

Self-Graduate Programs Review (GPR) Report								
Programme Review for Effectiveness and Enhancement (PREE)								
No. of Programs	MS	2	No. of Faculty	MS	15	No. of Students	MS	36
	Ph.D.	2		Ph.D.	10		Ph.D.	24
Date of Review	April 28-29, 2026							
Review Committee Members	1. Prof. Dr. Muhammad Hammad Nadeem Tahir, Dean/Coordinator Faculty of Agriculture and Environmental Sciences, MNSUA, Multan 2. Prof. Dr. Asim Umer, Department of Chemical Engineering & Technology, MNS-UET, Multan 3. Dr. Ayyaz Ahmad, Associate Professor, Department of Chemical Engineering & Technology, MNS-UET, Multan 4. Dr. Rooha Masroor, Incharge QEC, MNS-UET, Multan							
S/N	Program Name	Program Level	Enrolled students	No. Faculty Allocated		Status		
				PhD	MS			
1.	Electrical Engineering	MS	17	3	7	Ok		
		Ph.D.	08			Ok		
2.	Chemical Engineering	MS	19	7	8	Ok		
		Ph.D.	16			Ok		

Standard 1: Program Mission, Objectives, and Outcomes

Best Practice(s):

The MS and PhD programmes have defined Programme Mission, Program Educational Objectives (PEOs), Program Learning Outcomes (PLOs), and Course Learning Outcomes (CLOs) as per Outcome-Based Education (OBE) framework.

Findings & Recommendations:

- The Program Mission, Program Educational Objectives (PEOs), Program Learning Outcomes (PLOs), and Course Learning Outcomes (CLOs) for MS and PhD programs needs further refinement to improve clarity, consistency, and alignment with postgraduate-level expectations. It is recommended that these may be reviewed and strengthened to ensure academic clarity and coherence.
- The mapping between PEOs, PLOs, and CLOs is available; however, it requires further improvement to ensure proper alignment and a clear progression from program-level outcomes to course-level outcomes. It is recommended that this mapping be refined to strengthen outcome alignment.
- The alignment of CLOs with Bloom's Taxonomy is not appropriately differentiated between MS and PhD programs, as similar cognitive levels are being used for both. It is recommended that CLOs be revised to reflect the appropriate academic depth for each

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program level.

- The Program Mission, PEOs, PLOs, CLOs, and their mapping have not been formally approved by the relevant statutory bodies, indicating that formal institutional endorsement is still required. It is recommended that the complete Outcome-Based Education framework must be submitted for approval through the appropriate academic bodies.
- Evidence of assessment and systematic evaluation of the Program Mission, PEOs, PLOs, CLOs, and their mapping was not made available during the review. It is recommended that a proper assessment mechanism be developed and implemented so that learning outcomes can be regularly reviewed and improved based on evidences.

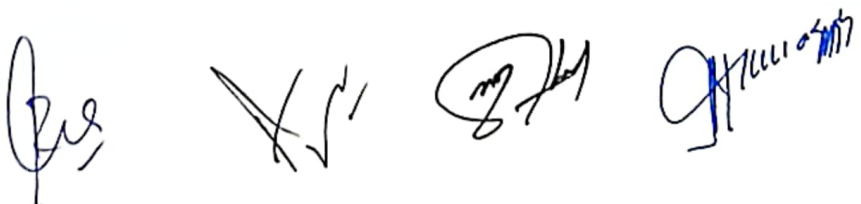
Standard 2: Curriculum Design and Organization

Best Practices:

MS and PhD curricula are developed and offered under an established academic structure in line with postgraduate education requirements and Outcome-Based Education principles.

Findings & Recommendations:

- The MS and PhD curricula are available; however, they require further review to ensure full alignment with Outcome-Based Education principles and postgraduate-level expectations. It is recommended that the curricula be refined to strengthen academic rigor and coherence.
- Curriculum revision is not conducted on a regular and structured basis, and there is limited evidence of a systematic review cycle. It is recommended that a formal periodic curriculum review mechanism be institutionalized.
- Coursework for MS and PhD students is not consistently planned in consultation with supervisors and is not always aligned with their research domains. As postgraduate coursework is expected to support research, this affects academic coherence. It is recommended that coursework planning be formally aligned with supervisor input.
- In some cases, MS programs are completed solely through coursework without a clearly defined mandatory research or thesis component, which is not fully aligned with postgraduate requirements, particularly in engineering disciplines. It is recommended that a compulsory research component be ensured in all MS Engineering programs to strengthen technical and research competency.
- The scheme of studies and course outlines are not consistently available on the university website, affecting transparency. It is recommended that these be uploaded and regularly updated.
- MSc and PhD are two distinct programs and should be treated separately. However, it has been observed that both programs currently share similar course outlines, CLOs, PLOs, and Bloom's Taxonomy levels. It is recommended that MSc and PhD programs be clearly differentiated in terms of academic depth, learning outcomes, and cognitive

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levels in accordance with postgraduate standards.

