



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

## PURCHASE REQUEST

PPMP No.: 15-1-8-2024-0-0-7

PR No.: STF-2024-02-00522

Date: 02-15-2024

Dept./Office: DOPAC

Category: **Laboratory  
Equipment**

Section/End-User: Jane M. Abapo

Funding Source: **Special Trust Fund**

Project Title/Code: **Laboratory Supplies 2024**

Item #	Item Description	Unit	Qty	Unit Cost	PAR/ICS	Total Cost
1	Benchtop Multiparameter Meter	set	1	190,000.00		190,000.00

### Specification:

#### Inclusions

- 1 Meter
- 1 Glass pH Electrode with built-in temp sensor
- 1 Conductivity Electrode with built-in temp sensor
- Meter Accessory set
- Buffer solutions (4, 7, 10) 250 mL each bottle
- 3.33 M KCl reference electrolyte (250 mL)
- Conductivity Standard Solutions (84 uS/cm, 1413 uS/cm, 12.88 mS/cm, 111.8 mS/cm) 250 mL each bottle
- Delivery and Installation
- 1 Free PM and Calibration 1 year after the installation

#### Meter Specifications

- Meter must be dual channel and able to do simultaneous measurements
- 1 channel must be able to measure either pH, Ion, mV, and ORP
- 1 channel must be able to measure either conductivity, salinity, resistivity, and TDS
- Both channels must display temperature data
- Meter display must be colored screen to distinguish between parameters
- Meter display must be touchscreen (or no buttons) and waterproof or chemical-resistant to prevent moisture and chemical damage during analysis
- Meter display must be covered with a glass panel and protection cover
- Meter must have an automatic calibration function and automatic buffer recognition
- Meter software must include electrode status
- Power Requirement of the equipment is 220V.

#### pH specifications

- Measurement must be through glass electrode method
- Measurement range must have a wider range than pH 0.000– 14.000
- Resolution must be up to 0.001 pH
- Accuracy must be  $\pm 0.001$  pH
- pH calibration must be up to 5 points

ORP specifications

- ORP range must at least be  $\pm 1999.9$  mV
- Resolution must be up to 0.1 mV
- Accuracy must be up to 0.2 mV

Conductivity or EC Specifications

- 0.000  $\mu$ S/cm to 1.999 S/cm
- Cell constant, k must be either 0.1, 1.0, and 10.0
- Resolution must be at least 0.5% of full scale
- Accuracy must be at least  $\pm 0.5\%$  of full scale
- Calibration must be settable to manual or automatic.
- Calibration must be up to 4 points

Salinity Specifications

- Range must be at least 0.00 to 80.00 ppt
- Resolution must be up to 0.01 ppt

Temperature Specifications

- Range must be at least  $-30.0$   $^{\circ}$ C to  $130.0$   $^{\circ}$ C
- Resolution must be up to 0.1  $^{\circ}$ C

**TOTAL**

**190,000.00**

Purpose: Laboratory Use

Checked by:

**ELIZABETH S. QUEVEDO**

TWG - Laboratory Equipment

Funds Available:

**ALICIA M. FLORES**

HEAD, BUDGET OFFICE

Signature:

Printed Name:

Designation:

Prepared by:

**JANE M. ABAPO**

Noted by:

**ELIZABETH S. QUEVEDO**

UNIT HEAD, PROJECT LEADER

Approved by:

**DANIEL LESLIE S. TAN**

PRESIDENT, VSU