

GOVT.DEGREE COLLEGE(MEN), SRIKAKULAM**DEPARTMENT OF BOTANY****CO-PO'S MAPPING ATTAINMENTS****COURSE OUTCOMES ASSESSMENT****2020-23 BATCH**

Aspects	Threshold X	Weightage	All student's average performance	Overall Course Direct Assessment
Internal Assessment	60%	25%	A	.25*A + .75*B=AF
Semester Exam	60%	75%	B	

INTERNAL ASSESSMENTS

Aspects	Weightage
MID EXAMS, MID-I & MID-2, ASSIGNMENTS, QUIZ, etc.. (As per the University guidelines)	25

COURSE OUT COMES ATTAINMENT

Assessment Methods	Attainment Levels	
Internal Assessment	Level-1	Less than 60% of students scoring more than 60% marks in MID
	Level-2	60% to 70% of students scoring more than 60% marks in MID
	Level-3	More than 70% of students scoring more than 60% marks in MID
Semester Exam	Level-1	Less than 50% of students passed in End Semester Examination (ESE)
	Level-2	50% to 60% of students passed in End Semester Examination (ESE)
	Level-3	More than 60% of students passed in ESE

ASSESSMENT TABLE
BOTANY SEM-I PAPER-I

PARTICULARS	INTERNAL ASSESSMENT (A)	SEMESTER EXAM (B)
Total Number of Students Appeared	126	126
Number of students Scoring above threshold(X)	115	70
Percentage	91.26%	55.55%
Attainment Level	3	2
Weightage	.25*3=.75	.75*2=1.5
Attainment factor (AF) (0.25*A+ 0.75*B)= (AF)	.75 + 1.5 = 2.25	

BOTANY SEM-I PAPER-I

SEMESTER-I												
B.Sc.		FUNDAMENTALS OF MICROBES & NON-VASCULAR PLANTS		PAPER CODE:								
Hrs/Week: 4 + 3		Hrs: 60		Credits: 5								
code	COURSE OUT COMES		BLOOM'S TAXONOMY	CORRELATING PROGRAM OUTCOMES								
				PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	Explain origin of life on the earth		U	3	3	2	-	1	3	1	2	1
CO2	Illustrate diversity among the Viruses & Prokaryotic organisms & their classification.		A	3	2	1	1	1	2	1	2	1
CO3	Classify Fungi, Lichens & Algae based on their Structure, Reproduction & Life cycles.		K	3	2	2	1	1	2	1	2	1
CO4	Analize & ascertain the Plant disease symptoms due to Viruses, Bacteria & Fungi.		A	3	2	2	1	1	3	1	2	1
CO5	Evaluate the ecological economic value of Microbes & Thallophytes.		U	3	3	2	1	1	3	1	2	1
CO AVERAGE				3	2.4	1.8	1	1	2.6	1	2	1

Overall Course attainment (Direct) : 2.25 out of 3

CO contribution to Programme Outcomes:

