OUTCOMES-BASED QUALITY ASSURANCE
PROGRAM PERFORMANCE PROFILE

Area IX. Laboratories

1. Program

a. Name of the Program: Bachelor of Secondary Education

b. Specialization/majors: Social Studies

c. Degree granted: Bachelor of Secondary Education major in Social Studies

2. Academic unit where program is offered: College of Education

3. Institution

a. Name: Dr. Emilio B. Espinosa, Sr. Memorial State College of Agriculture and Technology (DEBESMSCAT)

Dr. Dennis C. Ramiso

Dr. Raiza M. Padasas

Dr. Arnel B. Millesca

b. Location of the main Campus: Cabitan, Mandaon, Masbate

c. Campus where Program is offered: Main Campus, Cabitan, Mandaon, Masbate

4. Name and title of the:

a. Head/Chair of the Program

b. Dean/Director of the academic Unit

c. President of the Institution

5. Legal basis of the Program/BOR or BOT resolution, Date of opening, etc. BOT Resolution No. 15-16, approved June 18, 2015; COPC No. 49, s. 2022, issued November 8, 2022, effective AY 2022–2023

6. Accreditation visit applied for (Preliminary, 1st Survey, 2nd Survey, 3rd Survey, 4th Survey) 2nd Survey, 16–20 November 2026

7. Present accreditation status and its inclusive period of effectivity Level I Accredited/March 16, 2024 – March 15, 2027

PART IX. LABORATORIES

PARAMETER A. LABORATORIES, SHOPS, FACILITIES

1. SYSTEM – INPUTS AND PROCESSES

- **Present the approved building plan showing the location of laboratory rooms/shops utilized in the program and its conformity to RA 6541-National Building Code of the Philippines & PD 856-Code of Sanitation of the Philippines.**

The BSEd Social Studies program uses laboratory rooms and facilities located across the DEBESMSCAT Main Campus in Cabitan, Mandaon, Masbate. Table IX-1 lists each room, where it is housed, its recorded capacity, and how the program uses it. Most of these rooms are college-wide facilities that BSEd classes share with other programs.

Each room is laid out for the kind of work done in it. The Speech Laboratory has carrel-style booths that isolate each student acoustically, with a central instructor console in front. The ICT Laboratory has four computer rooms and an office; its workstations are arranged in rows that allow both individual and group work. The Demonstration Room is set up as a simulated classroom for 35 to 40 students, with a whiteboard and television at the front for practice teaching. The Science Laboratory Building houses the Chemistry and Biology laboratories, each with demonstration tables, sinks, and electrical supply (A-S.2, A-S.4, A-S.7, A-I.1, A-I.11).

The Bureau of Fire Protection issued Fire Safety Evaluation Clearances in 2021 for 25 campus buildings, among them the BTLED Building, the NSTP and PE Building, and the Industrial, Automotive, and Civil Technology buildings, after their plans were found to conform to RA 9514, the Fire Code of the Philippines (A-S.1). The building plans of the Science Laboratory Building, where the program takes its general education science courses, show its floor plans, elevations, door and window schedule, and lighting and power layouts with the schedule of loads (A-S.1, A-S.3). The door and window schedules from the approved plans of eight other buildings, with photographs of the double-leaf laboratory doors, are filed under A-S.5. Floor plans of the College of Education rooms, occupancy and sanitary permits, and an evacuation plan are still being secured.

The College has no in-campus laboratory school. Field study and teaching internship take place in public schools under a notarized Memorandum of Agreement between DEBESMSCAT and the Department of Education Regional Office No. V, signed by Dr. Arnel B. Millesca for the College and
Regional Director Gilbert T. Sadsad for DepEd. The agreement covers the Masbate Province and Masbate City Schools Divisions. It is in force from SY 2024–2025 until SY 2027–2028, and both parties review it at the end of every school year (A-S.9). Under this agreement, the College of Education assigned 361 BSEd, BPEd,

and BTLED students to 28 public high schools for Field Study 1 and 2, with BSEd Filipino students placed in several of these schools. Deployment to these schools ran from 8 to 12 September 2025, with field study instructors assigned to each date, and the BSEd Filipino 4 class attended a two-day pre-employment seminar orientation (A-S.9).

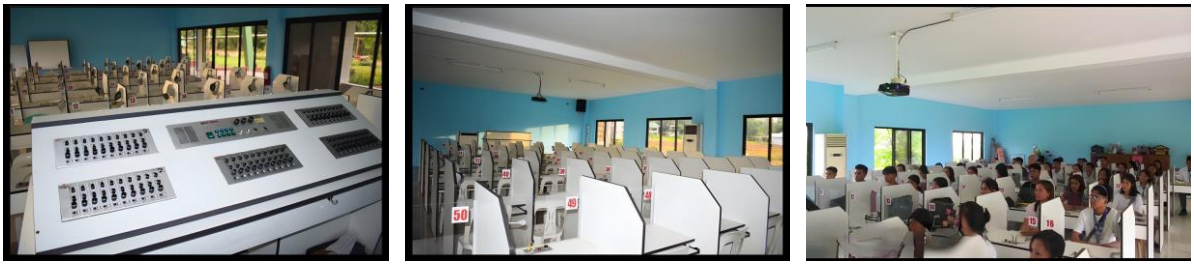
Table IX-1. Laboratory rooms and facilities used by the BSEd Filipino program

Facility	Location / capacity	Main features	Use in the program
Speech Laboratory (Audio Visual Technology)	College of Education; individual booths	Centralized instructor console; numbered booths with headsets and audio interfaces; overhead projectors and integrated sound system; air-conditioned	Speech and oral language drills, voice recording and playback, viewing of audiovisual materials
ICT Laboratory	4 rooms + 1 office; 45–50 students per room	195 desktop computers on the equipment list (175 counted functional on 31 October 2026), 5 printer/scanners, 45 drawing pads, 6 VR sets, 5 smart TVs, 9 airconditioning units, CCTV, campus Wi-Fi	Computer-based activities and technology-enhanced instruction (BSEd listed among user programs)
Demonstration Room	College of Education; 35–40 students	Television, whiteboard, 1 air-conditioning unit, 4 ceiling fans, 2 stand fans; big books, textbooks and teaching aids	Teaching demonstrations, microteaching, lesson presentations
Science Laboratories (Chemistry; Biology; General Science and Physics)	Science Laboratory Building	Demonstration tables with sinks; microscopes, centrifuges, fume hood, balances, physics apparatus	General education science courses
College Amphitheater	Tiered theater-style seating	Projection and sound system; split-type air-conditioning; stage and podium	Seminars, large-group demonstration lessons, academic symposia
93.1 DEBESMSCAT Buffalo Radio Station	10-watt educational FM station	Broadcast booth with live-stream capability	Instructional broadcasting, scriptwriting, voice and diction practice
Statistics Laboratory	Main Campus	Workstations with statistical software (e.g., SPSS, Minitab, R); projection system	Data analysis for research courses
BTLED (Home Economics) Laboratories	Multi-story building	Culinary, garments, and laundry zones with industrial-grade equipment	Shop work in technology and livelihood components
Physical Education facilities	Gym, sports field, covered court, dance studio	Cardio and strength equipment; standarddimension covered court with lighting; open dance floor	Physical education courses

