

<b>Linked Planning Objects</b>			
<b>Link Type</b>	<b>Planning Object</b>	<b>Planning Element</b>	<b>User Description</b>
<p>Internal Link</p>	<p>Planned Action</p>	<p>Develop and enhance multi-disciplinary c</p>	

<b>Planning Element Impacts</b>			
<b>Impact Type</b>	<b>Level Name</b>	<b>Is Impacted?</b>	<b>User Description</b>
<p>Level Impact</p>	<p>Strategic Goal 2.4: Enhance facilities &amp; technology to</p>		
<p>Level Impact</p>	<p>Strategic Goal 3.4: Enhance curriculum vitality, viability &amp;</p>		<p>Equipment links both Physics and Physiology concepts</p>

<b>Increase of Biological Sciences Lab Tech</b>	
<p>USE THE 'LINK' BOX ABOVE TO LINK EACH</p>	<p>Purchase additional indoor and outdoor education equipment/materials</p>
<p>RESOURCE REQUEST WITH 1 OR MORE</p>	<p>Purchase additional indoor and outdoor education equipment/materials (each classroom \$ 5,000 X 3 = 15,000) based on the Thelma Harms Rating scale, which will include having both indoor &amp; outdoor learning centers (math, science, art, language, dramatic play, etc.) and having additional gross motor materials, helmets, bikes, etc.).</p>
<p>PLANNED ACTION.</p>	<p>Non-Salary</p>
<p>PROVIDE A DESCRIPTION OF THE REQUEST</p>	<p>One-Time</p>
<p>Resource Request</p>	<p>6 Increase of Biological Sciences Lab Technician FTE</p>

Provide a description of the Resource Request	This Resource Request is for the increase in the Biological Sciences Technician FTE. Currently the Division has two lab techs for a total FTE of 1.6. With the proposed development and implementation of a Basic Skills Biotech course over the next year, together with the improvement of our Environmental Sciences offerings, there is a definite need for increase lab support from our technicians. Therefore, this Request is for the increase in our technician FTE from 1.6 to 2.0.
Resource Request Status	New
Type of Request	Classified
Funding Type	Ongoing
Resource Request Priority	1
Does this Resource Request meet requirements for health, safety and essential services?	No
If yes, cite the requirement details.	
Does this Resource Request meet local, state or federal regulations or other mandates?	No
If yes, cite the relevant Regulations.	
DETAILED COST BREAKDOWN	
*****	
CERTIFICATED SALARY (INCL. FPIP)(100000)	
Position Title	
Class Code	
Check ONE appropriate category based on the majority of the assigned classes. (Note: If none of these categories applies, select Student and Instructional Support Service category.)	
How will this position support or sustain other disciplines and programs?	
Type	
Total Cost of Certificated Benefits	
Total Cost of Certificated Salaries	
CLASSIFIED SALARIES (200000)	
Position Title	Lab technician
Class Code	
Basis	
Shift	B (evening)
Permanent or temporary	Permanent
Rate	\$42,000
Hours per pay period	64

UNCLASSIFIED SALARIES (200000)	
Assignment	
Rate	
Hours per Pay Period	
NON-SALARY COSTS	
Instructional media materials (Supplies and Printing, 400000)	
Non-instructional supplies (Supplies and Printing, 400000)	
Printing/copying (Supplies and Printing, 400000)	
Equipment (Instructional and non-instructional) (Capital Outlay, 600000)	
Maintenance of equipment )Other Operating Expense, 500000)	
Contracts/personal services (Other Operating Expense, 500000)	
Alteration and improvement (A & I) (Capital Outlay, 600000)	
Other Expense:	
Other expense GL Account:	
TOTAL FIRST YEAR COST OF REQUEST (EST.)	
Total estimated cost for the first year of the resource request	\$42,000
ADDITIONAL COMMENTS	
Please note all sources for cost information for the Resource Request that serves to justify the estimated expense.	
What are the proposed funding sources?	Program 100
Please provide any additional information that was not covered above.	Two technicians currently serve 5 full-time and 12 adjunct professors within the Biological Sciences Division Lisa Reneau has a 1.0 FTE Shahin Sapir has a 0.6 FTE To more efficiently serve the growing Division, we are requesting an increase in the secondlab tech from 0.6 to 1.0 FTE. This technician's increased responsibilities will be directed toward supporting the Biotech Basic Skills course the Division will be offering
Resource Request Responsible Person(s)	Patricia Zuk, PhD Abraha Bahta, PhD

