Ref: ITMU/DAO/2020-21/1023   Dated: 05-05-2021

Academic Audit
(2020-2021)

**Prof. (Dr.) Ranjeet Singh Tomar, Professor SOET, Chairman**

Members (Subject Experts):

- Prof. Shyam Akashe, Professor, SOET
- Prof. Richa Kothari, Professor, SOS
- Prof. Indu Mazumdar, Professor, SOSE
- Prof. Subodh Kumar Dubey, Professor, SOP
- Prof. Mukesh Kumar Pandey, Professor, SOET
- Prof. Sonia Johri, Professor, SOS
- Dr. Mini Anil, Professor, SONS
- Dr. Shama Parveen, Associate Professor, SOAG
- Dr. Shivom Singh, Associate Professor, SOS
- Mr. Keshav Kansana, Associate Professor, SOM
- Dr. Vandana Bharti, Associate Professor, SOM

Schedule of Academic Audit:

The schedule for the Academic Audit is planned as follows:

S. No.	School	Pre Session	Mid Session	End Session	Academic Review Committee
1	SOET	06-07-2020	23-11-2020	22-04-2021	1. Prof. Ranjeet Singh Tomar 2. Dr. Vandana Bharti 3. Prof. Mukesh Kumar Pandey
2.	SOM	07-07-2020	24-11-2020	23-04-2021	1. Prof. Ranjeet Singh Tomar 2. Prof. Shyam Akashe 3. Dr. Vandana Bharti
3.	SOS	08-07-2020	25-11-2020	24-04-2021	1. Prof. Ranjeet Singh Tomar 2. Prof. Subodh Kumar Dubey 3. Dr. Richa Kothari
4.	SOP	09-07-2020	26-11-2020	26-04-2021	1. Prof. Ranjeet Singh Tomar 2. Dr. Shivom Singh 3. Prof. Subodh Kumar Dubey
5.	SOSE	10-07-2020	27-11-2020	27-04-2021	1. Prof. Ranjeet Singh Tomar 2. Dr. Keshav Kansana 3. Prof. Indu Mazumdar
6.	SONS	11-07-2020	28-11-2020	28-04-2021	1. Prof. Ranjeet Singh Tomar 2. Prof. Sonia Johri 3. Prof. Mini Anil
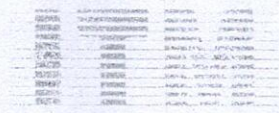
7	SOAG	13-07-2020	30-11-2020	29-04-2021	1. Prof. Ranjeet Singh Tomar 2. Prof. Sonia Johri 3. Dr. Shama Parveen

Report of Academic Audit of School of Science (SOS)
(2020-2021)

Preface:

The academic audit of teaching schools / departments of ITM University, Turari campus was conducted (online) by the Audit Team as per the order issued by Hon'ble Vice Chancellor vide letter no 1893 Dated February 16, 2021. For the effectiveness of the academic audit, the audit team was separate for the two campuses i. e. Sithouli and Turari. The committee constituted of a Chairman who is Senior Professor of Engineering & Technology and members of the various schools who were subject experts.

The main objective of the academic audit was to ascertain the presence and adequacy of the quality benchmark of various parameters stipulated by National Assessment and Accreditation Council.
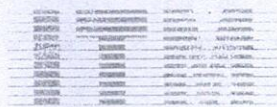
Documents to be verified:

1. Adherence to Academic Calendar
2. Number of faculty members in the school
3. Cadre ratio in the school
4. Load distribution of the semester/trimester/annual
5. Time Table
6. Course files
7. Quality of assignments given to the students
8. Quality of midterm and end term examinations
9. Feedback collected and ATR
10. Attainment of CO, PO, PSO and PEO
11. Up-gradation of Syllabus if required
12. Status of equipment and consumables in the Laboratory

The audit teams held separate meetings with the Dean and members of the faculty. The reports are compiled and appended.

The audit parameters were categorized under various categories as follows.
Pre-Semester Audit:

➢ Steps followed in the designing of syllabus and curriculum.
➢ Submission of BOS minutes in Dean Academics office with proof of changes made in the curriculum and syllabus.

