Academic e-Auditing Manual

APJ Abdul Kalam Technological University
2020

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1. INTRODUCTION

Today we face a very challenging time due to the pandemic caused by COVID-19. Academic Institutions are unable to deliver their planned teaching schedule in conventional methods and education has come to a near standstill for some time. But times have changed and the technology has improved to a point where anything can be obtained with the snap of a finger. It is this fact we must manipulate to improvise our system of education. For this an active initiative must be taken by both the teachers and the students. The teachers must be willing to adapt to this method of teaching in such a way that

- Students to learn from home and the teachers and mentors to guide the students from home
- Continue with regular curriculum and lessons remotely without any loss of learning days
- Submit assignments and assessments from home.

A silent revolution has been going on in the field of education related to the use of digital technology for imparting education. Digital technology opens up new avenues of application to be exploited for the interests of the participants in education and for the society as a whole. Higher education primarily should aim at the production of new knowledge. We will have to reorient the teaching-learning strategies appropriately adapting to the new situation. On the one hand, they must develop new models for imparting knowledge and competencies required for the present. Added to these they should adopt sustainable and practical approach to virtual and de-central forms of teaching that can be combined with the direct, face to face teaching in the classroom.

Online classes will continue as a temporary arrangement for the conduct of classes. Apart from the videos and online sessions, podcasts on relevant topics could also be used. Scope for interaction can be explored through blogs, diaries, and allowing presentations by students. Three tier system; teacher, student monitor, student learner will be followed for ensuring interaction between students. Student monitors will coordinate discussions and group activities by students. It will be good if the sessions are recorded. Timing of the class hours could be arranged taking into consideration the convenience of the students. So classes can be arranged during the evening after 6 pm to include students from the poor background who do not possess mobile phones on their own. Every college must conduct a survey to assess the number of students who do not possess smart phones or laptops and internet facility.

The academic calendar is published by the University and all Institutions are to follow the deadlines as in the calendar. There should be mechanism to monitor the online sessions. A committee headed by the Principal should supervise the conduct of classes. The Academic Auditing process carried out by the University since its inception was aimed to monitor and enhance the quality of education through proper guidelines for both teaching faculty and students, so as to ensure qualified engineers/researchers passing out from Engineering

Institutions, affiliated to the APJ Abdul Kalam Technological University (APJAKTU). The Covid 19 pandemic will not permit to have the normal auditing process this semester as in the previous years.

In view of this, the **University decided to monitor the academic activities going to take place for this semester in all Institutions through its quality assurance cell**. The Internal Quality Assurance Cell in each college shall oversee and monitor all academic activities including internal evaluations and examinations. It is the responsibility of IQAC coordinator of the Institutions to have a regular contact/feedback with IQAC coordinator of the University in this aspect. **The University proposes e-audit instead of regular academic audit** in this period of COVID Pandemic. The e-audit process shall verify the assessment of course delivery as per the curriculum and syllabus of KTU, overall discipline and the academic functioning of the Institution, delivery of the duties and responsibilities of faculty members and monitoring of the class, progress of courses, internal assessment, student welfare and grievances.

2. OBJECTIVES

(i) To ensure academic accountability.
(ii) To monitor and enhance the quality of technical education through proper guidelines for both teaching faculty and students, so as to ensure qualified engineers/researchers passing out from Engineering Institutions, affiliated to the KTU.
(iii) To safeguard functionalities of technical education.
(iv) To define effectiveness of teaching – learning process and to devise methodology to confirm maximum output from faculty members as well as students.
(v) To ensure that the colleges are following OBE in its true sense.

3. AUDIT PROCEDURE

The e-audit will be conducted in three phases: 2 internal e-audits and one external e-audit. Internal e-audit shall be done by the respective Institutions on or before (i) Third week of Oct 2020, (ii) First week of Dec 2020 and external e-audit by the University on or before second/third week of Dec 2020. The internal e-audit shall be carried out under the supervision of IQAC of the college. IQAC coordinator should constitute suitable teams for each department. One team should comprise 3 faculty members (as far as possible, one member from IQAC shall be included in each team). Department specific documents are to be audited by this team and the college specific documents are to be audited by the UG/PG dean. The audited reports are to be handed over to the IQAC coordinator who in turn shall submit the report to the University in the prescribed format.

The external academic auditing shall be conducted jointly by an Internal Quality Assurance Cell (IQAC) within the college and external academic auditor/auditors appointed by the University. This cell shall prepare audit reports based on the internal audit and shall be

presented to the external academic auditor/auditors, who shall use it as reference for independent auditing. The external auditor will visit the college, verify the documents and may interact the faculty, staff and students. The external auditor shall submit the report to the University which is accessible to the Principal of the Institution. The Principal shall give his response on the observations made by the auditor and submit to the KTU within two weeks.