PO Attainment = (weighted average value of PO x AF) /3

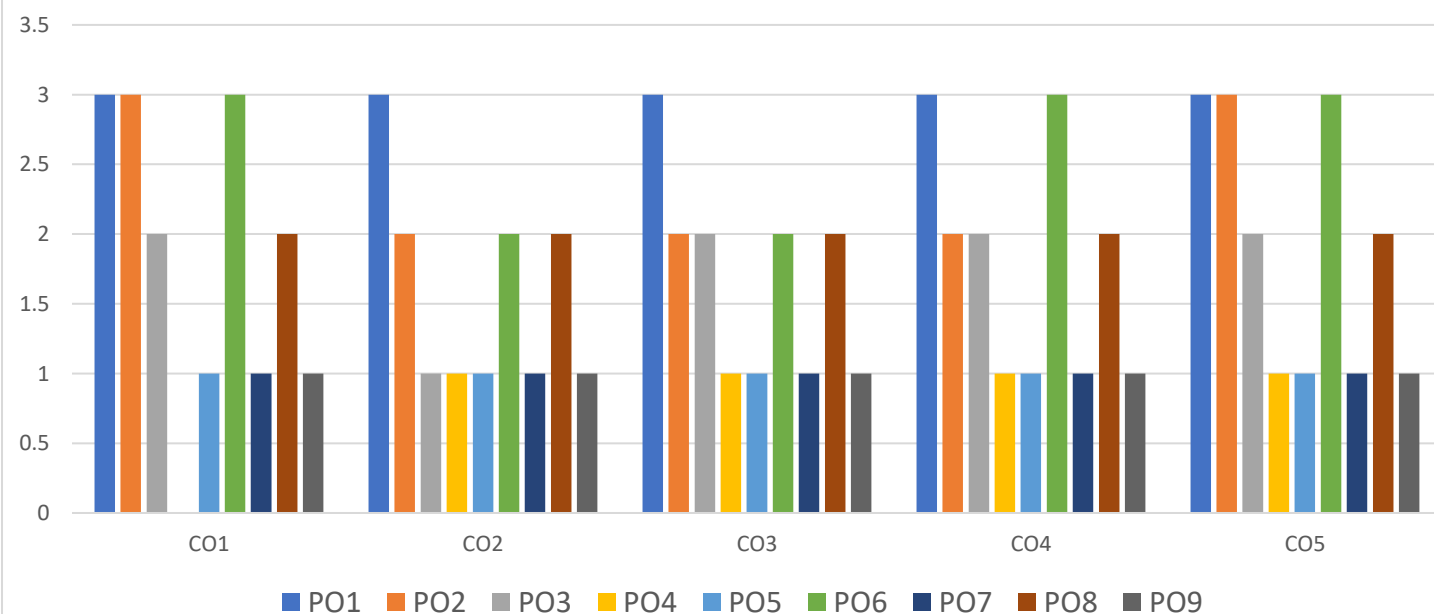
Course Code	AF	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	2.25	3	2.4	1.8	1	1	2.6	1	2	1
CO contribution to PO		2.25	1.8	1.35	.75	.75	1.95	.75	1.5	.75

CORRECTIVE ACTIONS TO IMPROVE CO ATTAINMENTS

Overall CO attainment is achieved to the expected level. To improve term end examination attainment the following actions are to be carried out.

- Remedial classes/Additional Tutorial classes are conducted
- More problems related to the concepts are solved to make the students understand the application orientation of the subject.

CO-PO ATTAINMENTS



ASSESSMENT TABLE
BOTANY SEM-II PAPER-II

PARTICULARS	INTERNAL ASSESSMENT (A)	SEMESTER EXAM (B)
Total Number of Students Appeared	110	110
Number of students Scoring above threshold(X)	99	82
Percentage	90 %	74.54%
Attainment Level	3	3
Weightage	.25*3=.75	.75*3=2.25
Attainment factor (AF) (0.25*A+ 0.75*B)=(AF)	.75 + 2.25 = 3	

SEMESTER-II BOTANY PAPER-II											
B.Sc.	BASICS OF VASCULAR PLANTS & PHYTOGEOGRAPHY		PAPER CODE:								
Hrs/Week : 4 + 3	Hrs: 60		Credits: 5								
CODES	COURSE OUT COMES	BLOOM'S TAXONOMY	CORRELATING PROGRAM OUTCOMES								
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	Classify & compare Archegoniates based on their Morphology, Anatomy, Reproduction & Their life cycles.	U	3	3	2	3	2	3	1	2	1
CO2	Explain the process of Fossilization & compare the Characteristics of extinct plants	K	3	2	1	2	1	2	1	2	1
CO3	Justify evolutionary trends in Tracheophytes to adapt for land habit.	A	3	2	2	2	2	2	1	2	1
CO4	Evaluate the ecological, ethnic & economic value of different tracheophytes.	A	3	3	2	2	1	3	1	1	1
CO5	Understand on the organization of tissues & tissue systems in plants.	U	3	3	2	2	1	2	1	1	1
CO AVERAGE			3	2.6	1.8	2.2	1.4	2.4	1	1.6	1

Overall Course attainment (Direct) : 2.25 out of 3

CO contribution to Programme Outcomes:

