2.5.4 Positive impact of reforms on the examination procedures and processes including IT integration and continuous internal assessment on the examination management system

UPES has a well-established and efficient evaluation system with different types of assessments spread through the duration of each semester. The processes related to the conduct of examinations, declaration of results and award of degrees are controlled and monitored by the Students Records and Evaluation Department of the University in collaboration with Faculty and Schools.

UPES continuously improves the examination processes through various reforms implemented after deliberations in its regular Academic Council meetings as well as from feedback it receives from students, academic experts and various guidelines and notifications received from UGC in last 5 years that have made positive impact on Examination Management.

At UPES, the following reforms on the examination procedures and processes including IT integration and continuous internal assessment on the examination management system:

1. **Creation of Online Student Portal -** resulted in enhancing students experience as students can:
   - Access all notifications and formats online
   - Download Grade Cards
   - Make online payment for all kinds of fee through fee cart
   - Pre- Register and upload documents after seat allotment
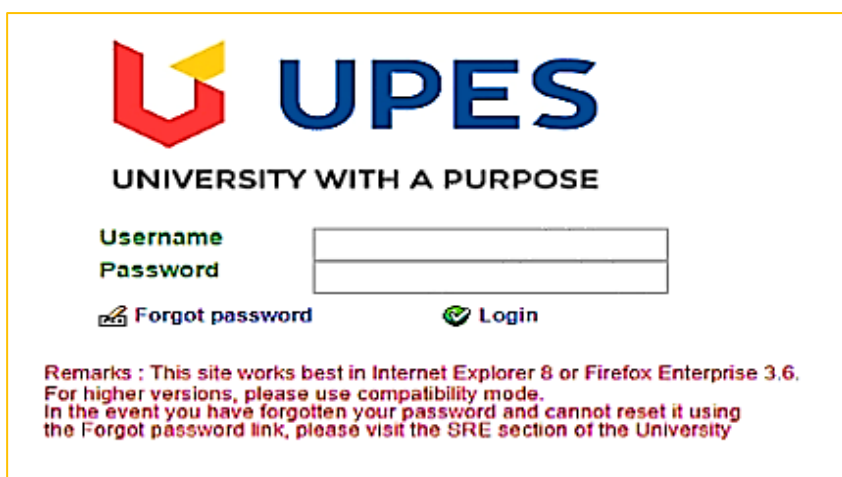   - Re-Registration for progression to next semester
   - Access Help Desk

Fig.1 – Student portal login page

2. **Student Records and Evaluations Online Helpdesk-** Students can log in a issue/query online via the Student Online portal (access allowed to both students and parents) for services such as, Biometric Id Cards, Date Sheets/ Result Declaration/Grade Cards Download, Fee Payment, Re-evaluation

form/process, Request of Bonafide/Migration Certificate/Percentage Conversion Certificates, Degree Collection/Verification.

