

# Anatomy, Physiology, Microbiology

## 2019 Program Review

### MJC Program Review 2019

Modesto Junior College's Program Review process is divided into 3 sections:

- Program Analysis (SWOT Analysis)
- Goal Setting and Activities
- Resource Request

### Program Analysis

#### Internal Strengths

##### **1. What strengths does the analysis of student data reveal?**

We are near the average of the college completion rates We also have a diverse department that mirrors that of the college and community we serve. We have increased the number of student awards from 2016/2017 to 2017/2018 by 27%

##### **2. Are there specific aspects of the program that are exemplary or could serve as a model?**

Our cadaver program, which is not available at most of the surrounding institutions. Thus, we attract students from all the surrounding institutions to our cadaver program

##### **3. What do others see as the program's strengths?**

The Allied Health Faculty state that our department produces students who are well prepared to enter and succeed in their programs

##### **4. How well are students meeting program learning outcomes, skills, or competencies; and how are they relevant to careers in your discipline or industries for which you help prepare students?**

We have a high success rate of student entering the Allied Health programs Once they have completed the Allied Health program of choice, our students are able to enter successful careers in the Allied Health fields and contribute to the well-being of our community

## Internal Weaknesses

### **5. What gaps are observed by reviewing the student data?**

We have experienced a severe decreased student success rate in anatomy as a direct result of state mandated elimination of the Biology prerequisite and concurrent reduction of unit values in two of our three core courses

### **6. What disproportionate gaps need to be addressed?**

We are unable to address any specific student gaps in our data due to masking of the available data

### **7. What are areas in which the program could improve? (curriculum, scheduling, modality, other?)**

We would like to offer more sections of our courses due to the impacted nature of our wait lists We just hired a new full-time faculty member and found two new adjunct faculty, but we are still severely under staffed, and have been having an extremely difficult time attracting qualified faculty for our specialized fields. At present, our courses are impacted on the first day of the semester by 250% ???

### **8. Where are there gaps in the program on how students are meeting learning outcomes, skills, or competencies?**

We feel that the removal of the biology prerequisite has had a severe impact on student success in anatomy and a lesser, but still significant, impact on student success in Physiology Concurrently the reduction of units, which has reduced instructor/student contact time has also impacted our students ability to be successful

## External Opportunities

### **9. Where are potential opportunities for expansion, improvement, or new program development?**

We are actively pursuing partnerships within the community Allied Health Industry and public health agencies with respect to program advisement, student internships and collaboration

### **10. What are some industry or disciplinary trends that could enhance the program?**

We are working on an Allied Health degree for Transfer that should increase student completions and improve student career success as well

## External Threats

### **11. How are changing resources, technology, employer, or transfer requirements affecting the program's ability to serve students?**

We are experiencing a continuing lack of adequate funding continues to be a frustration within the department with aging and nonfunctional equipment For example, it is difficult to teach microbiology without properly functioning microscopes We do not have any budget for equipment upkeep and repair i.e. models, centrifuges, microscopes and etc.

**12. What are some current industry or disciplinary trends that could have a negative impact on the program?**

The state of California Legislature eliminated the prerequisite requirement for Human Anatomy, which is the entrance course for our core Allied Health students This prerequisite was put in place to effectively deal with the lack of student preparedness for Anatomy that was resulting in poor student success in Anatomy and subsequently Physiology Due to the loss of this prerequisite, which raised student success rates to over 85%,our student success rates for Anatomy have now plummeted to around 35% Further, the loss of this prerequisite for Anatomy appears to have reduced success rates in the subsequent Physiology course This situation could be reversed if we were able to re-institute the requirement for students to take college level biology (BIO 116 or 111) BEFORE Anatomy, but our hands are tied by the limitations forced on us by the State Legislature

**13. What other obstacles does the program face?**

Our courses, particularly microbiology, but also Anatomy, are experiencing significant impacts and loss of both student and staff productivity because of the degrading condition of our microscopes Substandard microscopes were purchased when we moved into the new Science Community Center These microscopes are substandard and are increasingly breaking down, and the manufacturer does not offer replacement parts, and repair technicians have informed us that the cost of repairing the microscopes is more that it would cost to replace them. In short, we need new, and durable, microscopes to effectively teach our courses. Despite the fact that we have listed microscopes as our number one Department need on our last program review, we have still been unable to obtain new microscopes due to a lack of available funding At the current rate of microscope disrepair, we will be unable to effectively teach both Microbiology and Anatomy within 3 years unless quality replacement microscopes can be obtained

**Goal Setting and Activities**

**Goals**

Program Goal	Mission Alignment	Area of Focus
1. Improve student success and completion rate within our dept.	Workforce Needs	Student Support
2. Bring back Biology pre-requisite. for Anatomy.	Innovative Education	Program Design
3. Complete model sets (anatomy) in all lab rooms, purchase up-to-date equipment for physiology and	Innovative Education	Student Support

microbiology labs.

## Activities

Activities	In Support of Goal #	Outcome or Deliverable
1. Professional development conferences	Goal #1	Improve Instructor knowledge base and pedagogical practices in our respective fields
2. Get an AST for Allied Health approved for APM	Goal #1	Improve student completion rates and increase future employment opportunities of our students
3. Complete research on student success rate for anatomy, based on data collected in dept.	Goal #2	This ongoing study will provide quantitative evidence of the necessity of a biology prerequisite for all APM courses
4. Resubmit pre-req requirements for Anatomy through curriculum committee	Goal #2	This will improve student performance, success and future employment opportunities
5. Locate funding and purchase models to complete Anatomy laboratory sets	Goal #3	This will provide students better access to learning environments and help increase the number of students we can effectively serve
6. Locate funding and purchase equipment to improve cadaver lab safety	Goal #3	Decrease likelihood of sharps injury and improve functionality of cadaver labs
7. Locate funding and purchase up-to-date replacement equipment for physiology laboratory (old equipment [from 1950s] is no longer serviceable)	Goal #3	At present physiology labs are difficult to complete without this equipment, and safety is a major concern. Thus, student learning outcomes will be enhanced and student safety will be improved

## Resource Requests

Category	Request	Activity #	Estimated Cost
Prof. Devel.	Travel and conference fees. (Based on 10 Full-time faculty members)	1	10000
Equipment	New microscopes for Microbiology and Anatomy	7	125000
Equipment	replacement anatomy lab models	5	37000
Equipment	Six 12-lead ECG machines with Interpretation Software	6	29000
Technology	Five new classroom audio visual systems	1	20000

Personnel	One full-time faculty expansion position	1	90000
Facilities	Two Cadaver Dissection Lights	5	16000
Other	Other request for equipment needs and costs are listed in the program review. Make sure to see under resource requests.	NA	NA