2. IMPLEMENTATION

- **Present in pictorial form the furniture, equipment, fire extinguishers, first aid kits, multimedia center, and other paraphernalia needed in the Laboratories.**

  Figures IX-1 to IX-7 show the furniture, equipment, safety devices, and multimedia facilities in the rooms the program uses (A-O.1). Further photographs are filed with the MOVs: wall-mounted fire extinguishers in the ICT Laboratory, General Science Laboratory, Audio Visual Building, and shop buildings (A-I.3); the first-aid kit with the posted antidote chart, GHS pictograms, and safety posters (A-I.6); and laboratory storage shelves and chemical storage cabinets (A-I.12).



Instructor console | Booths with headsets | Class in session

Figure IX-1. Speech Laboratory (Audio Visual Technology): instructor console, individual booths, and a class in session (AS.2)



Computer room | Workstation rows | Laboratory class

Figure IX-2. ICT Laboratory: computer rooms and a laboratory class (A-S.7)



Simulated classroom | Seating layout | Instructional materials

Figure IX-3. College of Education Demonstration Room (A-S.2, A-I.1)


Chemistry Laboratory demonstration table


Biology Laboratory demonstration table


Laboratory activity

Figure IX-4. Science laboratories: demonstration tables and a laboratory activity (A-I.11, A-I.8)



College Amphitheater



93.1 Buffalo Radio Station



Statistics Laboratory

Figure IX-5. Multimedia facilities: Amphitheater, radio station, and Statistics Laboratory (A-I.9)



Posted safety rules


Fire extinguisher, BTLED laboratory


Fire extinguisher at a laboratory door

Figure IX-6. Safety provisions: posted laboratory safety rules and mounted fire extinguishers (A-I.2, A-I.3)


College Gym


Covered court


BTLED garments laboratory

Figure IX-7. Other general education and shop facilities (A-I.8, A-S.6)

Table IX-2. Laboratories required for the program

CHED-required laboratories	Existing	Not Existing	Remarks
Educational Technology Laboratory	✓		Speech Laboratory (Audio Visual Technology) with instructor console and AV integration; Demonstration Room for presenting and viewing materials
Speech / Language Laboratory	✓		Individual booths with headsets, recording and playback
Computer Laboratory	✓		ICT Laboratory: 4 rooms; 195 desktop units on the equipment list, 175 functional and 8 printers in the 31 October 2026 count
Natural Science Laboratory	✓		Chemistry, Biology, and General Science and Physics laboratories
Multimedia Center	✓		Speech Laboratory AV system, Amphitheater, 93.1 Buffalo Radio Station
CHED-required laboratories	**Existing**	**Not Existing**	**Remarks**
Technology / Shop	✓		BTLED Home Economics laboratories (shared facility)
Physical Education facilities	✓		Gym, sports field, covered court, dance studio
Demonstration Room	✓		Simulated classroom for 35–40 students
In-campus Laboratory School		✓	Field study through the MOA with DepEd Regional Office No. V (SY 2024–2025 to SY 2027–2028)

- **Prepare a Brief Description of each laboratory room (Natural Science, computer/Technology, Shop, Speech, PE, etc.)**

  Speech Laboratory (Audio Visual Technology). The room has individual carrel booths, each with a numbered headset and audio interface. From the central console, the instructor monitors each student, leads group discussion, and broadcasts audio-visual material to the class. Overhead projectors and an integrated sound system support phonetics drills, recording and playback of student speech, and public speaking practice. The room is well-lit and air-conditioned (A-S.2, A-S.4).

  ICT Laboratory. The laboratory has four computer rooms and one office, each room seating 45 to 50 students and one instructor. It holds 195 desktop computers running Windows 10 or 11, five multifunction printer/scanners, 45 Wacom drawing pads, six virtual reality sets, and five wall-mounted smart TVs. The rooms are air-conditioned (nine 2.5 HP inverter units), well-lit, and connected to campus Wi-Fi. Three wall-mounted 10-lb ABC fire extinguishers serve the laboratory, and a CCTV camera monitors the equipment (A-S.7, B-S.1). The physical inventory of 31

October 2026 counts 175 functional computers: 50 each in Rooms 1 and 2, 35 each in Rooms 3 and 4, and 5 in the office (A-S.7).

Demonstration Room. BSEd students majoring in Filipino, English, Mathematics, Social Studies, Science, Technology and Livelihood Education, and Physical Education use this room for teaching demonstrations and microteaching. It seats 35 to 40 students and has a television, a whiteboard, one air-conditioning unit, four ceiling fans, two stand fans, and tables for lesson preparation. Shelves hold big books, textbooks, and teaching aids that students use when preparing lessons (A-S.2, A-I.1).

Science Laboratories. The Science Laboratory Building has a Chemistry Laboratory and a Biology Laboratory with demonstration tables and sinks, and a General Science and Physics Laboratory. Its equipment includes compound microscopes, benchtop centrifuges, a BIOBASE fume hood, a hot plate stirrer, analytical and electronic balances, a moisture analyzer, and a laboratory oven. The physics apparatus includes a Van de Graaff generator, a Wimshurst machine, and a Boyle's law apparatus. Program students take their general education science courses here (A-I.8, A-I.11).

Multimedia facilities. The College Amphitheater has tiered seating, a projection and sound system, and split-type air-conditioning; it hosts seminars, symposia, and large-group demonstration lessons. The 93.1 DEBESMSCAT Buffalo Radio Station, a 10-watt educational FM station, gives pre-service teachers practice in instructional broadcasting and scriptwriting. The Statistics Laboratory provides workstations with statistical software for research courses (A-I.9).

Shop and Physical Education facilities. The BTLED Home Economics laboratories have culinary, garments, and laundry zones equipped with deck ovens, gas ranges, stand mixers, industrial and treadle sewing machines, and a washing machine. The College Gym, sports field, covered court, and dance studio serve physical education classes (A-S.6, A-I.8).

