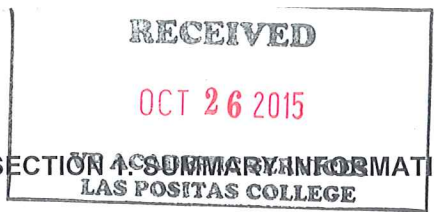


\$ 65,000



Instructional Equipment Request  
2015-16

FALL 02

SECTION 1: SUMMARY INFORMATION  
LAS POSITAS COLLEGE

Brief Title of the Request: Microscopes & Cameras

Equipment Location: 1850 & 1810

Name of Requestor: Gerry Gire, Nan Ho, Ann Hight

Division/ Unit: STEMPS

SECTION 2: EQUIPMENT DESCRIPTION

Check one of the following:

The equipment is:  A replacement  An upgrade  New equipment/technology

Describe the specific equipment requested and how it will be used to replace, upgrade or provide new technology to the college from what is currently in place? If there is a legal requirement, a mandate, or safety concern for purchase of this equipment, please discuss and make specific reference to that regulation/concern. (Cost data should be recorded in Sec. 7)

**This request is for 23 compound microscopes, 3 digital cameras, and 2 stereo dissecting microscopes. They will be used to replace older, poorer quality microscopes in our Anatomy lab, upgrade our analog microscope cameras to digital systems with better ease of use, add new compound scopes to our Biology Learning Center and add new dissecting scopes to the Zoology/Bio 30 lab rooms for our growing biology program. Many of the microscopes will replace ones nearly 20 years old, and standardize 4 of our 5 laboratory classrooms with similar high quality equipment for our students to use for viewing microscope slides containing lab specimens and taking photomicrographs. The fifth laboratory classroom will be upgraded later as the need is less pressing at this time for classes using that room.**

**Our students have noted a difference in using the much older microscopes- finding the optics and focus not as satisfactory as our newer scopes. Microscope study and use is a foundation skill in all of our biology labs.**

SECTION 3: EDUCATIONAL ITEMS- PROGRAM REVIEW

Which educational programs or institutional purposes does this equipment support?

**Biology Program**

Is this equipment included in your Program Review?  Yes  No

If yes, please cut and paste the appropriate wording here. If not, explain why.

**Program Review:**

***“Students in the anatomy lab (which serves all BIO 7a – Anatomy and BIO 50 – Human Anatomy & Physiology) are working with microscopes that are over 20 years old. These microscopes show their wear and tear, do not focus well and have optics that are not optimal for viewing histology. Tissue histology is a major focus of SLOs in anatomy.***

***We are working with a vendor who supplied our microscopes in 2012 to give us a quote for replacing our 20+ year old microscopes in the BLC and the anatomy lab.***

***Currently, students in the labs take micrographs on existing instructor scopes and send those images to a central computer in the Biology Learning Center (BLC). This is no longer sustainable because the BLC is overcrowded and we cannot set aside a computer and microscope in the BLC for work that***

*needs to be done in the biology labs. We have worked with IT and with a microscope vendor to develop a solution. New instructor microscopes and imaging hardware and software will allow students and faculty to capture microscopic images from the classroom. These images support SLOs of individual labs.”*

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#### SECTION 4: TEACHING AND LEARNING

Describe in some detail the impact this equipment will have on teaching and learning.

##### Impact on teaching:

Better equipment which is standardized across the lab rooms will allow the instructor to focus their time on helping the students learn the biological structures and not spend unnecessary time trying to adjust or repair older microscopes. With the newer digital cameras, the instructors will need to spend less time setting up or adjusting the image before saving the document as the process is streamlined from our current tedious system.

##### Impact on learning:

This foundation piece of biology equipment will allow all students in 4 of the 5 labs to have the same high grade optics and ability to focus in order to visualize and learn to identify microscopic structures. Students reviewing work in the Biology Learning Center (BLC) currently must deal with microscopes that are sometimes different than the ones they learn on in the laboratory classroom. For our introductory biology students, this impedes their learning because they spend too much time figuring out how to use a different model. Standardizing scopes will help students quickly and efficiently work in the BLC as well as other laboratory classrooms.