- ➤ POs embedded in the curriculum and COs embedded in the syllabus of each subject.
- ➤ Assignment of all the subjects to teachers at least 15 days prior to the commencement of Semester, Trimester or year (while assigning the subject the choice of the subject by the faculties to be taken into consideration by subsequent meeting and discussion).
- ➤ Release of Academic calendar and its alignment with the University Calendar.
- ➤ Internal assessment – components, marks allocated, Quality of Mapping to COs-Uniqueness.
- ➤ Uploading the schemes on MIS portal prior to the commencement of new semester.

During Semester Audit:
- ➤ Selection of teaching pedagogy and use of appropriate teaching aids.
- ➤ Conduction of continuous assessment components as per the schedule, evaluation of answer sheets and showing the evaluated answer sheets to the students.
- ➤ Evaluation of student's progress, communicating the progress to the parents and conducting parent-teacher meetings.
- ➤ Monitoring students' attendance and communicating the same to the parents.
- ➤ Planning and conduction of workshops included in the curriculum as per the schedule announced in the academic calendar.
- ➤ Allocating students to the teachers for Research Projects, finalizing topics for research.
- ➤ Preparing students' support system – planning remedial and coaching classes.
- ➤ Completing the internal assessment, evaluating answer sheets, assignments and projects and showing the evaluated sheets to the students.
- ➤ Uploading the marks on MIS at least 7 days prior to the commencement of term-end examination.
- ➤ Ensuring the implementation of the Examination eligibility rules based on attendance and internal assessment.
- ➤ Collecting Feedback from the students.
- ➤ Steps taken according to the feedback.
- ➤ E-learning modules – follow up and ensuring examination is conducted on time.
- ➤ Ensuring that the Research Projects are submitted and evaluated on time.
- ➤ Submission of research papers or patents on the basis of Research Projects.
- ➤ Release of time table, frequency of changes in time table.
- ➤ Uploading the events and research work (research papers, patents and chapters etc.) on MIS portal.

End of Semester/Trimester Audit:
- ➤ Preparation of Question Papers with embedded COs and Blooms Levels.
- ➤ Evaluation of Answer Sheets within ten days of the completion of examination.

➢ Declaration of results within 15 days of the completion of examination.
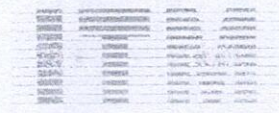
Audit of the Students Profile:

➢ Demand ratio (Applications received Vs Sanctioned Strength).

➢ Attendance records – Quality of Records maintained, average attendance, cut off attendance for mid-term and end term Exams.

➢ Students' involvement in extra-curricular & Co- curricular activities.

➢ Records of the Study tour / industrial visits / exhibitions / Internship / Training.

➢ Records of the Students Achievements.

➢ Records of the Final Placement, higher education and Entrepreneurship of the Students.

➢ Analysis of the Final placements and identification of weak areas, strategies for improvement.

School of Science (SOS):

The Academic Audit committee reviewed the Academic progress of the School of Science (SOS) which included the syllabus, faculty status, employability of the course, facilities availableetc. The Dean gave a brief outline of the courses and its prospects.

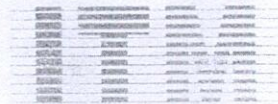The school offers following courses:

1. B. Sc. (Hons.) Biotechnology
2. B. Sc. (Hons.) Microbiology
3. B. Sc. (Hons.) Food Technology
4. B. Sc. (PCM/CS)
5. M. Sc. (Biotechnology)
6. M. Sc. (Food Technology)
7. Ph.D. (Sciences)

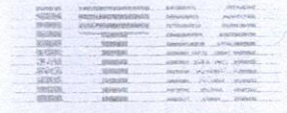| Criterion	Items	Verification Yes / No	Comments	Suggestions for improvement
Pre-Semester Audit	Steps followed in the designing of syllabus and curriculum	Yes	Supporting document presented	1. Elective courses to be approved in BOS. 2. Feedback reports
	Submission of BOS minutes in Dean Academics office with proof of changes made in the curriculum and syllabus	Yes	Submitted	
	POs embedded in the curriculum and COs embedded in the syllabus of each subject	Yes	Seen COs and POs in curriculum	