- **List all Laboratory and operation manuals in actual use.**

Table IX-3. Laboratory and operation manuals in use

Name of laboratory	Laboratory Manuals Available	Operation Manuals (OM) Available
1. Science Laboratories (Chemistry, Biology, General Science and Physics)	1. DEBESMSCAT Science Laboratory Manual (G. C. R. Malto, 2023): laboratory access and security, safety rules, storage and handling of chemicals, chemical compatibility chart, antidote chart, cleanliness and maintenance, chemical waste disposal policy, borrower's slip 2. Organic Chemistry Laboratory Manual (E. BargoFerriol): laboratory policies, safety contract, apparatus guide, laboratory notebook format, 13 experiments with rubrics	1. Annual Calibration Plan of Machines and Equipment (calibration interval by type of use) 2. General Guidelines for Requisition and Use of Laboratory (Science Laboratory Manual, Part II)

2. ICT Laboratory	1. DEBESMSCAT ICT Laboratory Policy Manual (Revised 2024; R. D. Bello): access and usage, equipment and software, security and privacy, internet use, printing, incident management, maintenance and inventory / 2. Laboratory Rules	Maintenance, safety, and security protocols: hardware and software maintenance, operating system updates, network security, equipment grounding, CCTV monitoring

3. OUTCOMES

➢ **Show evidences that laboratories and shops are well-equipped, functional and are conducive to learning.**

The photo documentation of the College of Education laboratories and the Demonstration Room (AO.1) shows the rooms in regular use. Classes are held in the Speech Laboratory, the ICT Laboratory, and the science laboratories (Figures IX-1, IX-2, IX-4).

Further photographs show students in chemistry and engineering laboratory classes and BSIS students in hands-on ICT Laboratory sessions, each with a short narrative of the activity (A-O.1).

The equipment largely matches the size of a class. The physical inventory of 31 October 2026 counts 50 functional computers in each of Rooms 1 and 2 of the ICT Laboratory, enough for a full section of 45 to 50 students, and 35 in each of Rooms 3 and 4 (A-S.7). The Science Laboratory inventory of 11 August 2025 lists 223 line items, of which 71 are property-numbered equipment worth PhP 3,420,040.93 out of a total recorded value of PhP 4,588,701.13 (B-S.1). In the Chemistry Laboratory condition report of 27 October 2026, 18 of the 21 equipment and apparatus types are rated good or functional (C-O.1).

The rooms are also comfortable to work in. The Speech Laboratory, ICT Laboratory, and Amphitheater are air-conditioned and well-lit, and the Demonstration Room has an air-conditioning unit, four ceiling fans, and two stand fans (A-S.4).

4. BEST PRACTICES

➢ **Cite as many best practices as you can on Parameter A (Laboratories, Shops and Facilities).**

1. **Shared use of college-wide facilities.** BSEd classes use the ICT Laboratory, the Amphitheater, and the science laboratories alongside other colleges. This gives the program access to more equipment than a single college could keep on its own.
2. **A radio station as a teaching laboratory.** Pre-service teachers write scripts and deliver lessons on 93.1 DEBESMSCAT Buffalo Radio Station, which builds

diction, voice modulation, and confidence in speaking. The station was revived during the pandemic to reach students with poor connectivity.

3. **A stocked Demonstration Room.** Big books, textbooks, and teaching aids for all majors are kept in the room, so students can prepare and deliver microteaching lessons in one place.
4. **Written safety rules.** The Science Laboratory Manual sets out safety rules and chemical handling guidelines, and the Organic Chemistry Laboratory Manual requires each student to sign a safety contract before laboratory work.
5. **Follow-up on the previous visit.** The laboratories with demonstration tables are now listed and documented with photographs (A-I.11).
6. **Posted first-aid and safety information.** Each laboratory displays a first-aid kit, an antidote chart, and GHS pictograms, and the Medical Services Unit issues written first-aid instructions for laboratory accidents (A-I.6).

PARAMETER B. EQUIPMENT, SUPPLIES, AND MATERIALS

1. SYSTEM – INPUTS AND PROCESSES

- **Present in pictorial form the equipment, supplies and materials that are available in laboratories and shops.**

  Figure IX-8 shows the general science, physics, and analytical equipment of the Science Laboratories. The ICT Laboratory equipment appears in Figure IX-2.



Physics and general science apparatus Analytical instruments Microscope and centrifuge cabinets *Figure IX-8. Science Laboratory equipment: physics apparatus, analytical instruments, and equipment cabinets (B-S.1, BS.2)*

2. IMPLEMENTATION

- **Present in pictorial form the equipment, supplies and materials that are available in laboratories and shops.**

  Glassware and small apparatus are kept on labelled shelves and racks, as recorded in the October 2026 condition report (Figure IX-9).



Beakers



Erlenmeyer flasks



Test tubes and racks



Drying rack

Figure IX-9. Glassware storage in the Chemistry Laboratory (B-I.1, C-I.1)

- **List all Functional locally-improvised supplies apparatus.** **Table IX-4. Functional locally improvised apparatus**

Name of apparatus	Brief Description	Purpose / Function	Subject where it is used	Fabricator
No locally improvised apparatus is recorded in the Science Laboratory inventories (2023–2026) or in the ICT Laboratory equipment list. Laboratory work uses commercially procured equipment (Table IX-5).				

- **Make an inventory of functional equipment based on CHED minimum requirement.**

Table IX-5. Inventory of functional equipment

Equipment	CMO-Required Quantity (if applicable)	Quantity of Existing Equipment	Supplies Available
1. Natural Sciences Laboratory (Biology, Chemistry, Physics)	Not specified	71 property-numbered equipment entries (inventory of 11 Aug 2025), including 15 compound microscopes, 5 benchtop centrifuges, 1 analytical balance, 1 moisture analyzer, 2 digital balances, 2 pH meters, 1 dissolved oxygen meter, 1 environmental chamber, 1 vacuum pump, and 41 entries acquired in 2022, mostly physics demonstration apparatus	29 glassware and metalware line items (list of 7 Sep 2026), including 102 beakers, 72 Erlenmeyer flasks, 150 test tubes, 36 graduated cylinders, 36 burettes, and 48 transfer pipettes; 76 line items recorded by the bottle, mainly reagents and chemicals
Equipment	**CMO-Required Quantity (if applicable)**	**Quantity of Existing Equipment**	**Supplies Available**