Per academic year, this equipment will impact:

**48** Number of classes or sections  
**1200** Number of students

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#### SECTION 5: OUTCOMES (SLOs)

By documenting your specific SLOs, how will equipment enable student learning outcomes to be achieved? What are the consequences related to learning outcomes if request is not funded?

##### Part Three: SLO/SAO Continuous Improvement Process

*“One downside to growing our program is its impact (heavy use) on equipment, facilities and supplies. For example, our most comprehensive department-wide SLO relates to student mastery of microscopy. Recently, we have heard from our students that there are no longer enough microscopes for them to use during peak hours in the Biology Learning Center (BLC) and biology labs. Additionally, intense usage by an increasing number of students in the BLC and all biology labs, have resulted in more maintenance and repair problems. This takes some microscopes out of circulation for student use. We now have a greater need for microscopes in the BLC. Moreover, students do not always have access to the same type of microscope used for their SLO assessment.”*

Not funding this request will limit students’ abilities to be successful in our department-wide SLO on student mastery of microscopy. It will continue to allow inequities in equipment and limit access to our state of the art equipment in other lab rooms.

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#### SECTION 6: LPC PLANNING PRIORITIES

Please address how this equipment will serve the current LPC planning priorities.

These microscopes and cameras will serve the LPC planning priority on facilitating ongoing meaningful assessment of SLOs. The Biology department has developed a comprehensive department-wide SLO relating to student mastery of microscopes. Upgrading our equipment in four of the five rooms will allow SLO assessment to be done and standardized on one type of microscope as

well as improve the student learning by having better optics for them to see detail at extreme magnifications.

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**SECTION 7: TOTAL COST OF OWNERSHIP (FINANCIAL & SUSTAINABILITY)**

What is the potential life span of the requested equipment?: **With proper care, 15-20 years.**

What will be required to maintain the equipment, such as regular servicing or upkeep? Include these costs in initial and on-going costs below.

**Twice a year, the microscopes are cleaned and serviced by the lab techs as part of our normal maintenance program.**

Where will the equipment be used or housed? If new storage is needed, describe the storage, location and costs to provide for it. Include these costs in initial costs below.

**The microscopes will be housed in 1851, 1852, 1854, 1858 and 1810. Microscope cabinets already exist for the equipment. The cameras will be mounted to the top of the instructor microscopes and not take any additional storage room.**

**Part A: Initial Start-up Costs**

	Costs	Comments
Equipment or Materials	\$59,255.32	With discount taken
Shipping or Delivery charges	\$ 260	
Installation costs	none	
Costs to modify facilities	none	
Vendor Discount	\$21,658.68	Already included in cost
Any Other Costs-training, etc.	none	Specify
Local Sales Tax @9.5%	\$5,651.11	Included in equipment
<b>Grand Total Costs =</b>	<b>\$65,136.43</b>	Click the \$ and press F9 to calculate the grand total

A completed purchase order(s) and quote(s) for this total cost are attached.

**Part B: On-going Annual Operating Costs**

	Costs	
Annual service or maintenance contract	\$ none	
Estimated parts replacement each year	\$ none	
Outside standardization or calibration costs	\$ none	How often?
Storage costs	\$ none	

New supply costs	\$ none	
Any other costs, including labor	\$ 80.00	Specify- 20 min/yr of lab tech on 11 additional scopes
Annual Operating Costs =	\$ 80.00	How will costs be paid? Will be absorbed into current staff.

**Part C: Incremental Labor Costs**

Please describe who will be the key operator and who will perform the maintenance & repairs.

**The key operator will be the students and instructors. The lab techs will perform twice yearly cleaning and servicing.**

Are these individuals already trained? If not, how will they be trained, how long is the training and is there a cost for the training. Please include the cost above in initial start-up. Is the maintenance, operation and repair currently within their scope of duties?

