

PSCMRCET IQAC

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INTERNAL QUALITY ASSURANCE CELL (IQAC) MANUAL

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1. Introduction

1.1 Purpose of Academic and Administrative Audit

The institutions for their survival and growth have to impart education that will meet the ever increasing demand of employers, coupled with the attitude of lifelong learning in students. An academic and administrative reviews the processes and procedures used by Departments to enhance the quality of their Programs in terms of program objectives and ensure graduate attributes as program outcomes as defined by each Department are achieved against the stipulated targets for which standard practices and processes need to be put in place. A detailed audit process is laid down including the guidelines to auditors and post audit counseling to faculty. The audit is designed to capture the five important dimensions of a teacher, namely-subject knowledge, preparation, communication, class control and concern for students and opportunity to interact.

1.2 Objectives of Academic Audit

Academic Audit is an initiative focused on improving academic quality, highly collegial, faculty driven, and uses structured conversation within the department and between department members and auditors to examine the possibilities for improvement and achieve commitments for change.

1.2.1 Objectives of IQAC

Academic quality work embedded in the Academic and Administrative Audit systematizes an institution's approach to quality by focusing on a body of content that must be considered before an analysis can be accepted or complete. This body of content is the focal areas of quality work: 1) learning objectives, 2) curriculum, 3) teaching and learning methods, 4) student learning assessments, and 5) quality assurance.

1. To set quality performance indicators in domains of education, research and administration pertaining to departments/programs and other units of the Institution.
2. To develop benchmarks for quality performance indicators
3. To develop strategies to evaluate quality performance indicators
 - To evolve and implement self-evaluation proforma for faculty members and executives
 - To evolve and implement stakeholders' feedback assessment
 - To facilitate periodic academic and administrative audit
4. To develop strategies to improve quality

1.2.2 Principles of Academic Audit:

1. Define quality in terms of outcomes
2. Learning assessment i.e. how teachers teach, how students learn, etc.

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3. Aligning assessment with learning objectives.
4. Involvement of stakeholders to evaluate the set quality performance indicators.
5. Feedback collection, analysis and dissemination of relevant information citing concerns where improvement measures should be taken
6. To facilitate accreditation and review processes through involving external agencies

2. Areas Covered in Academic and Administrative Audit

2.1 Functions of Audit

The primary unit of academic and administrative audit is the Department. The audit primarily focuses on improving teaching and learning which is an institutional priority. The audit also facilitates active discussion and cooperation within academic units on means for improving teaching and learning and at the department level and institutional level.

2.2 Focus Areas

- (a) Defining intended Course and Program Outcomes
- (b) Identifying curricular gaps and strategy to bridge the gaps
- (c) Designing effective teaching and learning processes
- (d) Developing and using outcome based student assessment
- (e) Assuring implementation of quality education - significant activities such as research and services, co- curricular and extracurricular activities to support program outcome

3. Methodology

3.1 Approach

Institution creates various committees for conduct and review of activities at the institution and department levels. The compositions, functions of the committees are as follows:

(a) Institution level Quality Assurance Advisory Cell: (internal)

Composition:

- i. Principal
- ii. HODs of all departments
- iii. IQAC Coordinator- Chairman - Quality Assurance Cell
- iv. Management Representative

Broad Functions

- Contribute to preparation of SAR especially information related to criteria 10 Governance, institutional support and Financial Resources
- Seek timeline and action plan from each department for Direct and Indirect assessment and ensure its compliance.
- Conduct end of Semester analysis of results and achievement of POs/PSOs for all Departments
- Prepare annual report of success/failures on various parameters
- Taking corrective actions and additional inputs for meeting POs/PSOs
- Assessment and revision of PEOs
- Review of Institutional and Departmental Vision and Mission
- Present the analysis of all departments to the College Development Committee
- Develop faculty appraisal system and assess faculty performance annually; report to Principal and Management

Frequency of Meetings

The committee should preferably meet quarterly with agenda and action taken record.

(b) Department Level Committees

1. Programme Advisory Committee:(PAC)

Composition:

Chairman: PAC Lead

HOD

Faculty - Members (Professor & Associate level)

Broad Functions

- Review assessment of Course Outcomes and their relationship with POs/PSOs prepared by HODs
- HOD collects recommendations and suggestions and through department advisory committee come out with implementable actions or items points for continuous improvements of POs and PEOs

- Prepare and finalize the PEOs and POs/PSOs, Align them with the Mission and write the process of development of PEOs and POs
- Conduct assessment of placement record for ensuring PEOs attainments or revision if required
- Conduct assessment of curriculum and resources available to meet the developed PEOs and POs, decide additional course contents, electives to bridge the gaps and inform the shortfalls in resources to the Institutional Core Committee which will evaluate the needs and present the additional requirement to the management
- Supervises the COs and their alignment to POs.
- Develop common Performance Indicators for respective Courses aligned to the PO and monitors progress periodically
- Develop a description of the process with questionnaires and tools required for continuous assessment
- Obtain COs from respective faculty for concerned PO along with their alignment with PO and target of expected achievements
- For direct assessment collects the student results for respective courses aligned to the PO and analyze the average achievement of performance
- Hold discussions with concerned faculty on shortfalls for the achievement of pre-set targets.
- PAC Lead presents report to Department Advisory Board (DAB) with resource requirements and academic directions
- Collects recommendations for improvements from DAB
- Prepare and conduct indirect assessment and prepare report
- Record the results and presents to the IQAC of direct and indirect assessment.