2. Computer Laboratory	At least 15 usable units and a printer (Area IX, A-S.7)	195 desktop computers on the equipment list (175 functional, 31 October 2026); 5 multifunction printer/scanners; 45 drawing pads; 6 virtual reality sets; 5 smart TVs	Windows 10 and 11 operating systems; licensed Microsoft Office 2016 and 2021 and Adobe Master Collection 2021; open-source tools (Visual Studio Code, XAMPP, VirtualBox, Dev-C++); IBM SPSS Statistics and AMOS license; campus Wi-Fi through 3 network routers/switches (B-S.3)
3. Technology / Shop	Not specified	BTLED Home Economics laboratories: industrial deck oven, gas ranges, stand mixers, refrigerators, industrial and treadle sewing machines, twin-tub washing machine, steam irons	Kitchenware, glassware, silverware, weighing scales, sewing tools
4. Speech	Not specified	Individual booths with headsets and audio interfaces; centralized instructor console; overhead projectors and integrated sound system	Audio-visual materials for phonetics drills and public speaking practice
5. Multi-media	Not specified	Amphitheater projection and sound system; 10-watt FM broadcast and live-stream setup; Demonstration Room television; 10 smart LED TVs and 2 document cameras (Science Laboratory inventory)	Instructional videos and presentation materials
6. Others (Physical Education)	Not specified	Treadmills, elliptical trainers, stationary bikes, dumbbells, barbells, weight plates, resistance machines; basketball, volleyball, and badminton fixtures	Medicine balls, yoga mats, skipping ropes

3. OUTCOMES

- **Show evidences that laboratory equipment, supplies and materials are sufficient and wisely utilized.**

  Computer equipment is sufficient for most of the class sizes the program runs. Rooms 1 and 2 of the ICT Laboratory have 50 functional computers each, one workstation per student for a section of 45 to 50; Rooms 3 and 4 have 35 each, so larger sections there share units or are split (B-O.1, A-S.7).

  The College of Education added equipment in 2025 and 2026 through purchase orders inspected and accepted by the Inspection Committee: an all-in-one desktop computer, projectors with screens, all-in-one printers, a portable speaker, a laminator, a binding machine, cabinets, tables, armchairs, and electric fans (B-S.1).

Science Laboratory supplies are issued through a written requisition procedure. Borrowers submit a borrower's slip to the laboratory technician at least a day before use, return items after the activity, and replace any lost or broken piece with one of the same brand and specification. Unused reagents are never returned to stock bottles, and students draw only the quantities set in their guide sheets (B-I.2).

Equipment issued to the College of Education is tracked on property cards and semi-expendable property cards. Each card names the item, its property number, the receiving office, and the accountable officer (B-I.2).

Licensed software is installed on the laboratory computers. The ICT Laboratory keeps a licensing record per room: Microsoft Office 2016 under Open Value subscriptions in all four rooms, Microsoft Office 2021 volume licenses, Adobe Master Collection 2021, and open-source tools for programming classes. The College also holds an IBM SPSS Statistics and AMOS license, and the College of Education desktop issued in 2026 came with licensed Windows 11 and Microsoft Office 2021. In the November 2025 maintenance check, the MIS unit listed two College of Education computers for Windows activation (B-I.3).

The periodic inventories record how stock levels change. Figure IX-10 compares six glassware items across four inventory dates. Quantities fell in May 2024 (for example, 50 mL beakers from 30 to 18 pieces), and the August 2025 and September 2026 counts are again at the August 2023 levels (C-I.3).

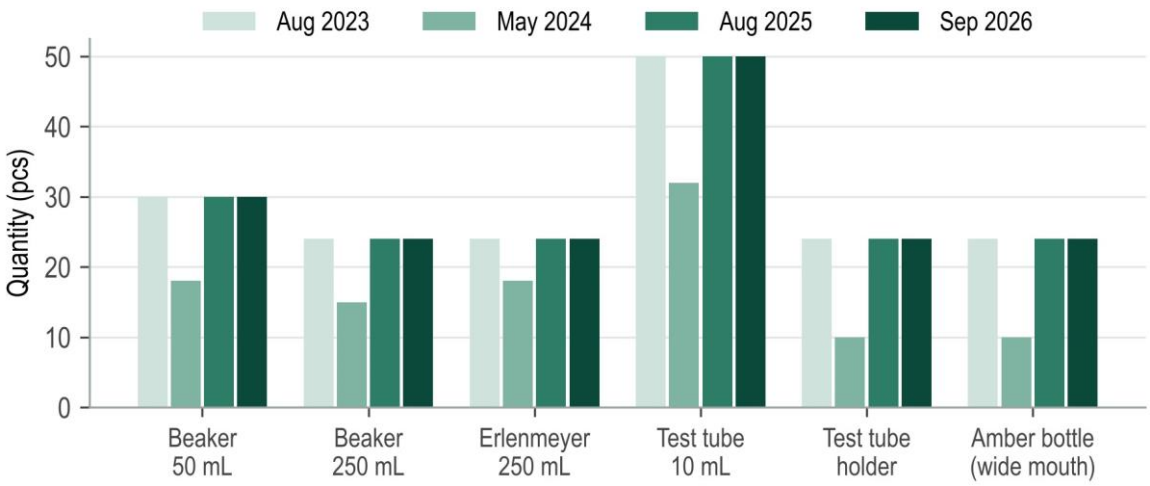


Figure IX-10. Recorded quantities of selected glassware, August 2023 to September 2026 (C-I.3, B-S.1)

Figure IX-11 summarizes the condition of the Chemistry Laboratory equipment and apparatus. Six item types are in good condition, twelve are functional, and three (the analytical balance and two electronic balances) need repair (B-I.1).

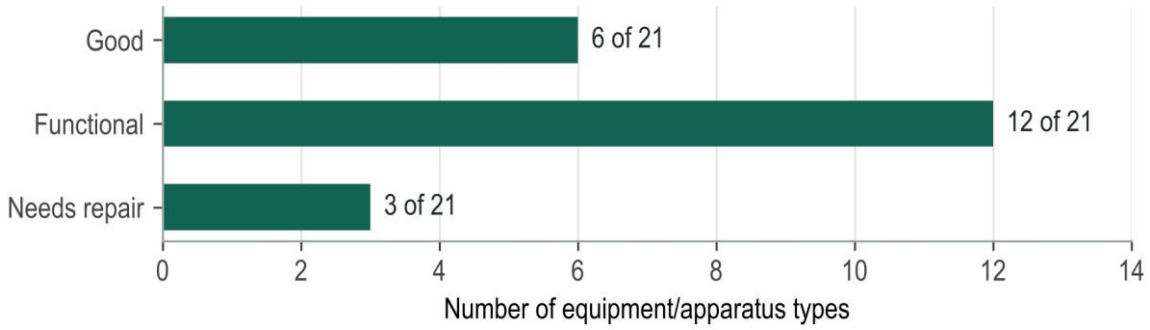


Figure IX-11. Condition of Chemistry Laboratory equipment and apparatus, 27 October 2026 (B-I.1, C-O.1)

