

2019-2020 Annual Update



CAN Program Review (Instructional) - Biological & Health Sciences (Even Year)

Objective: Improve instructional outcomes by investing in equipment - 2019-20

Purchase instructional equipment for the biology program

Objective Status: 1 - New (PR)

Objective Year: 2019-2020

Please select the college goals with which this objective aligns.: Student Completion/Success - Provide educational and student services programs that highlight inclusivity diversity and equity in their mission to help students meet their unique educational goals and minimize logistical and financial barriers to success.

Please select the district goals with which this objective aligns.: District Goal #1 - Develop and Strengthen Educational Offerings Interventions and Support Programs that Increase Student Access & Success, District Goal #3 - Increase Program Delivery Options Including the Expanded Use of Instructional Technology to Support Student Learning and Success

Resource Requests

Glucose monitors - The glucose meters we use for BIO260 have been phased out by the manufacturer, and it is no longer possible to get test strips that work with our meters. We will need to replace our meters with current versions. For estimating purposes, we can consider the following model:

https://www.amazon.com/Accu-Chek-Guide-Glucose-Monitoring-System/dp/B0716J6KMD/ref=sr_1_1_a_it?ie=UTF8&qid=1540842208&sr=8-1&keywords=Accu-Chek+Guide&dplID=51Kk%252B0TqupL&preST=_SY300_QL70_&dpSrc=srch

Status: Funded - Inactive

Type of Resource: Supplies (Items less than \$5000)

Cost: 360

One-Time or Recurring Cost?: One-Time Cost

Holder for 125 ml flasks, fits shaker - Adapter flask holders for different sized flasks, for cultures of different volumes. For VWR Shaker 3500I.

<https://us.vwr.com/store/product/4835149/vwr-incubating-orbital-shaker-model-3500i>

Need 4 at \$29 each

Price quoted is before tax and excluding SH

Status: Funded - Inactive

Type of Resource: Supplies (Items less than \$5000)

Cost: 116

One-Time or Recurring Cost?: One-Time Cost

Holder for 250 ml flasks; fits shaker - Adapter flask holders for different sized flasks, for cultures of different volumes. For VWR Shaker 3500I.

<https://us.vwr.com/store/product/4835149/vwr-incubating-orbital-shaker-model-3500i>

Need 4 at \$29 each

Price quoted is before tax and excluding SH

Status: Funded - Inactive

CAN Program Review (Instructional) - Biological & Health Sciences (Even Year)

Type of Resource: Supplies (Items less than \$5000)

Cost: 116

One-Time or Recurring Cost?: One-Time Cost

Incubating Mini-Shaker - We only have 2 small shaking incubators, and need more to support the 4-5 sections of Microbiology and Cell/Molecular biology, as well as increasing number of student research projects.

<https://us.vwr.com/store/product/4902590/vwr-incubating-mini-shaker>

Price quoted is before tax and excluding SH

Need 2, each at \$3600

Status: Funded - Inactive

Type of Resource: Equipment (Items Over \$5000)

Cost: 7200

One-Time or Recurring Cost?: One-Time Cost

Incubating Orbital Shaker (VWR 3500I) - We only have 2 small shaking incubators, and need more to support the 4-5 sections of Microbiology and Cell/Molecular biology, as well as increasing number of student research projects. We need to be able to aerate and incubate larger cultures too.

<https://us.vwr.com/store/product/4835149/vwr-incubating-orbital-shaker-model-3500i>

Need 1, at \$5921

Price quoted is before tax and excluding SH

Status: Funded - Inactive

Type of Resource: Equipment (Items Over \$5000)

Cost: 5921

One-Time or Recurring Cost?: One-Time Cost

Micropipettors P-1000 size (4 pack) - We need a few complete sets (4 each of P-1000) of micropipettors to support independent student projects outside of regular class time, especially with the new student Independent Projects lab space in Building 23.

