Instructional Equipment Request (IER) Form

FY 2024-2025

Title of Submission:	Plate Pourer

Please review all information carefully to ensure timely processing. More information can be found here.

Deadline	Action
10/09/2024	IER forms due to Division Dean
10/16/2024	Division review of IER forms (Dean & VP signature)
10/23/2024	IER forms due to Executive Assistant of Administrative Services (with Dean & VP signature)

Checklist

- ☒ All IER form fields complete
- ☒ Valid quote attached to submission (must be attached before submitting form)
  - **Shipping**, **installation**, and **tax** are required on the quote, whenever applicable. This must be provided by the vendor themselves. **Do not split quotes or submit duplicate quotes**.
  - **IMPORTANT**: To comply with state law, purchases between $30,000.00 and $114,499.99 require 3 quotes from 3 different vendors. We're required to proceed with the cheapest option unless a compelling argument can be provided for a more expensive option. If your request is approved, you will be notified *via email* to obtain an **updated quote**, **two additional quotes**, and complete a **requisition** form. Please monitor your email closely throughout the fiscal year as we **cannot** proceed with your request until these quotes, and any additional requirements, are provided.
  - Purchase requests of $114,500.00 or more must go out for bid* (aka RFP process) and then go to Board for approval. You will be provided further instruction via email after your request is approved.
  - For assistance with quotes, please contact Bill Pagano at bpagano@clpccd.org or (925) 485-5271.
- ☐ IER form, with quote, signed and submitted to Division Dean including:
  - Quote (required)
  - New Vendor Application (if new vendor)
  - Copy of W9 (if new vendor)

***Bid Process**: Purchasing submits RFP & selects cheapest bid → Requestor submits Requisition → Business Office enters Requisition in Banner → Requestor submits Board packet with copy of entered Requisition.

IER Process Flow

1. Completed packet signed and submitted to Division Dean
2. Dean reviews and forwards to Vice President
3. Vice President reviews and forwards to Executive Assistant of Administrative Services
4. Executive Assistant logs requests and forwards to M&O and IT for review
5. RAC reviews and scores requests
6. Executive Assistant combines committee scores into final rankings for final RAC review
7. RAC Chair meets with College President to discuss ranked requests
8. College President issues approval memo to RAC
9. RAC notifies requestors via email of approved requests and additional steps (e.g. additional quotes, board, etc.)
10. RAC submits IER forms to Business Office for processing
11. Business Office reviews requests, enters into Banner, and forwards to Purchasing
12. Purchasing will assist with requests that must go out for bid and requires board approval (requestor will be notified)

Instructional Equipment Definitions

Allowable Items

Allowable Items: Instructional equipment expenditures are eligible if the equipment, library material, or technology is for classroom instruction, student instruction or demonstration, or in the preparation of learning materials in an instructional program. There are five categories that will be used to classify instructional support. Please note that requests are not limited to the examples shown below.

1. **Equipment and Furniture**: instructional equipment and furniture for primary use by students in instructional programs:
    a. Classroom/laboratory equipment including whiteboard, screen, projector, etc.
    b. Instructional furniture including desks, tables, podium, chairs, etc.
2. **Information Technology**: instructional information technology equipment for student use in classrooms and/or laboratories including desktops, laptops, monitors, printers, servers, network/wireless infrastructure, AV/TV, multimedia.
3. **Software**: software licenses are allowed but only the initial year is permitted. Other software that are permitted are those that are used in excess of one year and software modifications that add capacity or efficiency to the software that defers obsolescence and results in an extension of the useful life of the software, including registration, counseling, student services, learning management systems for student use.
4. **Adaptive Equipment**: adaptive equipment for ADA/OCR students are allowed to assist them in a learning environment.
5. **Library Material**: databases, online subscriptions, books, periodicals, videos, etc.

Non-Allowable Items

Non-Allowable Items: Administrative or non-instructional purposes including equipment being used for administrative or non- instructional purposes is not allowed, including photocopiers, file cabinets, bookcases, computers, networking infrastructure, software licenses.

IE Rubric

RAC evaluates each IE request based on the rubric below. RAC stresses the importance of quality requests. RAC may choose not to rank incomplete IE requests.