4. BEST PRACTICES

➢ **Cite as many best practices as you can on Parameter B (Equipment, Supplies and Materials).**

1. A borrower's slip system that names the borrower, the subject instructor, and the laboratory-incharge for every item lent out.
2. Periodic inventories (August 2023, May 2024, August 2025, September 2026) that give each item its property number, unit cost, condition, location, and accountable personnel.
3. A five-level condition scale (good, functional, needs repair, defective, for replacement) with a photograph of each item.
4. Calibration of measuring instruments by an external laboratory accredited to ISO/IEC 17025:2017.
5. Property cards and semi-expendable property cards that record every equipment item issued to the College of Education and its accountable officer.
6. A software licensing record for each ICT Laboratory room, covering Microsoft Office, Adobe, and open-source tools.

PARAMETER C. MAINTENANCE

1. SYSTEM INPUTS AND PROCESSES

➢ **Present the staff profile assigned in the proper upkeep of the laboratory.**

Table IX-6. Profile of staff assigned to laboratory upkeep

Name	Designation / assignment	Qualification / training	Basis
Athea Belle M. Amoyo, RChE	Laboratory In-Charge/Technician, Chemistry Laboratory; Science Laboratory-in-Charge	Registered Chemical Engineer	OM No. 274, s. 2026; glassware list (Sep 2026); condition report (Oct 2026)

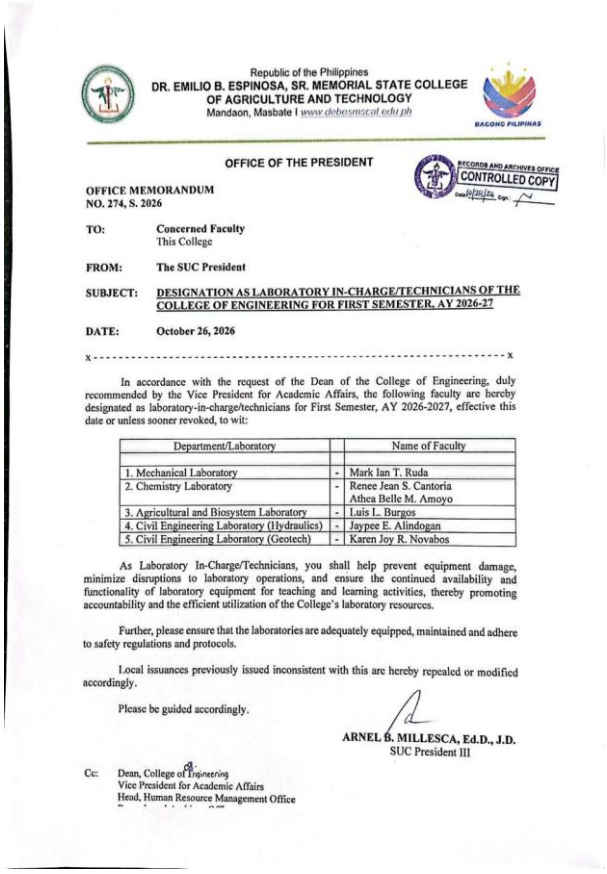
Renee Jean S. Cantoria, RChE	Laboratory In-Charge/Technician, Chemistry Laboratory	Registered Chemical Engineer	OM No. 274, s. 2026; condition report (Oct 2026)
Robert D. Bicua	Laboratory Technician, Engineering Laboratory (contracts of service, 2021–2025)	Prepared the Annual Calibration Plan; duties include maintaining, calibrating, and cleaning equipment and risk assessment	Annual Calibration Plan; job orders and contracts of service
Engr. Eny B. Ferriol, RChE	Head, Supply and Property Office; faculty, College of Engineering	Compiled the Organic Chemistry Laboratory Manual; DOLE-OSHC Seminar on the Safe Use of Chemicals at Work (2–4 July 2019)	RPCPPE as of 31 Dec 2024; seminar manual
Gian Carlo R. Malto	Science Laboratory-in-Charge (OM No. 09, s. 2022)	Wrote the Science Laboratory Manual; DOLE-OSHC Seminar on the Safe Use of Chemicals at Work (2–4 July 2019); PALEU seminar on workplace safety (2016); webinars on laboratory solutions and waste minimization (2020)	OM No. 09, s. 2022; inventory of 15 Aug 2023; seminar certificates
Fatima V. Buayaban	Science Laboratory-in-Charge (2024–2025)	Accountable officer for Science Laboratory property	OM No. 066, s. 2024; inventories of 18 May 2024 and 11 Aug 2025
Maria Christina Rochelle D. Zaragoza	Science Laboratory In-Charge (2024)	Associate Professor I	OM No. 034, s. 2024
Froilyn A. Ancajas	Speech Laboratory In-Charge	Assistant Professor II	OM No. 034, s. 2024
Dr. Sherwin E. Balbuena	Statistical Laboratory In-Charge	Associate Professor I	OM No. 034, s. 2024
Randy D. Bello	ICT Laboratory Technician (AY 2026–2027); ICT Laboratory InCharge (2024)	MS in Information Technology (in progress, per PDS); DICT, Cisco Networking Academy, and Simplilearn courses; OCD DRRM Training for Public Sector (2025)	OM No. 295, s. 2026; OM No. 034, s. 2024; PDS; training certificates

Fidel A. Beribe	Laboratory Technician, BSIT program laboratories (contracts of service, 2023–2025)	Maintains laboratory equipment, submits monthly reports, assists in inventory	Job order and contracts of service

The Science Laboratory Manual sets the terms of reference of the Science Laboratory In-Charge: prepare specimens and samples, assist faculty during laboratory exercises, maintain and operate standard equipment, keep equipment clean and serviceable and remove waste safely, keep the laboratory stocked and correctly labelled, and enforce safety procedures and checks (C-S.1).