Frequency of meeting

Meeting may be held at the end of the semester year or as and when required and report prepared.

2. Department Advisory Board

Chairman: DAB Lead

HOD

Faculty - Members (Professor & Associate level)

Industry Chair

Academic Advisor from other Institute/University

Broad Functions

Gives guidelines related to following areas:

- Program Educational Objectives and Program Outcomes
- Academic plans preparation by faculty members for their respective courses allotted by the Department
- Thrust areas to conduct Co-Curricular activities
- Topics beyond the syllabus and additional experiments to meet PEOs and POs
- Functioning of Centre of Excellence/Incubation Centre
- Value added training courses

3. Audit Team members:

Pool of auditors have been formed with senior members from various department to conduct academic and administrative audit.

3.2 The Process

The institution has established Internal Quality Assurance cell in order to conduct academic audit for the year 2016-17 and onwards. The internal **academic and administrative audit** of the institution shall be conducted half-yearly in every academic year.

IQAC has put in place an institute-wide academic quality management framework to gather evidence-based information on the quality of its programmes and graduates and to encourage a culture of continuous self-improvement through self-reflection of processes and best practices of various programmes through Academic Audits.

The establishment of IQAC in August 2016, the first phase of its Evaluation Cycle is implemented which involved results of passed out students and surveys relating to the passing out graduates-2016 (exit-survey), parents of graduated students (2016) and other stakeholders (including Alumni survey).

The CO, PO and PSO attainments computed are the quality indicators used in the academic audit of the institution.

The IQAC will decide the main guidelines of academic and administrative audit indicating special reference to investigation to be made about the various practices being followed by the departments. The emphasis would remain on teaching, research and services. All attempts will be made to ensure that continuous growth of all major parameters related to quality of education is achieved. The achievement with specific reference to the plan of action related to PEOs and POs/PSOs will be monitored.

The IQAC will authorize to conduct the audit and collect information through various records that may include the following:

- Department action plan and targets
- Minutes of Departmental meetings of various committees
- Record of content delivery through lectures, practical etc. and
- Result analysis semester/annual of courses in relation to set targets.
- Results and interpretation of indirect assessment
- Corrective action envisaged
- Recommendations of Department Advisory Board
- Any other evidential material

3.3. Reporting

The purpose of academic audit is not judgmental but to cause development to happen. The IQAC will produce a report that describes the strengths and weaknesses of the each department's efforts to improve academic quality of their programs and identify plans for improvements. The main components of the report will be:

- Recognition of Good practice
- Recognition of well performing departments
- Recommendations for improvement

The audit report is presented to the Principal and Management and made available to the departments who will be required to respond to the issues raised in the report. The response of the departments will be part of the final audit report.

The audit report shall be presented to Principal and Management and thereafter displayed on Department/institutional website.

3.3.1 Academic and Administrative Audit Team Report

Record of Commendations, Affirmations, and Recommendations

This form must be completed by audit review team prior to concluding the visit. All observations included on this form should be represented as commendations, affirmations, or recommendations.

3.3.2 Roles and responsibilities of Audit Team members

Audit Team members:

Audit Team members are selected on the basis of their experience in higher education and are expected to draw on this experience in arriving at judgments about the management of quality and academic standards by institutions. The IQAC arranges preparation sessions for Audit Team members to ensure that they are familiar with the expectations of the audit methodology and have a good understanding of the context of higher education developments in India.

The principal expectations of team members include:

- Experience of the management of quality and academic standards in higher education.
- A clear understanding of the governance and management of higher education institutions.
- An ability to read, analyse and synthesise a substantial amount of documentary material.
- An ability to engage in discussion and debate with institutional representatives to identify and comment on key issues relating to quality.
- An ability to produce written commentary on the outcomes of audit activity and to assist in the drafting of the report.
- A willingness to work as a member of a team and share responsibility for collective judgments.

The IQAC Audit Coordinator:

The **IQAC Audit Coordinator** has additional responsibilities of coordinating the activities of the Audit Team and managing the audit meetings with the institution. The IQAC coordinator is the spokesperson of the Audit Team and has the responsibility for ensuring consensus between team members and articulating the meeting conclusions.

The Audit Lead is expected to:

- Take the lead role in the management of formal audit meetings.
- Conclude meetings with a summary of the issues discussed.
- Liaise with the Audit team about the drafting of the audit report.
- When required, contribute to the IQAC discussions about institutions' progress reports.

