

# Instructional Equipment Request Form

Name of Requestor: Daniel Cearley Division: BSSL

This Equipment Request is:  A Replacement |  An Upgrade |  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 #: 1000 Room #: 1061

### Comments:

This request addresses gaps in our teaching collection. We review our collection annually to identify areas which warrant strengthening. This year we have identified underrepresented primate species, lack of male/female comparative casts, and the benefits of using higher quality skeletal casts. This request also includes higher quality storage cases to reduce damages and loss to our existing skeletal materials, cork rings to protect crania during use, and replenishing PTC test strips.

Our teaching collection consists of various materials used for demonstration, lab activities, and student projects. This request focuses on our biological and forensic anthropology lecture and lab courses which comprise the majority of our courses.

Vendor - Bone Clones

1. Slow Loris Skull
2. Squirrel Monkey Skull
3. Chimpanzee Foot, Articulated Rigid
4. Chimpanzee Hand, Articulated Rigid
5. Mandrill Baboon Skull, Female
6. Male Chacma Baboon Skull
7. Australopithecus (Paranthropus) robustus Skull DNH 7 (female)
8. Magnetic Osteological Teaching Skull, 22-piece, color
9. Vervet Monkey Skeleton, Articulated
10. Premium Carrying Case for Human Skeleton or Multiple Skulls
11. Human Male Asian Skeleton, Disarticulated
12. Human Adolescent Skeleton, Disarticulated

Vendor - Fisher Scientific

13. Phenylthiourea (PTC) Paper Test Strips
14. Ace Glass, Inc. SZ6 CORK RING 22000-50000

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:

n/a

## 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:**

This request is targeted towards our biological anthropology courses, which comprise the majority of our sections. These are general education courses as part of their Life Science and Social Science requirements for transfer. This request continues the effort to offer the most current materials to support the student's completion of basic skills and general education courses.

These casts directly aid in full filling LPCs mission in as "an inclusive learning-centered institution providing educational opportunities and support for completion of students' transfer, degree, basic skills, career-technical, and retraining goals."

Pew research studies on natural selection show that although there is broad consensus (97%) among the scientific community that it is the central explanatory model for biological change that underpins all of the life sciences, however the public has difficulty articulating how it works and there are significant numbers who resist recognizing it as a valid model.

These casts offer a powerful mechanism for explaining natural selection and addresses the mission of LPC to support "courses, programs, disciplines, modes of delivery, learning communities, accounting for varying skills levels, creative and critical thinking, and having necessary and specialized facilities." Casts provide a tactile three dimensional experience which broadens our ability to convey information beyond the textbook and lectures. These casts will fill in gaps in our collection and strengthen out ability to use comparative anatomy to show evolutionary relationships.

In addition, these casts create movement to help address two of the main planning priorities, specifically to "Increase student success and completion through change in college practices and processes" and "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."

Currently, our teaching casts are overly represented by male specimens. This is true among human and non-human primates examples. This request will fill in the gaps so male and female examples can be witnessed in a side by side comparison. Our human disarticulated skeletons are also not not sufficiently diversified by ancestry. By diversifying our teaching materials, students will be able to conduct more rigorous analysis of the methods used to determine sex and ancestry. These sorts of targeted exercises on sex and ancestry would allow for a broader conversation about the challenges of equitable representation in science and research.

**SECTION 3: Educational Items | Program Review**

**Specify the educational programs the equipment supports:**

The equipment and teaching materials listed in this request will directly support the Anthropology Program. With few exceptions, each course leverages teaching materials for demonstrations and/or hands-on exercises.

Pre-pandemic we served over 1300 students each Fall/Spring semesters in 39 sections not including summer, representing over 10% of enrollments in the Business, Social Science, and Learning Resources (BSSL) division. As of 2018, our program has a dedicated laboratory/lecture space in Building 1000, room 1061. Since 2019, we have added 3 laboratory sections, nearly doubling previous year, from 4 to 7. In addition, these materials create potential for new courses to be proposed such as a lab component for ANTR 13 Introduction to Forensic Anthropology.

These materials represent a growing reference collection that can be made available to ancillary programs such as Biology and Geology, these programs teach similar thematic topics centered on biological evolution. In a similar fashion, the forensic casts also represent resources that can be leveraged by the Administration of Justice program.

**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:**

We consider these request as part of our ongoing effort to modernize and buttress our teaching resources. In the 2017 program review, the anthropology program describes our ongoing process of updating our fossil and forensic collection of teaching casts.