Standard 3: Subject-Specific Facilities

Best Practice(s):

The university has a dedicated campus with basic physical infrastructure that supports teaching, academic activities, and limited laboratory-based learning at postgraduate level.

Findings & Recommendations:

- Dedicated and well-equipped laboratories for MS and PhD programs are not available, and the existing laboratory facilities are not adequately equipped with modern and advanced research equipment required for contemporary engineering and scientific work. This limits the level of advanced research exposure required at the postgraduate level. It is recommended that separate and fully equipped postgraduate laboratories be established and upgraded with high-end, research-oriented instrumentation.
- High-performance computing facilities, including support for emerging technologies such as artificial intelligence applications, are limited for MS and PhD students. It is recommended that access to advanced computing infrastructure and relevant licensed research software be strengthened and ensured for postgraduate research.
- Access to IEEE Xplore and other research platforms is not adequately available for students and faculty, and remote access to these resources is also not provided. This limits both on-campus and off-campus research support. It is recommended that full institutional subscriptions be ensured and secure remote access facilities be implemented to support academic and research activities.

Standard 4: Student Advising and Counseling

Best Practice(s):

MS and PhD students are assigned supervisors under a departmental supervisory structure that provides academic guidance and research support throughout their degree programs.

Findings & Recommendations:

- A formal and structured academic advising, student support, and career counseling system is not fully established for MS and PhD programs. Dedicated facilitation mechanisms are limited. It is recommended to establish a comprehensive advising framework in line with the HEC Graduate Education Policy, including designated academic advisors and a structured student support system. Regular and documented advising sessions should be implemented.
- Monitoring of student research progress through supervisory committee is not consistently conducted through a structured and documented system. Semester-wise progress reports and supervisory committee meetings are not uniformly practiced. It is recommended to implement a formal research progress monitoring system, including

mandatory progress reports and regular supervisory committee reviews.

- Orientation regarding postgraduate policies, academic regulations, and degree completion requirements is not consistently provided. This affects students' awareness of academic milestones and compliance requirements. It is recommended to institutionalize formal orientation and induction sessions at the beginning of each intake and ensure proper documentation and dissemination of postgraduate rules and timelines.

Standard 5: Teaching Faculty and Staff

Best Practice(s):

A supervisory framework exists for MS and PhD programs through assigned faculty supervisors at departmental level, providing academic and research guidance to postgraduate students.

Findings & Recommendations:

- Recruitment of senior faculty members (Professors and Associate Professors) is required to strengthen academic leadership, research supervision capacity, and institutional development. It is recommended to initiate hiring processes for senior academic positions on a priority basis.
- HEC has provided clear guidelines for the universities regarding the certification/approval of supervisors for supervising PhD students. The university should develop a mechanism with detailed SOPs and required proforma to receive and process applications of the faculty members for certification and approval.
- Supervisor allocation practices are not uniformly implemented across departments. It is recommended to develop and enforce a standardized, transparent, and merit-based supervisor allocation mechanism aligned with students' research areas.
- A structured policy may be developed to assign appropriate credit weightage for additional academic and administrative duties of faculty members to ensure workload balance. Additionally, financial incentives (honorarium/remuneration) may be considered for extra responsibilities.
- Office of Research Innovation and Commercialization (ORIC) may be strengthened to play its role in university's contribution in research and resource mobilization.
- ORIC should search international and national resources for funding the research and share these funding opportunities with the faculty members. This office should also conduct training workshops for capacity building of the faculty in writing winning research proposals. There is need to develop a mechanism for motivating the faculty members to submit research proposals for funding and there should be proper monitoring and follow-up.

Standard 6: Institutional Policies and Process Control

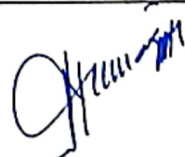
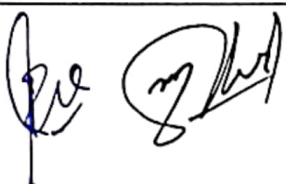
Best Practice(s):



The Graduate Education Policy has been approved by the Institutional Quality Cell (IQC); however, approval from BASR and Syndicate is still in process.

