

**REPORT OF**  
**THE WORKSHOP ON ATTAINMENT OF COURSE OUTCOMES (COs)**

Workshop on Attainment of Course Outcomes was organized by College on 13<sup>th</sup> and 14<sup>th</sup> July 2020.

The fundamental premise of the learning outcomes-based approach is that higher education qualifications such as a Bachelor's Degree programmes are awarded on the basis of demonstrated achievement of outcomes (expressed in terms of knowledge, understanding, skills, attitudes and values) and academic standards expected of graduates of a programme of study. Learning outcomes specify what graduates completing a particular programme of study are expected to know, understand and be able to do at the end of their programme of study.

Parvatibai Chowgule College of Arts and Science adopted outcome based framework from the Academic Year 2018-19, through intensive deliberations and drafting of Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs).

The workshop on measuring the CO attainment began by with the brief introduction of OBE.

Dr Shaila Ghanti, through a case study took the participants on a journey of identifying expected outcomes, and recommending appropriate pedagogy and evaluation methods for the attainment of those outcomes. Participants were asked then to take one of the course they teach and explain their plans and execution methods to achieve the outcomes of that course. It was followed by questions and answers regarding the importance of outcome based learning.

Mr Abhishek Gudekar demonstrated what needs to be filled up by the course coordinators in the software he designed and how to derive conclusions from the various reports generated by the software. It was further followed by discussion on issues that need to be looked into for implementation of the new framework and valuable suggestions by the participants as well as coordinators of the workshop, namely Dr Shaila Ghanti, Mr Mahesh P Matha, Mr Abhishek Gudekar, Mr Gajanan Nial and Mr Castor Godinho.

An appropriate software for the measurement of CO attainment was designed by Asst Prof Mr Abhishek Gudekar under the supervision of Dr Shaila Ghanti, Vice Principal, to establish the mappings between COs, POs and PSOs based on performance of the learners in continuous as well as semester end evaluations.

The same software was used by the faculty members to measure the CO attainment of their courses.

In order to measure the attainment of Cos for the course following steps are to be followed

1. All questions of all assessments to be mapped to the Course Outcomes
2. For all the assessments CO wise marks are to be entered. The software generates student wise attainment of Cos and also the overall attainment of Cos for the specified Course.
3. Faculty have to give the action plan based on the CO attainment levels.

The procedure used for CO attainment is as follows

1. % Attainment in a given CO at student level= $(\text{Total marks scored by student in particular CO}) / (\text{Total Marks to all the questions of that CO}) * 100$ .
2. % Attainment in a given CO at class level= $(\text{Total number of students reaching target using Rule 1}) / (\text{Total number of registered students in the course}) * 100$ .
3. Level of attainment is derived by finding out in which bucket the overall CO attainment falls.

Level of Attainment for CO			
Level	Low	Medium	High
% CO Attainment	0 to 30%	30% to 60%	60% to 100%

The details of the CO attainment for the course

Name of the Course Coordinator: Abhishek Gudekar

Name of the Course: Data Structure and Algorithms

Semester: I                      Program: M. Sc-IT

Year: 2019-20

CO	% CO Attainment	Level of Attainment

C01	75	High
C02	55	Medium
C03	50	Medium
C04	10	Low

Name of the Course Coordinator: Gajanan Nial

Name of the Course: Operating Systems and Computer Networks

Semester: I            Program: M. Sc-IT

Year: 2019-20

CO	% CO Attainment	Level of Attainment
C01	70	High
C02	65	High
C03	30	Low
C04	45	Medium

Subsequently a further presentation was made in the presence of the Principal, Dr Nandkumar Sawant, who also made valuable observations on the proposed system.

Some of the suggestions made during the deliberations are as follows:

1. For smooth implementation of the system, course coordinators need to plan in advance a suitable mechanism to set threshold for attainment either based on CGPA of the students enrolled for that course or based on average attainment of last three years for a particular CO.
2. Question papers need to be mapped to COs as well as Bloom' s Taxonomy
3. Options given in question papers need to be from same CO.
4. Repeat exams to be given to ensure evaluation of same CO.
5. A suitable mechanism needs to be developed for CO-PO mapping if NPTEL/Swayam courses are assigned to students as part of the course work.
6. Institute Target Attainment threshold for each CO should be decided at college level.

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