



# ST. JOSEPH'S

COLLEGE OF ENGINEERING  
AND TECHNOLOGY,  
- PALAI -

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Cycle 1 - NAAC Accreditation 2023

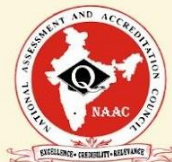
Criterion - 2

## Teaching- Learning and Evaluation

2.5.1 Evaluation Process and Reforms

Mechanism of internal/ external assessment is transparent and the grievance redressal system is time- bound and efficient

*Submitted to:*



**National Assessment and Accreditation Council**



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## Criterion - 2

### 2.5.1 Evaluation Process and Reforms

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1	<u>Internal assessment mechanism, frequency, and mode</u>
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3	<u>Mechanism to deal with internal/external examination-related grievances</u>
4	<u>Department of Computer Science &amp; Engineering</u>
5	<u>Department of Mechanical Engineering</u>
6	<u>Department of Civil Engineering</u>
7	<u>Department of Electrical &amp; Electronics Engineering</u>
8	<u>Department of Electronics &amp; Communication Engineering</u>
9	<u>Department of Electronics &amp; Computer Engineering</u>
10	<u>Department of Artificial Intelligence &amp; Data Science</u>
11	<u>Department of Computer Science &amp; Engineering (Cyber Security)</u>
12	<u>Master in Business Administration</u>
13	<u>Master of Computer Applications</u>



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# NAAC

## Criteria 2.5.1

# Evaluation Process and Reforms



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## 2.5.1 Mechanism of internal/ external assessment is transparent and the grievance redressal system is time-bound and efficient

### Internal assessment mechanism, frequency, and mode:

As the institution is affiliated with APJ Abdul Kalam Technological University, the division of marks for internal and external assessment follows the guidelines mentioned in the syllabus provided by the university. Mark division for the majority of Theory courses is as given below:

- PG Courses (Total 100 Marks):
  - Internal Assessment: 40 Marks
  - University Examination: 60 Marks
- UG Courses (Total 150 Marks):
  - Internal Assessment: 50 Marks
  - University Examination: 100 Marks

The examination cell of the institution will track for any reforms at the university level and makes appropriate changes in the internal evaluation system for UG and PG programs. All the changes are informed to the students through circulars with transparency.

The University prescribes the academic schedule for every semester that should be followed by the affiliated institutions. The academic calendar is published by the University before the commencement of the semester classes. An institution calendar is also prepared which includes all the academic and non-academic schedules of activities and circulated to all the faculty members and students through the college handbook every year. In addition to events proposed by the university in the academic calendar, the Institute conducts several other programs which are useful for achieving the POs & PSOs.

The Internal Assessment dates for theory and lab are planned well in advance and displayed in the academic calendar and it strictly adheres to that unless any circumstances or unavoidable situations appear on those planned dates. Written-test, practical tests, quizzes, Assignments, Projects, and Seminars are the modes of conducting Internal Assessments.

The institute will conduct two Internal Assessment Tests for students and the same will be informed to students through circular which will be generally according to Academic Calendar. For some special courses for which University Examinations are not required, the entire weightage is given to internal assessment methods.

#### **Direct assessment tools**

- Continuous Internal Evaluation
  - i. Internal assessment tests
  - ii. Assignments/ seminars/ quizzes

- End-semester examination

#### **Indirect assessment tools**

- Course exit survey



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The assessment tools and data collection methods used are listed in Table.

Assessment Tools	Assessment Criteria	Data Collection	Faculty Responsible
Continuous Internal Evaluation	Performance of two internal assessment tests and assignments	After the completion of every assessment test and the submission of each assignment.	Course handling faculty
Course Exit Survey	Filling up of course exit survey	After completion of the course.	Course handling faculty
University Result	The grade obtained in the University exam.	After the publication of the University result.	Course handling faculty

Table: Assessment Tools and Data Collection Methods

### Assessment process of theory course:

Assessment of the theory course is been carried out using direct and indirect assessment tools. Direct assessment tools include two internal assessment tests, two (R 2019) or three (R 2015) assignments/seminars/Quizzes, and the grades secured in the University examination. Indirect attainment is done through a course exit survey.