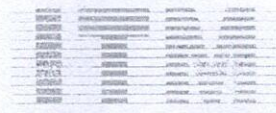|				
	PBL, ABCA and Assignments of all the subjects to teachers at least 15 days prior to the commencement of Semester, Trimester or year (while assigning the subject the choice of the subject by the faculties to be taken into consideration by subsequent meeting and discussion)	Yes	Distributed subject as per guidelines	Periodically review the subject assignments on LMS
	Release of Academic calendar and its alignment with the University Calendar	Yes	School Calendar is aligned with University Academic Calendar	Suggested to overcome the delay in execution (due to online mode)

	Internal assessment – components, marks allocated, Quality of Mapping to COs – Uniqueness	Yes	CO and BL included in the midterm assessment	CO -PO Mapping also included in the other assessment
During Semester Audit	Selection of teaching pedagogy and use of appropriate teaching aids I. Case studies II. Role Playing III. Simulations IV. Technology Enhanced Learning V. Collaborative Learning VI. Cross-Disciplinary Learning VII. Online Guest Lectures VIII. Seminar Presentations	Yes	I. Simulations II. Cross-Disciplinary Learning III. Collaborative Learning IV. Online Guest Lectures V. Seminar Presentations	Integrate digital tools, multimedia resources, and online platforms to support students learning and engagement

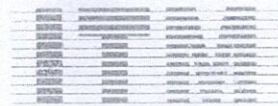|				
	Conduction of continuous assessment components as per schedule, evaluation of answer books and showing the evaluated answer sheets to the students	Yes	Conducted through LMS as per schedule defined	
	Evaluation of student's progress, communicating the progress to the parents and conducting parent-teacher meetings	Yes	Conducted	

	Monitoring students' attendance and communicating to the parents	Yes	Documentary evidence provided	
	Planning and conduction of workshops included in the curriculum as per the schedule announced in the academic calendar	Yes	Planned and conducted workshops as per schedule	
	Allocating students to the teachers for Research Projects, finalizing topics for research	Yes	Documents Presented	

Preparing students' support system – planning remedial and coaching classes	Yes	Conducted		
Completing the internal assessment (PBL/ABCA), evaluating answer sheets, assignments and projects and showing the evaluated sheets to the students	In-process	In-process	More follow up action is required to complete the assessment and evaluation of answer sheets within deadlines	
uploading the marks on MIS at least 7 days prior to the commencement of end-term examination	In-process	In-process	More Follow up is required	
Ensuring the implementation of the Examination eligibility rules based on attendance and internal assessment	Yes	As per guidelines		

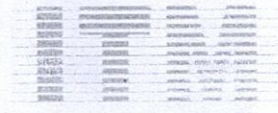|			
Collecting Feedback from students: I. Content Based Feedback a. Alumni b. Student c. Faculty d. Entrepreneur II. Student Satisfaction Survey (SSS)	Yes	Evidence provided	ATR to be submitted by the Dean of School
Steps taken on the feedback of students and faculty	Yes	Feedback collected through MIS and analyzed	ATR needs to be submitted
E-learning modules – follow up and ensuring examination is conducted on time	Yes	Followed as per schedule	More Follow up is required
Ensuring that the Research Projects are submitted and evaluated on time	Yes	Evidence provided	
Submission of research papers or patents on the basis of Research Projects	Yes	Evidence provided	Suggested to acknowledge students' achievements when

				manuscripts are accepted for publication or patents are granted
	Release of time table, frequency of changes in time table	Sometimes changes at least 2-3 times	Approval of competent authority is presented	
End of Semester/Trimester Audit	Preparation of Question Papers with embedded COs and Blooms Levels	Yes	Submitted to Exam Cell	Proper instructions must be provided to the faculty members for the preparation of question papers with embedded COs and Blooms Level