Linked Planning Objects			
Link Type	Planning Object	Planning Element	User Description
Internal Link	Planned Action	Creation of a basic skills biotechnology	

**Purchase of Cell Imaging system** **\*\*\* RR # 50 \*\*\***

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USE THE 'LINK' BOX ABOVE TO LINK EACH	Purchase additional indoor and outdoor education equipment/materials
RESOURCE REQUEST WITH 1 OR MORE	Purchase additional indoor and outdoor education equipment/materials (each classroom \$ 5,000 X 3 = 15,000) based on the Thelma Harms Rating scale, which will include having both indoor & outdoor learning centers (math, science, art, language, dramatic play, etc.) and having additional gross motor materials, helmets, bikes, etc.).
PLANNED ACTION.	Non-Salary
.	One-Time
PROVIDE A DESCRIPTION OF THE REQUEST	6
Provide a description of the Resource Request	This Resource Request is for the purchase of an all-in-one cell imaging system that would be used by faculty teaching Biotechnology, Biochemistry in addition to the STEM classes Bio 185 and Bio 285. This system, the ZOE system is sold by Bio-Rad and would be one of the first systems to be used in a community college setting for educational purposes.
Resource Request Status	New
Type of Request	Non-Salary
Funding Type	One-Time
Resource Request Priority	1
Does this Resource Request meet requirements for health, safety and essential services?	No
If yes, cite the requirement details.	
Does this Resource Request meet local, state or federal regulations or other mandates?	No
If yes, cite the relevant Regulations.	
DETAILED COST BREAKDOWN	
*****	
CERTIFICATED SALARY (INCL. FPIP)(100000)	
Position Title	
Class Code	
Check ONE appropriate category based on the majority of the assigned classes. (Note: If none of these categories applies, select Student and Instructional Support Service category.)	
How will this position support or sustain other disciplines and programs?	
Type	
Total Cost of Certificated Benefits	
Total Cost of Certificated Salaries	
CLASSIFIED SALARIES (200000)	

Position Title	
Class Code	
Basis	
Shift	
Permanent or temporary	
Rate	
Hours per pay period	
UNCLASSIFIED SALARIES (200000)	
Assignment	
Rate	
Hours per Pay Period	
NON-SALARY COSTS	
Instructional media materials (Supplies and Printing, 400000)	
Non-instructional supplies (Supplies and Printing, 400000)	
Printing/copying (Supplies and Printing, 400000)	
Equipment (Instructional and non-instructional) (Capital Outlay, 600000)	\$10,350
Maintenance of equipment )Other Operating Expense, 500000)	
Contracts/personal services (Other Operating Expense, 500000)	
Alteration and improvement (A & I) (Capital Outlay, 600000)	
Other Expense:	
Other expense GL Account:	
TOTAL FIRST YEAR COST OF REQUEST (EST.)	
Total estimated cost for the first year of the resource request	\$10,550
ADDITIONAL COMMENTS	
Please note all sources for cost information for the Resource Request that serves to justify the estimated expense.	The ZOE Fluorescent Cell Imager is an all-in-one cell imaging system that would allow our students to easily view cells under multiple experimental condition without the need for a traditional microscope and a darkroom. Its original price is \$14,995.00. However, through working with our rep at Bio-Rad it has been reduced to \$9,450. This reduction was made possible due to the fact that West and its Biotech course would be one of the first educational institutes to use the ZOE system. ZOE Fluorescent CellImager \$9,450 Total approximate cost (with taxes and shipping) = \$10,550
What are the proposed funding sources?	Grants

