## INSTRUCTIONAL EQUIPMENT REQUEST 2018-2019 SEP 1 2 2018

1	nternal	Use
IE#:	FAI	1-43
Total \$	•	

VII. 4 3 2010				
Requester Name: Flores, Ansell, Grow, Wilkes STDivision Name: STEM				
SUMMARY INFORMATION				
Title of Item: Centigram Mass Balances				
Equipment Location Building: 1800 Room: 1807				
Location Comments:				
The balances will primarily be used by chem students in Lab 1807 but also by other bio and chem classes.				
SECTION 1: EQUIPMENT DESCRIPTION				
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 LPC from what is currently in place:				
Mass balances are a critical piece of equipment needed to measure masses of substances whose physical and chemical properties are being observed. They are used to ensure that chemical reactions have the right amount of sample for observing chemical reactions quantitatively. This standard lab equipment falls under the definition of "Instructional" pertaining to "equipment purchased for instructional…activities involving presentations and hands-on experience to enhance student learning and skills development" (from Copy of Definitions of Instructional Equipment according to the California Community College Budget and Accounting Manual).				
The two centigram balances to be purchased will augment the number of balances currently used and shared by chemistry and biology students. The centigram balances are used for many experiments by students in Chemistry 30A and Chemistry 31. They are also used by Chemistry 30A students during their final lab practical. Expected improvements include:				
1) Presently, because of insufficient number, centigram balances need to be moved between the two science buildings (1800 and 1850). Purchasing 2 additional centigram balances will obviate having to move the instruments which reduces potential damage to the sensitive parts and even breakage and use of lab tech time.  2) These centigram balances do not need special rigid shelves and thus can be set-up in areas where the instructor can observe students easily like in lab practicals. Their portability means that they can be used for other classes in the other lab rooms when needed.  3) They can be used for lower precision weighings which reduces the wear and tear on the more expensive higher precision milligram balances.  4) They can be used for labs where students have to do multiple weighings but do not require the milligram balances. For example, one of the Chem 31 labs requires students to do 15 weighings each per pair. These centigram balances have been helpful in reducing crowding and makes the lab work more efficient. When not being used for lab experiments, these balances can be used by lab technicians when preparing reagents.				

3 ADMINISTRATIVE SERVICES

This equipment will support both the chemistry program and the biology program. Students in both of these rograms use the centigram balances. The centigram balances will also be used by the lab technicians helpi repare the chemical reagents used in biology and chemistry labs.
this equipment is included in your Program Review, please include the exact wording. If equipment of included, explain why:
rom the Chemistry Fall 2016 Program Review: Continue to request increase in equipment (including glassware and other locker materials) and chemical upplies budget and access to science building classrooms to meet the needs of more sections.
rom the Chemistry Fall 2017 Program Review: ection One, Part B:
upplies and equipment: More students in the program means more chemicals used, more glassware and ther equipment needed, and higher frequency of use of instruments. With the 10% increase from last year need number of sections offered and the addition of third sections of 12A and 12B, the Program has increased eed for
ection One, Part E:  Mass balances are not specifically referred to in program reviews because they fall under standard chemistry ab equipment required to meet the measurable objectives in all of our course outlines and our SLO's for all ne courses. In this section, the mass balances are implicitly included in the section referring to "aging nestruments and equipment".

SECTION 3: EDUCATIONAL ITEMS – PROGRAM REVIEW

SECTION 6: TOTAL COST OF OWNERSHIP (FINANCIAL & SUSTAINABILITY)
What is the potential life span of the requested equipment?
Our oldest balances have lasted about 15 years at least. These newer, sturdier models will likely last longer. There will also be less wear and tear on these as these are an augmentation to what we currently use.
If new storage is needed what are the storage requirements, location requirements, and costs associated with the new equipment: (NOTE: Specific storage costs should be detailed in the " <i>Part A: Initial Start-Losts</i> " section below.)
No new storage is needed. The balances will be used and stored in the chemistry stockroom when they are not being used for class experiments.
If this equipment replaces old equipment but the old equipment will not be retired, are there on-going storage requirements, location requirements, and costs associated with the old equipment? If so, provide details.  N/A
What will be required to maintain the equipment, such as regular servicing or upkeep? (Specific on-go costs should be detailed in the " <u>Part B: On-Going Annual Operating Costs</u> " sections below as applicable.  These balances will require periodic calibration service.
Explain how this equipment meets or exceeds basic sustainability efforts and/or provides renewable resources to the college:
This equipment has a relatively long functional life span which reduces resource use.
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## SECTION 6: TOTAL COST OF OWNERSHIP (contd)

Part A: Initial Start-up Costs

<u>Item</u>	Cost	<u>Comments</u>
Equipment or Materials	1,001.54	2 balances x \$500.77
Taxes (9.5%)	95.15	
Shipping or Delivery Charge	0.00	Free ground shipping
Installation Costs *	0.00	
Miscellaneous Costs:		
Facilities Modifications	0.00	
Operator Training	0.00	
Maintenance & Repair Training	0.00	
Storage	0.00	
Other:	0.00	
Vendor Discount		
Grand Total:	\$ 1,096.69	

<sup>\*</sup>For items requiring installation, requesters are required to check with District Purchasing (Victoria Lamica) regarding District policies.