1-4 pack

<https://www.pipette.com/P3940-4P-Labnet-Biopette-Plus-4-Pack-Mix-and-Match-Please-specify-sizes-at-checkout-1-Carousel-Stand-and-2-Racks-of-Tips>

Price quoted is before tax and excluding SH

Type of Resource: Supplies (Items less than \$5000)

Cost: 619

Micropipettors P-20 size, (4 pack) - We need a few complete sets (4 each of P-20) of micropipettors to support independent student projects outside of regular class time, especially with the new student Independent Projects lab space in Building 23.

<https://www.pipette.com/P3940-4P-Labnet-Biopette-Plus-4-Pack-Mix-and-Match-Please-specify-sizes-at-checkout-1-Carousel-Stand-and-2-Racks-of-Tips>

1-4 pack

Price quoted is before tax and excluding SH

Type of Resource: Supplies (Items less than \$5000)

Cost: 619

Micropipettors P-200 size (4 pack) - We need a few complete sets (4 each of P-200) of micropipettors to support independent student projects outside of regular class time, especially with the new student Independent Projects lab space in Building 23.

<https://www.pipette.com/P3940-4P-Labnet-Biopette-Plus-4-Pack-Mix-and-Match-Please-specify-sizes-at-checkout-1-Carousel-Stand-and-2-Racks-of-Tips>

1-4 pack

Price quoted with before tax and excluding SH

Type of Resource: Supplies (Items less than \$5000)

CAN Program Review (Instructional) - Biological & Health Sciences (Even Year)

Cost: 619

Pulse transducer - Students use these devices with our computerized data acquisition systems to measure blood flow through the finger. Two of these transducers are broken and in need of replacement.

<https://www.biopac.com/product/photoplethysmogram-for-pulse-waveform-bsl/>
Need 4, each at \$245.

Status: Funded - Inactive

Type of Resource: Supplies (Items less than \$5000)

Cost: 980

One-Time or Recurring Cost?: One-Time Cost

Reaction Timers - Students use these hand-held timers to test their reaction time to visual and auditory stimuli. Several of our timers are broken and need replacement.

<https://www.amazon.com/American-Educational-Products-6027-Reaction/dp/B00658AXCQ>
Need 6, each at \$173

Type of Resource: Supplies (Items less than \$5000)

Cost: 1038

Shaker Platform - Adapter platform for different sized flasks, for cultures of different volumes. For VWR Shaker 3500I.

<https://us.vwr.com/store/product/4835149/vwr-incubating-orbital-shaker-model-3500i>
Price quoted is before tax and excluding SH

Status: Funded - Inactive

Type of Resource: Supplies (Items less than \$5000)

Cost: 225

One-Time or Recurring Cost?: One-Time Cost

Objective: Anatomy Student Success Initiative

The mission of the Anatomy Student Success Initiative is to provide necessary additional support to BIOL 250 Human Anatomy students on the Cañada College campus, with the specific goal of increasing the retention and success of these students.

Objective Status: 1 - New (PR)

Objective Year: 2019-2020, 2020-2021

Please select the college goals with which this objective aligns.: Student Completion/Success - Provide educational and student services programs that highlight inclusivity diversity and equity in their mission to help students meet their unique educational goals and minimize logistical and financial barriers to success., Organizational Development - Focus institutional resources on the structures processes and practices that invest in a diverse student population and prioritize and promote equitable inclusive and transformative learning.

Please select the district goals with which this objective aligns.: District Goal #1 - Develop and Strengthen Educational Offerings Interventions and Support Programs that Increase Student Access & Success

Action Plans

2018-2019 - Submit proposal for reassigned time for a faculty researcher to conduct focus groups and and to investigate possible models and strategies for improving student success. (Active)

Who's Responsible for Completing this Action Plan?: Dani Behonick

Estimated Completion Date: October 2018

CAN Program Review (Instructional) - Biological & Health Sciences (Even Year)

Objective: Revise laboratory curriculum for BIOL 110 and 132

Replace existing manuals with content that is pedagogically sound, engaging students, encourages the use of critical thinking and problem solving skills, and cost-effective.