4. Audit Questions

4.1. Defining intended Course and Program Outcomes:

- a) What should a student who successfully completes the program know and be able to do?
- b) Are the program Educational Objectives (PEOs) of your department aligned to the Mission of the Institution?
- c) Are the statements of POs/PSOs relevant to the (a) PEOs and (b) curriculum prescribed by the university?
- d) If the POs and PSOs are not aligned or aligned at the low level, what are the efforts by the department to bridge the gaps?
- e) How do you ensure that the POs/PSOs align to the requirements of industry/employers?
- f) How do you ensure POs/PSOs meet future employment needs of students and assist them acquire meaningful values and social skills?
- g) How do the POs/PSOs take care of the holistic development of students?
- h) How are the learning outcomes communicated to staff, students, and external examiners/employers/alumni?
- i) What is the basis of defining PSOs of your department?
- j) Did you seek inputs from faculty, students, alumni and industry/employers while developing and improving PEOs, POs/PSOs? If yes, what mechanism did you use?
- k) Have you developed relevant survey questionnaire/focus group discussions questions to seek such inputs?
- l) Do you have relevant documentation as evidence for conducting such an exercise
- m) Are data from such surveys analyzed so that you can justify your decisions in designing and improving PEOs, PO/PSOs and COs?
- n) What is your planned time frame for seeking inputs on COs, PEOs, POs/PSOs for review, improvements and corrective action through direct and indirect method?

4.2. Identifying curricular gaps and strategy to bridge the gaps

- a) Have you mapped your courses with Program Outcomes (PO)/Program Specific Outcome (PSO)?
- b) What are the major gaps identified by your department with the university curricula?
- c) Is there any PO/PSO that is not addressed at all by university curricula? If yes, provide the PO/PSO? and how do you meet the concerned PO/PSO?
- d) What is your justification of considering courses meeting Program/Course Outcome as low, medium and high?
- e) Do you consider the courses in the university curricula termed, "low" as adequate to meet your program outcome requirements? if your response is yes, give justification. if your response is no, what are the additional inputs you have included in the curricula to bridge the gaps?
- f) Have you mapped your laboratory experiments to POs/PSOs?
- g) How do you ensure that the curriculum content enables students to achieve the POs/PSOs?

- h) How do you ensure that the design and organization of the curriculum is effective in promoting student learning and achievement of POs/PSOs
- i) How do you ensure that the curriculum content and design is adequately informed by recent developments in pedagogy, research and changes in relevant occupational or professional requirements? Do you have adequate documents/evidence to justify?
- j) Who do you consult with in identifying curricular gaps and bridging it?
- k) What have you learnt from alumni/exit students and employers/industry?

4.3. Designing effective teaching and learning processes

- a) How is teaching and learning organized for students?
- b) What pedagogical approaches are used by faculty to enhance teaching learning?
- c) What strategies are used to stimulate student centric learning in the classroom?
- d) What resources/ICT/learning simulation tools are used in teaching and learning?
- e) How is the quality of teaching maintained and enhanced? How do you ensure that strategies such as effective staff development, peer review, induction and mentoring are used?
- f) How effectively do lecturers use latest technological inputs, research, professional activities in their teaching to fill curricular gaps?
- g) Is there any academic support including handbooks, notes, videos and other written documents provided to students?
- h) How do you evaluate teaching and learning processes on a regular basis?
- i) Do you seek student feedback? How many times do you seek the feedback from students in a semester?
- j) What are your key performance indicators or benchmarks?
- k) How do you evaluate the courses/programs? How do you calibrate your quality standards?
- l) How are the analysis of data done and used for introducing improvements?

4.4. Developing and using outcome based student assessment

- a) Have you defined key quality performance indicators of your department? such as comparing student quality at admission time and at graduation time; students performance in first year; students graduating rate with and without backlog; improvements in students' performance who graduated to next year with backlogs; progress of weak students and challenging better performers to challenging tests and assignments?
- b) How do you ensure that the assessment processes overall and particular assessment tool used by faculty enables the students to demonstrate achievement of POs/PSOs/COs?
- c) How are the POs/PSOs/COs assessment moderated?
- d) How do you ensure soundness of assessment tools used?
- e) How effectively is the student learning facilitated and improved through formative and summative feedback and monitoring arrangements?
- f) How do you monitor progress and use information to improve?

4.5. Assuring implementation of quality education - significant activities such as research and services, co- curricular and extracurricular activities to support program outcome

- a) Does the department work collaboratively, involving faculty, to decide on quality assurance parameters?
- b) How do you ensure that the COs and POs/PSOs are implemented as per plan and their assessment results are used effectively?
- c) How do you inform the stakeholder are informed that the POs/PSOs are consistently met and continuously improved?
- d) How do you work together to interpret the results and take appropriate corrective action based on the analysis?
- e) How do the faculty and the Department ensures memberships in professional society?
- f) How do you ensure and assess extra- curricular activities are planned to meet COs and POs?
- g) How do you analyze the impact of extra-curricular activities?
- h) How do you ensure and assess co-curricular activities are planned to meet COs and POs?
- i) How do you analyze the impact of extra and co-curricular activities?