Part B: On-Going Annual Operating Costs

<u>Item</u>	Cost	<u>Comments</u>
Annual Service or Maintenance	0.00	
Estimated Parts Replacement Per Year	0.00	
Outside Standardization or Calibration Costs	25.00	estimated per balance
Storage Costs	0.00	
New Supply Costs	0.00	
Miscellaneous Costs:	0.00	
Maintenance & Repair Labor	777	
Other:		
Annual Operating Costs:	25.00	

Indicate the source of funding for on-going annual operating costs:

Chemistry supplies budget for periodic calibrations

Maintenance (nH 9-13-18)

SECTION 6: TOTAL COST (	OF OWNERSHIP (contd)
Part C: Incremental Labor Co	osts
<b>OPERATOR</b> :	
Indicate the key operator: students	and lab techs
	es? Yes
	include in Initial Start-up Costs above):
Indicate amount of time per month	key operator will use equipment: up to 4x
MAINTENANCE & REPAIRS:	
Indicate the person performing mai	ntenance and repairs: lab tech and calib serv person
	VIDO
Indicate cost to train for maintenan	ce and repairs: 0
Indicate amount of time per month	maintenance will be required: once every 2 years
	to respond to a brief RAC feedback survey by a requested deadline.  pment and printers must be reviewed by the LPC IT Department.    1
IT Department (if required)	Date
Dean/Manager  Vice President	9/13/)4 Date 9/21/18 Date

RECEIVED

SEP 21 2018

VP ACADEMIC SERVICES LAS POSITAS COLLEGE

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SUGGESTED VENDOR NAME OF STAFF MEMBER	WWR International Inc. 1310 Goshen Parkway, We	sst Ch	ACCT# 80157177 ester, PA 19380 Fax: (610)431-9174 DIVISION/ DEPARTMENT For inventory pur	poses in	STEMPS Division	whereRE	FOR OI	FOR OFFICE USE ONLY	Ö
Adeliza Flores	10-Sep-18		STEM	equipment will reside: 1812			Gary Wilkes Ext#:1331	Ext#:1331	
DESCRIPTION	(PRODUCT, TY	(PRODUCT, TYPE, SIZE, COLOF	R, STOCK NUMBER)		TINO	QTY U	UNIT PRICE	Air	
Centigram Mass Balance	10205-004					2 \$	500.77	\$ 1,0	1,001.54
								\$	1
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		Section (Section Control Section Section Control Section Secti						\$	1
		WEIGHT TO THE STREET						\$	1
		SEP 21	2018					\$	1
		VP ACADEMIC	SERVICES					↔	1
Vendor Information/ Remit To:	To:		OLLEGE Veliver To, include	Deliver To, include room # (optional):				↔	: Т
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Comments:					Subtotal			7,0	1,001.54
					Тах		9.50%	↔	95.15
				BT#	Shipping (if available):	ı (if avai	lable):	↔	1
Original invoices and receipts must be attached for payment. Include current taxes unless incorporated in price.	ist be attached for pa	ayment. Include curr	ent taxes unless incorp	oorated in price.		F	TOTAL COST	\$ 1,0	1,096.69
# ACCOUNT #	FUND	ORG	ACCT	PROGRAM	Business Office	s Office			
APPROVALS	Man 74 9/13	(3/18							
	Supervisor/ Coc	Supervisor/ Coordinator/ Director		Геа	Dean/ VP/President	Sideni			



QUOTATION					
Quote Number	Valid From	Valid To	Page		
8030793687 09/10/2018 10/10/2018 1 of 1					
Currency Sales Representative Customer Reference		ference			
USD	Daniel Im				

To Place an (	Order	
Phone :	1-800-932-5000	
Fax:	1-866-329-2897	
Web:	www.vwr.com	

When placing your order, please include your quotation number and account number to ensure you receive the correct price.

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Ship To :	80248487	Sold To:	80248487	
LAS POSITAS CO SCIENCE DEPT : GARY WILKES R 3000 CAMPUS HI LIVERMORE CA	1856 LM 1856 LL DR	LAS POSITAS O SCIENCE DEPT GARY WILKES 3000 CAMPUS I LIVERMORE O	Г 1856 RM 1856 HLL DR	

## THANK YOU FOR THE OPPORTUNITY TO EARN YOUR BUSINESS.

Additional Information :	- 110A00-19V-0-0	 
FREE GROUND SHIPPING		

Row	VWR Catalog Number	<b>Product Description</b>	Qty	UOM	Unit Price	Extended Price
10	10205-004	PORTABLE BALANCE 500G X 0.01G	2	EA	500.77	1,001.54



VWR® P-Series Portable Balances
Product Link: https://us.vwr.com/store/catalog/product.jsp?catalog\_number=10205-004
Shipping Dimensions Weight / Size (L\*W\*H) per UOM: 4.850 LB / 16.500\*16.100\*8.700 IN

UOM Component Info: EA(litems)

Availability: In Stock

Quote Total:

1,001.54

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