Objective Status: 1 - New (PR)

Objective Year: 2019-2020

Please select the college goals with which this objective aligns.: Organizational Development - Focus institutional resources on the structures processes and practices that invest in a diverse student population and prioritize and promote equitable inclusive and transformative learning.

Please select the district goals with which this objective aligns.: District Goal #1 - Develop and Strengthen Educational Offerings Interventions and Support Programs that Increase Student Access & Success

Objective: Future of Health Science discipline

Reassess role of Health Science discipline at Cañada College

Objective Status: 1 - New (PR)

Objective Year: 2019-2020, 2021-2022

Please select the college goals with which this objective aligns.: Organizational Development - Focus institutional resources on the structures processes and practices that invest in a diverse student population and prioritize and promote equitable inclusive and transformative learning.

Please select the district goals with which this objective aligns.: District Goal #1 - Develop and Strengthen Educational Offerings Interventions and Support Programs that Increase Student Access & Success

Objective: Institutionalization of EPIC tutoring program

Obtain college funding for a permanent EPIC tutor coordinator to institutionalize the program and make it available to a wider variety of courses, within biology and beyond.

Objective Status: 1 - New (PR)

Objective Year: 2019-2020

Please select the college goals with which this objective aligns.: Student Completion/Success - Provide educational and student services programs that highlight inclusivity diversity and equity in their mission to help students meet their unique educational goals and minimize logistical and financial barriers to success., Organizational Development - Focus institutional resources on the structures processes and practices that invest in a diverse student population and prioritize and promote equitable inclusive and transformative learning.

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Action Plans

2018-2019 - The biology program will help author and support a New Position Proposal requesting that the college fund a permanent position for an EPIC tutor coordinator. (Active)

Who's Responsible for Completing this Action Plan?: Carol Rhodes and interim Dean Windham

Objective: Increase department budget

Increase the annual department budget to include ongoing annual instructional equipment needs

Objective Status: 1 - New (PR)

CAN Program Review (Instructional) - Biological & Health Sciences (Even Year)

Objective Year: 2019-2020

Please select the college goals with which this objective aligns.: Student Completion/Success - Provide educational and student services programs that highlight inclusivity diversity and equity in their mission to help students meet their unique educational goals and minimize logistical and financial barriers to success., Organizational Development - Focus institutional resources on the structures processes and practices that invest in a diverse student population and prioritize and promote equitable inclusive and transformative learning.

Please select the district goals with which this objective aligns.: District Goal #1 - Develop and Strengthen Educational Offerings Interventions and Support Programs that Increase Student Access & Success

Resource Requests

Human cadaver - BIOL 250 Human Anatomy requires the dissection of human cadavers in order for the course to articulate with four-year institutions and to satisfy prerequisites of allied health programs such as nursing, radiologic technology, surgical technology, occupational therapy and others. The Willd Body Program (WBP) at UCSF provides us these cadavers. In the past we usually purchased one cadaver on a yearly basis, but some (recent) years we opted out. WBP has changed their requirements for how long we may keep a cadaver necessitating us to adopt a regular/annual replacement rate. We are requesting that this cost be allocated to our annual department budget rather than a special allocation through the resource request process - it is an ongoing expense and not discretionary.

Type of Resource: Supplies (Items less than \$5000)

Cost: 2800

Objective: Improve instructional outcomes by investing in equipment - 2020-21

Purchase instructional equipment for the biology program

Objective Status: 1 - New (PR)

Objective Year: 2020-2021

Please select the college goals with which this objective aligns.: Student Completion/Success - Provide educational and student services programs that highlight inclusivity diversity and equity in their mission to help students meet their unique educational goals and minimize logistical and financial barriers to success.