The Online Helpdesk allows students to register and pay fee from anywhere online through student portal, maintains accurate logs of students' queries and improves students' satisfaction for facilitating online convenience
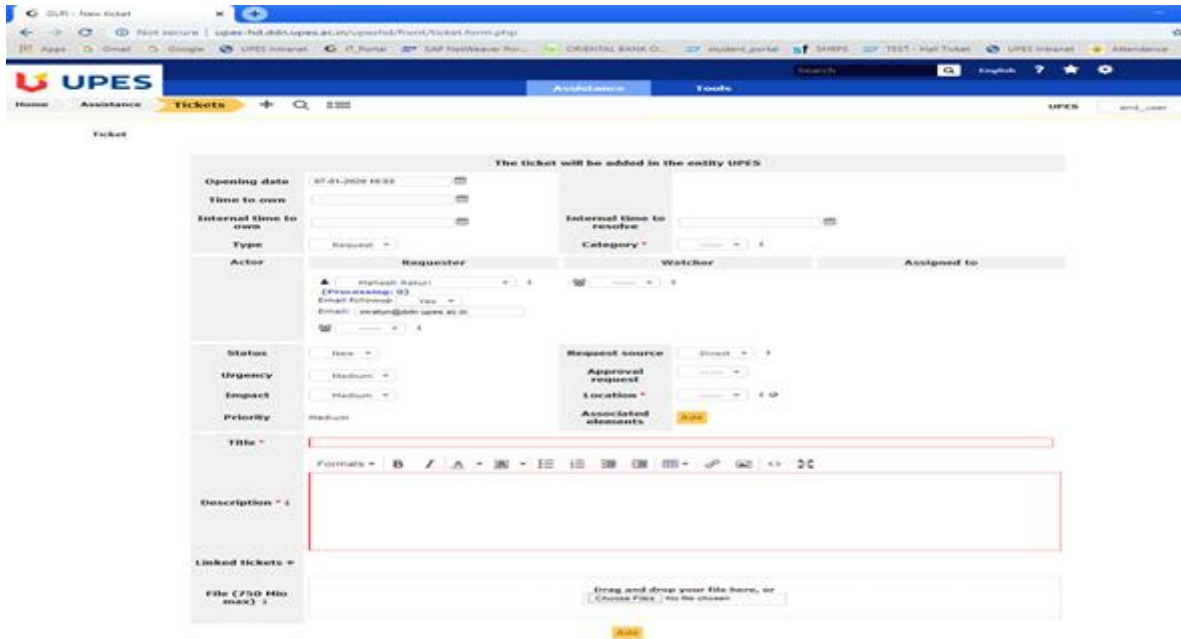

Fig.2 – Student's online helpdesk

3. **Automation of Question Paper receiving Process-** Served as effective time management with ensuring utmost confidentiality of the process and optimization of logistics efforts.
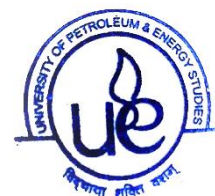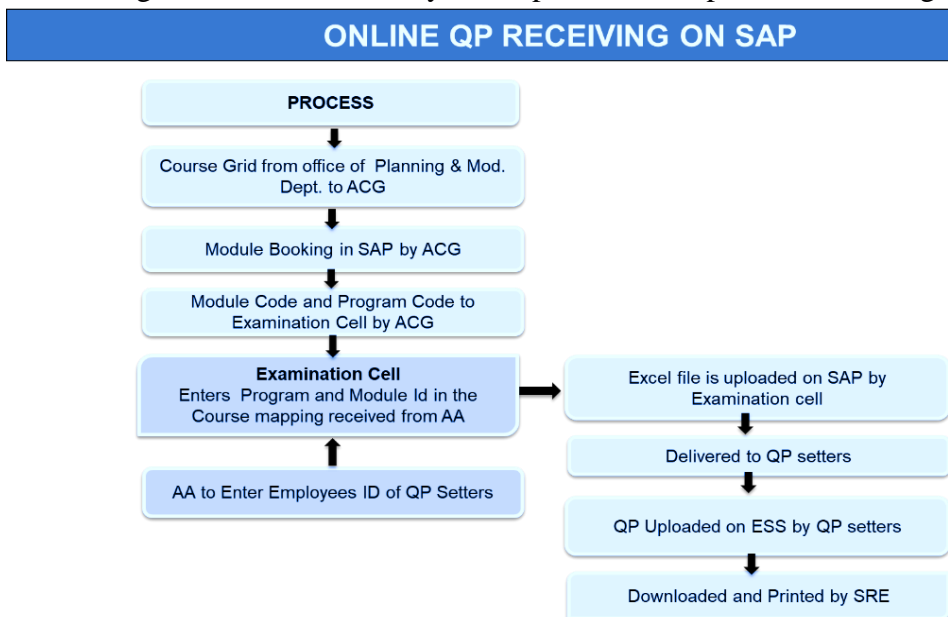