**Student training is part of their coursework. Faculty share best practices on occasion (most recently during a Flex Day workshop). The lab techs have been performing general cleaning and servicing on microscopes for years. They are already trained or learn on the job with other more seasoned lab techs. Such duties are within their scope of duties currently.**

Estimate the amount of time required in a month to perform this maintenance or operation

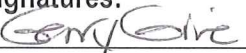
**Maintenance is estimated to be about 20 minutes per scope over the year or less than 2 minutes per month.**


Explain how this equipment meets or exceeds basic sustainability efforts and/or provides renewable resources to the college?


**Lamps for the microscopes are long lasting bulbs, low heat generation and low energy draw. Their use reduces our waste from old incandescent bulbs.**

Funded requestors will be expected to respond to a brief RAC feedback survey by a requested deadline. Requests for computer related equipment & printers must be reviewed by LPC IT Department

IT Department Authorized Signature: \_\_\_\_\_

Signatures:  
  
 Requestor  
 Date Originated: 10/19/15

  
 Dean/Manager  
 Date Received 10/21/15

  
 Vice President  
 Date Received \_\_\_\_\_

# OLYMPUS

Olympus America Inc.  
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 Center Valley PA, 18034, United States  
 Tel: (800) 446-5967  
 seg.orders@olympus.com  
<http://www.olympus-iffscience.com>

# Quotation

<b>Quotation #</b>	QT-US-M-1014310
<b>Quote title</b>	CX-31 instructor scopes 4x,10x,40x and 100x oil Tri head to attach camera, CX31 student scopes 4x,10x,40x and 100x oil, Dp22 cameras and software, SZ6145 stereos with transmitted light base
<b>Date</b>	Oct 6, 2015

### Bill to:

Las Positas College  
 3000 Campus Hill Drive  
 Livermore, CA 94551, United States

### Ship to:

Las Positas College  
 3000 Campus Hill Drive  
 Livermore, CA 94551, United States

<b>Expires</b>	<b>Customer Ref #</b>	<b>Contact Name</b>	<b>Contact Phone</b>	<b>Contact Email</b>	<b>Customer Fax</b>	<b>Ship Via</b>
Jan 4, 2016		Gerry Gire		GGire@laspositascollege.edu		
<b>Payment Terms</b>	<b>Incoterms</b>	<b>Currency</b>	<b>Sales Rep</b>	<b>Sales Rep Phone</b>	<b>Sales Rep Email</b>	<b>Second Sales Rep</b>
TBD	EXW-ORIGIN	U.S. Dollar	Rick Staples	(415) 250-6505	Rick.Staples@olympus.com	