Criteria	Strong Evidence	Adequate Evidence	Limited Evidence
LPC Mission & Planning Priorities [Section 2] ***(5 points)*** Ranking Scale	Clear and compelling evidence/data that equipment will fully support LPC Mission and Planning Priorities. 4-5	Clear evidence/data that equipment will fully support LPC Mission and Planning Priorities. 2-3	Limited or no evidence/data that equipment will support LPC Mission and Planning Priorities. 0-1
Educational Items: Programmatic Impact and Institutional Support [Section 3] ***(10 points)*** Ranking Scale	Clear and compelling evidence/data (as stated in program review) that this equipment will have substantial impact on program curriculum. 8-10	Clear evidence/data (as stated in program review) that this equipment will have substantial impact on program curriculum. 4-7	Limited or no evidence/data (as stated in program review) that this equipment will have an impact on program curriculum. 0-3
Teaching & Learning [Section 4] ***(10 points)*** Ranking Scale	Clear and compelling evidence/data that equipment provides much needed or beneficial enhancement to instruction. 8-10	Clear evidence/data that equipment provides enhanced instruction that is not met through current means. 4-7	Limited or no evidence/data that equipment provides enhanced instruction that is not met through current means. 0-3
Outcomes [Section 5] ***(5 points)*** Ranking Scale	Clear and compelling evidence/data that equipment will support course and/or program outcomes above and beyond current capability. 4-5	Clear evidence/data that equipment will support course and/or program outcomes beyond current capability. 2-3	Limited or no evidence/data that equipment will support course and/or program outcomes beyond current capability. 0-1

Instructional Equipment Request Form

Name of Requestor: Maxwell, Jason **Division**: STEM

Discipline: Biology

This Equipment Request is: New Equipment or Technology

SECTION 1: Equipment Description

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:

Equipment Location

Building #: 1850 **Room #**: 1856

Comments:

The universal plate pourer is an efficient, reliable instrument with unique capabilities. It can accurately dispense liquid media into any standard plates/dishes, including round (Petri) and rectangular/square formats. This instrument will replace our current method of pouring plates using thick oven mitts from freshly autoclaved 1- or 2-liter glass bottles into 60 mm, 90 mm and 150 mm Petri dishes, whilst maintaining sterile technique.

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

SECTION 2: LPC Mission Statement and LPC Planning Priorities

LPC Mission Statement

Las Positas College is an inclusive, learning-centered, equity-focused environment that offers educational opportunities and support for completion of students' transfer, degree, and career- technical goals while promoting lifelong learning.

LPC Planning Priorities

- Establish a knowledge base and an appreciation for equity; create a sense of urgency about moving toward equity; institutionalize equity in decision-making, assessment, and accountability; and build capacity to resolve inequities.
- Increase student success and completion through change in college practices and processes: coordinating needed academic support, removing barriers, and supporting focused professional development across the campus.

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

The plate pourer aligns with LPC's Mission Statement by enhancing hands-on learning for 400 students annually in Microbiology, Cell and Molecular Biology, and Botany. This equipment ensures equitable access to advanced lab experiences, supporting students' transfer, degree, and career goals in life sciences. Media Plates prepare students to understand theoretical aspects of biology and develop practical, workforce-relevant skills vital in their careers. This will increase student success, completion by enabling experiential, hands-on learning that enhances understanding of complex scientific concepts, thereby improving engagement, course outcomes. Supports LPC's equity goals, ensuring all students have access to media, closing opportunity gaps & fostering STEM workforce readiness.

SECTION 3: Educational Items | *Program Review*

Specify the educational programs the equipment supports:

The plate pourer will support workforce development for biology students at LPC. It will enhance hands-on learning for ~400 students annually in Microbiology, Cell and Molecular Biology, and Botany, providing essential laboratory experience in the preparation of culture media. This equipment is vital for careers in biotechnology, microbiology, healthcare, and environmental science, where sterile technique and media preparation are foundational skills. The plate pourer will also facilitate interdisciplinary learning by supporting courses in fields such as agriculture and biotechnology. By equipping students with practical, industry-relevant skills, it supports LPC's mission to align education with career-technical goals.

Is the equipment part of an upcoming Program Review? Was it included last year? If not, why? Use language from your Program Review to explain:

This equipment was not included in last year's Program Review, as we are planning for its inclusion in our upcoming review. The request aligns with our future needs as we look ahead to the new STEAM building, which will see the number of sections for each biology course increase. This instrument will allow us to address challenges faced by lab techs in preparing the current volume of media with one biosafety cabinet, whilst maintaining a sterile environment. Moreover, the new instrument's improved, user-friendly interface will allow more lab technicians to efficiently and safely operate it, enhancing the learning experiences in our program.

