

Supplies, Equipment, Furniture, and Other Request Form 2021-22

Please review the following:

This form is to request supplies, furniture, equipment (under \$10,000 and non-technology), and other requests.

Below are some definitions used by the Resource and Operations Council to assist you in preparing your request.

Supply: A material item of an expendable nature that is consumed, wears out, or deteriorates in use; or one that loses its identity through fabrication or incorporation into a different or more complex unit or substance.

Equipment: Tangible property with a purchase price of at least \$200 and a useful life of more than one year.

Other: All non-operational requests and requests that do not fall under staffing, technology, or facilities requests are considered "other requests." For department operational needs, please discuss with your Deans office.

The Resource and Operations Council uses the following criteria to rank all requests. The following criteria will be ranked on a scale of 1-5, with five being the highest score.

1. Health and Safety
2. Equipment replacement and duplication
3. Critical need
4. Program expansion/innovation
5. Impact on student success and access

This form will not save partially-completed responses. Please use the PDF version of this form to plan your responses and complete this electronic form when you are ready to submit your responses.

* Contact Person:

Name Michelle Garcia

Email Address: Michelle.Garcia@gcccd.edu

Department: Biology

Title of Request: **Biology Microbiology Refrigerator Replacement | Critical Need**

Location of Request: **Biology Department Room H206**

Type of Request (*Select one*):

Supplies

Equipment

Furniture

Other: Please specify the non-operational other request:

Description of Request:

Please provide a description of the supplies, equipment, furniture or other request. When making your request, please be as specific as possible and include information such as make, model, manufacturer, color, quantity, etc.

The VWR Refrigerators are upright laboratory refrigerators that maintain an average temperature of 3 – 5 °C (37 – 41 °F). It uses a natural refrigerant that is environmentally friendly and emits zero ozone depletion potential. Units are equipped with low E, double-pane, thermal insulated glass doors for energy efficiency.

The lab technician has installed calibrated thermometers to check the efficiency of the refrigerators maintaining the proper temperature. This shows that the refrigerators are laboring intensely to maintain the proper temperatures, and there is a great likelihood they will stop working. If this happens over a weekend or holiday, the specimens will be lost. Estimate as to the cost of that lost is provided below.

Estimated Cost: \$13,120.14

Please attach quote, if available: Quote attached to email

Total Cost of Ownership: \$13,120.14

Can this request be maintained with existing funding sources? If not, please explain your plan to maintain this request. Example: potential yearly service agreements, warranties, and replacement costs.

No, the funds do not exist within the Biology budget to replace the refrigerators. Once the refrigerator is purchased, it does not require any extra funding to maintain. Refrigerators come with a three-year parts and labor warranty, with an additional two-year warranty on compressor parts.

Maintenance on the current 16 year old refrigerators have been done in house.

Justification of Request:

Please select the applicable criteria(s) and provide the details of how the criteria(s) relate to your request.

Health and safety

Equipment replacement

Critical need

Program expansion/innovation

Impact on student success and access

Provided details:

Health and Safety: The bacteria and fungi that are maintained in the refrigerator may pose a health hazard if they are not kept at the proper temperature and allowed to thaw out. This can put our lab technicians, faculty and students at risk of exposure to these microorganisms.

Equipment Replacement: This request is for replacement of two refrigerators that are in the microbiology/molecular biology laboratory and prep room. These units were purchased and installed when the H-building was constructed approximately 16 years ago and are required for the relatively expensive and specialized supplies that are necessary to offer the paramedical microbiology course and molecular cell biology course required for the Biology and Allied Health degrees. These units have broken down multiple times in the last 4 years, including several times in the last 2 years. Repairs were handled by facilities, so we do not have exact costs, but Brittany from facilities looked back through the records to find the work orders and informed us that the records are sparse, because the system used to track work orders was not utilized much before her arrival. Therefore, she does not have accurate records of the maintenance for your reference.

Both compressors and temperature control components of the refrigerators have had to be replaced. Each time the units break down we have to deal with not only the cost of repairs, but with replacement of the materials that have been lost. The replacement quote for course materials is below after "Critical Need".

Critical Need: If the equipment is not replaced, the two sections of Paramedical Microbiology (Bio 152) and Cell and Molecular Biology (Bio 230) will be canceled. Losing these courses will halt the progress of our students in achieving their academic goals and cripple our program. This will significantly impact the progression of our underserved populations of students and serve as a barrier to those who are interested in transfer programs in nursing and other allied health majors. This will lead to increasing our equity gaps in terms of access and completion of the major. More details are covered in program goals.

The organisms and materials stored within the refrigerator are required for the courses to run. Currently, both sections of Microbiology have waitlists that would support adding a third section of the class, and we are unable to offer a third section due to limited resources. Bio 152 is a requirement for all of our Pre-Allied Health and Pre-nursing students, and Bio 230 is a requirement for our Biology majors.

