

2.2.1 The institution assesses the learning levels of the students, after admission and organizes special programs for advanced learners and slow learners

We have a streamlined mechanism for continuous monitoring and evaluation of the students. We are considering 3 grade factors for identifying the level of students. This system helps to identify slow learners & advance learners.

Students are identified based on:

Performance in Intermediate scores

Performance in Snap test taken in the first 15 days after joining.

EAMCET rank of the student.

Weightage:

Intermediate scores: 30%

EAMCET rank: 20%

Snap test: 50%

Strategies adopted for facilitating Slow Learners:

For every 10 students, 4 to 5 are usually found to be slow learners. The student counselor assesses the nature of their problems and then motivates them in a friendly way to reach their academic goals.

Extra classes are organized to clarify doubts and re-explaining of critical topics for improving performance. Appropriate counseling with additional teaching, eventually helps to attend classes regularly.

Strategies adopted for facilitating Quick Learners:

Quick learners are identified through their performance in examinations, interaction in class room and laboratory, their fundamental knowledge, concept understanding and articulation abilities etc., The Institute promotes independent learning that contributes to their academic and personal growth.

Strategies adopted for student improvement:

Remedial classes are organized to clarify doubts, re-explaining of critical topics for improving performance. Poor performance due to frequent absenteeism is dealt by sending

SMS and registered letters to the parents of such students. Appropriate counseling with additional teaching, eventually helps students to attend classes regularly.

All the staff members maintain good relation with students and deal with their problems in a gentle manner. Each class is divided into two batches and separate tutorial classes are conducted to all students for all branches of Undergraduate courses.

Generally, one teacher is assigned for each batch:

- To provide additional details on the important topics
- To improve their subjective knowledge
- To provide counseling for personal problems

Slow learners who are not able to manage with the teaching in regular classes, are assisted through clarification of their doubts, revising important concepts and extra assignments to strengthen their learning.

All the faculty members are engaged in the tutorials. The Head of the department allots a batch of students for every staff member and monitors the effectiveness of the tutorials.

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

We in Sanketika Vidya Parishad Engineering College believe in the adoption of student centric methods to enhance student involvement as a part of participative learning and problem solving methodology. We follow namely role plays, discussions, debates, laboratory experimental learning, mini projects and case studies.

Role Plays: Role play helps our students to learn and try out the experience in a play style. Subjects such as Software Project Management, client interaction, communication systems are well explained to the students by adopting role plays.

Discussions: We do follow the discussions in many of the subjects as it makes the students to think wide and participate in coming up with the opinions & suggestions to check their current knowledge. We practice discussions basically in soft skills, managerial communications, business adoptions etc.,

Debates: Debates are followed in many of the subjects where students are required to come with different opinions, thought processes thus the learning process gets justified in the argue-mental way of learning.

Laboratory experiential learning: Technical education is always justified with the help of practical knowledge. Thus we try to expose our students to all the laboratories possible beginning from the first year labs like physics, chemistry and English. Later from their second year, students related to the core department are given an exposure to pure coding languages to depth based on the potential of the student so that the student can learn it by experience.

Mini projects:

To enhance the practical knowledge with innovation, we do encourage our students to make some Mini projects from II year onwards, though it is not a part of curriculum of Andhra University. Students are divided into small groups so that personal attention can be paid and every student's role will become prominent.

Case studies: We are following case studies mainly for the circuit branches where the students are expected to have practical knowledge & logical thinking based on the realistic experiences. Subjects such as Power Systems, Manufacture Engineering & Fabrication Analysis, Professional Ethics & Moral Values, Sales Forecast and few more are once theoretically explained as per university syllabus, we take the advantage of our management studies faculty members to extend the practical knowledge by providing the real time case studies.

2.3.4 Innovation and creativity in teaching-learning

We have taken it as a challenge to improvise the Teaching – Learning environment into student friendly learning. We mainly adopted the below methods to transform the learning environment.

Digital library: Students are provided with an access with NPTEL & Shodhganga references for quick learners. College library has an access to many international journals & publications through memberships.

Subjective seminars: Additional seminars on the subjective topics, mini projects related to their technical subjects and submission of study reports on real time analysis is made mandatory from pre final year.

Power Point Presentations: Faculty made Power point presentations including the videos of the lectures on technical topics as per the syllabus is presented to the students at the end of every chapter for the students' ready reference. This helps the slow learners for a better revision.

MOOCS: As per the norms of the Andhra University Technical Subjective Learning through MOOCS is made mandatory for all the students in the pre final year. We believe in the adoption of MOOCS in a more effective way and have taken IIT Bombay Nodal Center for learning through our campus.

Snap tests: Students scoring less than 60% are regularly monitored by snap tests. Concerned subject faculty members conduct snap test by the end of every two chapters. Result in snap tests is considered as a grading factor for internals. 35% of the marks are awarded as internal grade & 65% of marks are considered from the Mid Term examinations. Results were found improvised by conducting the snap tests.

