

Government College of Engineering, Salem- 11

(An Autonomous Institution affiliated to Anna University, Chennai)



SELF-STUDY REPORT



CRITERION 2

2.6.1 The institution has stated learning outcomes (programme and course outcome)/graduate attributes which are integrated into the assessment process and widely publicized through the website and other documents and the attainment of the same are evaluated by the institution.

(Submitted to National Assessment and Accreditation Council)

Self Declaration

This is to certify that the supporting documents for this metric exceed the 5MB upload limit. Therefore, links to sample documents and some samples are provided in the following pages. Any/all Supporting documents will be provided, if required. All links, documents and images are verified and authenticated.



IQAC – Chairperson

**Internal Quality Assurance Cell
Govt. College of Engineering
Salem - 636 011.**

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| Description | Link |
|-------------------------------------|--|
| OBE Manual | <u>2.6.1 / Link 1</u> |
| CO – PO & PSO Attainment | <u>2.6.1 / Link 2</u> |


PRINCIPAL
GOVT. COLLEGE OF ENGG.,
SALEM-636 011

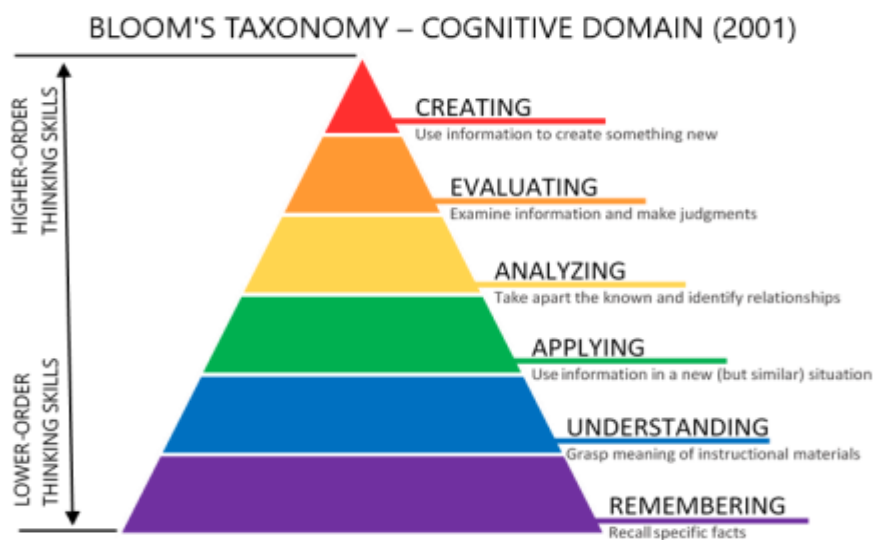
Sample/Reference for Outcome Based Education

Chapter - 5 Course Outcomes (COs)

Bloom's Taxonomy:

The original Taxonomy of Educational Objectives, commonly referred to as Bloom's Taxonomy, was created by Benjamin Bloom in 1956, and later revised in 2001. Bloom categorized and classified the cognitive domain of learning into varying levels according to complexity and richness.

In Bloom's Taxonomy from 1956, he outlined six main categories: knowledge, comprehension, application, analysis, synthesis, and evaluation. In 2001, a group of cognitive psychologists, curriculum theorists, instructional researchers, and testing specialists revised the category names of Bloom's Taxonomy from nouns to verbs as shown in Figure 5.1.



Remembering: the basic recall of information presented through various methods. When we “remember” something, we are able to name it, locate it, define it, etc. We are able to take the content and paint a visual for the learner.

Understanding: the demonstration of what we remember. When we “understand” something, we are able to apply that knowledge in a myriad of ways. We may compute, illustrate, or show others how we interpret that particular concept.