	Evaluation of Answer Sheets within ten days of the completion of examination	Yes	Partially evaluated	Proper instructions must be provided to the faculty members to evaluate the answer sheets within deadlines
	Declaration of results within 15 days of the completion of examination	-		More Follow up is required
Audit of the Students Profile	Demand ratio (Applications received Vs Sanctioned Strength)	> 1	Interview to be conducted to screen good students	
	Attendance records – Quality of Records maintained, average attendance, cut off attendance for mid-term and end term Exams.	60-70%	Needs to be improved	
	Students' involvement in extra-curricular & Co-curricular activities	Yes	Students participation to be improved in co curricular activities	

Records of the Study tour / industrial visits / exhibitions / Internship / Training	Yes, participated in Internships and Training (Online)	Documents submitted	
Records of the Students Achievements	Yes	Evidence provided	
Records of the Final Placement, higher education and Entrepreneurship of the Students	Yes	Evidence provided	
Analysis of the Final placements and identification of weak areas, strategies for improvement	Yes	Planned, needs improvement in documentation	

Recommendation of Academic Audit:

Pre- Semester Audit:

- Uploading all the schemes on MIS portal prior to the commencement of new semester.
- Percentage change in the syllabus needs to be mentioned.
- CO-PO mapping needs to be done with articulation matrix.
- The minutes of the meeting for subject allocation need to be prepared.
- The academic calendar is aligned with the University Calendar but needs to be uploaded on MIS.
- PBL, ABCA activities and assignment schedule along with the submission date needs to be uploaded on LMS.
- The next BOS meeting needs to be done by end of May 2021 so that it can be approved in Academic Council meeting. PO and CO will be embedded and updated in this upcoming BOS.
- Session plan should be duly prepared and approved by competent authority.
- Notice to be issued by the Dean for viewing of answer sheets after evaluation and the dates should be mentioned in the notice on MIS and notice board.

During Semester Audit:

- Selection of teaching pedagogy and pedagogical tools were used in the curriculum but needs to be strengthened. The Dean has assured its implementation. Some activities were suggested.
- It was suggested that the parents should come at anytime during the session if not available on a particular date of PTM. An online meeting may also be arranged for the same.
- Student support system needs to be strengthened. A separate record needs to be prepared for remedial classes.
- Steps taken in accordance with the feedback needs to be mentioned. The student feedback both curriculums based and institutional should be analyzed by the Deans and ATR to be prepared and implemented.
- The department has good research facilities. Faculties are involved in the research publications. More motivation is required for publications. Few publications by the faculty are listed. Affiliation of ITM University is mandatory if the publication needs to be apprised.
- Uploading the schedule of events on MIS portal prior to the commencement of new semester. After conduction of events, event report is also uploaded on MIS portal.
- Uploading the research work (research papers, patents and chapters etc.) on MIS portal whenever they got published.

End Semester audit:

- CO PO and Blooms taxonomy levels will be embedded in the curriculum and in the question papers.

- Follow up should be required to declare the result within time limit. Committee has suggested declaring the result within 15 days after completion of examinations.

Students Profile:

- Cut off attendance was 60% in the school for appearing in midterm and end term which will be gradually increased.
- Policy for student benefits regarding attendance if a student gets involved in co-curricular/extracurricular activities should be floated.
- Record of the Students achievements in terms of placement is maintained in the school.
- Data of the students reported to be employed after successful completion of the course needs to be maintained by alumni coordinator.
- The training and placement coordinator needs to mention new strategies for improvement in final placement statistics.
- The examination pattern may be reformed with due permission from academic council. One midterm may be conducted in online mode for students' benefit and facilitation of the teachers.
- MOOC/ SWAYAM platform may also be adopted for pre-final and final year students.

Prof. Richa Kothari
Member

Dr. Subodh Kumar Dubey
Member

Dr. Ranjeet Singh Tomar
Chairman
Dean
School of Engg. & Tech.
ITM University
Gwalior

Dr. Omveer Singh
Registrar
REGISTRAR
ITM UNIVERSITY
Gwalior (M.P)