PO Attainment = (weighted average value of PO x AF) /3

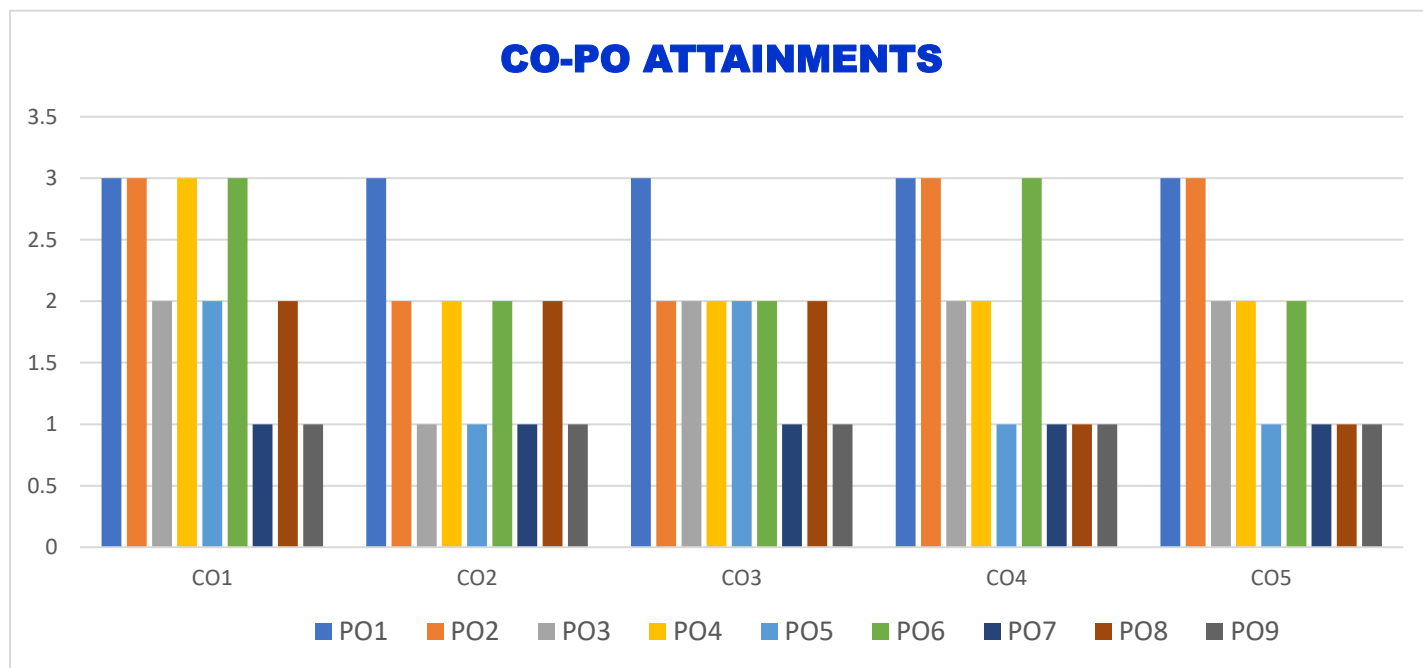
Course Code	AF	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	3	3	2.6	1.8	2.2	1.4	2.4	1	1.6	1
CO contribution to PO		3	2.6	1.8	2.2	1.4	2.4	1	1.6	1

CORRECTIVE ACTIONS TO IMPROVE CO ATTAINMENTS

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CO-PO ATTAINMENTS



ASSESSMENT TABLE
BOTANY SEM-III PAPER-III

PARTICULARS	INTERNAL ASSESSMENT (A)	SEMESTER EXAM (B)
Total Number of Students Appeared	96	96
Number of students Scoring abovethreshold(X)	85	66
Percentage	88.54%	68.75%
Attainment Level	3	3
Weightage	.25*3=.75	.75*3=2.25
Attainment factor (AF) (0.25*A+ 0.75*B)=(AF)	.75 + 2.25 = 3	

