Department Of Computer Science And Engineering

Defining Course Outcomes (COs)

Overview

Course Outcomes (COs) are precise, measurable statements that describe what students are expected to achieve upon successful completion of a course.
The institution follows a structured and systematic procedure for defining Course Outcomes in alignment with the principles of Outcome Based Education (OBE) and the guidelines of the National Board of Accreditation.

Purpose of Defining Course Outcomes

- To clearly state the expected learning achievements of a course
- To ensure alignment of individual courses with Program Outcomes (POs) and Program Specific Outcomes (PSOs)
- To facilitate effective assessment and attainment measurement
- To support curriculum quality and continuous improvement

Inputs for Defining Course Outcomes

The following inputs are considered while defining Course Outcomes:

- Prescribed syllabus and course objectives
- Program Educational Objectives (PEOs)
- Program Outcomes (POs)
- Program Specific Outcomes (PSOs)
- Bloom's Taxonomy (Cognitive domain)

Guidelines for Writing Course Outcomes

- Each course shall have 4 to 6 Course Outcomes
- COs shall be written using measurable action verbs
- Action verbs shall be selected in accordance with Bloom's Taxonomy
- Each CO shall focus on a specific learning component of the course
- COs shall reflect appropriate knowledge, application, analysis, or design skills
- Vague and non-measurable verbs such as *know, understand, learn, appreciate* shall be avoided

Procedure for Defining Course Outcomes

Review of Course Syllabus

The Course Coordinator reviews the syllabus to identify:

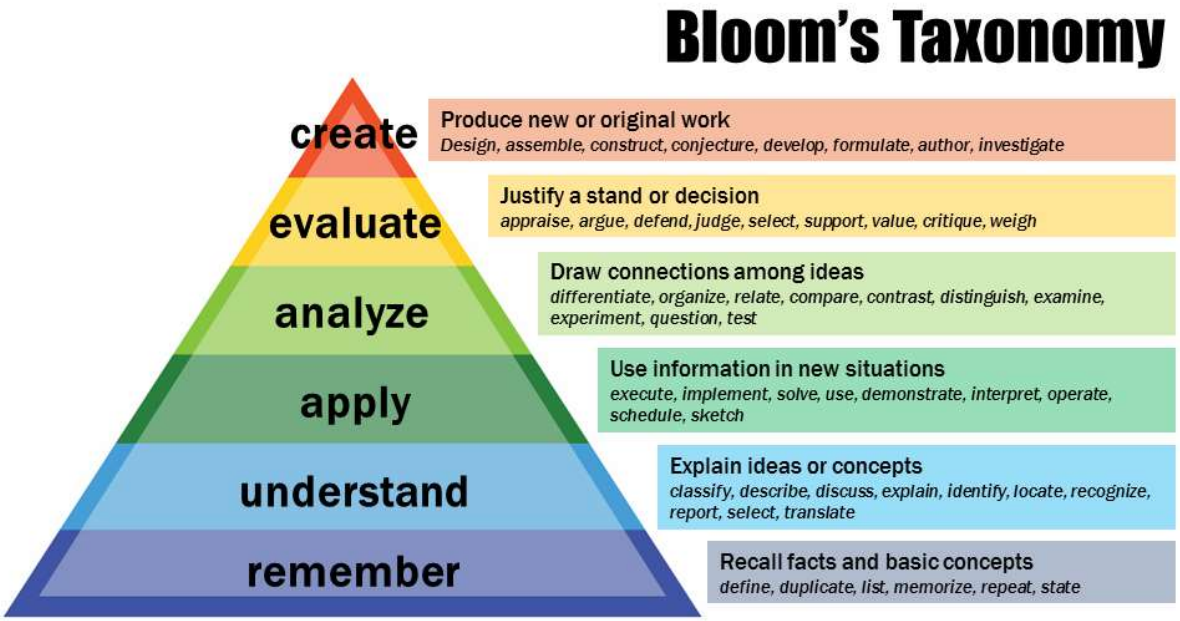
- Core concepts and learning units
- Practical, analytical, and design components
- Expected learning depth and rigor

Drafting of Course Outcomes

- Course Outcomes are drafted by the Course Coordinator
- Each CO begins with a suitable action verb from Bloom's Taxonomy
- COs are framed to be clear, concise, observable, and measurable

Mapping to Bloom's Taxonomy

The following picture shows the Bloom's cognitive levels:



Each Course Outcome is mapped to an appropriate Bloom's cognitive level:

- Remember (L1)
- Understand (L2)
- Apply (L3)
- Analyze (L4)
- Evaluate (L5)
- Create (L6)

This ensures progressive learning and appropriate academic challenge.

Implementation

- Approved Course Outcomes are communicated to students at the beginning of the course
- COs are included in:
  - Course files
  - Lesson plans
  - Assessment tools
  - Question papers and rubrics

Outcome

- Clearly defined and measurable Course Outcomes
- Strong alignment with Program Outcomes and Program Specific Outcomes
- Improved teaching–learning effectiveness
- Compliance with NBA accreditation requirements