1. We are identifying gaps in existing teaching materials and documenting those items that are in need of replacement.

## 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:**

Each of these items will have an immediate and significant impact on teaching by fortifying the existing resources.

The two primate skulls will double our current collection and allow students to make more accurate comparisons between species. One of our thematic topics focuses on primate locomotion and dexterity. We currently use examples located on our fused articulated chimpanzee skeleton for making observations as part of lab exercises. The two chimpanzee appendages, the hand and foot, will allow students to handle each freely so they can rotate and view them in three dimensions.

We are attempting to create equity in our collection by including both male and female examples. It is beneficial for students to see examples of both sexes in the same species. The two baboon crania and the Australopithecus skull will provide the ability for comparison and observation of sexual dimorphism.

The Magnetic Osteological Teaching Skull will be a dramatic improvement over current methods to demonstrate the individual bones that comprise the cranium. We currently have few methods to illustrate the bones of the skull, primarily 2D visual images and fused skulls. Since cranial bones are fused and many are embedded within the skull, this teaching skull will provide more realistic ways to view the relationship among all 22 elements.

We have articulated skeletons of 4 of the 5 major primate groups, except the old world monkeys. These articulated skeletons provide an accurate sense of size, shape, locomotor patterns, and act as a secondary comparative resource for lab exercises and during lectures. This vervet old world monkey skeleton will close a significant gap in our collection.

Our collection of disarticulated skeletons are used nearly weekly in the forensic anthropology courses and in multiple biological anthropology courses. We have been transitioning the storage of these skeletons from lower quality plastic cases to more durable higher quality cases. This acquisition will complete our upgrade.

Our recent investment in disarticulated skeletons that are more diverse and representative of different ancestral has greatly increased our ability to address these topics and others. The majority of our disarticulated skeletons, 15 out of 20, in our collection are low quality renditions and do not allow more complex observations. These two examples will greatly expand students ability to observe ancestry, age, and pathological conditions at the time of death.

Lastly, we are requesting cork rings to more safely position crania during demonstrations and we are at a point where we need to replenish our inventory of PTC test strips. This occurs every 5 to 10 years.

**Detail the impact the equipment has on learning:**

As a collective, these materials are geared toward our hands-on exercises, which create a varied learning landscape and provide the opening for different learning styles to be addressed. Most prominently, this investment includes enhanced visual and tactile experiences for students. These materials will increase the amount of time individual students will be able to interact with during exercises, as opposed to being distracted by problems in set-up. All of these items support our model of "learning by doing" and can have significant impact on comprehension and developing problem solving skills.

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

<b>Classes/Sections:</b> ANTR 1, 1L, 2, 13 sections	<b>Students:</b> 792 (F21/S22)
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**SECTION 5: Student Learning Outcomes (SLOs)**

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

The investment in laboratory resources will allow students to collect, document, and apply evolutionary theory in an applied setting. Student will be able to pose questions, make observations, and discuss their findings with these resources.

Each of the SLOs listed below will be strengthened by the teaching materials requested. The casts are representative of sexual differences, ancestral demographics, and variation in species. The expanded collection of skeletal resources and the more nuanced ability to make observations and measurements will allow a more comprehensive teaching environment to address topics such as, comparative evolution, sexual dimorphism, race, and human development.

ANTR1 - Biological/Physical Anthropology,

students will be able to deconstruct the biological concept of race.  
students will be able to describe and identify fossil hominid species.  
students will be able to explain how natural selection works.

ANTR1L - Biological/Physical Anthropology Lab

Students will be able to apply the scientific method to research in anthropology.

ANTR13 - Intro to Forensic Anthropology

Students will be able to analyze human bones for identification of sex, ancestry, age, trauma and stature

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

**Please provide the lifespan of the proposed equipment:**

These casts hold the potential to be utilized for decades. These are manufactured with archival materials and when properly stored have a significant life span.

**What are the requirements and associated costs for the storage of the equipment?**

There are no associated costs and our current storage area is sufficient, yet there are plans for increasing it capacity.

**Is there a specific location required to store the equipment?**

*Note: include storage costs in Part A: Initial Start-Up Costs (pg. 10)*

n/a

**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?**

n/a

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

**What are the maintenance costs associated with the regular upkeep of the equipment?**

There are no special requirements needed to maintain these casts.