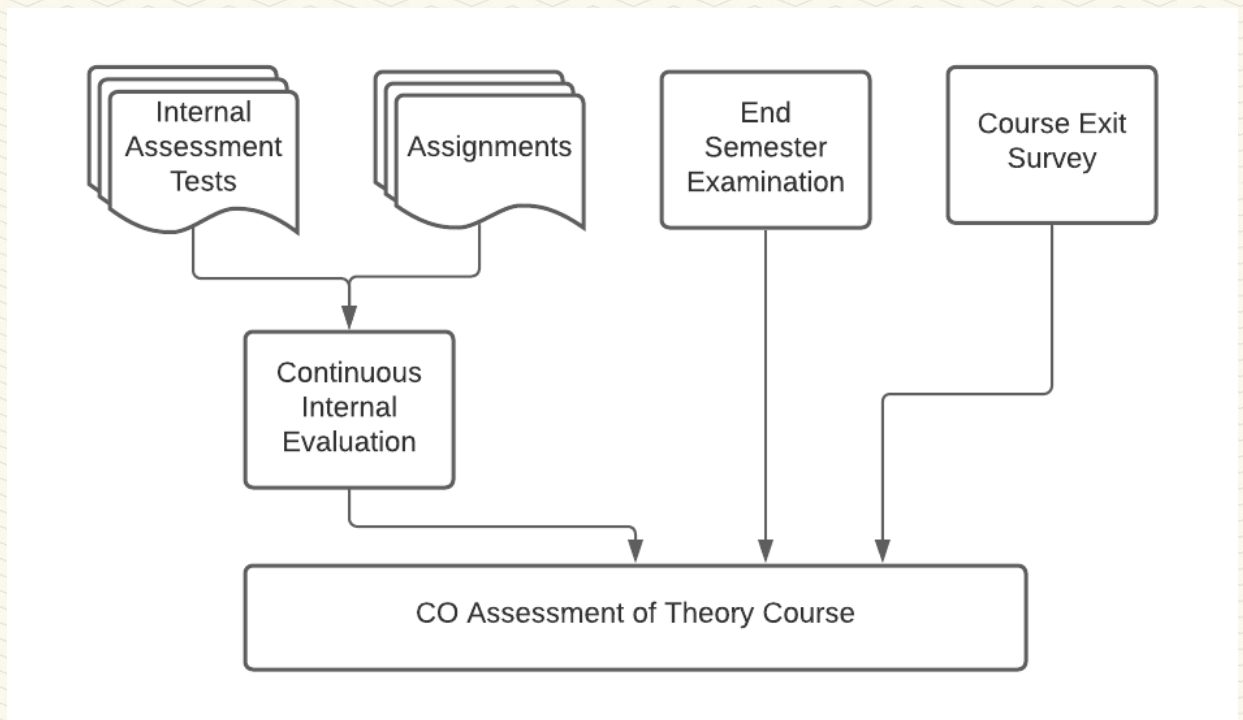


Figure : Process of CO Assessment of Theory Course



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## **Continuous Internal Evaluation:**

Continuous internal evaluation of a student is carried out by conducting internal assessment tests and assignments/quizzes/seminars. Internal marks are calculated from Internal Tests, Assignments, and Attendance. Internal Tests are conducted in offline mode except when pandemic-induced lockdowns. For Theory courses, two Internal Tests, are conducted, each one covering half of the syllabus. All exams adopt a closed-book written format. Assignments for different courses are conducted in different ways like written assignments, online submissions, case studies, micro-projects, etc.

Internal Assessment Mark division for Theory courses in the UG program (Latest Scheme):

- Internal Exams (50% Marks)
- Assignments (30% Marks)
- Attendance (20% Marks)

### **Internal Assessment Test**

- Two internal assessment tests are scheduled in accordance with the academic calendar.
- The entire exam schedule is supervised by the Exam cell.
- The course handling faculty prepares the question paper for the respective course mapped with corresponding COs and knowledge level in accordance with the revised blooms taxonomy and is submitted to the scrutiny committee to verify the quality and correctness of the question paper and shall be approved by HoD.
- The question paper will be collected by the exam cell coordinator of the department well in advance and forwarded to the exam cell.
- The course-handling faculty prepares an evaluation scheme/answer key for each test and evaluate the performance of students as per the evaluation scheme.

### **Assignment/Seminar/Quiz**

- The assignments are planned by the course handling faculty while preparing the course plan.
- The assignment questions are mapped with corresponding COs and knowledge level.
- A minimum time is provided to the students for completing the assignments.
- Bright students are encouraged to present seminars on topics of interest relevant to the course.

### **End Semester Examination**

- Conducted as per the University schedule after the completion of the semester.
- The question paper setting, answer script evaluation, and result publication are done by the University.