Findings & Recommendations:

- The semester registration form does not include proper verification from the Treasurer's Office to confirm fee submission, as the relevant section is found to be incomplete in most of the forms reviewed. It is recommended to establish a formal and mandatory mechanism for fee clearance verification prior to registration approval, in accordance with Syndicate-approved rules.
- The admission policy for postgraduate programs is not yet formally approved by the relevant statutory bodies. It is recommended that the policy be processed for approval through the appropriate academic and governance forums.
- Supervisor allocation processes are functional but not fully standardized across departments. It is recommended to strengthen a transparent, merit-based, and uniform allocation mechanism aligned with students' research areas.
- The comprehensive examination system is currently being implemented; however, it is not fully aligned with HEC Graduate Education Policy. In some cases, it is conducted as a course-based assessment rather than a single composite evaluation of disciplinary knowledge. As per HEC guidelines, it should be a single comprehensive examination covering core graduate-level knowledge, evaluated on a pass/fail basis without grading. It is recommended to standardize the practice in full alignment with HEC requirements.
- Synopsis submission and defense processes exist; however, open synopsis defense is not consistently implemented across all programs. It is recommended to ensure uniform adoption of HEC-defined milestones and strengthen open defense practices under supervisory committee oversight.
- Standard Operating Procedures (SOPs) for MS and PhD processes exist but are not uniformly implemented across departments. It is recommended to ensure consistent enforcement of approved postgraduate regulations.
- The Anti-Plagiarism Standing Committee has not been formally constituted as required under HEC Anti-Plagiarism Policy 2023. It is recommended to establish and notify the committee through the relevant statutory body to ensure compliance and academic integrity.
- Student research logbooks are not consistently maintained during the research phase. It is recommended to implement a mandatory logbook system for monitoring research progress.
- Formal feedback mechanisms from key stakeholders (students, alumni, and employers) are not systematically established at the postgraduate level. It is recommended to develop structured feedback systems and integrate them into program review and quality enhancement processes. A dedicated online portal may also be developed for continuous stakeholder input.
- An annual awareness calendar should be developed to conduct seminars on HEC policies



such as the Graduate Education Policy and Anti-Plagiarism Policy. Proper documentation, notifications, and attendance records should be ensured.

- The Incharge Library should be assigned responsibility for monitoring the utilization of digital library resources by students and faculty. Regular awareness and training sessions should be conducted to enhance effective use of research databases.
- The university and departments should prepare strategies for increasing the admissions to PhD and MS programs.
- Similarity Index and plagiarism should be checked (through Turnitin) as a requirement for synopsis submission of MS/PhD students.

Standard 7: Institutional Support and Facilities

Best Practice(s):

The university has a campus master plan in place, which provides a structured framework for infrastructure development and institutional growth.

Findings & Recommendations:

- Learning Management Systems (LMS) and digital academic platforms are not fully integrated across teaching, supervision, and research activities. It is recommended to implement a centralized LMS to support academic delivery, research coordination, and student engagement.
- Classroom facilities are generally adequate for routine teaching; however, postgraduate research-oriented learning environments require further improvement. It is recommended to upgrade academic spaces to better support advanced learning and research activities.
- Library timings may be extended beyond the university timings and it must be ensured that library remains open and provide services to the students.
- IT infrastructure and internet services require further strengthening. It is recommended to improve internet bandwidth and ensure reliable connectivity in computer labs, library, and faculty offices. Additionally, a dedicated unit should be designated to monitor and resolve IT-related issues efficiently.

Standard 8: Institutional General Requirements

Best Practice(s):

MS and PhD programs are delivered through an established departmental supervisory structure where students are assigned qualified supervisors for academic guidance and research supervision.

Findings & Recommendations:

- The research environment for MS and PhD programs requires further strengthening to align with international standards of research training, methodology, and scholarly

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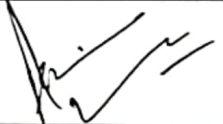
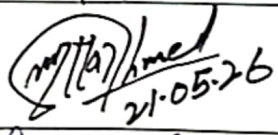
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output. It is recommended to enhance structured initiatives to improve research culture, innovation, and publication quality.

- Mechanisms for systematic engagement with industry and external stakeholders in postgraduate research planning are limited. It is recommended to establish formal industry collaboration frameworks to ensure alignment of research with market needs and societal priorities.
- Integration of industrial and societal needs into postgraduate research design is not consistently practiced. It is recommended to strengthen structured linkages with industry and relevant sectors to improve the applicability and impact of research outcomes.
- Research skills development (including research methodology, academic writing, data analysis, and critical thinking) is not systematically embedded in postgraduate training. It is recommended to introduce structured research training modules as part of MS and PhD programs.
- Assessment processes for MS and PhD research degrees require further standardization to ensure consistency, transparency, and alignment with best academic practices. It is recommended to implement a clearly defined and uniform evaluation framework across all departments.

Signatures

S/N	Review Panel Member	Signature
1.	Prof. Dr. Muhammad Hammad Nadeem Tahir, Dean/Coordinator FAES, MNS-UA, Multan	
2.	Prof. Dr. Asim Umer, Department of Chemical Engineering & Technology, MNS-UET, Multan	
3.	Dr. Ayyaz Ahmad, Associate Professor, Department of Chemical Engineering & Technology, MNS-UET, Multan	
4.	Dr. Rooha Masroor Incharge QEC, MNS-UET, Multan	