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PR-2024-0306-183913

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Republic of the Philippines
VISAYAS STATE UNIVERSITY
 Visca, Baybay City, Leyte

PURCHASE REQUEST

PR No.: GF-2024-03-00755

Date: 03-06-2024

PPMP No. : 200-2-2088-2024-1-0-0

Category: **Laboratory Equipment**Dept./Office: **DPhys**Project Title/Code: **Completion and Refurbishing of the Old Library Annex Building (Tech and Scientific Equipment) 2023**Section/End-User: **Perlie A. Gucela**Funding Source: **General Fund - CO**

Item #	Item Description	Unit	Qty	Unit Cost	PAR/ICS	Total Cost
1	1 lot Vernier Caliper, External Micrometer Measuring Set (35,000.00) + Cylinder 1000ml (10,000.00)+	lot	1	55,000.00		55,000.00

Specification:

Vernier Caliper, External Micrometer Measuring Set (35,000.00) + Cylinder 1000ml (10,000.00)+ Analog Multimeter (10,000.00)=
 PhP 55,000.00

1. Metric Vernier Caliper, External Micrometer Measuring SetS (Calibrated) (5 sets) (PhP 35,000.00)

Product Details

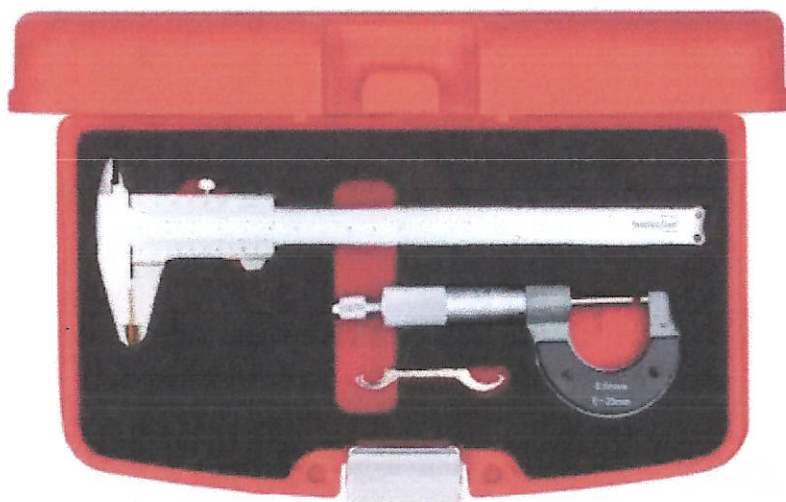
It consists of a vernier caliper and a micrometre screw gauge, both made entirely from hardened stainless steel. This ensures you hardwearing tools that are also corrosion-resistant.

The dual scale on the vernier caliper allows you to choose whether to take your readings in imperial or metric format. You can be sure of accurate measurements thanks to its fine adjustment mechanism, with lock screws to hold it in place for precise reading.

The micrometre screw gauge comes in very accurate 0.01 mm reading ranges for pinpoint computations. It also has a compression ring and ratchet stop mechanism to prevent jams and preserve the lifespan of the tool. This measuring set is suitable for general workshop use as well as In laboratories and classrooms.

Specifications

Attribute	Value
Set Contents	Vernier Caliper, External Micrometer
Maximum Micrometer Measurement	25 mm
Maximum Caliper Measurement	150 mm
Imperial or Metric	Imperial, Metric



2. 1000ml Glass Measuring Cylinder With Graduated (Calibrated) 10 units (PhP 10,000.00)

- 1, Capacity 1000 ml,
- 2, Standard:ISO international standard
- 3, Material: borosilicate glass 3.3

3. Analog Multimeter - 10 units (PhP 1000.00 Each) (PhP 10,000.00)

Specifications

Function	Measuring range	Tolerance
DCV	0.1?20k?/V)	±5% of full scale
	0.25/2.5/10/50?20k?/V)/250/1000V?9k?/V)	±3% of full scale
DCV (NULL)	±5/25V?40k?/V)	±5% of full scale
ACV	10/50/250/750?9k?/V)	±4% of full scale
DCA	50?/2.5m/25m/0.25A	*1 ±3% of full scale
Resistance	2k/20k/200k/2M? (x1/x10/x100/x1k)	±3% of arc
	200M? (x100k)	±5% of arc
Capacitance	10?F	Approximate value
dB	-10dB?+22dB (for 10VAC) ?+62dB	Approximate value
Load current (LI)	0-150m/15m/1.5m/150?/1.5?A	Approximate value
DC high voltage	DC25kV (optional probe "HV-10T" is necessary)	-

hFE

1000 at x10 range (optional probe "HFE-6T" is necessary) -

Battery R6 (IEC) or UM-3 (1.5V)x2

Fuse $\varnothing 5.2 \times 20 \text{mm}$ (250V/0.5A)