**Detail how the equipment meets or exceeds [LPC's Sustainability Efforts](#):**

These casts offer a one-time investment. With proper care, they will not need to be replaced and will represent a collection that can be leveraged by the college for decades.

**How does the equipment provide renewal resources to the college?**

see above

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

Part A: Initial Start-Up Costs		
Type	Cost	Comments
Equipment or Materials	\$ 9,972.94	
Shipping & Delivery Fees	\$ 358.00	
Installation Costs		
Miscellaneous Costs		
Modification to Facilities		
Operator Training		
Maintenance/Repair Training		
Storage		
Other		
Discounts (enter as negative)		
<b>Sub-Total</b>	<b>\$ 10,330.94</b>	
<b>Taxes</b>	<b>\$ 1,022.24</b>	
<b>Grand Total</b>	<b>\$ 11,353.18</b>	
Part B: Annual Operating Costs		
Type	Cost	Comments
Service/Maintenance		
Part Replacement		
Vendor Calibration or Standardization		
Storage		
Supplies		
Maintenance/Repair Labor		
Software Licensing		
Other		
<b>Grand Total</b>	<b>\$ 0.00</b>	
<b>Overall Cost:</b>	<b>\$ 11,353.18</b>	



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

Operator	
Primary operator:	
Does the work align with current position duties?	<input type="checkbox"/> Yes   <input type="checkbox"/> No
Cost to train primary operator:	
Approx. # of hours equipment will be used per month:	
Comments:	
Maintenance and Repairs	
Who will perform maintenance and repairs?	
Estimated hours per month:	
Does the work align with current position duties?	<input type="checkbox"/> Yes   <input type="checkbox"/> No
Cost to train for maintenance and repairs:	

### 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). **Requisition and quote must be attached to this form before signing. Adobe prevents adding pages once a document has been e-signed.**

<b>Requestor:</b>	daniel cearley <small>Digitally signed by daniel cearley Date: 2022.10.12 13:58:15 -07'00'</small>	<b>Date:</b>	10/12/2022
<b>Division Dean:</b>	Stuart McElderry <small>Digitally signed by Stuart McElderry Date: 2022.10.13 13:53:45 -07'00'</small>	<b>Date:</b>	10/13/2022
<b>Vice President:</b>	Kristina <small>Digitally signed by Kristina Date: 2022.10.24 17:59:17 -07'00'</small>	<b>Date:</b>	
<b>College Technical Service Manager:</b>		<b>Date:</b>	
<b>M&amp;O Director:</b>		<b>Date:</b>	
<b>Vice President, Administrative Services:</b>		<b>Date:</b>	



**Office of Administrative Services**  
**Requisition Request Form**

(Wait 5-10s)

**Reset**

**Submit**

**R** \_\_\_\_\_ - \_\_\_\_\_

Fiscal Year		Vendor ID #		Vendor Name		Date Required	
22/23		00100603		Bone Clones		10/12/2022	
Deliver To			Room #		Return Copy of Requisition To		
Daniel Cearley			1061				
Seq	Item #	Description			Qty	Unit Price	Extended Cost
1	BC-264	Slow Loris			1	\$ 104.50	\$ 104.50
2	BC-320	Squirrel Monkey skull			1	\$ 109.25	\$ 109.25
3	KO-304-A	Chimpanzee Foot, Articulated Rigid			1	\$ 165.30	\$ 165.30
4	KO-303-A	Chimpanzee Hand, Articulated Rigid			1	\$ 170.05	\$ 170.05
5	BC-261	Mandrill Baboon Female			1	\$ 229.90	\$ 229.90
6	BC-258	Chacma Baboon Male			1	\$ 249.85	\$ 249.85
7	BH-046	Australopithecus robustus Skull (Female) DNH 7,			1	\$ 344.85	\$ 344.85
8	EZ-002	Magnetic Osteological Teaching Skull			1	\$ 379.05	\$ 379.05
9	SC-069-A	Vervet Monkey Skeleton, articulated,			1	\$ 2,544.10	\$ 2,544.10
10	S-16	Carrying Case, Human Disarticulated Skeleton			8	\$ 232.75	\$ 1,862.00
11	SC-092-D	Human Male Asian Skeleton, Disarticulated			1	\$ 1,515.25	\$ 1,515.25
12	SC-092-D	Human Adolescent Skeleton, disarticulated			1	\$ 2,232.50	\$ 2,232.50
13							\$ 0.00
14							\$ 0.00
15							\$ 0.00
Comments					<b>Subtotal</b>	\$ 9,906.60	
					10.25% Tax	\$ 1,015.44	
					<b>Shipping</b>	\$ 358.00	
					<b>Total Cost</b>	\$ 11,280.04	
FOAP to be Charged					%	Amount	
-					100		
FUND	ORG	ACCOUNT	PROGRAM				
-	-	-	-				
FUND	ORG	ACCOUNT	PROGRAM				

