

Academic Audit - A Tool for Quality Enhancement in Teaching-Learning Process in Higher Education Institutes

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Abstract: Academic audit is a methodical and scientific process of designing, implementing, monitoring and reviewing the quality in academic systems in higher education. The academic audit provides a strategic planning and its implementation for the teaching-learning activity in the institute. In order to ensure quality and effective curriculum delivery, in teaching-learning, quality assurance system like Internal Academic Audit (IAA) system is very much essential. This paper aims to discuss the effective implementation of IAA in the technical campus situated in Panvel, Maharashtra. Academic Audit is done thrice during the term as Pre Term Audit- before the commencement of the term, Mid Term Audit- during the mid of the term and Post Term Audit- after the term end. Total thirty four numbers of input parameters are identified based on which academic audit is carried out. For every single parameter in the audit format, the course owner is evaluated for complete, partially complete and incomplete status of that parameter as per defined rubrics. The score of all the parameters is converted to a scale of 5 which would become the score of that course owner and would be used for appraising the concerned course owner. The reports of the Pre Term, Mid Term, and Post Term audit would be kept with the audit team and the necessary corrections would be conveyed to the respective course owners at the time of the audit. It was observed that after the introduction of the aforementioned process, the academic files of all the faculty members were found complete in all respects and quality of assignments, teaching learning and evaluation process was improved significantly.

Keywords: Internal Academic Audit, Quality, Higher Education, Rubrics.

1. Introduction

The success and growth of the higher education institute relies on the continual improvements in its academic, research and practice. For any higher education institute, teaching learning process is a backbone and a timely and effective scrutiny or audit of same may ensure a constant and qualitative development of teaching learning process. An Academic audit is a methodical and scientific process of designing, implementing, monitoring and reviewing the quality in teaching learning process in higher education

which in turn ensures the qualitative improvements in same.

As illustrated by David Dill, as oppose to accreditation programs, various student assessment techniques, and program review processes, the academic audits checks deeply into the heart of the academic enterprise. They test whether institutions and their faculties in fact honour their public responsibility to monitor academic standards and improve teaching learning (Dill, 2000, Mart land and Kulkarni, 2011, Dill et al, 1995, Garvin, 1991).

A robust, effective and transparent academic audit shall lead to desired accounting towards the teaching learning process eventually moving towards constant improvements in the academic of the institute. It ensures a systematic and defined procedures based documentation of the entire process. It instils a sound confidence and faith among all the faculty members regarding implementation of same audit process for all without any discrimination based on seniority, experience, post, or any other factor of bias.

2. Process

The presented academic audit process was conceptualized, designed, implemented and revised at the Anjuman-I-Islam's Kalsekar Technical Campus (AIKTC), New Panvel, Navi Mumbai, Maharashtra, India. Initially, the academic audit was a flat and simple process with the checking of Academic file for few academic records like teaching plan, practical plan, attendance, continuous assessment, test papers, and test marks. With the advent of Outcome based Education (OBE), the entire process of academics is revamped and so the need of its audit's revamp emerged. Inline with the requirements of OBE, the academic audit process was modified and the new formats with required rubrics were created. The first major change was making the academic audit inter-departmental. An academic audit committee were formed with multiple teams, each comprising of three members from different departments, one of which is Head of Department who acts as convener. The audit was held twice a semester ensuring that the visiting academic audit committee have all the members from different departments and none of them belongs to visited department. The 28 number of parameters were considered for the academic audit with different pre-decided weights. Each parameter was mapped to related NBA criterion. The expected defined format along with the Program-level file location of the

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record for the parameter are specified against that parameter title. The parameters were categorized into:

- Common
- Theory specific
- Practical specific

Common parameters are applicable to all course types. Theory specific parameters are applicable to courses with theory. Practical specific parameters are applicable to courses having laboratory or practical. Such categorization of the parameters eased the auditing work of the academic audit committee. Table 1 shows the academic audit format

