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DEPARTMENT OF BE CIVIL TECHNOLOGY

RECTIFICATION OF WEAK AREAS IDENTIFIED BY THE NTC

VISIT DATE; 06-07 November 2025

S.No	Report Obsevation No.	Comments/Observations of NTC Zero Visit	Replies
1	3.2.4	PLOS mapping at the course level has been carried out in the Civil Engineering Technology program. Key domains such as Cognitive, Psychomotor, and Affective are also defined. However, the taxonomies, taxonomy levels of CLOs and their mapping with PLOS are inappropriate in certain cases, for instance, the CLOS of Affective domain are mapped with PLO-1, where the affective domain deals with: Attitudes, Values, Motivation, Professional responsibility, Team ethics, Environmental and societal sensitivity	The course-level Program Learning Outcome (PLO) mappings, Course Learning Outcome (CLO) taxonomy levels, and domain alignments have been thoroughly reviewed across all courses. Following the adoption and implementation of the updated curriculum from Fall 2024, all CLO-to-PLO mappings are now applied directly as standardized in the official curriculum framework. Consequently, cognitive, psychomotor and affective domains are aligned with their respective PLOs.

		Evidently, the CLOS of all the courses, particularly the lab courses and consequently their mapping with PLOS, should be reviewed for improvement.	
2	3.2.7	The Continuous Quality Improvement (CQI) process for the attainment of Program Learning Outcomes (PLOS) in the Civil Engineering Technology program has been vaguely presented in Fig-2.1 of SAR. This generic loop fail to present clear CQI procedure for PEO, PLO and CLO. The appropriate detailed procedural loop for planning-doing-checking-improving (PDCI) process is missing Further, the summative PLO attainments have not been properly recorded so that the possible corrective actions at individual and cohort level upon the evaluation of assessment of PLOs could be suggested. Therefore, the documentation of summative PLO attainment should be improved and analyzed for possible correction actions and subsequent improvement in the cases of individual and cohort level failure in the attainment of PLOS. Evidently, there is a dire need to clearly define the cycle for analysis, evaluation, review and improvement of the program in three closed loops, i.e. CLO, PLO and PEO. Additionally, the involvement of the Quality Enhancement Cell (QEC) is limited in the process; consequently improvements are required in this area.	The generic CQI process shown in the Self-Assessment Report (SAR) has been overhauled, and detailed procedural loops following the Plan-Do-Check-Act (PDCA) framework are now fully defined for the PEO, PLO, and CLO levels. To ensure targeted interventions, summative PLO attainments are now being recorded and analyzed, establishing a clear mechanism for executing corrective actions for both individual student gaps and cohort-level performance trends. Additionally, the Quality Enhancement Cell (QEC) is now actively involved in monitoring assessment evaluations, auditing attainment data, and verifying the implementation of CQI measures across the department.
3	3.3.4	The available dedicated and shared labs are insufficient to supplement the theoretical knowledge. Although, the documentation regarding	To address the observations regarding lab facilities and safety measures, the Principal has formally initiated contact with the Head Office to expedite the procurement

		arrangements with neighboring university/institution has been made for lab conduction, however, in campus labs have to be established. Reference to SAR, there are nine (09) dedicated / shared labs of civil Engineering Technology Program including computer lab: 1.Surveying, 2. Structure lab, 3.Public health lab 4. Soil Mechanics lab 5. Drafting lab 6. Fluid Mechanics & Hydraulics lab 7. Construction lab 8. Concrete technology lab 9. Computer lab But the available labs are devoid of number of vital lab equipment required for student learning as per course requirement. Where, the following labs are missing in the department at the moment: 1. Hydrology and irrigation lab 2. Pavement and Foundation lab 3. Engineering Mechanics lab 4. Environmental Engineering lab The demand of lab equipment from the department to the principal has been shown but it is recommended the equipment of mentioned missing	of required equipment and the establishment of missing laboratories at the earliest. In response to the curriculum awareness requirements, posters detailing Outcome-Based Education (OBE & A) framework, PLOs, CLOs, and relevant taxonomy levels are now prominently displayed inside all existing labs. Furthermore, a formal requisition has been submitted to the Principal for the immediate procurement of necessary lab safety equipment and clear safety instruction flexes.

		labs and the missing equipment of existing dedicated labs should be procured at the earliest. More physical infrastructure would also be required to house the equipment of these labs. Therefore, it is recommended that separate halls should be allocated for missing labs with sizes as prescribed by NTC/HEC regulations. Each lab should be properly equipped with all the apparatus / workstations necessary to deliver the practical aspect of all the courses pertaining to that particular lab. Moreover, the posters related to Outcome-Based Education (OBE & A), PLO, CLOS with their relevant taxonomies and taxonomy levels should be displayed inside the lab premises to provide information to both faculty and students. Furthermore, limited Safety measures are seen in the labs. Proper lab safety instructions are not displayed in labs.	
4	3.3.11	There is limited focus on invoking intuitiveness through Problem Based Learning (PBL), Open Ended Labs (OEL's) and Design Projects (DP's). Where, the PBL, DP's and OEL's are the keys aspects of OBE and should be practiced effectively by the GCT for invoking originality of thoughts.	The faculty has been formally instructed to incorporate these core OBE components into their teaching and lab delivery strategies using the institute's available resources. Emphasis is being placed on designing manageable, resource-aligned OELs and practical design tasks to encourage critical thinking and original problem-solving among students.
5	3.4.9	The student evaluation process should be aligned with Outcome-Based Assessment (OBA) principles and a corrective action mechanism should be implemented for students who do not meet the desired learning	A well-defined CQI mechanism at the CLO, PLO, and PEO levels has now been formulated and actively implemented within the department. The evaluation