4. DOCUMENTS TO BE SUBMITTED FOR AUDIT

Each affiliated institution has to maintain the details of various academic activities in the form of documents given below. **The Principal is requested to ensure the usage of proper LMS platform for the teaching/learning process, uploading of course materials/lectures in the LMS (is mandatory because not all students would have attended the sessions and later they complain that there was no connectivity, speed etc.), the mechanisms used for taking feedback as to whether the online classes were effective (have they given assignments, projects and evaluated them periodically for formative assessment?).** The Principal of the college shall ensure that the records/documents listed as below are maintained and accessible for IQAC, internal audit team and the external auditors.

COLLEGE SPECIFIC DOCUMENTS

➢ Academic calendar with days earmarked with working days, holidays, other activities etc.
➢ Minutes and action taken reports of student's grievances and appeal committee meetings
➢ Teaching and technical staff details including qualification and experience
➢ Arrangements made in case of faculty left in between, taken long leave etc.
➢ Central library register showing volume and title of books, journals etc.
➢ IQAC meeting minutes, internal audit reports etc

DEPARTMENT SPECIFIC DOCUMENTS

➢ Minutes and action taken reports of course/class committees of UG/PG
➢ Minutes and action taken reports of advisory meetings
➢ Academic calendar with days earmarked with working days, holidays, other activities etc.
➢ Course Diary for all the courses
➢ Series test question paper and sample answer scripts
➢ Laboratory manual, demonstration video, simulation set up etc.
➢ Periodic assessment details for all courses
➢ Project (Mini project/Design project/Final semester project) progress review reports
➢ Result Analysis (UG/PG)
➢ Details showing the conduct of minor/honours classes
➢ Details of faculty evaluation and action taken on it
➢ Register showing activity points
➢ Details of MOOC courses taken by UG/PG students
➢ Conduct of PG thesis work

5. INSTRUCTIONS TO AUDITORS

To conduct academic audit in an effective manner within the limited time, **the key aspects are categorised into A, B and C. Aspects in A category are very important, requires meticulous checking. Though aspects under B category are also important they are not as important as A category aspects. Aspects under C category are primarily for information purpose.** Random checking can be employed for assessing aspects under B and C categories. The auditors can schedule the assessment based on this categorisation spending more time in assessing key aspects under A category and less time for aspects under C category. The category of each key aspect is given below within brackets. The general guideline for assessment is also given for each aspect. **Wherever numerical values are possible, please give the numerical value in AUDITOR'S REMARKS column in the portal. Kindly give specific remarks against each key aspect (at least for A category items) so that appropriate corrective steps can be taken.** Note that your specific remarks are more valuable than the ratings.

5.1 COLLEGE SPECIFIC ASSESSMENTS

Compliance to the Academic Calendar of KTU (B): Verify various academic activities such as commencement of the semester, dates of internal tests, dates of publishing of marks etc. by cross checking with KTU academic calendar, the college academic calendar and course diary.

Functioning of students grievances and appeal committee (B): Verify minutes and action taken reports

Average student to faculty ratio (A): The average student to faculty ratio index is to be calculated as {20xTotal number of faculty}/{Total sanctioned strength for all programmes}. The rating is to be given according to value obtained. Rating is EXCELLENT if the value is 1 or more, GOOD if it is more than 0.9, FAIR if it is between 0.75 & 0.89, POOR if it is between 0.6 & 0.74 and VERY POOR if it is less than 0.6.

Example: If a college has 5 UG programmes (B Tech) and 2 PG programmes (M Tech) with sanctioned strength as follows
UG1 – 60 (2015-16,2016-17,2017-18, 2018-19)
UG2 – 60 (2015-16,2016-17, 2017-18), 45(2018-19)
UG3 – 60 (2015-16,2016-17,2017-18, 2018-19)
UG4 – 60 (2015-16,2016-17,2017-18, 2018-19)
UG5 – 60 (2015-16,2016-17, 2017-18, 30 (2018-19)
PG1 – 24 (2017-18), 18(2018-19)
PG2 – 24 (2017-18), 0 (2018-19)

Total sanctioned strength = 60x4+60x3+45x1+60x4+60x4+60x3+30x1+24+18+24+0 =1221. If the college has 47 regular faculty then average student to faculty ratio = 20x47/1221=0.77. Rating is FAIR. Give the value of student to faculty ratio index in REMARKS COLUMN. Also give the actual strength in this column for information. Sanctioned strength and actual strength are available in KTU website for all the colleges. Number of regular faculty may be verified from the attendance registers.

