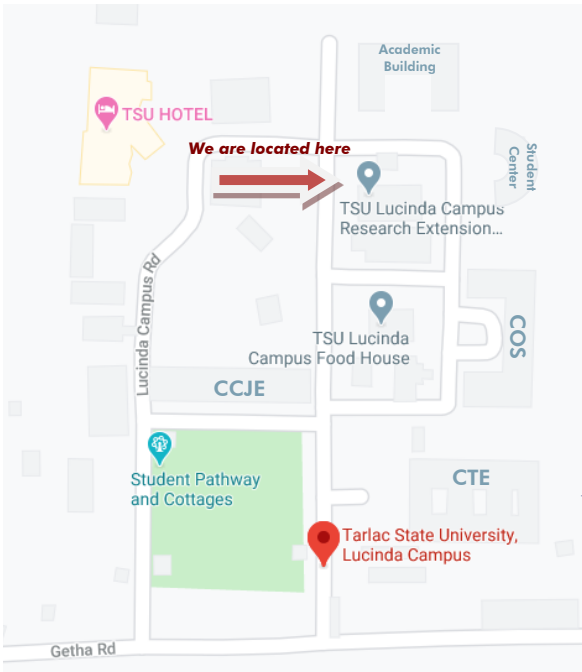


LOCATION



ORGANIZATIONAL STRUCTURE

DR. ARNOLD E. VELASCO

President, Tarlac State University

DR. MURPHY P. MOHAMMED

Vice-President, Research Development and Extension

DR. ROBERT V. MARCOS

Director, Office of the University Research Dev.

TSU-Analytical Testing Laboratory

Physico-Chemical Section:

MR. JAIDRIEL MEG G. CABANDING
MR. XYRIS GERARD A. FERNANDEZ

Microbiology Section:

MS. GERALDINE R. GAMOSO
MR. ROMAN RAFAEL B. MANUCDOC

rev. 2.0-20230425



ABOUT THE LABORATORY



The **TSU-Analytical Testing Laboratory (TSU-ATL)** is an academic service laboratory located at the ground floor of the RED Building of the TSU Lucinda Extension Campus. **TSU-ATL** is capable of delivering laboratory services and analyses for drinking water, ground water, and wastewater samples.

The processes used are traceable to the protocols followed by the DOH, DENR, and EMB. All of the methods may be found in the American Public Health Association's (APHA) and American Water Works Association's (AWWA) Standard Methods for the Examination of Water and Wastewater (AWWA).

The **TSU-ATL** provides its clients with timely and high-quality services and deliverables by:

- Its modern and up-to-date equipment and laboratory instruments
- Its laboratory staff and faculty experts who are capable of providing laboratory services and consultancy.
- Its well-maintained and calibrated laboratory equipment.



OBJECTIVES OF THE TSU-ATL

The ATL shall...

- Provide laboratory consultation and analysis services, which are within their capability, to the University researchers as needed for the completion of their researches.
- Provide laboratory consultation and analysis services, at a cost, to external clientele and other industries who need testing for their drinking water, deep-well water, and/or wastewater samples. The ATL shall also provide laboratory consultation and analysis services, at a cost, to non-TSU students for their thesis or research projects.
- Conduct semi-annual (once for Jan-June, once for July-Dec) water monitoring activity of the TSU tap water sources for quality assessment and submit report with recommendations to OUP. The ATL shall also provide, upon request, the monitoring activity results to colleges for their accreditation requirements.
- Spearhead the application, and renewal of the PNP and PDEA Controlled Chemical License of the University. The ATL shall also facilitate in the reporting of the controlled chemicals, which are within the university, to the PNP and PDEA.
- Submit quarterly waste generation report of the unit to the TSU Pollution Control and Safety Unit (PCSU) for proper waste documentation and legal waste disposal.
- Assist the URO Director in the preparation of workplan and reports.



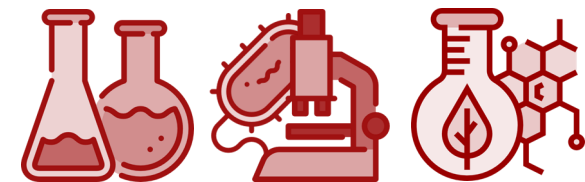
TARLAC STATE UNIVERSITY

ANALYTICAL TESTING LABORATORY (ATL)

Fees and Services

Board of Regents Approved:

Resolution No. 29, s. 2019, June 13, 2019



For more information, contact or visit us at:

Ground Floor, Research, Extension, and Development (RED) Building, TSU Villa Lucinda Ext. Campus, Tarlac City 2300
E-mail: tsu-asrl@tsu.edu.ph • atlnprc@tsu.edu.ph
Telephone Number: (045) 606-8190