Please select the district goals with which this objective aligns.: District Goal #1 - Develop and Strengthen Educational Offerings Interventions and Support Programs that Increase Student Access & Success, District Goal #3 - Increase Program Delivery Options Including the Expanded Use of Instructional Technology to Support Student Learning and Success

Resource Requests

Automated Agar/Media Filler - Biology Support

Our lab tech pours 8 liters of agar any given day into Petri dishes creating substantial repetitive strain on her shoulders over time. An automated filler will significantly reduce the potential for workplace injury and, more importantly, will reduce the chance of plate contamination and wasting of supplies.

<https://www.neutecgroup.com/products/agar-media-fillers-preparators/agar-media-filler-ps200-400-detail>

Status: New Request - Active

Type of Resource: Equipment (Items Over \$5000)

Cost: 29412

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: High Priority

Balance/Scale - BIOL 110 and 230

We currently have to carry balances between the two labs which risks damage and loss of calibration.

CAN Program Review (Instructional) - Biological & Health Sciences (Even Year)

\$1912 x 2 = \$3824 total

<https://www.fishersci.com/shop/products/pioneer-px-balance-26/01922170?searchHijack=true&searchTerm=01922170&searchType=RAPID&matchedCatNo=01922170>

Status: New Request - Active

Type of Resource: Supplies (Items less than \$5000)

Cost: 3824

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: High Priority

Brain model - BIOL 250

We no longer are able to maintain multiple actual human brain specimens and so need to augment our existing models. We need two additional brain models to distribute among student groups.

https://www.a3bs.com/classic-human-brain-model-5-part-3b-smart-anatomy-1000226-c18-3b-scientific,p_13_243.html
\$234 x 2 = \$468

Status: New Request - Active

Type of Resource: Supplies (Items less than \$5000)

Cost: 468

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: High Priority

Compact centrifuge - BIOL 230

This is my most major need -- we process dozens of tissue/cell samples (2-3 cycles each!) per lab period every week of the academic year. Currently we can only process 6 samples in our centrifuge at a time. With 30 students and 8 groups of them, this causes serious additional wait times, delays, and labs to run over/late when things don't go perfectly -- which is the case most of the time. We need at least 1 lower-cost centrifuge that can process 50ml Centrifuge at at least 4,000xg. This is the least expensive centrifuge and rotor I can find that meets these requirements.

Centrifuge \$2031

<https://ecatalog.corning.com/life-sciences/b2c/US/en/Equipment/Centrifuges/Compact-Centrifuges/Corning®-LSE™-Compact-Centrifuge/p/6756?clear=true>

Rotor \$1014

<https://ecatalog.corning.com/life-sciences/b2c/US/en/Equipment/Centrifuges/Centrifuge-Accessories/Corning%C2%AE-LSE%E2%84%A2-Compact-Centrifuge-Rotors/p/480143>

Total \$3045

Status: New Request - Active

Type of Resource: Supplies (Items less than \$5000)

Cost: 3045

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: High Priority

Gas Analysis System - BIOL 260

The Gas Analysis System will allow us to measure oxygen and carbon dioxide in students' breath. This allows us to measure their metabolism during rest and exercise, measure VO₂, and perform Wingate tests which assess student's physical fitness. These types of measurements are used to enhance the training of athletes and so could be relevant not only to our physiology students but also our college coaches.

One complete Gas Analysis System with all necessary couplers, costs \$7900. We have 6 Biopac workstations that connect to this system to do the data acquisition; we are requesting at least 3 complete systems now which is the minimum needed to run a lab with 30 students. We will request 3 additional systems in the future to finish equipping the lab.

We will need to purchase one (1) set of equipment to calibrate each of the systems; the calibration equipment costs \$2,510.

CAN Program Review (Instructional) - Biological & Health Sciences (Even Year)

Grand total for 3 systems and calibration equipment = \$26,235.
Grand total for 6 systems plus calibration equipment = \$50,000.