Table 1. Academic Audit Format

Sr. No.	Parameter	Weight	Score (0/1/2)	Weighted Score
Common				
1.	Academic Calendar - Program	1		
2.	Teaching Load (Office Order)	1		
3.	Syllabus Copy	1		
4.	Content beyond syllabus	2		
5.	Time Table	1		
6.	Roll List with Contact details	1		
7.	Working Days Calculator	1		
8.	Vision, Mission, POs, PEOs and PSO(s)	2		
9.	CO Review	2		
10.	CO-PO Mapping	3		
11.	Mapping of the content beyond syllabus with PO(S)/ PSO(S)	2		
12.	Target and Attainment Approval	2		
13.	AO-CO Mapping	2		
14.	Attendance Sheet (TH-PR)	2		
15.	Assignment / Question Bank	1		
16.	Students Attendance Summary Sheet	1		
17.	R- Score and Attainment Analysis	2		
18.	Course Exit Survey (Google Forms Report)	1		
19.	Course Closure report	2		
Theory Specific				
20.	Teaching Plan	3		
21.	University QP (Last 4 To 5 Exams)	1		
22.	Unit Test QP	2		
23.	Unit Test -I Marks	2		
24.	List of Slow Learners.	2		
25.	Remedial Class Record (Time Table/Planning)	2		
26.	Unit Test -II Marks	2		
Practical Specific				
27.	Practical Plan	3		
28.	Continuous Assessment Sheet (TW)	3		
TOTAL				
Conversion on a Scale of 5				

The following two rubric were designed to complete the academic audit:

1. Score Rubric:

The score rubric provides the score value for the audit parameter depending upon the completion status of the concerned academic record(s). If the required record is not

available then the score is 0, if the record is available but incomplete then the score is 1 and if the record is available and complete then the score is 2. Table 2 shows the rubric for Scores.

Table 2. Score Rubric

Score Rubric		
Sr. No	Point	Score
1	No Document	0
2	Incomplete Document	1
3	Complete Document	2

2. Weight Rubric:

The weight rubric provides weights to different parameters. The weight is assigned to the parameter depending upon its level of importance. Table 3 illustrates the weight rubric.

Table 3. Weight Rubric

Weight Rubric		
Sr. No	Point	Value
1	Minimum	1
2	Moderate	2
3	Maximum	3

During the academic audit, the committee member gives a score to a parameter depending upon the completion status of the concerned academic record(s), the given score is multiplied the assigned weight of that parameter and the weighted score is calculated. The weighted score of all the evaluated parameters were summed to get a total, which is then converted on a scale of 5 to get the final score out of 5.

3.Revision Version 1 (v1)

After one cycle of the above mentioned academic process, it was realized that two audits per semester shall be changed to three audits per semester, viz. Pre-Term audit, Mid-Term audit, and Post-Term audit. The new academic audit format parameters were accordingly categorized into:

evaluate the presentation. Table 5 shows the revised academic audit format.

Table 5. Academic Audit Format – Revised (v1)

Sr. No.	Parameter	Weight	Score (0/1/2)	Weighted Score
Pre-Term Audit (One Week Prior to Commencement)				
1.	Academic Calendar - Program	1		
2.	Vision, Mission, POs, PEOs and PSO(s)	2		
3.	Teaching Load (Office Order)	1		
4.	Syllabus Copy	1		
5.	CO Review	2		
6.	CO-PO Mapping	3		
7.	Content beyond syllabus	2		

- Pre-Term Audit
- Mid-Term Audit
- Post-Term Audit

Another major change was the revision of Weight Rubric to address the issue of non-compliance. The weight rubric was revised as shown in table 4:

Table 4. Weight Rubric– Revised (v1)

Weight Rubric		
Sr. No	Point	Value
1	Minimum	1
2	Moderate	2
3	Maximum	3
4	Non-Compliance in CA-1 (Current Audit – 1)	-1
5	Non-Compliance in CA-2 (Current Audit – 2)	-2