Fig.3 – Online QP receiving on SAP

4. Online Registration for Supplementary Exam

- Students can register and pay from anywhere online through student portal
- Saving man hours for manual data preparation and ensuring accuracy of data
- Improved students satisfaction for facilitating convenience

Step # 1 : Login to student portal
Step # 2 : Window will appear to choose subjects
Step # 3 : Choose subjects you want to appear
Step # 4 : Pay U window will appear
Step # 5 : "Payment successful" window will appear on successful approval by the concerned bank
This completes your registration process & hall ticket can be downloaded before exam

Fig.4 – Online registration for Supplementary

Fig.5 – Student's portal payment window

5. Process Optimization by reducing Re-evaluation result declaration timeline from 30 days to 15 days- Students are benefitted in terms of planning supplementary registration or improvement of grades.

6. Open Book/Books Examination for specific Courses

- Students get challenged and tend to go for thorough studies
- The practice brings out best in students
- Students focus shifts from memorizing information to analyzing and solving problems by applying knowledge

7. Year Back Policy Revision: Students go to YB Category only if their backlog is more than 3 courses (excluding Lab Courses)

- Reduced number of Year Back Students

- Academic progression is not affected if a student fails to pass 1/2 credit lab courses

8. **10 point Grading System in accordance to UGC guidelines has been implemented across the University-** Serves as student's convenience for acceptable norms across all UGC governed Universities.

Table 1 – 10 point grading system

Grade	Grade Abbreviation	10-Pt
O	Outstanding	10.0
A+	Excellent	9.0
A	Very Good	8.0
B+	Good	7.0
B	Above Average	6.0
C+	Average	5.0
C	Pass	4.0
F	Fail	0
Ab	Fail	0.00

9. **Improved Evaluation Process Transparency-** All evaluated answer scripts are shown to students by respective faculty across the University to help understand his/her performance. The practice has reduced students' grievance application and overall students' satisfaction in the evaluation process.
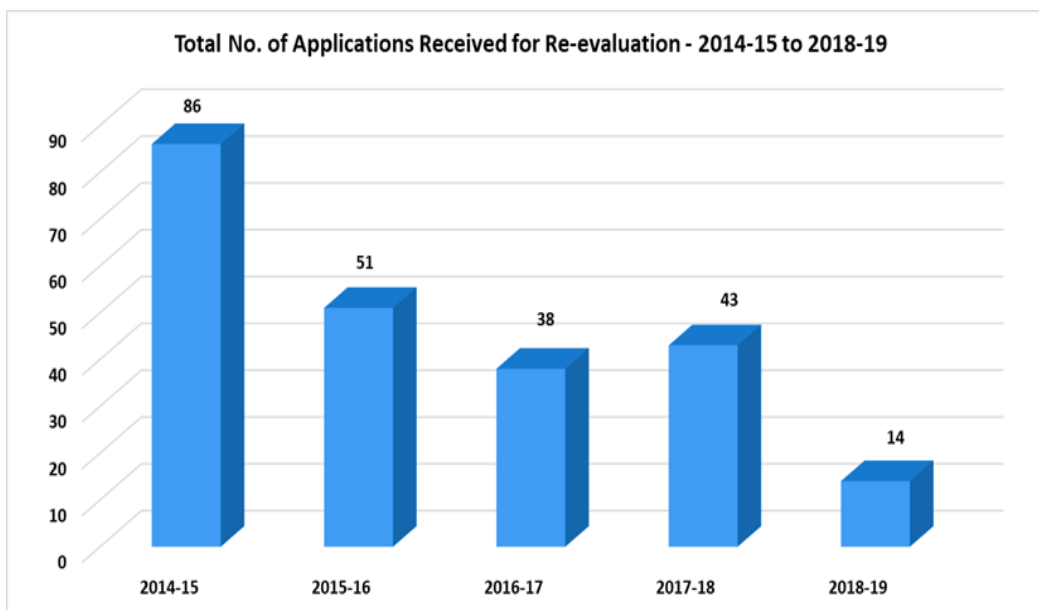

Fig.6 – Applications received for Re-evaluation 2014-19

10. **Shifting Lab Examination to Continuous Evaluation Mode-**
- Saving teaching hours as separate lab examination window is not required
- Improved students attendance and approach towards routine lab hours
- Continuous performance evaluation for practical courses ensures better involvement of students.