- **Present in pictorial form the availability of maintenance and repair unit.**

Upkeep of the laboratories rests with the designated laboratory in-charge and technicians. Office Memorandum No. 274, s. 2026 (Figure IX-12) names them for the first semester of AY 2026–2027 and directs them to prevent equipment damage, keep equipment available and functional, and follow safety regulations. Office Memorandum No. 034, s. 2024 assigns an in-charge to each of the Science, Statistical, Speech, and ICT laboratories, and Office Memorandum No. 295, s. 2026 designates Mr. Randy D. Bello as ICT Laboratory Technician. Calibration of measuring instruments is done on site by Microprecision Calibration Inc. of Calamba City, Laguna, which serviced the College from 4 to 6 May 2026 (C-S.1, C-I.4).



Republic of the Philippines
DR. EMILIO B. ESPINOSA, SR. MEMORIAL STATE COLLEGE OF AGRICULTURE AND TECHNOLOGY
Mandaon, Masbate | www.debesmscat.edu.ph

BAGONG PILIPINAS

OFFICE OF THE PRESIDENT

RECORDS AND ARCHIVES OFFICE
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OFFICE MEMORANDUM
NO. 274, S. 2026

TO: **Concerned Faculty**
This College

FROM: **The SUC President**

SUBJECT: **DESIGNATION AS LABORATORY IN-CHARGE/TECHNICIANS OF THE COLLEGE OF ENGINEERING FOR FIRST SEMESTER, AY 2026-27**

DATE: **October 26, 2026**

x----------x

In accordance with the request of the Dean of the College of Engineering, duly recommended by the Vice President for Academic Affairs, the following faculty are hereby designated as laboratory-in-charge/technicians for First Semester, AY 2026-2027, effective this date or unless sooner revoked, to wit:

Department/Laboratory		Name of Faculty
1. Mechanical Laboratory	-	Mark Ian T. Ruda
2. Chemistry Laboratory	-	Renee Jean S. Cantoria Athea Belle M. Amoyo
3. Agricultural and Biosystem Laboratory	-	Luis L. Burgos
4. Civil Engineering Laboratory (Hydraulics)	-	Jaypee E. Alindogan
5. Civil Engineering Laboratory (Geotech)	-	Karen Joy R. Novabos

As Laboratory In-Charge/Technicians, you shall help prevent equipment damage, minimize disruptions to laboratory operations, and ensure the continued availability and functionality of laboratory equipment for teaching and learning activities, thereby promoting accountability and the efficient utilization of the College's laboratory resources.

Further, please ensure that the laboratories are adequately equipped, maintained and adhere to safety regulations and protocols.

Local issuances previously issued inconsistent with this are hereby repealed or modified accordingly.

Please be guided accordingly.

ARNEL B. MILLESCA, Ed.D., J.D.
SUC President III

Cc: Dean, College of Engineering
Vice President for Academic Affairs
Head, Human Resource Management Office

Figure IX-12. Office Memorandum No. 274, s. 2026 designating laboratory in-charge/technicians (C-S.1, C-I.7.5.1)

Building and utility repairs are handled by the Physical Facilities Maintenance Unit under the Planning and Development Services. Its job-order personnel include electricians, water facility maintenance staff, a painter who also does carpentry work, and sanitation and grounds personnel. Its monthly and quarterly preventive maintenance schedules cover the water system, buildings and structures, airconditioning units, fire extinguishers, and electrical lines. Computers and other ICT equipment are serviced by the Management Information Systems (MIS) unit under an ICT Preventive and Corrective Maintenance Plan for 2025, approved by the SUC President (C-S.2).

2. IMPLEMENTATION

➢ **Describe briefly the maintenance system of the laboratories and equipment.**

Routine upkeep. The laboratory in-charge keeps equipment clean and serviceable, labels all items, and removes waste following the terms of reference in the Science Laboratory Manual. Students clean equipment right after use and report any unit that is not working instead of repairing it themselves (C-I.1).

Periodic inventory. The Science Laboratory stock was counted on 15 August 2023, 18 May 2024, and 11 August 2025, and the glassware and metalware were listed again on 7 September 2026. Laboratory property also appears in the Report on the Physical Count of Property, Plant and Equipment (RPCPPE) as of 31 December 2024. The Inventory Committee certified that report, the SUC President approved it, and the State Auditor verified it (C-I.3, C-I.5). The RPCPPE reports as of 31 December 2022 and 30 September 2023, and the RPCPPE of school buildings and of technical and scientific equipment as of 31 December 2025, continue the same record (C-I.3).

Condition assessment. The Chemistry Laboratory technicians rated each equipment and apparatus type on 27 October 2026 using five levels (good, functional, needs repair, defective, for replacement), with a photograph and remarks for each item (C-O.1).

Calibration. Under the Annual Calibration Plan, equipment in routine use is calibrated every 12 months, equipment in heavy or continuous use every 6 months, and any unit is calibrated after repair before it returns to service. Seven machines were calibrated between 30 April and 5 May 2026, and ten measuring instruments received calibration certificates (Table IX-7) (C-I.4).

Preventive maintenance. The MIS unit checked each College of Education computer in November 2025 against an 18-item checklist and recorded the corrective action taken, such as listing units for bulk Windows activation. Machines in the College of Engineering Fabrication Laboratory are inspected weekly and monthly on preventive maintenance forms (B-I.1, C-O.1).

Replenishment. Supplies are restocked through purchase requests from the end-user unit, as in the January 2026 requests for ICT Laboratory supplies, and items are released through Requisition and Issue Slips (C-I.2).

ICT Laboratory. Mr. Randy D. Bello, the designated ICT Laboratory Technician, carries out regular hardware and software maintenance, operating system updates, and network security routines. Under the ICT Laboratory Policy Manual, the laboratory staff take a monthly inventory and status report of all equipment, and CCTV monitors the equipment (C-I.7.2).

Table IX-7. Calibration certificates issued by Microprecision Calibration Inc., May 2026

Instrument	Make / model	Certificate date	Calibration due
Digital weighing scale	Shimadzu TX4202L	5 May 2026	4 May 2027
Electromagnetic sieve shaker	Proeti	4 May 2026	4 May 2027
Instrument	**Make / model**	**Certificate date**	**Calibration due**
Laboratory oven (Oven 1)	Proeti	6 May 2026	4 May 2027
Oven dial thermometer (OE-178)	Diamond	6 May 2026	4 May 2027
Dissolved oxygen meter	Horiba LAQUAact DO110	5 May 2026	N/A on certificate
Sodium meter	Horiba LAQUAtwin Na-11	5 May 2026	N/A on certificate
Potassium ion meter	Horiba LAQUAtwin K-11	5 May 2026	N/A on certificate
Calcium meter (2 units)	Horiba LAQUAtwin Ca-11	5 May 2026	N/A on certificate
Nitrate meter	Horiba LAQUAtwin NO3-11	5 May 2026	N/A on certificate