One parameter as Non-Compliance in CA-1 (Pre-Term Audit) with a weight of -1 was added into the Mid-Term Audit section to address the non-compliance(s) of Pre-Term audit. Likewise two parameters, viz. Non-Compliance in CA-1 (Mid-Term Audit) with a weight of-1 and Non-Compliance in CA-2 (Pre-Term Audit) with a weight of -2 were added into the Post-Term Audit section to address the non-compliance(s) of both Pre-Term and Mid-Term audits. Finally the average of all the three audits were converted on a scale of 5. The Term-End presentation was added as a last parameter having a score value of 5, where every course owner was supposed to present his/her efforts and contributions towards parameters like Result Analysis, Mentorship, Utilization of Practical sessions, Quality of Assignments, Academic and Extra-academic achievements, Publications/STTP/FDP, Involvement in Accreditation process, and Unit Test Question Paper Audit on a total scale of 5. The presentation was delivered in presence of concerned Head of Department and the audit committee convener, who would collectively

8.	Mapping of the content beyond syllabus with PO(S)/ PSO(S)	2		
9.	AO-CO Mapping	2		
10.	Target and Attainment	2		
11.	Time Table	1		
12.	Working Days Calculator	1		
13.	Roll List with Contact details	1		
14.	University QP Analysis (Last 4 Exams)	1		
15.	Teaching Plan	3		
16.	Practical Plan	3		
TOTAL				
Conversion on a Scale of 5				

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Mid-Term Audit (During UT-1)				
1.	Attendance Sheet (TH-PR)	2		
2.	Assignment / Question Bank	1		
3.	Unit Test QP	2		
4.	List of Slow	2		
5.	Remedial Class Record (Time Table/Planning)	2		
6.	Continuous Assessment Sheet (TW)	3		
7.	R- Score and Attainment Analysis (Last Sem)	2		
8.	Non-Compliance in CA-1 (Pre-Term Audit)	-1		
TOTAL				
Conversion on a Scale of 5				
Post-Term Audit (One week after OR/PR Exams)				
1.	Attendance Sheet (TH-PR)	2		
2.	Assignment / Question Bank	1		
3.	Unit Test -I	2		
4.	Unit Test -II	2		
5.	Students Attendance Summary (Course wise)	2		
6.	Continuous Assessment	3		
7.	Course Exit Survey (Google Forms)	1		
8.	Course Closure Report	2		
9.	Non-Compliance in CA-1 (Mid-Term Audit)	-1		

10.	Non-Compliance in CA-2 (Pre-Term Audit)	-2		
TOTAL				
Conversion on a Scale of 5				
Average of Pre-Term, Mid-Term and Post-Term Audits				
Term End Presentation (On a scale of 5)				

4. Conclusions and Future Scope

After the implementation of the revised academic audit process, the following observations were made by the audit committees:

- The academic files containing the defined academic records of almost all the course owners were up to date.
- The records were found updated on timely basis due to the inclusion of Non-Compliance parameter in the audit format.
- The three audits per semester ensured timely planning, timely execution and timely completion of the academic process.
- The linking of final score with the appraisal system has garnered due importance to the entire academic audit process.

The future scope for the academic audit process is to implement the qualitative approach since the current system is more of quantitative type. The combined quantitative and qualitative approach shall lead to robust, effective and more transparent academic audit ensuring continual improvements in the teaching learning process of the higher education institute.

References:

- Dill, D. D., (1992) Quality by Design: Toward a Framework for Academic Quality Management. Higher Education: Handbook of Theory and Research, pp. 37-83 (New York: Agathon Press, Inc.).
- Mart and, T. Telsang. and Dr. Mrs. Sushma, S. Kulkarni. (2011) Academic Audit - A Tool For Enhancing Teaching-Learning Effectiveness, The Journal of Engineering Education.
- Dill, D. D., Massy, W. F., Williams, P. A., and Cook, C. M., (1995) 'Accreditation and Academic Quality Assurance: Can We Get There From Here?' Change, 28(5), pp. 16-25.
- Garvin, D., 1991, 'How the Baldrige Actually Works', Harvard Business Review (November! December), pp. 80-95.