SECTION 4: Teaching and Learning

Please use evidence and data that describes how the equipment provides enhancements/benefits to the current level of teaching capabilities:

The plate pourer will significantly enhance current teaching capabilities by automating the labor-intensive process of pouring agar plates, which is currently done manually by lab techs. Manual pouring is time-consuming, inconsistent, and increases the risk of contamination, limiting the number and quality of plates available for student use. The automated plate pourer ensures precise, sterile preparation of plates, improving the consistency and reproducibility of student experiments. This equipment will allow lab staff to produce plates more efficiently, increasing the availability of critical resources for large lab sections in Microbiology, Cell and Molecular Biology, and Botany. The result is enhanced learning opportunities, with students able to focus more on experimental design and data analysis, rather than basic lab preparation tasks. Moreover, by increasing the number of plates available for experiments, students will have more opportunities to practice critical lab techniques, improving their proficiency and confidence in media preparation—skills necessary in fields like biotechnology, healthcare, and environmental science. Having access to this industry-standard tool will better prepare LPC students for transfer and career pathways, putting them at a competitive advantage in the workforce.

Detail the impact the equipment has on learning:

The plate pourer will have a profound impact on student learning by improving the overall quality and efficiency of lab experiences. Currently, manual plate pouring by lab techs can result in variability in agar thickness and sterility, leading to inconsistent experimental results. The automated plate pourer will provide students with consistently high-quality culture plates, allowing them to focus more on mastering critical lab techniques and interpreting experimental data, rather than troubleshooting issues caused by preparation inconsistencies.
This improved reliability enhances learning outcomes by enabling students to conduct more accurate and replicable experiments. For students in Microbiology, Cell and Molecular Biology, and Botany—disciplines where precision in sterile technique and culture work is essential—access to consistently prepared plates will help them better grasp concepts such as microbial growth, cellular interactions, and plant tissue culture. Additionally, students will gain direct experience working with lab equipment that mirrors the technology used in industry and research settings, further enhancing their practical skills and career readiness.
The increase in efficiency provided by the plate pourer also allows for more plates to be produced in less time, leading to greater access to resources for each student. This means students will have more opportunities to engage in hands-on practice, a key factor in skill development and confidence building. As a result, students will leave LPC better prepared for advanced studies and careers in biotechnology, microbiology, healthcare, and related fields, where technical proficiency in lab processes is highly valued.

Please state the number of classes and students the equipment will impact:

Classes/Sections: 3/16	**Students:** 400

SECTION 5: Student Learning Outcomes (SLOs)

Document how the equipment will enable you to surpass your current Student Learning Outcomes:

The plate pourer will enhance student learning across Microbiology, Cell and Molecular Biology, and Botany by providing consistently prepared agar plates, which are essential for accurate experiments. This automated tool will streamline media preparation, allowing students to focus on mastering lab techniques and data analysis rather than routine tasks. By ensuring uniformity in lab materials, the plate pourer will improve the reproducibility of experiments, enabling students to achieve deeper understanding of concepts like microbial growth, cellular structures, and plant biology.

This equipment will directly support key Student Learning Outcomes (SLOs) in all three courses. Specifically, students will gain improved competency in aseptic techniques, media preparation, and experimental analysis. Moreover, students will have more time and resources to conduct independent research projects and accurately apply microscopy techniques using bacteria, colonies grown on media plates. The plate pourer also provides industry-level experience, giving students practical skills that align with workforce expectations in biotechnology, healthcare, and environmental sciences.

By improving lab efficiency and access to high-quality materials, the plate pourer will enable students to surpass current SLOs. Students will be better prepared to conduct complex, replicable experiments, demonstrate proficiency in advanced lab techniques, and communicate scientific results with greater precision. Ultimately, this equipment will contribute to a more professional and effective learning environment, better equipping students for transfer, career advancement, and success in STEM fields.

SECTION 6: Total Cost of Ownership | *Maintenance and Sustainability*

Does the new equipment replace older equipment? If so, will you retire/surplus the old equipment? If not, where will you store the older equipment and what are the associated storage costs?

This is new equipment to Las Positas College. We will retire the old method of burning our hands on hot, freshly autoclaved glass bottles, almost dropping said bottles when pouring media, and sore wrists from holding 1- and 2-liter bottles above 60 mm, 90 mm and 150 mm Petri dishes for extended periods of time to ensure we've aliquoted just the right volume.