11. Amendment in Progression Policy and Passing Criteria-

Progression Policy: Progression from Semester I to II to III to IV will be automatic irrespective of SGPA secured for PG Students. For UG students progression policy has been rationalized on the basis of minimum credits earned on yearly basis. (Cumulative credits to be earned: 50%- in Ist Year, 60%-upto IInd Year, 70%-upto 3rd Year and 80% upto 4th Year).
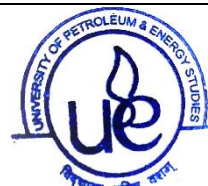
Table 2 – Progression policy and passing criteria

Progression to	Minimum credits to be earned
II Year	Earn 50% credit of (Y1)
III Year	Earn 60% credit (cumulative) of (Y1 and Y2)
IV Year	Earn 70% credit (cumulative) of (Y1,Y2 and Y3)
V Year	Earn 80% credit (cumulative) of (Y1,Y2,Y3 and Y4)
VI Year	Earn 80% credit (cumulative) of (Y1,Y2,Y3,Y4 and Y5)

Passing Criteria: For UG students: scoring less than 35 absolute marks in individual course either in end semester examination or as composite score shall be awarded as 'F'. For PG students: scoring less than 40 absolute marks in individual course either in end semester examination or as composite score shall be awarded as 'F'. Relative grading system continues with defined threshold for outstanding (O) and minimum (C). Relative grading system is to be adopted for batch size above 30.

- A student as per new policy will get reasonable number of supplementary exam chances before getting into an Year Back Status
- Students will strive to meet minimum passing criteria bar for all courses before progression
- A student will get highest (O) outstanding grade only if he scores the benchmark of outstanding grade and passing grade (C) only if he scores marks. The process shall define individual performance in relative grading system ensuring greater student's satisfaction.

Table 3 – Progression policy and passing criteria

Program Type	Batch Size	Grading Type	Marks to be scored in End and Composite score*	Marks to be scored in Composite score*	Min GPA to clear semester or program
			Min Pass Grade - 'C'	Max Grade – 'O'	
UG	<=30	Absolute	35	85	5.00
	>30	Relative			5.00
PG	<=30	Absolute	40		6.00
	>30	Relative			6.00
* Composite Score = IA + MID + END					

12. Conducting Mid Semester Examination at School level-
- Schools get an opportunity to plan and maximize academic hours in sync with Mid Semester Examination
- Promotes decentralization
- Schools can use innovative methods of assessment for different courses

