

MAR THOMA COLLEGE FOR WOMEN PERUMBAVOOR



TEACHING-LEARNING AND EVALUATION



OUTCOME BASED EDUCATION - EVALUATION

OBE EVALUATION MECHANISM

The institution prioritizes Outcome-based education and takes a precise approach towards preparing and updating Programme and Course Outcomes. In the academic year 2019-20, the department of Commerce and Physics initiated an experimental trial of the evaluation process of Outcome Based Education. In the successive year, 2020-21, the department of Zoology also moved to OBE evaluation. From the academic year 2021-22, the evaluation mechanism focused on OBE was implemented in all departments. A successful teaching and learning process hinges on the understanding, application, and analysis of these outcomes, which is why the institution has established an effective mechanism to ensure that both teachers and students comprehend them thoroughly.

Committee Constituted & its responsibilities:

Name of the Committee	Chairperson	Responsibility
OBE Advisory Committee	IQAC Coordinator	-Preparation of Programme Outcomes at the Institutional Level -Ensure that all stakeholders are informed of the outcomes through effective communication -Conducting training workshops on OBE for teachers
Department OBE Committee	Head of the Concerned Department	-Preparation of Programme Specific Outcome & Course Outcomes in consultation with the Course - in- charge -Mapping the Correlations of COs to POs & PSOs -Determination of the attainment benchmarks

Communication to various stakeholders:

By showcasing the outcomes, teachers and students can better comprehend the objectives and procedures involved in the teaching-learning process. The display modes used for this purpose include:

- Website
- Department Notice Board



Mapping of COs to POs & PSOs -

The individual in charge of each course creates a mapping that links Course Outcomes (COs) to Program Outcomes (POs) and Program Specific Outcomes (PSOs), aligning them with the appropriate levels in the matrix demonstrated below:

Levels	Correlation
0	Nil
1	Low
2	Moderate
3	High

1. Course Outcome Attainment Evaluation:

Course Outcome Attainment Evaluation is a two-tiered mechanism consisting of:

Direct Assessment & Indirect Assessment

1.1 Calculation of Direct Assessment :

The faculty member responsible for each course evaluates the direct attainment of course outcomes using two methods: University Examination and Internal Assessment Test. The attainment level is determined by averaging the performance levels of both assessments. Internal Assessment Tests, Assignments, Tutorials, and Group Discussions contribute 20% of the evaluation, while the University Examination contributes the remaining 80%. As the college cannot access question-wise marks of the University Exam, the average marks obtained in the exam are considered as the common attainment for all Course Outcomes. Based on the level of Course Outcome attainment, the faculty member may choose to enhance the competency level or modify the content delivery and assessment methods to improve the course's attainment level.



Each course outcome is calculated for all the students based on marks obtained by the students.

CO_x Attainment in %

$$= \frac{\text{no. of students scored more than or equal to } Y \% \text{ of marks in CO}_x}{\text{No. of students}} * 100$$

Where, x= [1 to N], N= Number of Course Outcomes , Y = Percentage Decided

CO Attainment Level is defined based on the following criteria:

COs Attainment Level	3	Y % of the students scoring more than or equal to Z % of Marks in CO (x)
	2	Y1% of the students scoring more than or equal to Z% of marks in CO (x)
	1	Y2% of the students scoring more than or equal to Z % of marks in CO (x)

After evaluating the attainment levels of each Course Outcome (CO) based on the performance in the Internal Assessment, the attainment level of COs is then calculated using the marks obtained in the University Exam. The attainment level in this case follows a similar approach as the one used for calculating the Internal Assessment.

Once the attainment levels have been calculated from both the Internal Assessment and University Exam, the Overall Direct Assessment of each Course Outcome is determined using the following formula:

$$= \text{Internal Assessment Attainment Value} * \text{Weightage assigned} + \text{External Assessment Attainment Value} * \text{Weightage Assigned}$$

*** Weightage assigned to Internal Assessment Value is 20% and that of External Assessment Value is 80%.



1.2 Calculation of Indirect Assessment(Course End Feedback)

After the calculation of Direct Assessment, calculation of Indirect Assessment is done using the Course - End Feedback from the students and the level of attainment is determined in the following manner:

	Level of Attainment	The intended outcome has been attained :
CO Attainment Level	3	Strongly agree
	2	Reasonably agree
	1	Ambivalent or neutral
	0	Disagree

Overall CO Attainment:

Then the overall Course Outcome attainment is calculated using the following formula :
= Direct Attainment value *.80 + Indirect Attainment value *.20

The overall course outcome, so computed, is compared with the benchmark set by the Department OBE Committee. If any deviation from the target set, necessary actions plans are introduced to attain the target decided. If the target is attained, then the revision of the targets are made accordingly.

2. Programme Outcome Attainment Evaluation:

To evaluate the attainment of Program and Program Specific Outcomes, a logical mapping and analysis of the cognitive levels of course outcomes with POs and PSOs is carried out. The evaluation process is divided into two tiers:

Direct Evaluation and Indirect Evaluation, with a weightage of 80:20, respectively.

2.1 Direct Evaluation / Attainment :

-The Programme Outcome is calculated by using the following formula:

$$\Sigma[(CO-PO \text{ Correlation} \times \text{Comprehensive CO Attainment Ratio})] / n$$



2.2 Indirect Attainment

The responsibility of preparing the formats for Exit Surveys lies with the OBE Advisory Committee. These surveys are then administered by the Department OBE Committee to analyze the overall attainment of Program Outcomes (POs) and Program Specific Outcomes (PSOs). As part of the process, students are required to submit their responses to these surveys.

The level of attainment is determined in the following manner:

	Level of Attainment	The intended Programme outcome/ Programme Specific Outcome has been attained :
PO Attainment Level	3	Strongly agree
	2	Reasonably agree
	1	Ambivalent or neutral
	0	Disagree

Overall Programme Outcome/ Programme Specific Outcome Computation:

Then the overall Programme Outcome attainment is calculated using the following formula :
= Direct Attainment value *.80 + Indirect Attainment value *.20

The overall programme outcome, so computed, is compared with the benchmark obtained from the CO Mapping Matrix by the Department OBE Committee. If any deviation from the target set, necessary actions plans are introduced to attain the target decided. If the target is attained, then the revision of the targets are made accordingly.

Corrective Measures:

- Remedial sessions are conducted to enhance the attainment level.
- Bridge Course are provided
- Proposal for Introduction of new Add-on Courses.

