

2.6.2 Attainment of program outcomes, program specific outcomes and course outcomes

Measurement of Course Outcomes for the Continuous Internal Assessment:

In our college, outcome based education is being practiced from the academic year 2017-18 for the undergraduate students. All the questions in continuous internal assessment tests and components are mapped with course outcomes. The course outcomes are measured based on the performance in continuous internal assessment tests, components, and course exit survey. The target for course outcomes in a course is set based on the performance in the course by the graduated students in the past academic years.

The expected attainment of outcome of each course is set based on the cumulative probability (from the highest grade) of the grades obtained by the past batch students. The expected attained level (Number of students in percentage) is set to be 20 per cent more than the average number of students.

➤ Continuous Internal Assessment Tests

The question papers are set based on the assessment pattern and the Bloom's Cognitive level with stated outcomes is given in the approved syllabus.

➤ Components

The components are given at the higher order cognitive levels of the course. The nature of the components is decided by the respective faculty member. The components are in the form of worksheets, Quiz, mini projects, case studies, seminar presentation, review of journal papers, etc.,

➤ Course Exit Survey

This survey is obtained on the completion of the course.

The assessment pattern of Course Outcomes, Program Outcomes and Program Specific Outcomes is presented below:

Outcome based assessment is done at 3 levels:

- i. Course outcome
- ii. Program / Program specific outcome
- iii. Program Educational Objective

Level 1: Course Outcome (CO) Calculation:

$$CO = \text{Direct Method} + \text{Indirect method}$$

- Direct Method: Examinations
- Indirect Method: Feedback

Weightage Sample:

Direct Method: 98%	
Assessment	Weightage
Internal Exam 1	59%
Internal Exam 2	59%
Indirect Method: 2%	
Assessment	Weightage
Feedback	100%

Internal Exam 1:

Class student strength = 5

Internal Exam 1 : Question 1			
Students	CO	Weightage	Question wise outcome with weightage
Student 1	CO1	60	Convert the scored marks out of maximum mark after computing the weightage
Student 2			
Student 3			
Student 4			
Student 5			

- All questions have different level CO's and Weightages.
- When there are more than one CO1's in the question paper, apply "weighted average" method to finalize the CO1 for the subject.
- After applying the weighted average conversions, the outcome value obtained for the CO's are converted to the scale of scheduled weightage values.
- The same will be applicable for all Exams (Direct method), and the final value for CO1 under direct method is obtained by adding the values of all CO1's from all examinations. The same calculation is applicable for all the CO's.

Feedback:

Feedback : Attribute 1				
Students	Feedback from students	CO	Weightage	Question wise outcome with weightage
Student 1	YES	CO1	20	Convert the rated feedback out of maximum rating after computing the weightage.
Student 2	YES			
Student 3	YES			
Student 4	YES			
Student 5	YES			

- Feedback calculation for CO1 is retrieved after the weightage conversion.

Course Outcome:

Final CO value is obtained from sum of Feedback outcome (Indirect method) and Exam outcome (Direct method). Overall course outcome can be obtained from the average of all student CO's.

Level II: Program Outcome Calculation

- Based on the CO – PO mapping, we know the level of impact in each PO's.

CO's	PO mapping	Level of Impact
CO1	PO1	H
	PO2	H
	PO3	L
CO2	PO1	M
	PO2	H
	PO3	L

- H – High (3), M – Medium (2), L – Low (1)
- CO value is multiplied with PO level's and apply weighted average formula to obtain the final PO.
- Overall PO is calculated from the Average of all courses PO.

Level III: Program Educational Objective Calculation:

- Based on the PO – PEO mapping, we know the level of impact in each PEO.

PO's	PEO mapping	Level of Impact
PO1	PEO1	H
	PEO2	M
	PEO3	L
PO2	PEO1	H
	PEO2	M
	PEO3	L

- H – High (3), M – Medium (2), L – Low (1)
- PO values are multiplied with PEO levels and apply “weighted average” formula to obtain the final PEO.
- Overall PEO is calculated from the Average of all courses PEO.

