Best Practice 2

Outcome Based Education

Objectives of the Practice:

OBE is a flexible, empowerment-oriented approach to learning Outcome-based education is a model of education that rejects the traditional focus on what the school provides to students, in favor of making students demonstrate that they "know and are able to do" whatever the required outcomes are.

The Context

The Galgotias University is one amongst few universities of India who have implemented Outcome Based Education since its inception. All departments of the University (technical and Nontechnical) have stated its Vision, Mission which is aligned to University Vision and Mission and also defined Program Outcomes, Program Specific Outcomes (PSOs) and Course Outcomes (COs), which are integrated into the Curriculum and assessment process. The learning outcomes are clearly defined using blooms taxonomy for all academic programmes. All courses of the program are mapped with the POs and PSOs along with their level of correlation: 1 (low), 2(medium) and 3 (high).

It is ensured that all POs/PSOs are adequately covered by the courses being taught and each course is mapped to highly correlation level with at least one PO. It also ensured that all POs/PSOs have high correlation with adequate number of courses. Feedback from Students, Parents, Recruiters, Industry, and Alumni are taken for indirect assessment. The Courses commence with the faculty explaining the course objectives and expected outcomes to students and distribution of Course Handouts.

All the faculties of the University have undergone the OBE training of 2 weeks/ have done NPTEL course or certified OBE teachers. University conducts special training every year for updating the faculties with the new processes adopted in the OBE.

The Practice

Prerequisites for CO – PO computation

- PO defined at the Programme Level
- Target defined for each PO
- Course Outcomes (COs) specified for each course
- Degree of Mapping specified for CO-PO mapping
- Weightages assigned to degree of mapping
- CO-PO Articulation Matrix
- Each CO mapped to the assessments conducted for the CO
- Degree of Mapping between assessment and CO specified

- Student Performance in terms of marks of the assessments to be recorded
- Attainment computed using Specified Formula

The Programme Outcomes are displayed on the websites of the University in addition to being communicated to students through online and offline modes and also mentioned in the prospectus of the university. Programme coursebook having programme vision, mission, CO, PO, programme description, programme structure, PEOs, PSOs & Programme outcomes, assessment plan and composition of outcome.

The faculty prepares their session plans by incorporating appropriate pedagogies, Blooms Level and learning outcomes suitable to achieve the Course Outcomes. The LMS/ ERP is used for Internal evaluations including MCQs, projects, roles play, presentations, internships, research-based assignments, dissertations, vivas, open book tests, critical thinking seminars, lab work, simulations, service-learning components and other co- curricular activities ensure that the assessment is always linked to COs. One of the Internal assessment tests CAT3 is only on assessing the design/innovation quotient of the student and BT level 6.

A special software INPODS (QBMS) has been adopted for designing the questions which are linked to Cos and BT level. It assesses the level of attainment through CO assessment and the gap analysis is done by the PAC committee. The Inpods module of QBMS helps the faculties to design CO based question paper mapping to BTL. The attainment of the outcomes, both at programme and course level, is computed by aggregating the marks obtained by students in all the assessments conducted as a part of course evaluations. These include both formative (continuous) assessments and summative (semester end) evaluations. Assessments at Galgotias university include Internal Assessment (IAs), Continuous Assessment Tests (CATs) and End Term Examination (ETE). Assessments conducted are mapped (question-wise or CO-Wise and Bloom Taxonomy Level Wise) with appropriate degrees of mapping. All the evaluations conducted at the course level for a particular course outcome are aggregated

Evidence of Success

The attainment of the outcomes, both at programme and course level, is computed by aggregating the marks obtained by students in all the assessments conducted as a part of course evaluations. These include both formative (continuous) assessments and summative (semester end) evaluations. Assessments at Galgotias university include Internal Assessment (IAs), Continuous Assessment Tests (CATs) and End Term Examination (ETE). Assessments conducted are mapped (question-wise or CO-Wise and Bloom Taxonomy Level Wise) with appropriate degrees of mapping. The attainment of COs is compared with the target level. The CO is said to be attained if its attainment value is greater than or equal to target attainment level. The PSOs attainment is calculated by the process similar to that used for POs attainment.

Total Attainment = Direct Attainment * 0.8 + Indirect Attainment * 0.2

Outcomes are assessed and attainment analytics are used to improve the academic quality, by analyzing the gap and improving the curriculum accordingly. Based on the results of implementation of outcome assessment, gaps in the desired target and the results actually achieved for each programme are identified. In the outcome assessment implementation report, schools also propose the action plan to address these gaps which serves as an input during the programme review and strategic planning of the university.

The graduates who are produced through the process their employability is very high and visible.