- **List all Safety devices available.**

Table IX-8. Safety devices in the laboratories

Laboratory	Safety Device	Quantity
Science Laboratory	Fire extinguisher, 10 lbs, refillable	8
Science Laboratory	Emergency shower and eyewash station, floor-mounted	2
Science Laboratory	Storage cabinet for flammable substances, 45 L	2
Science Laboratory	Storage cabinet for acids, 45 L	2
Chemistry Laboratory	Fume hood (BIOBASE)	1
Science Laboratory	Antidote chart and chemical compatibility chart (Science Laboratory Manual)	1 set
ICT Laboratory	Fire extinguisher, 10 lbs, ABC type, wall-mounted	3

ICT Laboratory	CCTV camera with motion detection and recording	1
Science Laboratory	First-aid kit with posted antidote chart, GHS pictograms, and safety posters	On display (A-I.6)

3. OUTCOMES

➢ **Show evidences that the laboratories and shops are functional and are properly maintained.**

Most laboratory equipment is in working order. The October 2026 condition report rates 18 of 21 equipment and apparatus types as good or functional and singles out the three balances for repair. It also lists the upkeep each item needs: cleaning of the hot plate surface, raising the incubator onto a stable platform, pipette racks for safer storage, and maintenance or replacement of the worn wooden test tube racks (C-O.1).

The calibrated instruments in Table IX-7 remain within their calibration period until May 2027. The four inventories and the RPCPPE also leave a record of each item from acquisition to its current condition (C-I.3, C-I.4).

Photographs of the laboratories show clean work areas, labeled glassware shelves, and chemical storage cabinets kept in order (C-I.1).

4. BEST PRACTICES

➢ **Cite as many best practices as you can on Parameter C (Maintenance).**

1. On-site calibration by a laboratory accredited to ISO/IEC 17025:2017, with certificates kept for each instrument.
2. A written condition report with photographs and item-level maintenance recommendations.
3. Two Registered Chemical Engineers designated as Chemistry Laboratory technicians through an office memorandum.
4. Chemical safety training of laboratory personnel through the DOLE Occupational Safety and Health Center.
5. Preventive maintenance schedules for buildings, water, and electrical systems, and an annual ICT maintenance plan with signed checklists for each unit.
6. An office memorandum that names an in-charge for each College laboratory: Science, Statistical, Speech, and ICT.

PARAMETER D. SPECIAL PROVISIONS

1. SYSTEM INPUTS AND PROCESSES

- **Describe specific program requirements in accordance with policies/guidelines, CMOs and other legal issuances.**

  The BSEd program follows CHED Memorandum Order No. 75, s. 2017, the Policies, Standards and Guidelines for the Bachelor of Secondary Education. During the previous survey, the accreditors cited the Educational Technology Room that this CMO requires. The program now uses the Speech Laboratory (Audio Visual Technology) and the Demonstration Room to prepare, present, and view instructional media. Table IX-2 lists the laboratories that the program uses against these requirements (A-S.2).

  CHED issued COPC No. 46, s. 2022 on 8 November 2022, certifying that the College meets the minimum requirements of CMO No. 75, s. 2017 to offer the BSEd major in Filipino from AY 2022– 2023 (D-S.1). A matrix of the required laboratories and equipment, matched to the facilities and equipment on record, and a list of the equipment and materials the program needs, with the quantity on hand and the action still needed, are filed with it (D-S.1).

- **Present the approved Project Procurement Management Plan (PPMP); Annual Procurement Plan where the laboratory equipment is listed for procurement.**

  Laboratory equipment, supplies, and materials are requested by the end-user unit through its Project Procurement Management Plan and consolidated in the College's Annual Procurement Plan. Procurement follows RA 9184, the Government Procurement Reform Act, under which the current laboratory equipment was acquired, and its successor, RA 12009 (New Government Procurement Act of 2024), and their implementing rules.

  Approved PPMPs for laboratory equipment and supplies are on file for the Computer Laboratory of the College of Arts and Sciences (2023 and 2026), the Engineering Laboratory (FY 2025), and the ICT Laboratory (2025–2026). Each lists the items, quantities, estimated budget, mode of procurement, and schedule (D-S.2). A PPMP for the College of Education laboratories and a copy of the Annual Procurement Plan are not yet on file (D-S.3).

2. IMPLEMENTATION

- **Present evidences that the laboratory, supplies and materials are procured in accordance with RA 9184.**

  Laboratory equipment is recorded as government property from the time it is acquired. Each equipment item in the Science Laboratory inventory carries a property number whose first segment is the year coded at acquisition. Laboratory items such as the Horiba dissolved oxygen meter, the moisture analyzer, and the

storage cabinet for flammable substances also appear in the RPCPPE as of 31 December 2024. That report was prepared by the Head of the Supply and Property Office, certified by the Inventory Committee, approved by the SUC President, and verified by the State Auditor. Figure IX-13 groups the 71 property-numbered equipment entries by that year (C-I.5).

The College of Education procured its 2025–2026 equipment through purchase orders under small value procurement and other alternative modes. The Inspection Committee inspected and accepted each delivery, and the items were issued through a Property Acknowledgement Receipt and Inventory Custodian Slips. ICT Laboratory equipment was bid out under ITB No. 2024-25, with BAC resolutions, and paid through a disbursement voucher after inspection and acceptance (D-I.1).

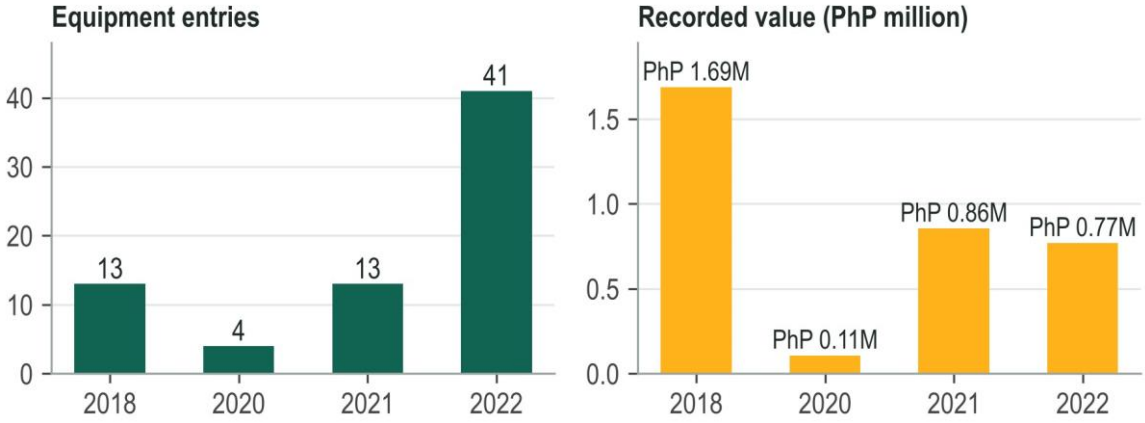


Figure IX-13. Property-numbered Science Laboratory equipment by year coded in the property number: number of entries and recorded value (inventory of 11 August 2025)