Detail how the equipment meets or exceeds LPC's Sustainability Efforts:

The plate pourer meets LPC's sustainability efforts by utilizing energy-efficient technology, reducing power consumption compared to older models, and eliminating the need for Biosafety cabinet, which minimizes resource usage. Its compact design aligns with the 2025 sustainability benchmark by reducing the physical and environmental footprint in our new STEAM building. This plate pourer is considered an environmentally preferable electronic product due to its longer operational life, lower maintenance requirements, and reduces waste and resource consumption over time. This instrument actively contributes to the goal of adopting sustainable procurement practices while maintaining high-quality educational tools for students.

How does the equipment provide renewal resources to the college?

The new plate pourer provides renewable resources to the college by enhancing our biology program's educational offerings, thereby attracting more students and increasing enrollment in STEM courses. This modern equipment allows for the increase and incorporation of advance laboratory techniques and more complex experimental designs, which can lead to the development of new courses or lab components that further enrich the curriculum. The plate pourer contributes to higher retention and completion rates, which can result in increased funding and resources for the college through state and federal grants tied to student success metrics.

Operator	
Primary operator:	Biology Laboratory Technicians
Does the work align with current position duties?	Yes
Cost to train primary operator:	0.00
Approx. # of hours equipment will be used per month:	15 - 25
Comments:	

Maintenance and Repairs	
Who will perform maintenance and repairs?	Biology Laboratory Technicians
Estimated hours per month:	1
Does the work align with current position duties?	Yes
Cost to train for maintenance and repairs:	0.00

SECTION 6: Total Cost of Ownership | *Maintenance and Sustainability (cont'd)*

Lifespan of Equipment: 20 years

FOAP (Budget) for Recurring Costs:

Fund	Org	Acct	Program

Vendor Name:
KREO Technologies

Part A: Initial Start-Up Costs		
Type	**Cost**	**Comments**
Equipment or Materials	14,890.00	Universal Plate Pourer, PPC-S
Shipping & Delivery Fees	1,250.00	Estimated shipping via FedEx International/DHL Express
Installation Costs	0.00	
Miscellaneous Costs	0.00	
Modification to Facilities	0.00	
Operator Training	0.00	
Maintenance/Repair Training	0.00	
Other	0.00	
(Enter as Positive) Discounts	0.00	
Start-Up Total	16,140.00	

Part B: Annual Operating Costs		
Type	**Cost**	**Comments**
Service/Maintenance	0.00	
Part Replacement	0.00	
Vendor Calibration or Standardization	0.00	
Storage	0.00	
Supplies	0.00	
Maintenance/Repair Labor	0.00	
Software Licensing	0.00	
Other	0.00	
Annual Total	0.00	
Overall Cost:	16,140.00	

Approvals and Signature Routing

Before signing below, please confirm all fields are filled out and all information provided is correct. Requests must be fully complete, signed, and submitted to your Division Dean by the deadline (see page 1). **Quote must be attached to this form before submitting.**

Title	Signature	Date
Requestor:	Jason M. Maxwell	10/08/2024
Division Dean:	Paula M Checchi	10/15/2024
Vice President:	Nan Ho	10/15/2024
College Technology Services Manager:		
M&O Director:	JOHN SEYBERT	10/16/2024
Vice President, Administrative Services:	Sean Brooks	10/21/2024

KREO technologies

KREO Technologies Inc.

2857 Sherwood Heights Drive, Unit #14
Oakville, ON L6J 7J9, Canada
Tel. +1 905-829-9842

Quotation

Date	Quotation #
9/5/2024	PPQ-LPC-01

Name / Address

Las Positas College
Biology & Chemistry Department
3000 Campus Hill Drive
Livermore, CA 94551

Item	Description	Qty	Unit Price	Total
PPC-S	Universal Plate Pourer	1	14,890.00	14,890.00

Total USD 14,890.00

Terms and Conditions:
1. All prices in U.S. Dollars (USD). FOB Oakville, ON.
2. Payment terms: Net 30 days from shipping date.
3. Warranty valid for 12 months from shipping date.
4. The warranty only covers defects arising from normal use and does not cover damage, malfunction, or failure resulting from misuse, abuse, neglect, alteration, modification, erratic AC power, natural disasters, or repairs by someone other than an authorized KREO Technologies representative.
5. This quotation is valid for 60 days from the date of issuance.

GST/HST No. 831084413