Please provide any additional information that was not covered above.	
Resource Request Responsible Person(s)	Patricia Zuk, PhD

Linked Planning Objects			
Link Type	Planning Object	Planning Element	User Description
Internal Link	Planned Action	Creation of a basic skills biotechnology	

Planning Element Impacts			
Impact Type	Level Name	Is Impacted?	User Description
Level Impact	Strategic Goal 2.4: Enhance facilities & technology to		Addition of equipment not normally used in educational setting

Hire a Bio-Sciences (Biology) Faculty	
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USE THE 'LINK' BOX ABOVE TO LINK EACH RESOURCE REQUEST WITH 1 OR MORE PLANNED ACTION.	Purchase additional indoor and outdoor education equipment/materials
	Purchase additional indoor and outdoor education equipment/materials (each classroom \$ 5,000 X 3 = 15,000) based on the Thelma Harms Rating scale, which will include having both indoor & outdoor learning centers (math, science, art, language, dramatic play, etc.) and having additional gross motor materials, helmets, bikes, etc.).
	Non-Salary
	One-Time
PROVIDE A DESCRIPTION OF THE REQUEST	6
Provide a description of the Resource Request	With Biology 110 and Biology 10 being taught by existing faculty, this means that they may not be able to teach courses they have historically taught over past academic years. This will necessitate the transfer of these courses to adjunct instructors, skewing the Division's full-time to adjunct ratio. To prevent this, the Division wishes to hire a new full-time Biology/Bio-sciences faculty member. This new hire can teach the Major's level Biology 6 course, allowing our Division to offer additional sections of this very popular transfer-level course. This faculty member would also be qualified to teach introductory Biology 3, again allowing our Division to offer more sections of this foundation-building science course.
Resource Request Status	New
Type of Request	Faculty, Full Time
Funding Type	Ongoing
Resource Request Priority	1
Does this Resource Request meet requirements for health, safety and essential services?	No
If yes, cite the requirement details.	

Does this Resource Request meet local, state or federal regulations or other mandates?	No
If yes, cite the relevant Regulations.	
DETAILED COST BREAKDOWN	
*****	
CERTIFICATED SALARY (INCL. FPIP)(100000)	
Position Title	BIOLOGY INSTRUCTOR
Class Code	
Check ONE appropriate category based on the majority of the assigned classes. (Note: If none of these categories applies, select Student and Instructional Support Service category.)	General Education and Transfer
How will this position support or sustain other disciplines and programs?	
Type	Probationary
Total Cost of Certificated Benefits	\$70,000
Total Cost of Certificated Salaries	\$16,000
CLASSIFIED SALARIES (200000)	
Position Title	
Class Code	
Basis	
Shift	
Permanent or temporary	
Rate	
Hours per pay period	
UNCLASSIFIED SALARIES (200000)	
Assignment	
Rate	
Hours per Pay Period	
NON-SALARY COSTS	
Instructional media materials (Supplies and Printing, 400000)	
Non-instructional supplies (Supplies and Printing, 400000)	
Printing/copying (Supplies and Printing, 400000)	
Equipment (Instructional and non-instructional) (Capital Outlay, 600000)	



Maintenance of equipment )Other Operating Expense, 500000)	
Contracts/personal services (Other Operating Expense, 500000)	
Alteration and improvement (A & I) (Capital Outlay, 600000)	
Other Expense:	
Other expense GL Account:	
TOTAL FIRST YEAR COST OF REQUEST (EST.)	
Total estimated cost for the first year of the resource request	\$86,000
ADDITIONAL COMMENTS	
Please note all sources for cost information for the Resource Request that serves to justify the estimated expense.	
What are the proposed funding sources?	Program 100
Please provide any additional information that was not covered above.	
Resource Request Responsible Person(s)	Patricia Zuk, Ph.D. Abraha Bahta, Ph.D.