13. Smart Degree Certificate- With Superior synthetic resin paper (anti copy, tamper and chemical resistant feature, water and tear proof quality, precision engraving technology for negative water mark creation) and following advanced security features ensure quality to the document
- High resolution design secures from scanning and copying
- QR code with specifics of student, Hologram and National Identification Code (Aadhar Number) add security features
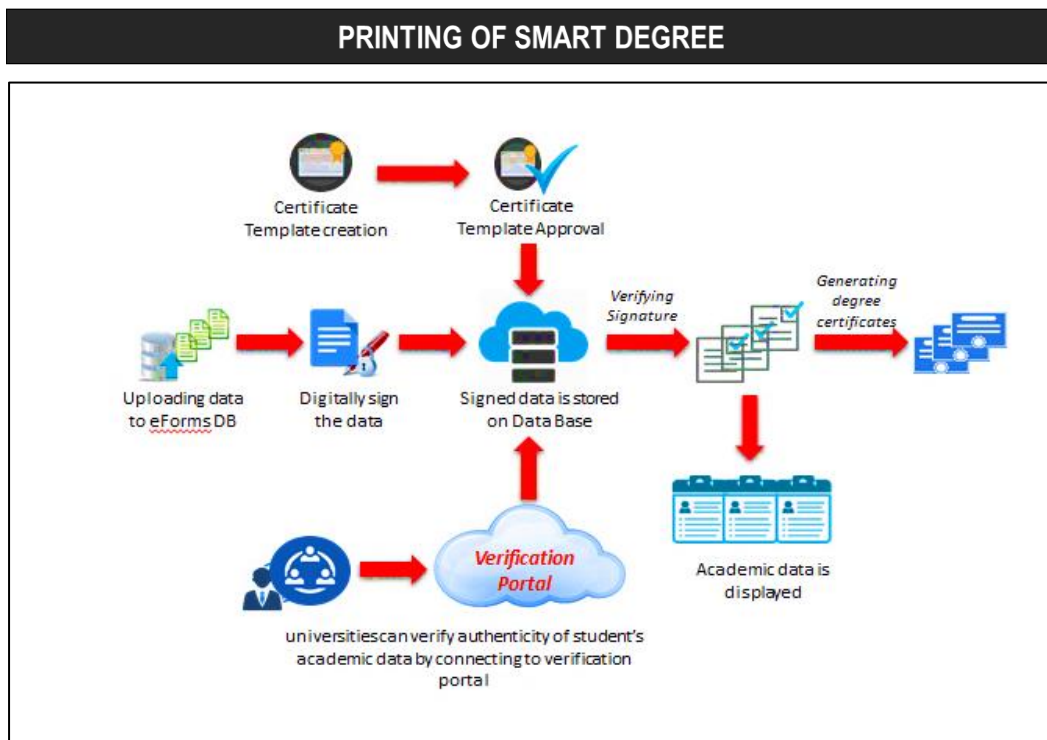

Fig.7 – Printing of smart degree process

14. Registration with National Academic Depository-
- Ensuring authenticity, integrity, and confidentiality of the database
- Serves as deterrent to fake and forged paper certificates
- Reduce administrative efforts, and eliminate the need for institutions to preserve physical records

15. Communicate academic progression to parents-Students end semester result is mailed to parents ensuring enhanced satisfaction of parents.

16. Online Fee Payment Process-
- Structured payment process integrated with student portal
- Saves time and logistically effective.
- Immediate acknowledgement of payment receipt.

17. Online Re-Registration into next semester through student portal-
- Reduced time as compared to earlier conventional mode it takes 30 second for student to register online
- The process needs student to report to campus that ensures that student actually reports to join academic activities
- Limited logistics support as compared to conventional method and man hours
- Students can address their financial and library holds if any, pay online and register
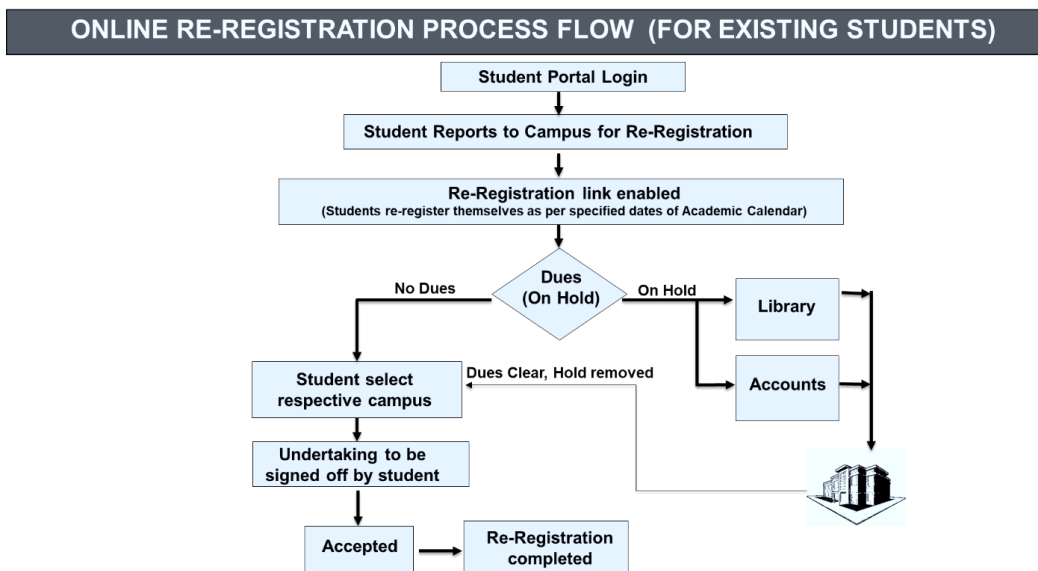- Instant data generation of registered students