Sample/Reference for CO, PO & PSO Attainment rating

Department of Mechanical Engineering

Calculation of Weighted average and Fixing Target level for POs & PSOs

Target value of PO & PSO: 70% of Weighted Average

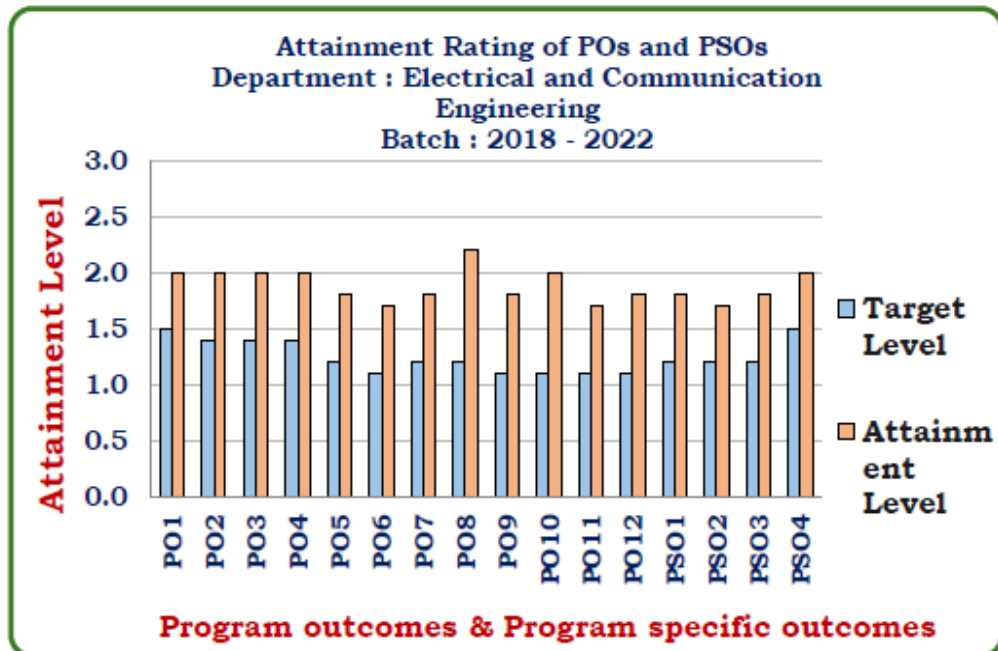
| Batch: 2018 -2022 | | | | | | | | | | | | | | | | | |
|-----------------------------|-------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------------------|-----|-----|---|
| Sem | Course Code | Program Outcomes (PO) | | | | | | | | | | | | Program Specific Outcomes (PSO) | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 |
| Program Articulation Matrix | | | | | | | | | | | | | | | | | |
| 1 | 18MA101 | 3.0 | 3.0 | - | 2.0 | 1.0 | - | - | - | - | 1.0 | - | - | - | - | - | |
| 1 | 18PH102 | 2.0 | 1.0 | - | 1.0 | - | - | 2.0 | - | 2.0 | - | - | 1.0 | - | - | - | |
| 1 | 18ME101 | 0.4 | 1.0 | 0.6 | 0.6 | 0.4 | - | - | - | - | 0.6 | - | 0.4 | 1.4 | 1.4 | 1.6 | |
| 1 | 18EE103 | 3.0 | 2.2 | - | 1.2 | 1.0 | 0.2 | 0.2 | - | - | - | - | - | - | - | - | |
| 1 | 18PH103 | 3.0 | 2.0 | - | 2.5 | 2.0 | - | - | - | 2.5 | 0.5 | - | 1.5 | 1.0 | 1.0 | 1.0 | |
| 1 | 18CY102 | 1.3 | 1.7 | - | 3.0 | - | - | - | - | - | - | - | - | 2.0 | - | - | |
| 1 | 18EE104 | 2.8 | 1.6 | - | 1.4 | 1.0 | - | 0.4 | 0.4 | - | - | - | - | - | - | - | |
| 1 | 18EN103 | - | - | - | - | - | - | - | - | 1.5 | 3.0 | - | 1.8 | - | - | 1.3 | |
| 2 | 18EN101 | - | - | - | - | - | - | - | - | 1.6 | 3.0 | - | 1.6 | - | - | 1.2 | |
| 2 | 18MA201 | 3.0 | 2.0 | - | 2.0 | - | - | - | - | - | - | - | - | 2.0 | - | - | |
| 2 | 18CY101 | 1.3 | 1.7 | - | 3.0 | - | 2.0 | - | - | - | - | - | - | - | - | - | |
| 2 | 18CS101 | 2.2 | 1.6 | - | 2.0 | 2.0 | - | 0.4 | - | - | 1.0 | 1.6 | 1.0 | 1.4 | 1.6 | - | |
| 2 | 18EN102 | - | - | - | - | - | - | - | - | 1.5 | 3.0 | - | 1.8 | - | - | 1.3 | |
| 2 | 18CS102 | 2.0 | 2.0 | 1.0 | 2.0 | 1.0 | - | - | - | - | - | - | 2.0 | - | 2.0 | 1.0 | |
| 2 | 18ME102 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | - | 1.0 | 1.0 | - | - | 1.0 | 1.0 | 1.0 | 2.0 | |
| 3 | 18PH202 | 2.8 | 2.8 | - | 2.2 | 2.8 | 1.0 | 1.3 | - | 1.0 | - | - | 2.8 | 1.8 | - | 1.8 | |
| 3 | 18MA204 | 2.3 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | - | |
| 3 | 18ME301 | - | 1.2 | - | 1.0 | - | - | 1.0 | - | 1.3 | - | 1.0 | - | 2.0 | 1.0 | 1.4 | |
| 3 | 18ME302 | 1.2 | 1.5 | - | - | - | - | - | - | - | - | - | - | 1.0 | 1.0 | - | |
| 3 | 18ME303 | 1.4 | 1.8 | 1.6 | 1.8 | 2.0 | 1.2 | 1.0 | - | - | - | - | - | 1.4 | 1.8 | 1.6 | |
| 3 | 18EC308 | 3.0 | 1.5 | 1.0 | 2.0 | - | - | - | - | 1.0 | - | - | - | 2.0 | - | 2.0 | |
| 3 | 18ME304 | 1.5 | 2.0 | 1.5 | 2.0 | 1.5 | - | - | 1.0 | - | - | - | 1.0 | 1.5 | 1.5 | 1.5 | |
| 3 | 18EC309 | 2.5 | 2.0 | 2.4 | 2.0 | - | - | - | 2.0 | - | - | - | 2.0 | 2.5 | 1.6 | 1.5 | |
| 4 | 18ME401 | 2.6 | 2.0 | 1.8 | 1.4 | 1.0 | - | - | - | - | - | - | - | 2.6 | 2.2 | - | |
| 4 | 18ME402 | 3.0 | 2.0 | 2.3 | 2.0 | - | 1.5 | - | - | - | - | - | - | 3.0 | 2.0 | 1.0 | |
| 4 | 18ME403 | 2.5 | 2.0 | 3.0 | 1.7 | - | - | - | 1.0 | - | - | - | 1.0 | 2.3 | 2.3 | 1.0 | |
| 4 | 18ME404 | 2.4 | 1.8 | 1.4 | 1.5 | - | - | - | - | - | - | - | - | 1.8 | 2.0 | 1.0 | |
| 4 | 18ME405 | 1.0 | 1.3 | 1.8 | 1.3 | 1.0 | 1.3 | 1.0 | - | - | - | - | - | 2.3 | 2.8 | 1.0 | |