### **Assessment process for Laboratory courses**

- Each student is provided with a computer system for working out the experiments.
- Students come well-prepared with the procedure/algorithm of the experiment.
- The students are permitted to take only the observation book inside the laboratory.
- For Laboratory courses, internal marks are calculated by considering the following factors:
  - Day-to-day performance during lab hours is recorded
  - Preparation of laboratory Workbook
  - Viva Voce sessions Internal Exam conducted at the end of experiment cycles



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## Performance, Viva, and Record

- Students should complete the experiment within the allotted time given to them. One week will be given to complete the experiment given in a particular day. They can utilize the laboratory facility in the evening or afternoon in consultation with the course handling faculty if they are not able to complete the experiments in the regular lab timings.
- The students will record the program output and get it verified by the course handling faculty and submit it on or before the next lab session.
- In each lab session a viva, based on the experiment, will be conducted to test the technical knowledge of the student. It is either conducted as a quiz in LMS or as an oral viva.
- The student's continuous internal evaluation is based on the performance in the lab, viva, internal assessment test, and record/observation.

## End Semester Examinations

### R 2015

- At the end of the semester, an end-semester examination will be conducted internally by the college as prescribed by the University.
- Two examiners from the department other than the course handling faculty will conduct the lab examination.
- The examiners are appointed by the Head of the Department.
- After the examination, marks will be tabulated and the answer scripts and marks of the examination are sealed in a cover by the examiner who conducted the examination and the cover will be handed over to the examination cell coordinator of the department.

### R 2019

- After completion of the lab course an internal lab exam will be conducted by the course handling faculty.
- The end-semester examination will be conducted by the University by assigning internal and external examiners.

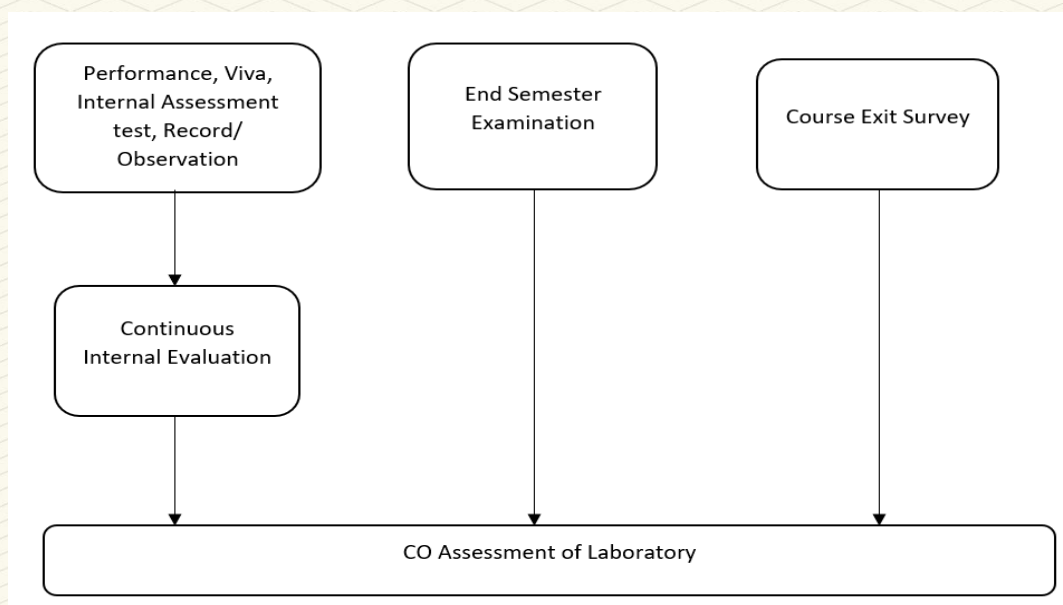


Figure: Process of CO Assessment of Laboratory courses

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## Assessment Process of Project and Seminar Work:

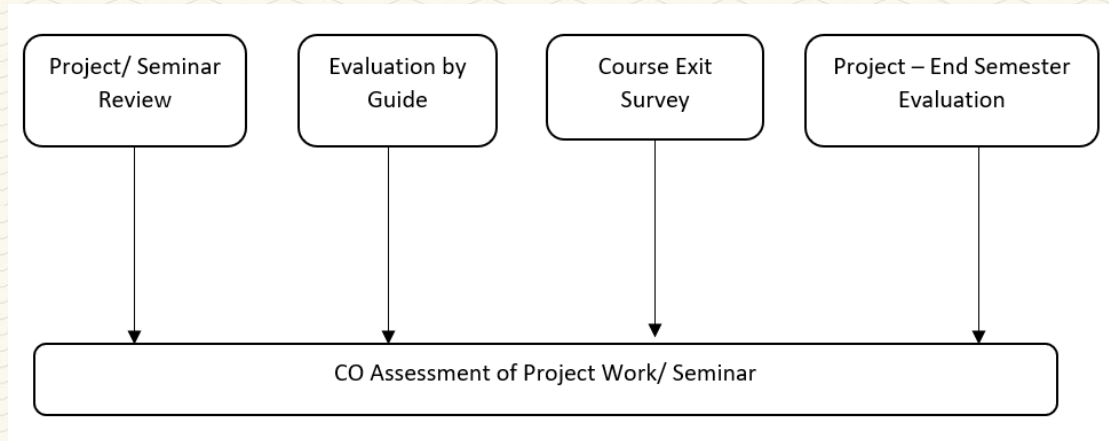


Figure: Process of Assessment of Project/Seminar

### Project/Seminar Review

- The project coordinator forms the project guidelines and evaluation rubrics.
- Project batches are formed based on the area of interest of the students.
- Internal guides are allotted to the project batches based on the specialization and competency skills of the faculty members and the area of interest of the students.
- A project evaluation panel is constituted by the Head of the Department to conduct the project reviews.
- The students will submit the project idea. The project evaluation panel will review and accept the project based on the feasibility and impact of the project.
- The evaluation panel members conduct two project reviews and submit the internal assessment marks to the Coordinator.
- The department encourages students to participate in technical expo/project competitions. The project guides motivate and guide the students to publish in standard conference/journal forums.
- The project coordinator motivates the students to apply for student project funding schemes from Government organizations/NGOs.
- Final assessment of the project is done through demonstration of the project with technical presentation. A project report should be submitted to the project evaluation panel.

### Evaluation by the guide

- Each internal guide will continuously monitor the project teams under him/her to observe the progress of the project work
- The project guide assesses the students based on their overall performance and the evaluation marks are handed over to the project coordinator.

### Course Exit Survey

Course exit survey for all courses is conducted after the completion of each course. A survey form is provided to the students by the course handling faculty which contains questions to measure the effectiveness of the course.

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## Transparency & Robustness of Internal Assessment:

The internal assessment mechanism is ensured to be transparent and robust by strictly adhering to the following procedure:

- During the Induction Program conducted at the start of the academic session for each batch, details regarding assessment mechanisms are conveyed to the students as well as their parents.
- Details regarding the split-up of the internal mark for every course are mentioned in the syllabus.

**Assessment Pattern**

Bloom's Category	Basic Electrical Engineering			Basic Electronics Engineering		
	Continuous Assessment Tests		End Semester Examination (Marks)	Continuous Assessment Tests		End Semester Examination (Marks)
	Test 1 (Marks)	Test 2 (Marks)		Test 1 (Marks)	Test 2 (Marks)	
Remember	0	0	10	10	10	20
Understand	12.5	12.5	20	15	15	30
Apply	12.5	12.5	20			
Analyse						
Evaluate						
Create						

### Mark distribution

Total Marks	CIE marks	ESE marks	ESE Duration
150	50	100	3 hours

### Continuous Internal Evaluation Pattern:

Attendance	: 10 marks
Continuous Assessment Test (2 numbers)	: 25 marks
Assignment/Quiz/Course project	: 15 marks

*Figure: Mark distribution of a Theory Course File*



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- Students can verify their attendance at any time for each registered course through Campus Management Software (eLive/Etlab software).

UNI Reg No	Roll No	Name	EEL334	EEL332	HUT300	EET302	EET304	EET306	EET312	SJCS6	EET308	SJCEE
SJC20EE014	14	ASHNA PIOUS	3/3 (100%)	6/6 (100%)	6/6 (100%)	16/16 (100%)	8/8 (100%)	11/11 (100%)	8/8 (100%)	1/1 (100%)	4/4 (100%)	4/4 (100%)

Figure: Etlab attendance in Student login

- Parents are also given access to monitor attendance through Campus Management Software (eLive/Etlab software).

UNI Reg No	Roll No	Name	EEL334	EEL332	HUT300	EET302	EET304	EET306	EET312	SJCS6	EET308	SJCEE
SJC20EE014	14	ASHNA PIOUS	3/3 (100%)	6/6 (100%)	6/6 (100%)	16/16 (100%)	8/8 (100%)	11/11 (100%)	8/8 (100%)	1/1 (100%)	4/4 (100%)	4/4 (100%)

Figure: Etlab attendance in Parents Login



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- Date for completion of the internal test is mentioned in the University academic calendar.