LABORATORY FEES FOR WATER AND WASTEWATER ANALYSES

Analysis	Method	Fee*	Analysis	Method	Fee*	Analysis	Method	Fee*
Physico-Chemical Analyses			Carbonates	Titration	250.00	Microbiological Analyses		
Sample Preparation		225.00	Bicarbonates	Titration	250.00	<i>E. coli</i>	SMEWW	500.00
Color (Apparent)	Colorimetric	150.00	Total CO ₂	Titration	250.00	Total Coliforms	SMEWW	500.00
Color (True)	Colorimetric	200.00	Free CO ₂	Titration	250.00	Fecal coliforms	SMEWW	500.00
Turbidity	Colorimetric	150.00	Chloride	Argentometric	400.00	Total Plate Count	SMEWW	500.00
Temperature	Direct Measurement	150.00	Sulfate	Spectrophotometric	600.00	<i>Staphylococcus aureus</i>	SMEWW	360.00
pH	Electrometric	150.00	Residual Chlorine	Titration	800.00	<i>Salmonella</i>	SMEWW	480.00
Conductivity	Electrometric	150.00	Total Acidity	Titration	400.00	<i>Yeast/mold count</i>	SMEWW	300.00
Total Suspended Solids (TSS)	Gravimetric	450.00	P-Acidity	Titration	250.00	Standard Aerobic Plate Count or Via-	SMEWW	240.00
Total Dissolved Solids (TDS)	Gravimetric	500.00	M-Acidity	Titration	250.00	Water Potability	SMEWW	700.00
Total Dissolved Solids (TDS)	Electrometric	100.00	Nitrite	Spectrophotometric	300.00	Sample Preparation		225.00
Total Solids	Gravimetric	450.00	Phosphorus	Spectrophotometric	350.00	Sample Bag with Sample Proof Tabs		65.00
Total Hardness	Titration	500.00	Phosphate	Spectrophotometric	500.00	Use of Equipment		
Calcium Hardness	Titration	400.00	Total Phosphorus	Spectrophotometric	600.00	Rotary Evaporator Extraction (per mL)		1.00
Chloride	Argentometric	600.00	Chromium hexavalent	Spectrophotometric	500.00	Incubator (per hour)		5.00
Odor	Sensory	100.00	Silica (Heteropolyblue)	Spectrophotometric	450.00	Autoclave (per hour)		60.00
Chlorosity	Argentometric	300.00	Silica (molybdate-reactive)	Spectrophotometric	500.00	Furnace (per hour)		150.00
Salinity	Argentometric	300.00	Wastewater-COD	Open-Reflux	950.00	Oven (per hour)		24.00
Total Alkalinity	Titration	400.00	Dissolved Oxygen	Electrometric	200.00	Laminar Flow Hood (per hour)		20.00
P-Alkalinity	Titration	250.00	Oil and Grease	Partition Gravimetric	1,000.00			
M-Alkalinity	Titration	250.00	Surfactants-MBAS	Spectrophotometric	1,000.00			
Hydroxides	Titration	250.00	Settleable Solids	Imhoff Cone Method	300.00			

*All fees are in Philippine Peso (Php);
15% discount for Undergraduate Students;
10% discount for TSU Graduate Students.

HOW TO AVAIL THE SERVICE:

- Formally write a request letter addressed to Dr. Robert V. Marcos (for TSU Students) or to Dr. Arnold E. Velasco (for other clients). Indicated in the letter are the sample description, number of samples, and requested parameters-to-be-analyzed.
- Once the letter has been approved and has been properly endorsed to the lab, an initial meeting with the ATLNPRC staff will be scheduled. The service is available from Tuesdays to Fridays from 8:00AM to 5:00PM (excluding holidays and non-working days).

REMINDERS FOR SAMPLE COLLECTION:

- Properly label each sample with the correct description and date and time of sample collection.
- Ensure that samples are stored and transported in an ice bath or cooler at $\leq 6^{\circ}\text{C}$.
- Store oil-and-grease samples in an ether-washed wide-mouthed glass bottle of at least 1000 mL. Acidify samples to $\text{pH} \leq 2.0$.
- Samples requiring both physico-chemical and microbiological analyses should be stored in separate containers.
 - Use sterilized containers for microbiological samples (NASCO bags).
 - For physico-chemical analyses, please submit at least 1000 mL of sample in a clean and sealed sample container.

OTHER REMINDERS:

- The analysis results will be based on the sample(s) collected and/or submitted.
- The analysis results given by the lab CAN ONLY BE USED for the **purpose of monitoring and research** (not for any legal purposes, e.g. license-to-operate, accreditation requirement).
- Duration of analysis and release of results of analysis varies depending on the requested testing parameters, sample type as well as number of pending analysis of the lab.