P/N	Qty	Description	Tax	Unit Price	Discount	Net Unit Price	Extended Price
CX31-107A	21	CX31RBSFA-1-7; CX31-BI,4/10/40/100X.EYE.STG.PWR.BULB, NO OIL	Y	2,130.00	30%	1,491.00	31,311.00
C-0900	21	CH3-CH;CORD HOLDER FOR CH30 STUDENT MICROSCOPE	Y	20.00	30%	14.00	294.00
B-0681	21	POINTER;EYEPiece POINTER WITH SHARPENED POINTS FOR CH2,CH30	Y	3.00	30%	2.10	44.10
B-L0501	21	20.40CM/10/100;20.4MM DIA,MICROMETER DISC,10MM/100 UNITS	Y	59.00	30%	41.30	867.30
Z-8A052	21	20.4-RH; EYEPiece MICROMETER HOLDER FOR WHB10X EYEPieces	Y	25.00	30%	17.50	367.50
OLPI-CXS	21	LPI-CXS;BX/CX SWIVEL MOUNT	Y	336.00	13%	292.32	6,138.72
COVER015	23	COVER015: DUST COVER, HOOD TYPE FOR CX2 MICROSCOPES	Y	11.00	30%	7.70	177.10
CX31046TR	2	CX31RTSF-6; CX31 KIT W/4/10/40X OB.EYEP,TR,RT STG, PWR, BULB	Y	2,070.00	30%	1,449.00	2,898.00
1-U2B0662	2	PLCN100XOI-1-7;PLAN ACHROMAT 1 00X OIL OB NA0.6-1.25,WD0.13 I	Y	751.00	30%	525.70	1,051.40
U-V163C27	3	U-TV0.63XC-1-7; CCD CAMERA ADAPTER,0.63X LENS,C-MOUNT THREAD	Y	676.00	30%	473.20	1,419.60
7-DP22-CSE13	3	DP22 COLOR CAMERA KIT WITH CELLENS ENTRY 1.13; USB3.0 CABLE	Y	4,690.00	20%	3,752.00	11,256.00
SZ-6145	2	SZ61;MICROSCOPE BODY W/ESD CAPABILITY, 67-4.5X ZOOM OPTICS,4	Y	1,216.00	30%	851.20	1,702.40
2-S110	4	WHSZ10X;EYEPiece 10X W/OUT DIOPTRER ADJUSTMENT IN ESD CAPA	Y	110.00	30%	77.00	308.00
S-01282	2	SZ2-ST;STAND WITH ESD CAPABILITY	Y	293.00	30%	205.10	410.20
S-0115	2	LSGA-5;LOW VOLT ILLUMINATOR KIT W/ BULB, NO TRANSFORMER	Y	155.00	30%	108.50	217.00
5-LC255	2	TL-3-115; TL-3 LOW VOLTAGE TRANSFORMER-LSGA, SZ-CHI	Y	185.00	30%	129.50	259.00
S-01292	2	SZ2-ILA;TRANSMITTING ILLUMINATION BASE	Y	338.00	30%	236.60	473.20
S-0750	1	SP-C;CLEAR GLASS STAGE PLATE FOR STEREOS Other Shipping Charge	Y	22.00	30%	15.40	30.80
			Y	260.00	0%	260.00	260.00



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<b>Date</b>	Oct 6, 2015

P/N	Qty	Description	Tax	Unit Price	Discount	Net Unit Price	Extended Price
		<p>The quotation has been prepared by Rick Staples. Phone: (415) 250-6505 Email: Rick.Staples@olympus.com</p> <p>If you wish to place an order, please send your Purchase Order to seg.orders@olympus.com For Credit Card orders, please call 800-446-5967 and select option #6.</p>					

• Price Quotes and Total Package Prices are for listed items only and valid for 90 days  
 • Changes, Additions or Deletions are from this package quotation may cause pricing adjustments  
 • Prices quotes are FOB Origin and in USD unless otherwise stated in this quotation. Shipping charges will be added to your invoice at the time of shipment. Olympus will prepay and add shipping costs unless your carrier collect account number is provided.  
 • Orders and Warranty for Olympus Equipment are accepted based on Olympus Scientific Solutions Americas Terms and Conditions. You can view these terms at <http://www.olympus-lifescience.com/en/terms>.  
 • Orders received and confirmed for custom manufactured products may not be cancelled or returned without written authorization from Olympus Scientific Solutions Americas.  
 • Olympus Scientific Solutions Americas reserves the right to charge a restocking fee if confirmed order is cancelled or returned.  
 • Your quotation may be prepared as taxable due to the financial obligations for the state you are located in. If you are tax exempt and need to have tax removed from your quote, please provide your tax exempt form along with your purchase order.

Total Unit Price: \$81,144.00  
 Total Savings: \$21,658.68  
 Subtotal : \$59,485.32  
 Tax (9.5%) : 5,651.11

**Grand Total (USD) : \$65,136.43**

We invite you to share your opinion about our products and service. Please email [customerfeedback@olympus-ossa.com](mailto:customerfeedback@olympus-ossa.com) with your feedback regarding Olympus