Size/Mass H159.5×W129×D41.5mm/Approx. 320g



2	2-Channel Precision Low-Noise Temperature Controller, high stability, TC-1-100 and Objective Heater	lot	1	310,000.00	310,000.00
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Specification:

Lot: 2-Channel Precision Low-Noise Temperature Controller, high stability, TC-1-100 and Objective Heater - Warmer

Upgrade (PhP 180,000.00+ PhP 50,000.00= PhP 230,000.00)

1. 2-Channel Precision Low-Noise Temperature Controller, high stability, TC-1-100 (PhP 180,000.00)

Description:

Low electrical noise. Independent second channel for objective heaters or incubator lids. Can be used with Temperature controlled microscope stages, heated. Compatible with objective heater.

- plastic-encapsulated external probes (optional): no metal ions leakage into solutions
- Stability 0.01°C self-adjusting
- Multiple temperature probes: allow to stabilize temperature in large volumes (Petri dishes)
- Overheating protection: no risk to burn the heating stage or destroy your sample
- Analog Output to monitor temperature
- Analog and RS232 Input to set and program temperature
- No noise: suitable for electrophysiological recordings
- Standby mode
- No vibrations during imaging and recording - no internal fan

Can be used with objective heaters. Most heating stages work as inline solution pre-heaters. Can be used with flow control and perfusion systems. Includes connecting cables.

Specifications:

Range: room to 150°C, with accuracy of 0.1°C

Temperature probes: optional miniature 0.87mm diameter (fits small volume chambers); plastic-encapsulated

Stability: 0.01°C; required for sensitive applications: nano/piezo positioning, confocal imaging
self-adjusting; flexible, allow to stabilize temperature in different sample volumes and heating stage

Settings: sizes; allow to regulate output from 0 up to 96W per channel - prevents temperature overshoot and provides dual overheating protection

Feedback: Stage or External BATH probe

Output: 12V 4A max, per channel; 18V and 24V upon request

Input: 100-240VAC

Dimensions: 8x4x9in.



http://www.biosciencetools.com/catalog/Controller_TC1.htm

1. Objective Heater - Warmer Upgrade (PhP 50,000.00)

Description:

A thin flexible polyimide heater for any microscope objective. Used with oil or water immersion optics. Built-in temperature sensor. Easy to attach and remove. Simply wrap the heater around objective and secure with included Velcro tape. The heater is usually attached to a cylindrical surface of the objective, closer to the sample. The controller stores two settings in its memory for different size objectives.

Compatible with temperature controller.

Specifications:

Dimensions:	0.5/0.25in. wide x 5/10in long (around objective surface)
Temperature stability:	0.01°C, self-adjusting, required for sensitive applications: nano/piezo positioning or confocal imaging

Dual overheating
protection:

regulated power output down to 0W; settings eliminate temperature overshoot; adjustable
temperature threshold

Easy to install:

Fits any objective



http://biosciencetools.com/catalog/Heaters_Objective.htm

2. Tabletop 6x 50 ml High Speed Centrifuge (**PhP 80,000.00**)

Description:

- Brushless motor
- Microprocessor control
- Max. Speed- 8000- 30000 rpm

Specifications:

- Brushless motor
 - Microprocessor control
 - Max. Speed- 8000- 30000 rpm

Power Supply: AC220 V 50 Hz

Display: LCD

Max. Rcf: 1870 xg

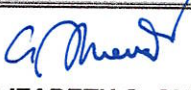
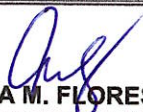



Noise: <65 dB

Consumption: 350 W

Dimensions: 500 x 440 x 330 mm



3	Gravity Convection Oven	pc	1	90,000.00		90,000.00
Specification:						
Chamber Material: Aluminum						
Display: Analog						
Dimensions (D x W x H) Interior: 11.5 x 16 x 16.2 in. (29 x 41 x 41cm)						
Dimensions (L x W x H) Exterior: 13.5 x 18.5 x 22.5 in. (34 x 47 x 57cm)						
Temperature Range: Ambient +5° to 210°C						
Temperature Control: Bimetallic thermostat						
Power source:220- 240V 50/60Hz						
Certifications/Compliance:UL/cUL listed						

		TOTAL						455,000.00		
Purpose: For laboratory use										
Checked by:  ELIZABETH S. QUEVEDO						Funds Available:  ALICIA M. FLORES <i>CO-CA</i>				
TWG - Laboratory Equipment						HEAD, BUDGET OFFICE <i>ICA</i> <i>OLD VAP</i>				
Signature:	Prepared by: 			Noted by: 			Approved by: 			
	PERLIE A. GUĆELA			REV RHIZZA L. AURE			DANIEL LESLIE S. TAN			
Designation:				UNIT HEAD, PROJECT LEADER			PRESIDENT, VSU <i>PS</i>			