Losing the materials stored in the refrigerators will cost the department upwards of \$7,000. The information below itemizes the materials that are stored in the prep room refrigerator and the costs of replacement materials that are stored in just *one* of the refrigerators. The refrigerators have broken down multiple times in the last 4 years, and although the units have been repaired, many of the materials have had to be replaced because the units did not keep the materials cold. The costs below are the cost of materials only, and do not cover the costs of tax and shipping (which tends to be high because most of the materials need to be shipped cold). By the time tax and shipping are added, the total cost is likely to be close to \$7000.

Microbiology Laboratory Refrigerator Cost of Contents

<u>Item</u>	<u>Quantity</u>	<u>Price</u>
MR Reagent	1	\$50.00
VP Reagent A	1	\$50.00
VP Reagent B	1	\$50.00
Oxidrops	1	\$50.00
Nitrate Reagent A	1	\$25.00
Nitrate Reagent B	1	\$25.00
Nitrate Reagent C	1	\$25.00
StrepPRO Typing Kit	2	\$1,200.00
SAB/DEX	20	\$200.00
50% TSB	6	\$60.00
Thioglycollate	20	\$200.00
MH Plates	10	\$75.00
HE Plates	10	\$200.00
BA Plates, sleeve	2	\$100.00
MR-VP media	1	\$200.00
Urea Broth media	1	\$50.00
Anaerobic Indicator	1	\$100.00
AnaeroGen-Oxoid	1	\$100.00
AnaeroGen-Thermo Sci	1	\$100.00
CampyGen	1	\$100.00
McFarland Std	3	\$225.00
Coagulase Plasma, Rabbit, vial	10	\$750.00
Prepared Media		
MRVP		\$160.00
SIM		\$75.00
TSI		\$75.00
Urea		\$800.00
Citrate		\$150.00
Nitrate		\$250.00
Maltose		\$150.00
Mannitol		\$150.00
TSA Slants		\$200.00
TSA Plates		\$100.00
TSB		\$200.00
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		\$6,245.00
TOTAL		0

Program Expansion: A third section of microbiology is needed; however, it is impossible to add another section when we are in danger of canceling the current sections if this equipment is not purchased.

Impact on Student Success and Access: Students will be unable to earn their Allied Health Degree, Biology degree and unable to transfer to Nursing School or 4-year university without these courses. Students will not have access to these required courses and will not be able to complete their degree and/or academic pathway. This will create a significant barrier to completion of the Allied Health and Biology degrees. More information about student impacts is discussed in "Program Goals.

Program Goal:

Please identify the program goal(s) this request would help your program achieve and provide a brief explanation of how it would do so.

In the past five years the Biology department has awarded a total of 150 degrees in the Biological Sciences: Pre-Allied Health program, averaging about 30 degrees per year (range 24-34). This program is one of the most productive in the college in terms of degrees awarded, and it is a program that serves many of our underserved populations of students who are interested in transfer programs in nursing and other allied health majors. This program requires that the students take paramedical microbiology, not only to earn the degree, but also to be able to transfer into the 4-year programs that allow students to complete Bachelors degree programs that allow them to enter these careers. There are limited numbers of sections of this course available in the district and in other districts in San Diego county. Were we to be unable to offer this course, not only would we lose the ability to offer this degree, but because the course is one that is heavily waitlisted both in our district and in others, the students would not be able to earn the degree, but would also lose their ability to transfer into their 4-year programs.

This request will provide access to materials for our students in paramedical microbiology which will help increase student success in this course. These materials support the Program Goal: Decrease equity gaps seen in retention and success rates of students of color in 100-level biology courses. (success)

Cuyamaca values equity and our resource allocations should reflect our values. How does this request support the college's equity and anti-racist work? Or how does this request contribute to more equitable student outcomes?

District's Governing Board Resolution: To view, please visit the Governing Board's site [here](#), view the June 16, 2020 meeting, and view agenda item 8.1 "Resolution No. 20-015 In Denunciation of Violence Against Black Americans and Commitment to Anti-Racism"

[Cuyamaca College's Academic Senate's Resolution](#)

[Cuyamaca College's Equity Plan](#)

Advancing student equity is our primary focus in the upcoming four years for the Biology Department. Both of our department goals are targeted at improving both success and retention rates for our students of color as well as access to the major. Our goal is to help mitigate the negative past experiences students have experienced in STEM and increase success and access in the process. Without the purchase of the requested equipment, microbiology (Allied Health and Nursing majors) and molecular biology (Biology majors) will be shut down, denying students access to these courses and the ability to move forward on their academic path. All of our students served by the Biology department will fall behind in their progress of the Allied Health Degree, transferring to Nursing School, or 4-year university.

For informational purposes, below is the rubric the Resource and Operations Council will use to rate requests for supplies, equipment, furniture, and other items in Spring 2022. Please click the "Submit" button below when you are ready to submit your request form.