Sample/Reference for CO, PO & PSO Attainment rating

Overall Attainment Rating of POs and PSOs

Department of Electrical and Communication Engineering

| Batch | Program Outcomes (PO) | | | | | | | | | | | | Program Specific Outcomes (PSO) | | | |
|---------------------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------------------|-----|-----|-----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 |
| Batch: 2018 - 2022 | | | | | | | | | | | | | | | | |
| Target Level | 1.5 | 1.4 | 1.4 | 1.4 | 1.2 | 1.1 | 1.2 | 1.2 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 1.2 | 1.5 |
| Overall Attainment Level | 2.0 | 2.0 | 2.0 | 2.0 | 1.8 | 1.7 | 1.8 | 2.2 | 1.8 | 2.0 | 1.7 | 1.8 | 1.8 | 1.7 | 1.8 | 2.0 |
| Batch: 2019 - 2023 | | | | | | | | | | | | | | | | |
| Target Level | 1.6 | 1.5 | 1.4 | 1.4 | 1.2 | 1.1 | 1.1 | 1.0 | 1.2 | 1.4 | 1.2 | 1.3 | 1.4 | 1.1 | 1.2 | 1.6 |
| Overall Attainment Level | 2.1 | 2.0 | 1.9 | 1.9 | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 | 1.9 | 1.7 | 1.9 | 1.9 | 1.7 | 1.7 | 2.1 |



Sample/Reference for CO, PO & PSO Attainment rating

| | | | |
|---|-----------------------|-----------------|--------|
| Government College of Engineering, Salem - 11 | | | |
| Department of Mechanical Engineering | | | |
| Regulation 2018 | | | |
| Academic Year 2020 - 2021 (Even Semester) | | | |
| Batch 2018 - 2022 | | | |
| Subject Code | 18MEPE61 | Class & Section | VI Sem |
| Subject Name | Cryogenic Engineering | No. of Students | 45 |
| Name of the Faculty | Dr.S.SIVALAKSHMI | | |

Course Outcomes

Upon completion of the course, the students will be able to

| | |
|-----|---|
| CO1 | Understand the properties cryogenic fluids. |
| CO2 | Understand the concepts of low temperature production methods. |
| CO3 | analyze the performance parameters of various gas liquefaction and refrigeration systems. |
| CO4 | Explain the various types of insulation in cryogenics. |
| CO5 | Understand instrumentation in cryogenics. |

Cos Analytic Report

| Academic Year | Cos | Threshold | Level | Target (%) | Attainment (%) | CAY - Explanation for fixing new threshold and target | Proposed action plan |
|---------------|-----|-----------|---------|--|----------------|---|---|
| 2020-2021 | CO1 | 70 | Level 3 | 70% and above of students scored more than set target(>=70%) | 3 | Based on three years internal assessment and end semester examination performance, 70% marks are set as threshold marks | 1) All COs are attainment, hence the threshold percentage to increase to next |
| | CO2 | 70 | | | 3 | | |
| | CO3 | 70 | Level 2 | 60-70% of students scored more than set target | 3 | | |
| | CO4 | 70 | | | 3 | | |
| | CO5 | 70 | Level 1 | 50-60 % of students scored more than set target | 3 | | |