<https://www.biopac.com/product/co2-and-o2-analysis/>

Status: New Request - Active

Type of Resource: Equipment (Items Over \$5000)

Cost: 26300

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: High Priority

Head musculature model - BIOL 250

We have 5 existing head models and need one additional model to distribute among the 30 students in lab.

https://www.a3bs.com/head-and-neck-musculature-model-5-part-3b-smart-anatomy-1000214-c05-3b-scientific,p_32_226.html

Status: New Request - Active

Type of Resource: Supplies (Items less than \$5000)

Cost: 1161

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: High Priority

Incubator - BIOL 240

We need 2 incubators, one at 37C and one at 55C. We only have one in the prep room and it is beginning to fail (25-30 years old). We need to replace it and purchase a second.

\$1764 x 2 = \$3528 total

<https://www.fishersci.com/shop/products/basic-microbiological-incubators-3/150152634?searchHijack=true&searchTerm=150152634&searchType=RAPID&matchedCatNo=150152634>

Status: New Request - Active

Type of Resource: Supplies (Items less than \$5000)

Cost: 3528

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: High Priority

Leica DM500 compound microscopes with pointers - BIOL 250 and the Upward Bound/UCB extension lab (16-204)

15 scopes will be used in BIOL 250, 15 in the UCB Extension lab

approximately \$1500 x 30 = \$45000 (will submit updated pricing information when quote arrives)

JH Technologies: 402 890 8249

Status: New Request - Active

Type of Resource: Equipment (Items Over \$5000)

Cost: 45000

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: High Priority

Leica E24 dissecting scopes - Upward Bound/UCB Extension lab (16-204)

Need 30 new dissecting scopes

approximately \$1065 x 30 = 32,000 (will update pricing when quote arrives)

Status: New Request - Active

Type of Resource: Equipment (Items Over \$5000)

Cost: 32000

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: High Priority

CAN Program Review (Instructional) - Biological & Health Sciences (Even Year)

Micro Balances - BIOL 110 and 240 and Biology Support

These balances provide very precise measurements of tiny amounts of chemicals needed to perform experiments.

\$6185 x 2 = \$12370 total cost

<https://www.fishersci.com/shop/products/mettler-toledo-newclassic-ms-semi-micro-balances-3/01911371#?keyword=01-911-371>

Status: New Request - Active

Type of Resource: Equipment (Items Over \$5000)

Cost: 12370

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: High Priority

Micropipettors P-1000 size (4 pack) - We need a few complete sets (4 each of P-1000) of micropipettors to support independent student projects outside of regular class time, especially with the new student Independent Projects lab space in Building 23.

1-4 pack

<https://www.pipette.com/P3940-4P-Labnet-Biopette-Plus-4-Pack-Mix-and-Match-Please-specify-sizes-at-checkout-1-Carousel-Stand-and-2-Racks-of-Tips>

Price quoted is before tax and excluding SH

Status: Continued Request - Active

Type of Resource: Supplies (Items less than \$5000)

Cost: 650

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: High Priority

Micropipettors P-20 size, (4 pack) - We need a few complete sets (4 each of P-20) of micropipettors to support independent student projects outside of regular class time, especially with the new student Independent Projects lab space in Building 23.

<https://www.pipette.com/P3940-4P-Labnet-Biopette-Plus-4-Pack-Mix-and-Match-Please-specify-sizes-at-checkout-1-Carousel-Stand-and-2-Racks-of-Tips>

1-4 pack

Price quoted is before tax and excluding SH

Status: Continued Request - Active

Type of Resource: Supplies (Items less than \$5000)

Cost: 650

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: High Priority

Micropipettors P-200 size (4 pack) - We need a few complete sets (4 each of P-200) of micropipettors to support independent student projects outside of regular class time, especially with the new student Independent Projects lab space in Building 23.