OBE Calculation in CAMU

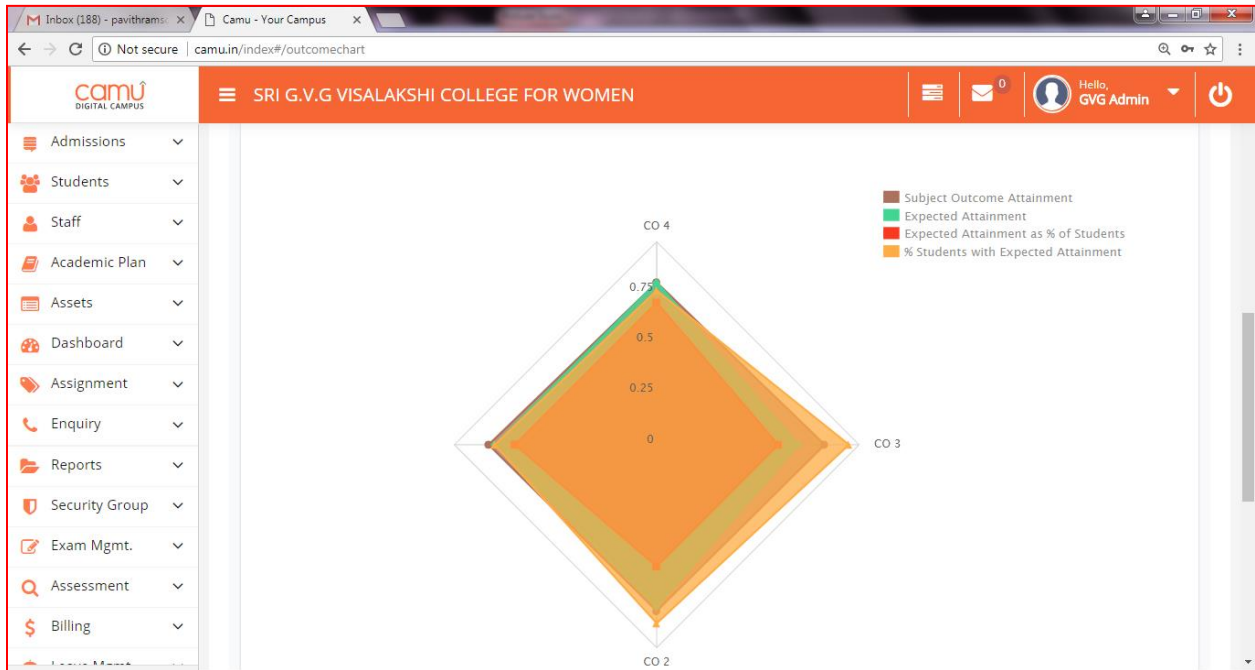
OBE Details:

The screenshot displays the CAMU web application interface. The header shows the college name 'SRI G.V.G VISALAKSHI COLLEGE FOR WOMEN' and the user 'Hello, GVG Admin'. The main content area is titled 'Outcome Attainment Chart' and features a search form with the following fields:

- Institution***: SRI G.V.G VISALAKSHI COLLEC
- Program***: Under Graduate - AD
- Course***: B.Sc Maths
- Academic Year***: 2017 - 18
- Semester***: Sem 1
- Section**: A
- Subjects***: DELT - P3: C2: Differential Equati
- Student**: Student Name

Buttons for 'Reset' and 'Search' are located at the bottom right of the search form.

Outcome attainment Chart:



Outcome	Expected Attainment	Expected Attainment as % of Students	Actual Attainment	% Students with Expected Attainment	Outcome Description
CO 4	0.8	0.7	0.8	0.76	apply Laplace transform to solve d...
CO 3	0.7	0.6	0.83	0.95	solve the first order partial differe...
CO 2	0.8	0.6	0.82	0.88	Solve the linear differential equati...
CO 1	0.8	0.7	0.83	0.8	know various methods of solving f...