<b>Daniel Cearley</b>	10/12/2022	<b>Stuart McElderry</b>	10/13/2022
<i>Requestor (print name)</i>	<i>Date</i>	<i>Dean (signature)</i>	<i>Date</i>
<i>Coordinator/Manager (signature)</i>	<i>Date</i>	<i>Vice President (signature)</i>	<i>Date</i>

OFFICE OF ADMINISTRATIVE SERVICES USE ONLY			
Reviewed: _____	Verified: _____	Approved: _____	
<i>Administrative Services</i>	<i>Administrative Services Officer</i>	<i>VP, Administrative Services</i>	
PO Number: _____	Budget Transfer #: _____	Entered: _____	TR 4/6/20

\*Please note new address  
**Bone Clones, Inc.**

9200 Eton Avenue  
 Chatsworth, CA 91311

# QUOTATION

Proposal # 9474

DATE: 10/11/2022

Phone: 818-709-7991 \* Fax: 818-709-7993 \* email: sales@boneclones.com \* www.boneclones.com

**SUBMIT TO:**

Las Positas Community College  
 Accounts Payable  
 3000 Campus Hill Drive  
 Livermore, CA 94551-9797

**SHIP TO:**

Las Positas Community College  
 Receiving Department  
 Daniel Cearley, Anthropology  
 3000 Campus Hill Drive  
 Livermore, CA 94551-9797

TERMS	F.O.B.	EMAIL	PHONE	FAX
To be determined	Chatsworth	dcearley@lasposita...	924-424-1203	925-424-1804
ITEM CODE	QUANTITY	DESCRIPTION	PRICE EACH	Total:
BC-264	1	Slow Loris, Bone Clones®	104.50	104.50T
BC-320	1	Squirrel Monkey skull, Bone Clones®	109.25	109.25T
KO-304-A	1	Chimpanzee Foot, Articulated Rigid, Bone Clones®	165.30	165.30T
KO-303-A	1	Chimpanzee Hand, Articulated Rigid, Bone Clones®	170.05	170.05T
BC-261	1	Mandrill Baboon Female, Bone Clones®	229.90	229.90T
BC-258	1	Chacma Baboon Male, Bone Clones®	249.85	249.85T
BH-046	1	Australopithecus (Paranthropus) robustus Skull, DNH 7, Bone Clones®	344.85	344.85T
EZ-002	1	Magnetic Osteological Teaching Skull, 22-piece, color - Imported	379.05	379.05T
SC-069-A	1	Vervet Monkey Skeleton, articulated, (Stand and base included), Bone Clones®	2,544.10	2,544.10T
S-16	8	Carrying Case, Premium Custom for Human Disarticulated Skeleton (26" x 15" x 8 1/2") - (SPECIAL HANDLING FEE APPLIES)	232.75	1,862.00T
SC-092-D	1	Human Male Asian Skeleton, Disarticulated, Bone Clones®	1,515.25	1,515.25T
SC-301-D	1	Human Adolescent Skeleton, disarticulated, Bone Clones®	2,232.50	2,232.50T
		Subtotal		9,906.60
Shipping	1	Shipping and Handling- Qty: Box(es)	358.00	358.00
CO	1	MADE IN USA of polyurethane resin, Replicas for Educational purposes.	0.00	0.00
		-Educational discount applied to each item line-ARO: 5-6 weeks		
		* Alameda Sales Tax	1,015.44	1,015.44

**Total:** \$11,280.04

Bone Clones® is a registered trademark of Bone Clones, Inc. All Bone Clones® products are protected under United States copyright law. As a condition of purchase, purchaser agrees to refrain from unauthorized 3-D scans or duplication of the Bone Clones® product. Any reproduction of this product in any form is forbidden by law, unless prior written permission has been obtained from Bone Clones, Inc. All rights reserved.  
 www.boneclones.com FED ID # 68-0576844

Invoices not paid within 31 days are subject to a "Late Payment Charge" calculated at an interest rate of 1.5% per month.