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**Academic Calendar - Jan 2020 to Aug 2020**  
(B.Tech, B.Arch, BHMCT, B.DeS, M.Tech, M.Arch, M.Planning, MCA and Evening B.Tech & M.Tech)  
Please see separate Academic Calendar for MBA  
(Bold Numbers in Class indicates Instructional days)

Jan-20				Feb-20				Mar-20				Apr-20			
Days	Date	Description	Class	Days	Date	Description	Class	Days	Date	Description	Class	Days	Date	Description	Class
Wed	1			Sat	1	Uty Athletic Meet		Sun	1			Wed	1		57
Thu	2	Mannam Jayanthi		Sun	2			Mon	2	Exam Registration & FE Registration ends	35	Thu	2		58
Fri	3			Mon	3		16	Tue	3		36	Fri	3		59
Sat	4			Tue	4		17	Wed	4	Test 1 to be completed	37	Sat	4	B.Tech S7 Exam Begins	
Sun	5			Wed	5		18	Thu	5		38	Sun	5		
Mon	6			Thu	6		19	Fri	6		39	Mon	6		60
Tue	7			Fri	7		20	Sat	7			Tue	7		61
Wed	8			Sat	8			Sun	8			Wed	8		62
Thu	9			Sun	9			Mon	9		40	Thu	9	Maundy Thursday	
Fri	10			Mon	10			Tue	10		41	Fri	10	Good Friday	
Sat	11			Tue	11			Wed	11		42	Sat	11		
Sun	12			Wed	12			Thu	12		43	Sun	12	Easter	
Mon	13	Commencement of class and registration	1	Thu	13			Fri	13	Last date for forwarding list of ext. Exmsrs to Uty by cluster conv.(PG)	44	Mon	13		63
Tue	14		2	Fri	14			Sat	14			Tue	14	Vishu Dr Ambedkar Jayanthi	
Wed	15		3	Sat	15			Sun	15			Wed	15		64
Thu	16		4	Sun	16			Mon	16		45	Thu	16	Test 2 to be completed	65
Fri	17		5	Mon	17			Tue	17		46	Fri	17	Last date for evaluation of practicals( PG)	66
Sat	18			Tue	18	Exam Registration & FE Reg begins		Wed	18		47	Sat	18		
Sun	19			Wed	19			Thu	19		48	Sun	19		
Mon	20	Course selection, reg and mapping begins	6	Thu	20			Fri	20		49	Mon	20		67
Tue	21		7	Fri	21	Mahasivarathri		Sat	21	Arts Fest (College level) to be completed		Tue	21		68
Wed	22		8	Sat	22			Sun	22			Wed	22	Publish IA marks for UG & PG	69

Figure: Schedule of Internal Test in Academic Calendar

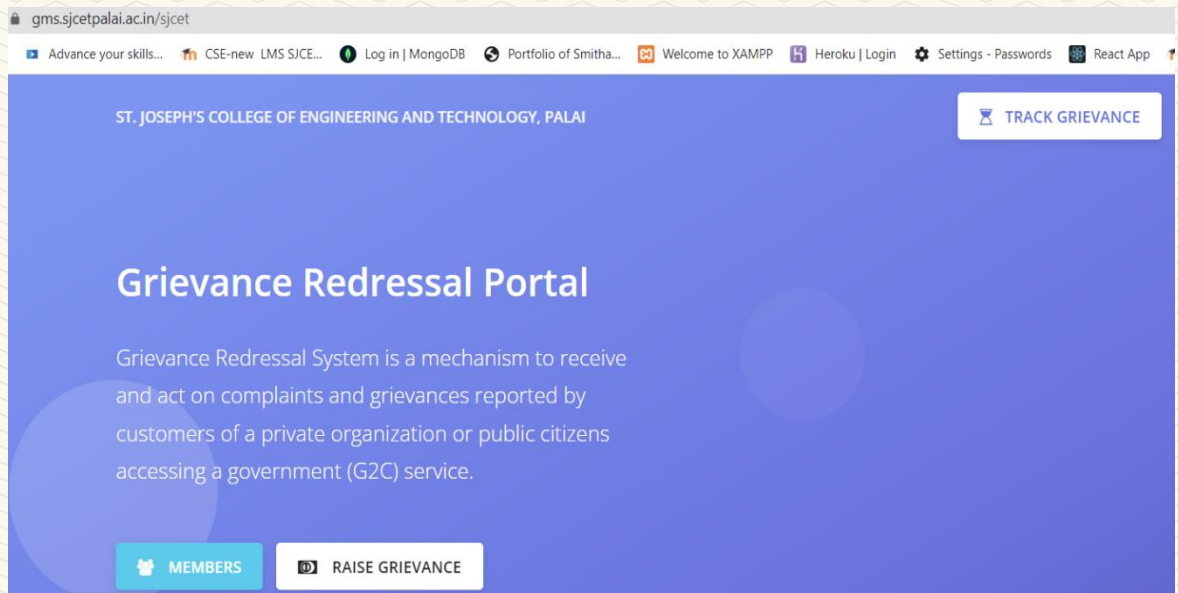
- Internal Test time table is published on the college notice boards and also communicated through a notice in the class, as well as the student WhatsApp group well in advance.
- Internal test answer sheets are returned after valuation along with mark split-up
- If exams are conducted in online mode, marks are published in Campus Management Software.
- Students are permitted to consult the course-handling faculty members for any clarifications or corrections regarding the awarded marks.



