

## Learning Outcomes

The University policy describes a systematic approach to define the Programme Objectives (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) of all programs offered while developing the curriculum, which is examined and approved by Board of Studies and Academic Council. Each course has been defined with course outcomes(COs), with reference to the specific competencies that can be achieved. Further, CO of each course is mapped with Programme Outcome/s(POs), with appropriate levels of correlation viz; High-3, Medium-2, Low-1. These mapping are done according to the nature of discipline and courses offered. The key objectives of these outcomes is to assess level of knowledge, skill and other competencies through continuous and multiple assessment processes. More than 70% of the courses are focused to measure hands-on skill and hence each course type has been defined with **Theory/Practice/Project component**.

The course title, credit, type, course outcomes and mapping of COs with POs are defined in the syllabus. The syllabus is available in the website of University under each programme. In addition to this, the University has developed digital content at [courseware@cutm.ac.in](mailto:courseware@cutm.ac.in) for each course/programme which describes the Course objectives, Course Outcomes, Mapping of COs with POs and session plan of the course. Each session has learning materials, practice components and projects to be carried out by students.

The assessment of each course follows a standard pattern of internal and external assessments defined by Academic Council for each component of theory, practice and project. The some of the assessments attributes are knowledge, Analytical skill, problem solving, tool and computational skill, research skill, environment awareness, ethics etc.

### Evidence of Other Assessments

- MOOC, Internship etc.
- Domain Skills assess hands-on skills attained, the output of which is a product/ publication/ patent
- Learning Records are evidence of knowledge acquisition, analytical and creative thinking and practice/ hands-on Skill

Attainment of learning outcomes are directly measured through internal continuous assessment(CA) by concerned course faculty and End Semester(ES) written examination conducted by QA cell. CA includes online MCQ test, presentation, written assignment and Learning Record(LR). The QA cell of the University creates a question bank, which is updated, reviewed every semester. The University takes the final grade earned by students as the data point to assess the attainment of Cos of each course. The attainment level of all courses in a programme are used to assess the attainment of POs and PSOs for the programme.

The attainment of COS, POS and PSOs are analysed for each batch and subsequently the specific actions are taken meet the gap level and subsequently the target is set for new batch.

### Measuring Learning Outcomes/ COs

**A. Written assessment question pattern (template):** *Either of any patterns mentioned below as applicable to a course/*

Question No.	Question pattern	Marks	Course Outcomes
1	Objective question/MCQ	1-2 marks each	Knowledge
2	Short Notes; a) b)	4-5 marks each	Analytical and Creative Thinking
3	Numerical Question	8-10 marks each	Problem Solving
4	Theory question	5-10 marks each	Application/Decision taking ability

Note: Question paper of a theory course can have multiple questions of same type (Say 1 or more numerical question, 1 or more application question etc.)

- A. Practical/Lab assessment as per criteria defined in evaluation systems**
- B. Project Assessment as per criteria defined in evaluation systems**
- C. Presentation of assignment and project to develop and evaluate presentation skill**