Proposal valid for 90 days



**Office of Administrative Services**  
**Requisition Request Form**

(Wait 5-10s)

**Reset**

**Submit**

**R** \_\_\_\_\_ - \_\_\_\_\_

Fiscal Year		Vendor ID #	Vendor Name		Date Required
22/23		667	Fisher Scientific		10/12/2022
Deliver To		Room #	Return Copy of Requisition To		
Daniel Cearley		1061			
Seq	Item #	Description	Qty	Unit Price	Extended Cost
1	S80844	Phenylthiourea (PTC) Paper Test Strips	1	\$ 23.00	\$ 23.00
2	509558945	SZ6 CORK RING 22000-50000	1	\$ 43.34	\$ 43.34
3					\$ 0.00
4					\$ 0.00
5					\$ 0.00
6					\$ 0.00
7					\$ 0.00
8					\$ 0.00
9					\$ 0.00
10					\$ 0.00
11					\$ 0.00
12					\$ 0.00
13					\$ 0.00
14					\$ 0.00
15					\$ 0.00
Comments			Subtotal	\$ 66.34	
			10.25% Tax	\$ 6.80	
			Shipping	\$ 0.00	
			Total Cost	\$ 73.14	
FOAP to be Charged			%	Amount	
-			100		
FUND	ORG	ACCOUNT	PROGRAM		
-	-	-	-		
FUND	ORG	ACCOUNT	PROGRAM		
-	-	-	-		

<u>Daniel Cearley</u>	<u>10/12/22</u>	<u>Stuart McElderry</u>	<u>10/13/22</u>
<small>Requestor (print name)</small>	<small>Date</small>	<small>Dean (signature)</small>	<small>Date</small>
<u>Kristina</u>		<u>Kristina</u>	
<small>Coordinator/Manager (signature)</small>	<small>Date</small>	<small>Vice President (signature)</small>	<small>Date</small>

OFFICE OF ADMINISTRATIVE SERVICES USE ONLY			
Reviewed: _____	Verified: _____	Approved: _____	
<small>Administrative Services</small>	<small>Administrative Services Officer</small>	<small>VP, Administrative Services</small>	
PO Number: _____	Budget Transfer #: _____	Entered: _____	
			<small>TR 4/6/20</small>

**Web Quotation Details 2285386462**

Please reference quotation number 2285386462 on all correspondence.

**Quote Details**

<b>Account Number</b>	948334003	<b>Quote Type</b>	Select the item(s) you wish to order. Cart updates may affect pricing.
<b>Quote Number</b>	2285386462		
<b>Created On</b>	12 October 2022	<b>Payment Terms</b>	NET 30 DAYS
<b>Valid Until</b>	11 November 2022		
<b>Customer Name</b>	Daniel Cearley		
<b>Customer Email</b>	dcearley@laspositascollege.edu		

**Shipping Address**

LAS POSITAS COLLEGE  
3000 CAMPUS HILL DR  
LIVERMORE, CA 94551

**Billing Address**

CHABOT- LAS POSITAS  
COMMUNITY COLLEGE DIST  
7600 DUBLIN BLVD 3RD FLR  
DUBLIN, CA 94568

<b>Product</b>	<b>Price</b>	<b>Qty</b>	<b>Extended Price</b>
1 <b>Eisco™ Phenylthiourea (PTC) Paper Test Strips</b> Catalog Number S80844	\$23.00 / EA	1	\$23.00
2 <b>Ace Glass, Inc. SZ6 CORK RING 22000-50000</b> Catalog Number 509558945	\$43.34 / EA	1	\$43.34

\$66.34  
Estimated Sales Tax \$6.80  
**\$73.14**

**To place an order, please [Sign in](#) and access the Quote Details under your Account**

This quotation, and Fisher Scientific's SALES TERMS AND CONDITIONS (which are incorporated by reference into this quotation and any resulting contract), set out the terms on which Fisher Scientific is offering to sell the product(s) or service(s) listed in this quotation. Fisher Scientific's Sales Terms and Conditions can be found at [https://www.fishersci.com/us/en/footer/sales\\_terms\\_and\\_conditions.html](https://www.fishersci.com/us/en/footer/sales_terms_and_conditions.html) All prices stated are subject to change according to quantities and the date of your order. Shipping costs and other order-related costs

**Web Quotation Details 2285386462**

such as eco-contribution, dry ice and chemical delivery costs will be borne by the buyer, except if the existing commercial agreement states otherwise.