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- In case of any grievances, Students can submit the request to the faculty advisor, to bring it to the notice of HoD, for further clarifications.
- Details about the Grievance Redressal mechanism are given in the college Handbook and the students may register their grievances in the Grievance Redressal portal



*Figure: Home page of Grievance Redressal portal*

- For Laboratory courses, marks awarded based on students' daily performance are entered into the Campus Management Software.
- Continuous Evaluations Marks are entered in Lab Rough Record and students can verify the awarded marks in the software and in the rough record.
- After the internal assessment is complete, the internal marks are published in the Campus Management Software/ Department Notice board.
- Class Committee Meetings are held to finalize the internal marks awarded for each course.
- After publishing the internal marks, one day is given to students to approach the faculty for mark corrections before marks are finalized.
- Course handling Faculty has to get the sessional marks approved by Head of the Department before finalization.

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Mechanism to deal with internal/external examination-related grievances is transparent, time-bound, and efficient

## **Internal Examination related grievances:**

- Evaluated internal test answer sheets are returned to the students along with mark split-up. If any student has grievances about the awarded marks, he/she can approach the course-handling faculty in person, who will handle the grievance.
- If the student is not satisfied with the response, he/she can raise his/her concern to the Faculty Advisor.
- If the student is still unsatisfied, the issue can be taken up with the Head of the Department.
- Grievances that are still unsettled can be brought to the notice of the Grievance Redressal and Appeals Committee constituted by the Principal.
- The Committee can look into any exam-related decisions taken by the institute and advice rectifications if required.
- Every issue that comes before the committee is settled within a fixed time frame.
- Students who missed an internal exam due to permitted genuine reasons can request for a retest through the Faculty Advisor and Head of the Department
- Grievances related to Published Internal marks may be included

## **University Examination related grievances:**

- The mechanism to handle external examination-related grievances depend upon the stage at which they are raised.
- Different mechanisms associated with each stage are explained below:

### **Before the start of the Examination:**

- After the start of the pandemic, University has given a provision for students to select an institute near to their home as an exam centre to reduce the extent of travel.
- Students can apply for exam centre change through the University website. Once the Principal approves these requests, University will consider the request for approval.

### **During the conduct of the Examination:**

- Invigilator reports any unfair practice during the conduct of examination to the Chief Superintendent of Examinations of the institute.
- He/she will refer it to the Principal who will in turn refer it to Grievance Redressal and Appeals Committee.
- Grievance Redressal and Appeals Committee will conduct an inquiry and submit a report within one week of the incident.
- This report is submitted to the University and action will be taken.
- During the examination, if any serious anomaly is found in the Question paper, the query raised by the student is verified and reported immediately to the University.
- Reply from the university during the examination is distributed to concerned students.



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## **After the conduct of the Examination:**

- If the examination has out-of-syllabus questions, representation can be given by students to University. Such representations should follow the approval hierarchy of the Staff-in-charge of the subject, Head of the Department, and Principal.
- University will check the issue and make necessary modifications to the Scheme of Valuation. After an examination is over, University emails the question paper and Scheme of Valuation to the faculty who handled that course.
- Faculty can suggest corrections to the Scheme of Evaluation directly to the University through email. During the start of valuation camp, examiners can suggest corrections in Scheme of Valuation to University through Valuation Camp officials.

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