3. OUTCOMES

➢ **Show evidences that the special provisions in the CMO of the program are complied with.**

Eight of the nine laboratory types in Table IX-2 exist on campus and are used by the program. The ninth, an in-campus laboratory school, is replaced by the MOA with DepEd Regional Office No. V, which places field study and internship students in public schools of the Masbate Province and Masbate City Schools Divisions until SY 2027–2028 (A-S.9). COPC No. 46, s. 2022 confirms that the program meets the CHED minimum requirements (D-O.1).

4. BEST PRACTICES

➢ **Cite as many best practices as you can on Parameter D (Special Provisions).**

1. Property numbers that tie each laboratory item to its acquisition record.
2. A property count signed by the accountable office, the Inventory Committee, the SUC President, and the State Auditor.

3. A field study partnership with DepEd covering two schools divisions under one regional agreement.

5. EXTENT OF COMPLIANCE with the Team Recommendations on Area IX (Laboratories) in the last survey visit

- **Present the status of Compliance Matrix of Area IX focusing on interventions done on the recommendations.**

Table IX-9. Compliance matrix for Area IX recommendations from the previous survey visit

Recommendation from the previous visit	Actions taken	Extent of compliance	MOVs
1. Demonstration tables equipped with sinks, electricity, gas, and water outlets in all science laboratories may be provided.	The Chemistry Laboratory has two demonstration tables and the Biology Laboratory one, all with functional electricity and sinks with water supply, documented with photographs. The water flow at the sinks is not consistent, and the demonstration table on record has no gas outlet. Photographs of the Science Laboratory also show sinks with running water and a BIOBASE unit with a gas outlet (A-I.10).	Partially complied	A-I.10; A-I.11
2. The Education Technology Room, as required under CMO No. 75, s. 2017, may be furnished.	The Speech Laboratory (Audio Visual Technology) has an instructor console, individual booths, projectors, and a sound system. The Demonstration Room is furnished with a television, whiteboard, air-conditioning, fans, and instructional materials.	Complied	A-S.2; A-I.9
3. Develop a scheme to showcase the proper documentation in the utilization of the laboratories, equipment, and manuals.	Requisition guidelines and a borrower's slip are in the Science Laboratory Manual; the ICT Laboratory lists BSEd among its user programs; periodic inventories name the accountable personnel; the October 2026 condition report documents each item with photographs. The ICT Laboratory posts semester room utilization schedules (AY 2023–2024 to 2025–2026) and follows its Policy Manual (Revised 2024), and College of Education equipment is tracked on property cards.	Partially complied	A-I.4; A-I.7; B-I.1; BI.2; C-I.3
4. The disposal of chemical waste and unserviceable equipment and materials may be regularly documented.	The Chemical Waste Disposal Policy in the Science Laboratory Manual, based on RA 6969, sets the classification and disposal procedures. The inventories identify 34 expired items and 2 unserviceable items.	Partially complied	C-I.6; C-I.3

5. A readable, clear, identified, highlighted, and appropriate document may be presented for a better appreciation.	The Area IX MOVs are filed by parameter code and each file opening with its indicator separator. This profile cites the MOV code beside each statement.	Complied	All Area IX MOV files

Duly Accomplished Self-Survey Instrument

- **Present the Summary of Findings and recommendations for Area IX (Laboratories) during the 2nd Survey (program self-survey) in terms of:**

1. Strengths

1. A Speech Laboratory with an instructor console and individual booths, which gives the Filipino major a dedicated room for oral language work.
2. An ICT Laboratory with 175 functional computers in four rooms (31 October 2026 count), including 50 each in Rooms 1 and 2.
3. Written laboratory manuals with safety rules, antidote and compatibility charts, a chemical waste disposal policy, and a student safety contract.
4. A Chemistry Laboratory run by two Registered Chemical Engineers designated through OM No. 274, s. 2026.
5. An in-charge designated for each College laboratory (Science, Statistical, Speech, and ICT) under OM No. 034, s. 2024, and an ICT Laboratory Technician with DICT and Cisco training (OM No. 295, s. 2026).
6. Approved PPMPs for the computer, ICT, and engineering laboratories, and preventive maintenance plans for buildings, utilities, and ICT equipment.
7. Ten measuring instruments calibrated in May 2026 by an ISO/IEC 17025:2017 laboratory, and inventories taken periodically since 2023.
8. A MOA with DepEd Regional Office No. V for field study and internship, in force until SY 2027– 2028.

2. Areas Needing Improvement

1. The demonstration tables have no gas outlets, and water flow at the sinks is not consistent.
2. The analytical balance and two electronic balances need repair.
3. BSEd student computer hours per subject, and the use of the Speech Laboratory and Demonstration Room, are not yet recorded in usage logs; the ICT Laboratory schedules on file cover BSCS and BSIS classes.
4. Chemical waste and unserviceable equipment disposal is not yet recorded in disposal logs.
5. Staff for the multimedia facilities and the Physical Education facilities are not yet covered by designation orders, and the Speech and Statistical laboratory in-charges have no training records on file.

6. No PPMP for the College of Education laboratories and no copy of the Annual Procurement Plan are on file.
7. Floor plans marking two outward-opening exits per laboratory, and an evacuation plan, are not yet documented.

3. Recommendations

1. Install gas outlets and secure a steady water supply at the demonstration tables of the Chemistry and Biology laboratories.
2. Repair and recalibrate the three balances and add them to the Annual Calibration Plan.
3. Keep usage logbooks for the Speech Laboratory, the ICT Laboratory (hours per subject), and the Demonstration Room.
4. Keep a chemical waste disposal log and disposal reports for unserviceable property, following the RA 6969 policy in the Science Laboratory Manual.
5. Issue designation orders for the staff in charge of the multimedia and Physical Education facilities, and file training records for all laboratory in-charges.
6. Prepare a College of Education PPMP for laboratory equipment and supplies, and file the approved Annual Procurement Plan.
7. Mark the exits on the floor plan of each laboratory and post an evacuation plan.

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