Outcome base learning: The institution ensures achievement of learning outcomes through:

- Feedback will be taken by the faculty members at the end of the course on course outcomes and the Assessment Committee analyse whether the corresponding outcomes are achieved through the course outcomes.
- The exit students will also give the feedback of the Program Outcomes when they are leaving the institution.
- Continuous evaluation in both theory and lab subjects.
- Every student's outcome is identified through the Course Outcomes and mapped with Program Outcomes and Program Specific Outcome.

Seminars and Guest Lectures:

We do conduct seminars and call the eminent people to give the guest lecturers were often.

Industrial Visits:

It is a regular practice for our II and III students to visit Industries to have a practical experience. Final years do visit industries in their summer vacation and Internship is made compulsory for the final year students though it is not a part of curriculum. All these activities are taken care and monitored by TPO Cell and Hod's of the concerned departments.

2.5.1 Reforms in Continuous Internal Evaluation (CIE) system at the institutional level

We do follow the assessment procedure as per the norms of the Andhra University. We conduct two mid exams of 30 marks each and take the average of both the exams. External examination for the remaining 70 is conducted by the Andhra University. In addition to the mid examinations we do conduct assignments & class tests as a part of continuous internal evaluation. The assignments and class tests differ for both the quick learners and slow learners. Coming to labs, regular assessment is done where finally 50 marks are allocated for Internals and 50 marks for Externals.

Exceptionally sometimes we conduct the mid exams for the absentees in case if one is a meritorious student or participating in National and state level sports or if someone is very sick basing on medical grounds so that their percentage is not hampered.

We insist extensive use of online- content and NPTEL and other video lectures to support the class room teaching. Comprehensive individual assignments are practiced and students need to present the assignment before submission.

Seminars, technical paper presentation and mini-projects are introduced in the curriculum to make the environment activity based.

To refine the critical thinking among students, various group discussions, debates, seminars, workshops etc., are organized in which students explore new ideas and thus enhances their performance levels.

Till today no special approach is followed for measurement of impact of the above practices. However the effect is seen as follows:

- Improved student understanding in domain knowledge and over all development of students.

- Improved results and pass percentage.
- Reduced backlogs and detention
- Improved quality of projects
- Improved placements and opting for higher studies.
- Faculty members are rewarded accordingly basing on students performance.

Strategies adopted for student improvement:

Remedial classes are organized to clarify doubts, re-explaining of critical topics for improving performance. Poor performance due to frequent absenteeism is dealt by sending SMS and registered letters to the parents of such students. Appropriate counseling with additional teaching, eventually helps students to attend classes regularly.

All the staff members maintain good relation with students and deal with their problems in a gentle manner. Each class is divided into two batches and separate tutorial classes are conducted to all students for all branches of undergraduate courses. Generally, one teacher is assigned for each batch.

2.5.2 Mechanism of internal assessment is transparent and robust in terms of frequency and variety

Internal assessment in college is so transparent that every student has an idea about the standard internal evaluation process of the theory & practical subjects. The institute follows the regulations of Andhra University. Marks for the experiments performed will be displayed in the department notice boards within a week time of commencement of the laboratory sessions. Marks obtained in all the CO's are grouped and is considered as 50% of total marks for the Internal Exam. Slow learners are permitted to improvise their marks by redoing the experiment if they have scored low. Heads of the departments are fully empowered to suggest the re-assessment of the total marks by the approval of department committee. All such modifications will be displayed in the department notice boards for student reference.

The college prepares an Academic Calendar in line with university calendar prior to the commencement of the academic year in consultation with the Heads of the Departments. Then the College organizes orientation programs to the students to make them acquainted with the rules and regulations of the affiliating university, examinations, evaluation process,

extra-curricular activities etc., similarly every department organizes a semester orientation program with parents in the first week after starting a new semester. Head of the departments communicate about the labs & subjects of the semester to the students, parents and other institutional members in the semester Orientation Programs. College handbooks are handed over to the students after the orientation program and college website link is also provided simultaneously.

2.5.3 Mechanism to deal with examination related grievances is transparent, time-bound and efficient

Examination related grievances are handled by the student mentor to make it time bound & transparent. Mid exam answer scripts are distributed to the students as regard to total checking and for clarifications if any. The marks awarded for the mid exams which constitute the internal assessment component are displayed on the examination section notice board. The exam section displays the evaluation report by cross checking the statement of marks as submitted by the respective faculty member of the department.

- 1) Student approaches his mentor for the clarifications related to internal marks, midterm's marks & other if any.
- 2) Student issue related to the above will be perceived by the mentor in a time bound of 6 days.
- 3) Student mentor cross checks the same issue with the department & exam section.
- 4) Issues will be identified & sorted. Recommendations will be forwarded to the department internal committee.
- 5) A clear report of the issue will be given to the examination section through Departmental Internal Committee.
- 6) The entire process is monitored by the chief examination In -Charge and then the final details will be forwarded to the Andhra University.

