

INSTRUCTIONAL EQUIPMENT REQUEST
2018-2019

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SEP 12 2018

STEMPS Division
Las Positas College

Internal Use

IE #: Fall-41

Total \$: _____

Requester Name: Flores, Ansell, Wilkes, Grow

Division Name: STEM

SUMMARY INFORMATION

Title of Item: Hood Covers for Student Safety Fume Hoods

Equipment Location Building: 1800

Room: 1802 and 1805

Location Comments:

Lab 1802 is primarily used by Chem 1A and 1B students and lab 1805 is primarily used by 12A/12B and 30B students.

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:

We are requesting equipment funds to purchase 6 replacement safety hood covers for the personal ventilation systems installed in laboratory rooms 1802 and 1805. These fume hoods allow students to carry out hands-on experiments to observe chemical reactions on their benchtops with safe, direct, and immediate ventilation of vapors. Each of these ventilation systems comes with a hood cover to protect students from possible chemical splatter and to funnel fumes. The replacement metal fume hood covers being requested are a possible upgrade also because they may turn out to be more durable than the current plastic hood covers. If this bears out, we will be requesting additional metal ones in a future request as replacement for the other hood covers.

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ADMINISTRATIVE SERVICES

SECTION 1: EQUIPMENT DESCRIPTION (contd)

If applicable, describe the legal requirement, mandate, or safety concern for purchase of this equipment, making specific reference to the legal requirement or regulation:

Ventilation fume hoods are a standard and required laboratory safety feature in any chemistry labs. This is of primary importance in ensuring safety in the laboratory by minimizing contact with potentially hazardous chemicals in the lab. These hoods are the first line of defense against contact with chemicals in the event of a chemical splatter, sudden release of gas, and in funneling vapors away from the room.

SECTION 2: LPC MISSION STATEMENT AND LPC PLANNING PRIORITIES

LPC MISSION STATEMENT:

LPC is an inclusive learning-centered institution providing educational opportunities and support for completion of students' transfer, degree, basic skills, career-technical, and retraining goals.

LPC PLANNING PRIORITIES:

- ❖ **Accreditation:** Establish regular and ongoing processes to implement best practices to meet ACCJC standards.
- ❖ **Curriculum:** Provide necessary institutional support for curriculum development and maintenance.
- ❖ **Tutoring Services:** Expand tutoring services to meet demand and support student success in Basic Skills, CTE, and Transfer courses.
- ❖ **Professional Development:** Coordinate available resources to address current and future professional development needs of faculty, classified professionals, and administrators in support of educational master plan goals.

Specify how the equipment supports *LPC's Mission Statement and Planning Priorities*:

The equipment being requested supports both the mission of the College and the Program to provide educational opportunities and academically prepare students for transfer, degree completion, or a technical career. Most of the students taking chemistry courses are transfer students majoring in Biology, Chemistry, some Engineering fields, pre-med/dental, and allied health students. These fume hood covers will be used by the students taking the pre-requisite courses (1A, 1B, 12A, 12B, and 30B in particular) required for transfer, degree completion, and/or a technical career requiring laboratory experience. The Chemistry program is able to offer a rigorous lab curriculum that involves exciting and relevant experiments because we have the facilities that support the safety of students.

SECTION 3: EDUCATIONAL ITEMS – PROGRAM REVIEW

Specify the educational programs this equipment supports:

This equipment will support students in the Chemistry program.

If this equipment is included in your Program Review, please include the exact wording. If equipment is not included, explain why:

From the Chemistry Fall 2016 Program Review:

- Continue to request increase in equipment (including glassware and other locker materials) and chemical supplies budget and access to science building classrooms to meet the needs of more sections.

From the Chemistry Fall 2017 Program Review:

Section One, Part B:

Supplies and equipment: ...

- The plastic protective covers for the individual fume hoods in the 1802 and 1805 labs will need to be replaced in the next 1-2 years.

Section One, Part E:

Aging instruments and equipment...

- The individual student fume hoods in both 1802 and 1805 replaced about 5 – 6 years ago are starting show wear and tear. At the very least, many of the plastic hood covers will need to be replaced soon.