Fig.8 – Online re-registration process flow

18. Online Pre-registration- Students can pre-register online and upload copies of essential documents and make part payment from their respective locations during enrolment after selection. The process avoids students and parents queue and effective time management
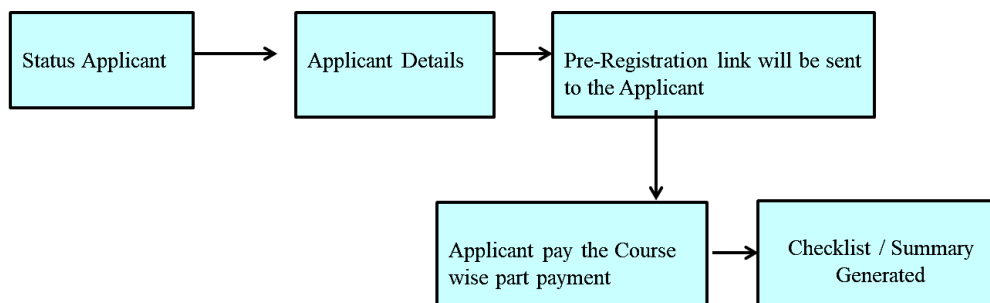

Fig.8 – Online pre-registration process

19. CBCS (Choice based course selection)-Online registration through student portal-

University of Petroleum & Energy Studies (UPES) adopts Choice Based Credit System (CBCS) for its B.Tech, BBA, MBA and LLB programs since 2015 as per the guidelines provided by UGC. Curricular Structure of academic Programs adopting CBCS system of fixed credits comprises of the following:

- **Foundation Courses:** UPES adopts compulsory foundation courses, which lead to knowledge enhancement and common to all disciplines.
- **Core Courses:** Compulsory courses to be studied by the student for the successful completion of the program. This includes theory courses, lab (Practical) courses, Project, dissertation, Industry Visit, etc.,
- **Elective Courses:**
  - a) **Program Elective/Department Elective Courses:** These courses will strengthen the proficiency in the domain related to the program. Student can choose this course from the pool of courses.
  - b) **Open Elective/Generic Elective:** Courses that are offered by unrelated discipline/Departments are called Open electives. Generic Electives are the ones, which add generic proficiency to students. UPES follows generic electives as Open electives.

Implementation of CBCS System on SAP facilitated following:

- Transparent and quick data capturing and management
- Saves time for students and staff
- Convenient mapping of respective courses on SAP due to availability of consolidated data.

