



09/23/23 dln



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

PURCHASE REQUEST

PPMP No. : 32-4-394-2022-11-0-23

PR No.: TF-2022-12-02507

Date: 12-22-2022

Dept./Office: CVM

Category: **Laboratory Equipment**
 Duration: 2022-10-01
 to
 2023-09-30
Section/End-User: **Santiago T. Peña Jr.**
 Project Title/Code: **Enhancement
 of the VSU SemenLAB**
Funding Source: **Trust Fund**

Item #	Item Description	Unit	Qty	Unit Cost	PAR/ICS	Total Cost
1	Biological Safety Cabinet- Class I	set	1	165,000.00		165,000.00

Specification:

Biological Safety Cabinet- Class I

- suitable for work involving low to moderate risk agents (Biosafety Levels 1, 2 and 3) where there is a need for containment, but not for product protection.
- the HEPA filter included protects the environment by filtering air before it is exhausted
- With the negative pressure, personnel protection is made possible by constant movement of air into the work area

Specifications:

- UV lamp for sterilization
- Soft touch control panel, LCD display
- Energy-saving, high efficiency, low noise.
- With memory function in case of power-failure.
- 304 stainless steel work stable, easy for cleaning.
- Stable air flow system; provide firm protection to person and environment.

External Size: (W*D*H), mm: 900*713*1250mm

Internal Size:(W*D*H), mm: 900*713*1250mm

Voltage: 220V (AVR included)

2	HD Digital Phase Contrast Microscope Package	set	1	445,000.00		445,000.00
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Specification:

This Trinocular HD Digital Microscope Package is the perfect digital microscope set-up for both laboratory or teaching applications. The multi-output HD camera allows for both USB output and HDMI output to a HD monitor with an 11.6" retina display screen which attaches to the camera for an all in one streamlined solution.

On board software allows for great control of the camera without the use of a computer via HDMI output. The microscope includes a mouse which allows you to capture images/videos to a removable SD card as well as recall and play these image/videos back. Additionally, this microscope also allows side-by-side image comparison of a capture vs live image, on screen cross hair, and more.

Using USB output the camera will connect to a PC where you can take advantage of the free software which allows for

image/video capture, image/video playback, annotation, measurement, stacking, stitching, and more.

Note: Source and preferred brand: Nikon E200 HD Digital Microscope (<https://microscopecentral.com/products/nikon-e200-hd-digital-microscope-package?variant=21386289793>)

Note to the TWG:

The head, eyepiece dimension, objectives and other specifications are already provided as below:

DIGITAL MICROSCOPE SPECIFICATIONS:

Head:	Trinocular 30 degree inclined w/ photo tube & c-mount
Eyepieces:	CFI E 10x (20mm)
Objectives:	CFI E Plan Achromat 20x, 40x, 100x Oil, and 60x Positive Phase Contrast
Stage:	Mechanical stage with slide holder
Condenser:	E2 Abbe Condenser N.A. 1.25, Aperture diaphragm with position guide markings for respective objectives
Focus:	Coaxial coarse/fine focus controls
Illumination:	LED illumination
Misc:	Dust Cover, Power Cord, Manual
Warranty:	5 Year Mechanical 1 Year Electrical

CAMERA SPECIFICATIONS:

Screen (OPTIONAL)	Mountable 11.6" retina display screen (hardware included)
Resolution (Live):	1920X1080 - Captured 5 M.P.
Sensor:	1/2.5" (0.5x C-mount recommended); APTINA MT9P031
Frame Rate:	HDMI (30fps); USB 2.0 (15fps)
Image Capture:	High Speed SD Card (4GB)
Video Capture:	HDMI: 1080p, 30fps to SD Card USB 2.0: 1080p, 15fps to PC or Mac
Exposure Time:	0.001 sec - 10.0 sec
White Balance:	Auto
Settings:	Gain, Gamma, Saturation, Contraction
Built-in Software:	Cloud 1.0

PC Imaging Software:		CaptaVision Imaging Software (for PC only; Mac OS not supported)	
		Advanced Camera Controls: live/still image measurement and annotation, flat field correction; extended depth of focus (focus stacking); image stitching; HDR (High Dynamic Range) function	
		Image Types: JPEG, BMP, TIFF and RAW	
Output Modes:		Mode 1: USB 2.0 / Mode 2: HDMI	
System Compatibility:		Windows XP, Vista 7 and 8, and 10 (32 or 64-bit)	
		Mac OS X (for image transfer to Mac OS X only)	
System Requirements:		Intel processor (Core 2 Duo or higher); 2GB memory or more; USB 2.0 Hi-Speed ports:	
Power Supply:		DC12V/1A	
Warranty:		1 year	

3	Industrial Handheld Label Printer Kit	set	1	70,000.00		70,000.00
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Specification:

Industrial Handheld Label Printer Kit (with consumables)

Handheld label maker capable of creating multi line labels for clear identification.

QWERTY keyboard contains letters A to Z, numbers 0 to 9, and paired with backlit LCD graphics display for easier, more efficient labeling

Prints text in single color and in different text sizes ranging from 4 point to 103 point

Compatible with Brady M Series Label Tape Cartridges to enable printing of various label styles and widths.