The hoods are also included again in the Fall 2018 Program Review currently being written.

SECTION 4: TEACHING AND LEARNING

Describe in detail the impact this equipment will have on teaching:

Teaching chemistry requires that we show how chemistry is done and how chemistry happens. Lab hands-on activities require students to observe different substances in close proximity but with maximum safety. These personal hoods greatly impact teaching because: 1) they allow instructors to devote more of their attention to guide students in correctly carrying out the procedure and analyzing their results; 2) without these personal hoods, the teaching and presentation of important chemical principles would be limited to paper-type exercises and computer simulations which are not how a majority of academic and industry lab work is done; and 3) they allow teaching on an individual basis because students are able to work on their own without having to share hood space.

Describe in detail the impact this equipment will have on learning:

Doing chemistry in the lab has a huge impact on student learning. This is when they: 1) learn general experimental methods and techniques including how to safely handle chemicals; 2) hone their analytical skills; and 3) relate actual observations and experimental conclusions through the activities that reinforce conceptual material. Without the ability to run safe laboratories, learning activities would be limited to paper exercises and computer simulations.

Each academic year, this equipment will impact: 25 # of classes/sections 150 # of students

SECTION 5: OUTCOMES (SLOs)

Using your documented SLOs, specify how the equipment will enable student learning outcomes to be achieved.

The 1A, 1B, 12A, 12B, and 30B course outlines all require students to learn experimental methods and techniques and how to handle chemicals and work in a laboratory safely. A safety fume hood is necessary for the students to carry out activities that support these measurable objectives. Our Chemistry SLO's are directly related to what students do in the lab. Students in Chem 1A/1B and 12A/12B are expected to be able to demonstrate proficiency in solving complex problems and conceptual understanding of content listed in the course outlines and measured by the ACS Chemistry exams. In these assessment exams, students are asked various questions regarding laboratory techniques in synthesis, characterization, and analysis of compounds. The Chem 30B SLO requires students to be able to distinguish the functions of biological molecules such as carbohydrates, lipids, and proteins. These concepts are further reinforced when students carry out enzyme-catalyzed reactions such as the breakdown of complex sugars to simple sugars and the breakdown of triglycerides (which requires heating NaOH) to form emulsifying agents.

What are the consequences related to learning outcomes if request is not funded?

These metal hood covers are being used on a trial basis to determine if they will be more durable than the current plastic ones that easily melt when inadvertently exposed to high heat. If hood covers are not replaced, the number of lab stations that students can use will go down which means we cannot take the maximum number of students allowed in the course.

SECTION 6: TOTAL COST OF OWNERSHIP (FINANCIAL & SUSTAINABILITY)

What is the potential life span of the requested equipment?

The current plastic ones when exposed to high heat or direct flame have lasted up to 10 years. These metal ones conceivably may last longer and may be more durable.

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 "Part A: Initial Start-up Costs" section below.)

No additional storage required. These will immediately replace plastic hood covers.

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.

Old equipment will be retired.

What will be required to maintain the equipment, such as regular servicing or upkeep? (Specific on-going costs should be detailed in the "Part B: On-Going Annual Operating Costs" sections below as applicable.)

Students are instructed on the proper use. No other costs incurred with servicing or upkeep except for periodic cleaning.

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 lifespan which reduces material resource use.

SECTION 6: TOTAL COST OF OWNERSHIP (contd)**Part A: Initial Start-up Costs**

<u>Item</u>	<u>Cost</u>	<u>Comments</u>
Equipment or Materials	408.00	6 covers x \$68 = \$408
Taxes (9.5%)	38.76	
Shipping or Delivery Charge	25.00	
Installation Costs *	0.00	
Miscellaneous Costs:		
Facilities Modifications	0.00	
Operator Training	0.00	
Maintenance & Repair Training	0.00	
Storage	0.00	
Other: _____		
Vendor Discount		
Grand Total:		\$ 471.76