		outcomes. Currently, the CQI process on CLO, PLO and PEO level is not clearly defined and rarely practiced for individual and cohort level. There is a noticeable absence of a clear mechanism within the department for implementing corrective measures as an integral part of this process.	framework is strictly aligned with Outcome-Based Assessment (OBA) principles to evaluate both individual student performance and cohort-level trends systematically. Furthermore, clear corrective action protocols have been integrated to identify learning gaps and support students who do not achieve the target learning outcomes. These measures ensure a structured, ongoing feedback loop that drives continuous academic and instructional improvement.
6	3.5.2	The faculty is not balanced. Currently, there are three dedicated faculty member (MSc and Above) in the program and these have specialization in structural engineering. Therefore, more dedicated faculty members may be inducted covering major sub- disciplines of civil engineering technology.	The Principal has formally submitted a demand to the Head Office for the induction of additional dedicated faculty members. This requisition specifically requests hiring subject specialists across other core civil engineering technology disciplines to complement the existing structural engineering faculty.
7	3.6.2	The available dedicated and shared labs are insufficient to supplement the theoretical knowledge. Although, the documentation regarding arrangements with neighboring university has been made for lab conduction, however, in campus labs have to be established. Reference to SAR, there are nine (09) dedicated / shared labs of civil Engineering Technology Program: 1.Surveying lab	The Principal has actively pursued the procurement demand with the Head Office for both existing and missing laboratories. Outcome-Based Education (OBE) display posters detailing PLO and CLO taxonomies, along with clear lab safety instructions, have now been prominently installed inside all active laboratory premises.

		2. Structure lab, 3.Public health lab 4. Soil Mechanics lab 5. Drafting lab 6. Fluid Mechanics & Hydraulics lab 7. Construction lab 8. Concrete technology lab 9. Computer Lab But the available labs are devoid of number of vital lab equipment required for student learning as per course requirement. Where, the following labs are missing in the department at the moment: 1. Hydrology and irrigation lab 2. Pavement and Foundation lab 3. Engineering Mechanics lab 4. Environmental Engineering lab The demand of lab equipment from the department to the principal has been shown but it is recommended the equipment of mentioned missing labs and the missing equipment of existing dedicated labs should be procured at the earliest. More physical infrastructure would also be required to house the equipment of these labs. Therefore, it is recommended that separate halls should be allocated for missing labs with sizes as prescribed by	As a public sector institute administered under KP-TEVTA, commercial testing and research activities cannot be undertaken without prior formal authorization from the central administration. Therefore, this observation is being forwarded to the Head Office for policy approval and the requisite sanction of advanced equipment.

		NTC/HEC regulations. Each lab should be properly equipped with all the apparatus / workstations necessary to deliver the practical aspect of all the courses pertaining to that particular lab. Moreover, the posters related to Outcome-Based Education (OBE & A), PLO, CLOS with their relevant taxonomies and taxonomy levels should be displayed inside the lab premises to provide information to both faculty and students. Furthermore, limited Safety measures are seen in the labs. Proper lab safety instructions are not displayed in labs. Additionally, there is a gap in utilization of labs and equipment for research, commercial testing and development activities which may be improved. Attention should be given to improving these areas for further improving lab facilities.	
8	3.8.1	The Continuous Quality Improvement (CQI) process at PEO, PLO and CLO level is although documented in Fig-8.2 of SAR but it needs improvement. Allocation of responsibilities, forms of corrective action in the cases of individual or cohort failure, and forums for approval of corrective actions should be clearly defined in CQI loops. Current CQI processes, as given through flow charts in Fig. 8.2 of present three closed loops for CQI of PEO, PLO and CLO collectively without clear illustration of mechanism of corrective action in the cases of individual and cohort failure. Therefore, three proper CQI cycles clearly indicating	The CQI processes at the PEO, PLO, and CLO levels have been fully defined to establish clear closed loops across individual and cohort assessments. To strengthen this framework, a comprehensive corrective action mechanism aligned with the Plan-Do-Check-Act (PDCA) cycle is currently being formulated to systematically address performance gaps. Furthermore, the institute's Quality Enhancement Cell (QEC) has been actively involved in evaluating CLO,

		Planning, Doing, Checking and Improving (PDCI) measures in PEO, PLO and PEO should be worked for CQI at individual and cohort level. Furthermore, the departmental QEC should be activated to evaluate the assessment of CLOS, PLOS and PEOs. Moreover, it is essential to ensure the involvement of other relevant departments/sections, such as the Quality Enhancement Cell (QEC) of the College, in the CQI process.	PLO, and PEO assessment mechanisms, ensuring institutional oversight, structured feedback, and continuous academic quality enhancement.

Chairman