Grievances related to the university external examinations will be addressed by the chief superintendent, CDC cell, Examination Department of Andhra University.

2.5.4 The institution adheres to the academic calendar for the conduct of CIE

The committee consisting of Principal and Controller of Examinations prepare the academic calendar well in advance before the commencement of the semester. The calendar outlines the semester class work schedule, internal examination schedule and external examination schedule.

The faculty members of the concerned department gather the lists of courses for the coming semester. The head of the department finalizes the course allocation for the faculty members based on their choice and area of interest or expertise. The faculty members are prepares the lesson plan before the commencement of semester, indicating the topics to be covered lecture wise including the evaluation process for each subject and it is duly reviewed by the one of the senior faculty in the department and approved by the head of the department. It is then, made available to the students. Timetable in-charge of each department prepares the timetable as per the guidelines of respective statutory bodies for the number of credit hours for each subject prior to the commencement of the semester. Time-table is uploaded on the system and displayed in the respective department notice boards.

The performance of the students is assessed on a continuous basis by conducting two mid exams as per the Andhra University norms per semester where the average is taken of both. .In addition to the tests, assignments, mini-projects and quiz are also the part of Continuous Internal Evaluation. The evaluated answer books are returned to the students and an opportunity is given to the students to discuss the evaluation with the teacher. The teacher rectifies any error on the spot, if any. Finally the Internal Assessment is carried out for 30 marks.

2.6.1

The assessment tools and processes used for measuring the attainment of each of the Program Outcomes and Program Specific Outcomes are as mentioned below:

Method of assessment of POs / PSOs

The program outcomes and Program Specific outcomes are assessed with the help of course outcomes of the relevant courses through direct and indirect methods.

Direct methods are provided through direct examinations or observations of student knowledge or skills against measurable course outcomes.

The knowledge and skills described by the course outcomes are mapped to specific problems on University Examination, internal exams and home assignment. Throughout the semester the faculty records the performance of each student on each course outcome.

Average attainment in direct method = University Examination (70%) + Internal assessment (20%) + Assignment (10%)

Indirect assessment strategies are implemented by embedding them in Student Exit Survey, Employer Survey and Alumni Survey. Few of the POs are assessed based on relevant developed rubrics. Finally, program outcomes are assessed with above mentioned data and Program Assessment Committee concludes the PO attainment level.

Average attainment in indirect method = Average

(Alumni survey + Employer survey + Exit survey)

The following scoring function is used to calculate the average attainment of each PO.

PO /PSO Attainment (%) = (weightage: 80%) x (Average attainment in direct method)
+ (weightage: 20%) x (Average attainment in indirect method)

According to the above depictions, each POs/PSOs are assessed and finally found the attainments.

The tools used for the assessment of POs/PSOs and their frequency are given below

Sl.No	Assessment Tool	Descriptions	Mode	Frequency
1	End Semester University Examination	At the end of each semester university conducts examinations based on the result published by university the course outcomes are measured based on the course attainment level fixed by the program	Direct	End of each semester
2	Assignment	<p>Assignments are given at the end of each module. The assignments are provided to students, such that students will refer the text books and good reference books to find out the answers and understand the expected objective of the given problem.</p> <p>It is the responsibility of the concerned subject teacher to ensure that most students are able to work out the assignments honestly.</p> <p>The questions asked in assignments are mostly aligned with Course Outcome of the respective subject</p>	Direct	End of each module
		According to the performance of the student in answering each question, mapping is carried out with the respective COs for assessing the attainment level of the		

		specific CO of the subject.		
3	Mid Examination	Two internal examinations are conducted per semester for the following purposes:	Direct	Twice per semester
		To ensure that students have achieved desired level of competencies at module level.		
		To evaluate, whether corresponding COs are achieved or not.		
		According to the performance of the student in answering each question, mapping is carried out with the respective COs for assessing the attainment level of the specific CO of the subject.		
4	Alumni Survey	Alumni survey is an important assessment tool to find out following important factors:	Indirect	Once in a year
		Level of relevance of the curriculum with the expected skills of the industries.		

		<p>The level of attainment of goal for the specified program.</p> <p>In the survey, specific questions are prepared by keeping in the view to support the assessment of level of attainment of POs.</p> <p>After receiving the response, the answer to the specific question are assessed and mapped with the corresponding POs to find out level of attainment of Pos</p>		
5	Employer Survey	<p>Employer survey are conducted for finding out whether the knowledge, skill and attitude learned from this institution is adequately satisfying their expectation or not.</p> <p>Every year end the questionnaire is sent to the list of employers who have recruited to our students.</p> <p>After receiving the response, the answer to the specific question are assessed and mapped with the corresponding POs to find out level of attainment of POs</p>	Indirect	Once in a Year
6	Student Survey Exit	<p>The objective the conducting the survey is to identify following factors for future strategy framing</p>	Indirect	Once in a Year

		To understand the impact of training they have just completed	
		To understand the strength and weakness of various value added courses, pre-placement training imparted	