Printer Output: Monochrome

Printer Technology: Thermal

Scanner Type: Portable

Size: 11.5 in H x 6 in W x 3.5 in D

Media Size Maximum 1" Width

Item Weight: 5.98 pounds

Length: 10.08 inches

Width: 6.81 inches

Style Printer

Included:

- Portable Label Printer

- Hard Carrying Case
- Li-Ion Rechargeable Battery and Charger
- USB Cable
- Quick Start Guide
- (1) AC Adapter/Battery Charger
- (1) Rechargeable NiMH Battery Pack
- (1) Brady CD
- (1) Free Brady WorkStation Basic Design Suite Download

Other inclusions:

10 units of Compatible Label tape cartridges (Black on White/Clear self-laminating tapes; Size: 1"x1.5"x.5")

Preferred Brand and Model: Brady BMP41

4	Portable Computer-Aided Sperm Analysis (CASA) System	set	1	280,000.00		280,000.00
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Specification:

Portable Computer-Aided Semen Evaluation (CASA) System- Complete Set

Description:

Performs fast and accurate pen-side semen analysis.

Fast calculation of concentration, motility and total doses (<1 min per sample).

Cloud service to access data remotely, export records and backup data.

Ability to capture and store video image of samples.

Easy to use software allows for fast and efficient analysis.

Portable, compact design allows for easy integration into any system.

Specifications and Inclusions:

- 1 unit Portable CASA system (includes softwares for swine and bovine semen)
- 1 unit iPad Mini (230V)
- measuring/sampling chips (100 tests - 2 packs of 50 chips/pack)
- heater block
- light source
- 2 charger cords (for heater block and iPad Mini)
- foldable stand
- hard carrying case with strap
- sample cups

Note to the TWG:

No power requirement needed as this is only installed on the iPad Mini (230V) as a software system.

5	Portable Freezing Unit for 90 Straws- Complete Set	set	1	72,000.00		72,000.00
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Specification:

Freezing unit for 90 straws 0.5 ml and 0.25 ml - Complete Set

Description:

The freezing units are compact and easy to handle. They are made of a styrofoam box of high quality, an inner container of stainless steel and a floating rack. The stainless steel container is filled with liquid nitrogen. The rack keeps the needed distance between 0.5 ml or 0.25 ml straws during the first down phase, while it floats on liquid nitrogen. After that, the straws get manually immersed into the nitrogen.

PRODUCT FEATURES

- Distance between straws and liquid nitrogen level can be adjusted
- Fits 0.5 ml and 0.25 ml straws
- Low nitrogen consumption
- High quality styrofoam chest and stainless steel inner box
- Easy transport

Specifications (no electricity power required):

- isolating styrofoam box
- floating rack for 90 straws
- stainless steel container with lid: 28 l
- Dimension: (L 530 x W 325 x H 200 mm)

Recommended reference for specifications:

REF.: 15043/0736 (<https://www.minitube.com/catalog/en/freezing-unit-for-90-straws-p1735/>)

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6	Portable ultrasound scanner for transabdominal pregnancy detection in sows and small ruminants.	set	1	300,000.00		300,000.00
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Specification:

Portable ultrasound scanner for transabdominal pregnancy detection in sows and small ruminants

Integrated auto-measure function to easily measure back fat thickness. Complete with probe. Compact and light weight.

- Portable, battery operated
- Robust, electric probe
- Very easy to clean
- Integrated auto-measure function to easily measure back fat thickness

PRODUCT FEATURES

- Monitor size: 5.0" TFT-LCD
- Display modes: B, B+B
- Image gray scale: 256 levels
- Measure functions: Distance, circumference, area, volume
- Detection depth: up to 240mm
- Battery capacity: 3000mAh, 7.4V
- Power consumption: 8W

- Weight (incl. probe): 854 g
- Overall size: 240 x 117 x 40 mm (L x W x H)
- Electrical connection: 100-240 V

SCOPE OF DELIVERY

- 1 Main device with 3.5 MHz electronic sector convex probe (70° forward) and 5 TFT monitor
- 1 Transport case
- 2 Carrying strap
- 5 Knurled screws for fixing the carrying strap to the main unit
- 4 Li-ion rechargeable Battery 3.7 V/3000 mAh with protective circuit (2 x 2 Pcs.)
- 1 Battery charger
- 1 Mini 4pin USB cable to transmit pictures
- 2 Repro Jelly, bottle 100 ml
- 1 Manual

Recommended reference for specifications:

REF.: 23500/1000 at <https://www.minitube.com/catalog/en/ultrasound-scanner-minitube-p2396/>

7	Positive Phase Contrast Objective (60x)	unit	1	77,000.00		77,000.00
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Specification:

Positive Phase Contrast Objective (60x)

Please note: The objective should be compatible with our existing microscope (Nikon Eclipse E200) used for our Computer Aided Sperm Analyzer (CASA) machine.