<https://www.pipette.com/P3940-4P-Labnet-Biopette-Plus-4-Pack-Mix-and-Match-Please-specify-sizes-at-checkout-1-Carousel-Stand-and-2-Racks-of-Tips>

1-4 pack

Price quoted with before tax and excluding SH

Status: Continued Request - Active

Type of Resource: Supplies (Items less than \$5000)

Cost: 650

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: High Priority

Mini Microcentrifuges - BIOL 230 and 110

WE need mini-microcentrifuges for the BIOL 230 lab (at least 2) and BIOL 110 labs (at least 1). Ones we've had were old donations, and some are no longer working. We desperately need more.

CAN Program Review (Instructional) - Biological & Health Sciences (Even Year)

\$283 each x 3 = \$850

Green lid:

https://www.sigmaaldrich.com/catalog/product/sigma/z763896?lang=en®ion=US&cm_sp=Insite-_-prodRecCold_xviews-_-prodRecCold10-3

Purple lid:

https://www.sigmaaldrich.com/catalog/product/sigma/z763926?lang=en®ion=US&cm_sp=Insite-_-prodRecCold_xviews-_-prodRecCold10-1

Blue lid:

https://www.sigmaaldrich.com/catalog/product/sigma/z763853?lang=en®ion=US&cm_sp=Insite-_-prodRecCold_xviews-_-prodRecCold10-8

Status: New Request - Active

Type of Resource: Supplies (Items less than \$5000)

Cost: 850

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: High Priority

Muscle models of upper and lower limbs - BIOL 250

We currently have 2 upper limb models and 2 lower limb models. Adding a third model of each will make it easier to distribute these among a class of 30 students.

https://www.a3bs.com/anatomy-set-musclcd-limbs-8000841-3b-scientific,p_46_30677.html

Status: New Request - Active

Type of Resource: Supplies (Items less than \$5000)

Cost: 1371

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: High Priority

pH meters - BIOL 110, 132, 230, 240

We only have 1 pH meter in the prep room and need to carry it to each lab for use during class. We need one meter in each lab.

\$1132 x 3 = \$3396

<https://www.fishersci.com/shop/products/mettler-toledo-s220-sevencompact-ph-ion-benchtop-meter-4/01915101#?keyword=01-915-101>

Status: New Request - Active

Type of Resource: Supplies (Items less than \$5000)

Cost: 3396

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: High Priority

Portable vacuum station - Lower priority

Biology Support and various labs

Need 1

<https://www.fishersci.com/shop/products/air-cadet-portable-vacuum-pressure-station/13875239?searchHijack=true&searchTerm=13875239&searchType=RAPID&matchedCatNo=13875239>

Status: New Request - Active

Type of Resource: Supplies (Items less than \$5000)

Cost: 460

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: Low Priority

Utility carts (2) - Biology Support

CAN Program Review (Instructional) - Biological & Health Sciences (Even Year)

We need two (2) additional mobile carts for transporting lab supplies and equipment to the classrooms. All equipment setups are delivered and left in the classroom labs for use that day and then returned to the stockroom.

$\$756 \times 2 = \1512

<https://www.fishersci.com/shop/products/rubbermaid-heavy-duty-utility-cart-aluminum-uprights/1192671?searchHijack=true&searchTerm=1192671&searchType=RAPID&matchedCatNo=1192671>

Status: New Request - Active

Type of Resource: Supplies (Items less than \$5000)

Cost: 1512

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: High Priority

Water bath - 10L - Lower priority

Various biology labs

2 needed

$\$676 \times 2 = \1352 total

<https://us.vwr.com/store/product?keyword=76308-896>

Status: New Request - Active

Type of Resource: Supplies (Items less than \$5000)

Cost: 1352

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: Low Priority

Water baths - 20L - Lower priority

Various biology labs

1 needed

<https://us.vwr.com/store/product?keyword=76308-900>

Status: New Request - Active

Type of Resource: Supplies (Items less than \$5000)

Cost: 842

One-Time or Recurring Cost?: One-Time Cost

Division/Department Priority: Low Priority