Fig.9 – Implementation of CBCS on SAP

20. Implement technology enabled learning though LMS to drive innovation in teaching and learning process-

- One time Logins are created for students at the time of admissions and for faculty at the time of their joining.
- Every semester before session starts students and faculty are enrolled into courses on LMS
- Faculty are trained on LMS tools (Course creation, Exam creation, uploading of questions & assignments) and they are provided continuous support from e-Learning department
- Students learning is enabled anytime, anywhere at their own pace on LMS
- Instant feedback on exams conducted through LMS to increase student engagement in the curriculum
- Tools implemented on LMS to maintain integrity of the assessment process
- Tools implemented for plagiarism check on submissions of assignments
- Enables faculty to check student performance and identify weak students

Continuous Internal Assessment (CA)

At UPES, evaluation comprises both continuous and summative components. Evaluation also takes into consideration the realization of both program outcomes and program specific outcomes. At present, for undergraduate programs evaluation is divided into three components:

1. Continuous assessment (CA; weightage: 30%)
2. Mid semester examination (weightage: 20%)
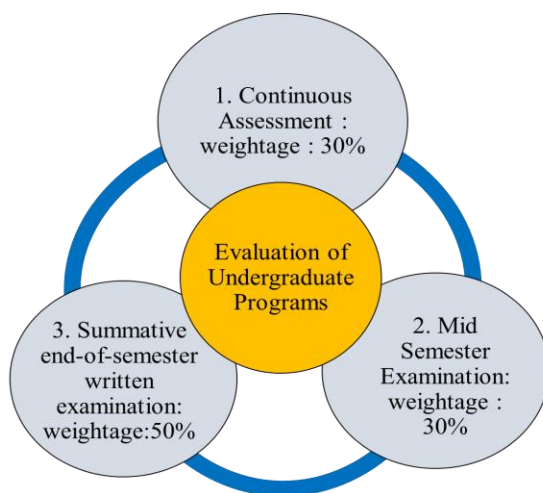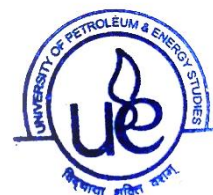3. Summative end-of-semester written examination (weightage: 50%).

Fig.10 – Components of evaluation

All these components are added together to determine student grades.

CA, with a 30% weightage, is the most comprehensive element of evaluation, providing different points of intervention into student learning by faculty during the semester. CA comprises various evaluation tools, depending on the nature of the courses. The concerned faculty, in consultation with the respective head of department, determines these evaluation tools and the same are shared with the students at the commencement of the semester through a detailed course plan.

For all **postgraduate programs** across the university, CA is 50% weightage of evaluation and consists of various tools that capture continuous learning of the students. These tools focus on research and teaching ability of students.

For e.g. School of Business For Internal Assessment at PG level, at least 3 components addressed with Course Outcome are included in the Course Plan.

These components generally comprise the following:
- Quizzes/Test(F to F/Online)
- Live Projects- Group
- Individual Assignments
- Case Study/Group Discussion
- Role Play
- Class Participation.

Fig.11 – Components of internal assessment

For Internal Assessment at UG level, at least 3 components addressed with Course Outcome are included in the Course Plan.

These components generally comprise the following:
- Quizzes/Test(F to F/Online)
- Live Projects- Group
- Individual Assignments
- Case Study/Group Discussion
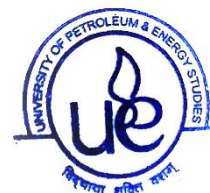
These components are evaluated throughout the semester from one week after the commencement of the course till the conduct of End Semester Examination.

Faculty interacts and shares feedback of all assessment with students. This helps in both identifying and intervening into slow learners as well as advanced learners, with focus on slow learners during CA and on all students with feedback on evaluated answer scripts of mid- as well as end-of-semester examinations.

Since 2015, the university has implemented continuous evaluation for laboratory and clinical courses. The evaluation involves assessment of experiment work, lab file writing, and viva voce. Student performance is evaluated by assigning 50% weightage to regular laboratory work, evidenced through a well-maintained lab file, and the quality of results of the experiment, assigning 20% weightage to the lab file and attendance, and 30% weightage to comprehensive viva-voce. This process ensures continuous involvement of students throughout the academic session.