Specifications:

- CFI Achro DL 40x
- Material number: MRP20402
- Type: Achromat
- Primary Technique: Phase Contrast (Positive)
- Immersion: Air
- Magnification: 60X
- Numerical Aperture: 0.65
- Working Distance: 0.65
- Cover Glass Thickness: 0.17
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- Brightfield: suitable
- Darkfield: universal condenser (dry) and darkfield ring, darkfield condenser (dry/oil)
- Phase Contrast: Phase contrast ring: PH2, Phase contrast type: DL
- Fluorescence (visible): possible but not recommended;
- Polarizing: possible but not recommended; Polarizing type: simple POL

8	Semiautomatic Filling and Sealing (SFS) Machine for 0.5 mL Straws-Complete Set	set	1	800,000.00		800,000.00
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Specification:

SFS, semiautomatic filling and sealing machine, 0.5 ml straws

Safe and hygienic filling and sealing system for semen straws, using metal or glass sealing balls.

Description:

- Straws are filled and sealed 6 by 6
- Straw filling is done by vacuum and sealing by pressing a metal or glass sealing ball into the straw end
- The glass sealing balls are available in different colors
- An air bubble of 1 cm is automatically produced in each straw
- Capacity: 2000 straws/hour

Specifications:

- filling and suction heads for 6 straws
- straw magazine
- vacuum bottle
- SFS Cartridge loading device with loading block and 10 cartridges for 36 straws each (0.5 mL straws)
- Low density vacuum pump, 30-60 Hg, with manometer and adjustable valve 230 V/50 Hz
- Support for semen cone
- Silicone tubing for SFS- transparent, 3 x 1 mm, length 10 m
- Filling head with 6 nozzles for 0.5
- Suction head with 6 nozzles for 0.5
- Washer for all filling and suction nozzles - 5000/bag
- AVR included

Recommended source/specifications:

<https://www.minitube.com/catalog/en/sfs-semiautomatic-filling-and-p1204/>

Note to the TWG:

Power requirement is already indicated (230V)

Information on dimension is not available

Thank you.

9	Wireless Interactive Whiteboard System Set	set	1	105,000.00		105,000.00
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Specification:

Wireless interactive whiteboard system transforms most any flat surface – including walls and soft projector screens – into an interactive whiteboard for learning and presentations.

The the convenience of wireless operation, with no Wi-Fi required, offers a dynamic new level of multimedia interaction for lessons and presentations.

Features:

- Turn your existing whiteboard/projection screen/most any flat surface into an interactive whiteboard.
- Multi-pen supported! Up to two users can work simultaneously on the projected whiteboard surface.

- Wireless and no WiFi required. No wired connection needed between Sensor Cam and computer. Interactive Pen works on similar technology as a wireless mouse
- Works with all projector types, whether it's a standard projector, a portable projector, or a short-throw/ultra short-throw projector.
- Easy setup and calibration.
- Control your computer remotely; use the Interactive Pen as a computer cursor.
- Lightweight and portable for teacher or classroom changes.

Inclusions/Specifications:

1) Sensor Cam

Effective Board Area: Up to 100"

Effective Distance (to Board): Up to 20 ft (600cm)

Power Supply: DC Adapter (Input Rating 5V/2A)

Dimensions L x W x H (folded): 3.78" x 1.73" x 0.85" (96 x 44 x 21.5 mm)

Weight: 3.7oz (106g)

Operation Temperature: 32~104°F (0~40?)

2) Interactive Pen

IR Trigger: Contact Sensitive Tip or Button Press

Battery Type: 2 AAA (Alkaline Battery)

Dimensions L x W x H (with Wireless Receiver): 8.54" x 0.79" x 0.91" (217 x 20 x 23 mm)

Weight (with batteries): 2.5oz (70g)

Operation Temperature: 32~104°F (0~40?)

3) Wireless Receiver

Wireless Receiver is powered by USB connection (Input Rating 5V/0.5A)

Operation Temperature: 32~104°F (0~40?)

4) Home Theater Projector

4K UHD 3200 Lumens 240Hz 4.2ms

with HDR, Auto Keystone, Dual HDMI

True 4K UHD Resolution on a screen up to 300 inches

With over 3200 ANSI lumens of brightness and a high contrast ratio

with 4.2ms low input lag and a magnificent 240Hz refresh rate

With a 1.1x optical zoom, anti-warping stabilization and automatic vertical and horizontal keystoneing

Reduce power consumption and extend lamp life with SuperEco mode and enjoy up to 20,000 hours of brightness. With an

average viewing time of 5 hours a day, that adds up to over 10 years

With future-proof connectivity options such as Dual HDMI, powered USB-A and more

INCLUDED IN THE BOX: 1 unit 4K Projector, Power Cable, and Remote Control

TOTAL

2,314,000.00

Purpose: SemenLAB 2023

Checked by:


ELIZABETH S. QUEVEDO

Funds Available:


NICK FREDDY R. BELLO

TWG - Laboratory Equipment

HEAD, ACCOUNTING OFFICE 

Signature:

Requested by:

Noted by:

Approved by:

Printed Name:

SANTIAGO T. PEÑA JR.

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EDGARDO E. TULIN

Designation:

END USER

UNIT HEAD, PROJECT LEADER

PRESIDENT, VSU