



PROCEDURE FOR ATTAINMENT COMPUTATION AND RUBRICS FOR PO, PSO, PEO

The university follows a specific process for computation of attainment of Course Outcomes, Program Outcomes, Program Specific Outcomes and Program Educational Objectives as defined during the formation of the new curriculum during Academic Year 2019-20. Due to the change in curriculum in the Academic Year 2023-24 onwards, the process is restated as below.

Overview of the Process for computation of CO, PO, PSO and PEO attainment.

Attainment of Course Outcomes

1. Direct attainment of COs is obtained from marks obtained by students.
2. Indirect attainment of COs is obtained from a survey response at the end of the semester.
3. Final attainment of COs is obtained using the formula $0.7 * (\text{CO Direct}) + 0.3 * (\text{CO Indirect})$

Attainment of Program Outcomes

1. Direct attainment of POs is obtained from CO attainment
2. Indirect attainment of POs is obtained from various surveys.
3. Final attainment of POs is the average of direct and all indirect.

Attainment of Program Specific Outcomes is currently obtained from final CO attainment.

Attainment of Program Educational Objectives is obtained from survey of alumni who have graduated within last 03-05 years.

Detailed Process for Attainment of Course Outcomes

1. Attainment computation by direct methods is from marks obtained by students.
(Formative Assessment (Assignments, Quiz etc), are not used for computing direct attainment)
2. Define attainment level for each semester in Board of Studies. For example, attainment level [0.5, 0.3] means, if average class marks > 0.5 , attainment is 3, else if $0.3 < \text{average class marks} < 0.5$, attainment is 2, else the attainment is 1.
3. At the end of the take a survey from students for indirect assessment of course outcomes using the format available on IQAC website "Format for Indirect assessment of course outcomes".
4. Enter Mid Term and End Term marks and attainment levels in the format "Format for CO-PO-PSO Attainment Computation for Theory-UG.xlsx" (or PG) available at IQAC website.
5. The direct assessment of course outcomes for laboratories is separated into Continuous and End Term Evaluations. Indirect attainment is obtained using surveys.

Detailed Process for Attainment of Program Outcomes

The direct attainment of program outcome attainment is computed using two methods.

A. Method-1 (subject/course wise)

This method provides the PO attainment of a course/subject in 0-3 scale using the formula

$$\text{Final CO Attainment} \times \frac{\text{Average Mapping for that PO}}{3}$$

The final attainment for the batch is **AVERAGE** of PO attainment of individual subjects. Disadvantage of this method is that a low value of CO-PO mapping results in lower attainment.

B. Method-2 (graduating batch wise)

In this method, the contribution of the course/subject to the PO attainment is scaled according to the mapping as depicted in the following formula.


$$\text{Final CO} \times \frac{\text{CO-PO mapping for that subject only}}{\text{Sum of mapping for all subjects for that PO}}$$

This method is more accurate and is not affected low value of CO-PO mapping. The final attainment for the batch is **SUM** of PO attainment of individual subjects. The disadvantage of this method is that PO attainment of individual courses cannot be separated.

The **indirect assessment** of Program Outcome attainment is obtained from (i) Student Exit Survey, (ii) Alumni Survey and (iii) Employer Survey which are conducted both offline and online by IQAC and at department/program level.

Resources

1. Further details of the attainment computation process and details of Outcome Based Education implementation in VSSUT can be obtained from OBE-VSSUT.pdf available at <https://vssut.ac.in/IQAC/documentspdf/OBE-VSSUT.pdf>
2. Detailed formats for attainment computation and formats for various surveys can be downloaded from the IQAC website. <https://vssut.ac.in/IQAC/>



09/10/2024
Director, IQAC
VSSUT, Burla

Memo No. VSSUT/IQAC/ 122

Date: 09.10.2024

Copy to:

1. HODs/HOPs for information and necessary action.
2. PA to VC for kind information of the Hon'ble Vice-Chancellor.


09/10/2024
Director, IQAC
VSSUT, Burla