*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>	<u>Cost</u>	<u>Comments</u>
Annual Service or Maintenance	0.00	
Estimated Parts Replacement Per Year	0.00	
Outside Standardization or Calibration Costs	0.00	
Storage Costs	0.00	
New Supply Costs	0.00	
Miscellaneous Costs:	0.00	
Maintenance & Repair Labor	0.00	
Other: _____		
Annual Operating Costs:		\$ 0.00

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

Part C: Incremental Labor Costs

Indicate the key operator: Student

Is this in their current scope of duties? Yes

Indicate cost to train key operator (include in Initial Start-up Costs above): 0

Indicate amount of time per month key operator will use equipment: up to 56 times

Indicate the person performing maintenance and repairs: Lab coordinator and/or technician

Is this in their current scope of duties? Yes

Indicate cost to train for maintenance and repairs: 0

Indicate amount of time per month maintenance will be required: about 2/year

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

Requester

Date _____

IT Department (if required)

Date _____

Dean/Manager

Date _____

Vice President

Date _____



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NORTHAMPTON, PA 18067

QUOTATION SHEET

TO:	FROM:
Adeliza Flores	Dan Ehrich – DEhrich@movexinc.com
COMPANY:	DATE:
Las Positas College	September 11, 2018
CELL NUMBER	TOTAL NO. OF PAGES INCLUDING COVER:
	2
PHONE NUMBER:	SENDER'S PHONE NUMBER
(925) 424-1000	610-440-0478
CUST. REF NUMBER	REF. NUMBER

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY

Quantity	Product #	Description	Unit Price	Extended Price
6	MEM 250	10" Round metal hood	68.00	\$408.00

Availability is 1-2 weeks ARO. Availability is subject to change at time of order placement.

ADD freight charge. Approx. shipping to zip 94551 is \$25.00

Pricing valid through 2018

Feel free to contact me with any questions.

Thank you,
Dan Ehrich
Movex Inc.

TERMS AND CONDITIONS

Quotations: All quotations issued by MOVEX are valid for one year from issue date. After one year all quotations will be reviewed and adjusted. All quotations are based on information and or specifications given to MOVEX. MOVEX will not be responsible for items missed or improper quantities because of information or specifications missing. All items quoted will be followed by a MOVEX model number and description. Quotations only include items that are specified by a MOVEX model number and description. MOVEX reserves the right to nullify a quotation at any time. Delivery time is calculated after receipt of an order and estimated freight is based on only items in the quotation. Any changes in the quotation will change pricing and any estimated freight. Estimated freight is not considered as actual freight charges.

Pricing Policy: All pricing is subject to change without notice. FOB is our warehouse.

Payment Terms: MOVEX must receive payment before shipping product to any customers who have not established credit with MOVEX. Once credit is established all payment terms are net 30 days. Payment must be received before any shipments are made outside the United States unless authorized for credit by MOVEX. MOVEX will also accept MasterCard and Visa.

Cancellations: All orders that have been placed with MOVEX and released for fabrication will be subject to a cancellation charge of twenty percent of the total order.

Return of Goods: MOVEX must issue an authorization number for any returns. MOVEX must be notified five days of receipt of an order for any returns. A restocking charge of twenty-five percent of all items returned will be charged. MOVEX will inspect each item and determine a repair or replacement charge over and above the restocking charge. All return shipments to MOVEX must be prepaid; MOVEX will not accept COD deliveries.

Shipping Damage: Any items damaged in shipment must be reported to MOVEX within five days of receipt. MOVEX will, at its option, repair or replace the damaged item. MOVEX will not be responsible for shipping damage after the allotted five day period.

Product Warranty: MOVEX, Inc. warranty includes the replacement of parts only. All MOVEX products are guaranteed against manufacturing defects. In the event any item, within one year of shipment, proves defective due to faulty workmanship or material, MOVEX will, at its option, repair or replace the defective item. All warranties honored by MOVEX will be shipped prepaid by MOVEX.

MOVEX will not be responsible for consequential damages or any cost incurred due to product failure. Any modifications or alterations to any MOVEX product will nullify and void the warranty.

It is the buyer's responsibility to select the appropriate product for the use which is intended and which will satisfy the specifications of the project. MOVEX is not responsible for any losses, which may result from selection and/or installation of products which are unsuitable or improper for a particular application.

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