Faculty Qualification Index (A): FQ = (10 X + 4 Y)/F where X is number of regular faculty with Ph.D, Y is number of regular faculty with PG, F is number of regular faculty required to comply 1:20 faculty student ratio. The rating is to be given according to value obtained. Rating is EXCELLENT if the value is 7 or more, GOOD if it is more than 5.5, FAIR if it is more than 5.0, POOR if it is more than 4.5 and VERY POOR if it is less than 4.5.

Number of qualified technical staff (A): Verify the technical staff strength from the attendance register, and rate according to the strength.

Facility of central library with respect to volume, title of books, online & print journals (A): If the central library has books and journals as per AICTE norms, rating is EXCELLENT. Else, rating may be given accordingly.

Functioning of IQAC and Progress of IQAC report uploading (A): It can be judged from the report uploaded in KTU portal which are viewable by the academic auditors. If all relevant records are maintained and reports are uploaded in time, EXCELLENT can be given; else grade according to the nature.

5.2 PROGRAMME SPECIFIC ASSESSMENTS

Class/course committee meetings and action taken report (B): Verify report and minutes of committee meetings. If meeting is not held mention so in the REMARKS column.

Advisory meetings and action taken report (B): Verify report and minutes of committee meetings. If meeting is not held mention so in the REMARKS column.

Result analysis of previous odd semester (A): Verify the results of previous odd semester end semester examination conducted by the University. Rating is EXCELLENT if the pass percentage is greater than 75%, GOOD if it is more than 60%, FAIR if it is more than 45%, POOR if it is more than 30% and VERY POOR if it is less than 30%.

Syllabus coverage as per course plan (A): Do random verification of some course diaries.

Conduct of practical courses (A): Verify course diary, sample work record, log book of equipment etc. Assessment can be done based on the work record, periodic assessment etc. Give % (average) of experiments completed in REMARKS column.

Conduct of minor/honours classes (A): Each department is supposed to keep a register for recording the details of conduct of remedial/minor/honours classes. Verify this register for assessing this aspect.

Platform used for LMS/Course materials and lectures uploaded (A): Verify the details of LMS platform used and the relevant course materials prepared/uploaded by the respective faculty members. Grading can be done accordingly.

NPTEL/SWAYAM course materials recommended for reading (B): Verify whether faculty members encourage the students to refer online course materials and grade accordingly.

Conduct of Internal assessments for theory and lab classes (A): Verify relevant documents showing the periodic assessment. It includes multiple choice questions, quizzes, viva voce etc.

The mechanisms for taking feedback as to whether the online classes are effective (B): Check the feedback mechanism and its effectiveness.

Conduct of series tests (A): Do random verification of question papers and sample answer scripts. Assessment can be done based on (i) punctuality of valuation (ii) distribution of marks awarded.

Maintenance of course diary (A): Course diary is a very important document. All faculty members shall maintain course diaries for all the subjects handled by him/her. All details such as syllabus, course plan, assignments, attendance, internal test marks, extra classes, course materials, ICT/Digital mode of instruction etc shall be entered in the course diary.

Register showing Activity points (B): Advisors should maintain the details of activities the students undergone and the corresponding activity points awarded. Verify the documents and check whether it is in compliance with the norms prescribed by the University.

Faculty evaluation & remarks of the HoD (A): Can be assessed based on (i) number of feed backs taken in a semester (ii) % of students participated (iii) corrective actions taken for improving teaching effectiveness (iv) mode and criteria for evaluation etc. Verify the file containing faculty evaluation and action taken on it. Mention the number of faculty evaluations conducted and mode & criteria in REMARKS column.

Conduct of Seminar & Mini project (A): Assess the conduct and evaluation of seminar/mini project for UG/PG according to relevant clauses in the ordinance. Verify whether proper references are done prior to selection of seminar topic and sample reports.

Conduct of Project/Thesis (A): Assess the conduct and evaluation of project/thesis for UG/PG according to relevant clauses in the ordinance. Verify whether proper references are done prior to selection of project topics and sample reports.

Faculty with Ph.D for the program (A): Verify the faculty list and rate as EXCELLENT if one Ph.D faculty is there for each PG program. Else rate it as POOR.

Students attending MOOC or other online courses (B): Verify the file showing the details of UG/PG students undergoing/undergone MOOC courses with relevant proof. It can be rated as EXCELLENT if at least 10% of UG students and 50% of PG students are there in the list. The rating can be changed as GOOD etc. according to the variation.

5.3 INTERACTION WITH STUDENTS

Syllabus coverage (B):

Conduct of Labs (B):

Assessment (B):

Interaction and discussion (A)

Approach of the management/institution in addressing student grievance (B):

Availability of Faculty for all subjects (A):

Any other remarks (C):

Extra fees/fine imposed on students (B):

The above parameters may be assessed after the interaction with students and then to be rated accordingly. **Regarding extra fees/fine, grading need not be given.** Only specific remarks be given against the column.