BOTANY Semester-III PAPER-III

SEMESTER-III											
B.Sc.		ANATOMY & EMBRYOLOGY OF ANGIOSPERMS, PLANT ECOLOGY, BIODIVERSITY			PAPER CODE:						
Hrs/Week: 4 + 3		Hrs: 60			Credits: 5						
CODES	COURSE OUT COMES	BLOOM'S TAXONOMY	CORRELATING PROGRAM OUTCOMES								
			PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9
CO1	Critically understand various taxonomical aids for identification of Angiosperms.	K	3	3	3	2	-	3	1	2	2
CO2	Analyze the morphology of the most common Angiosperms of their localities & recognize their families.	A	3	3	2	2	1	2	-	2	1
CO3	Discuss the basic concepts of morphology of given Angio spermic families.	K	3	3	3	1	1	3	-	2	2
CO4	Illustrate & interpret various aspects of embryology.	K	3	3	3	2	1	3	1	2	1
CO5	Understand the various modes of reproductions, developmental stages of embryos.	U	3	3	2	2	-	2	-	2	2
CO contribution to PO			3	3	2.6	1.8	1	2.6	1	2	1.6

ASSESSMENT TABLE SEMESTER-III

Overall Course attainment (Direct): 3 out of 3

CO contribution to Programme Outcomes:

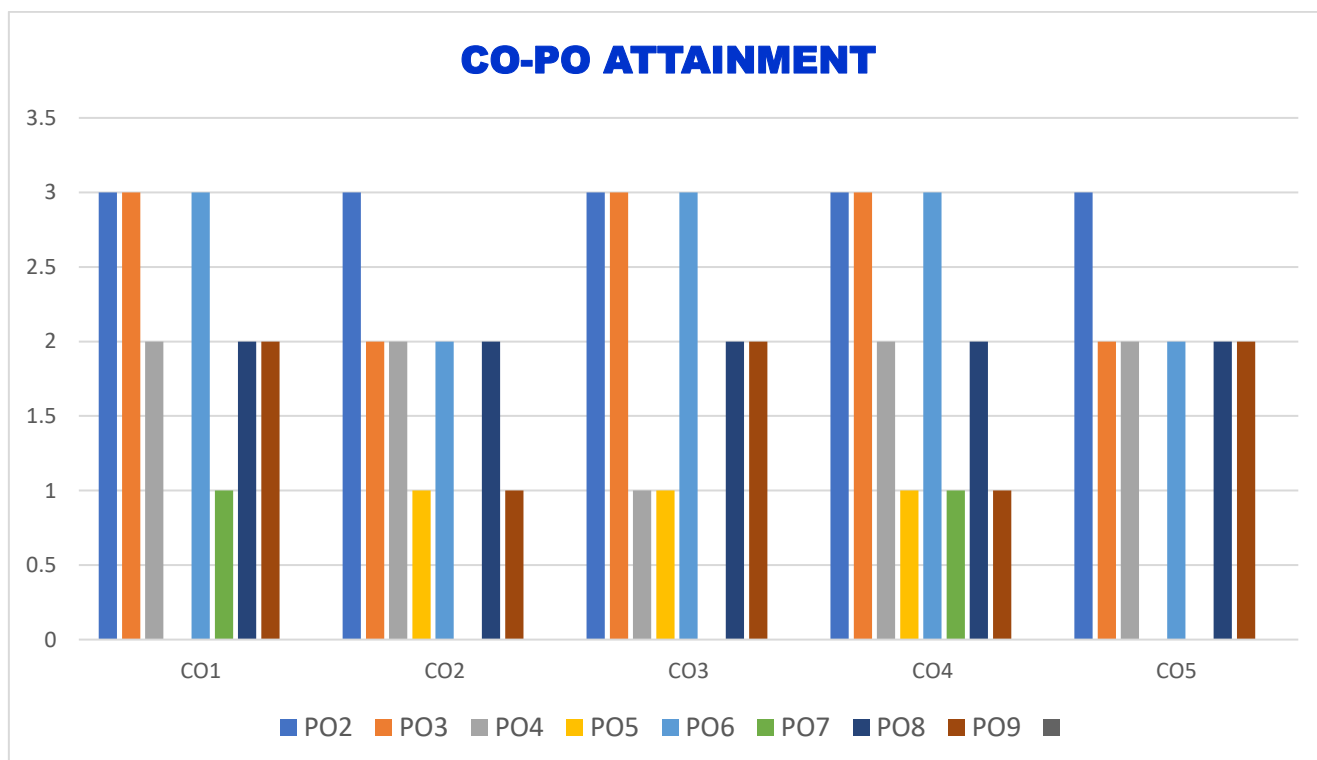
PO Attainment = (weighted average value of PO x AF) /3

Course Code	AF	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	3	3	3	2.6	1.8	1	2.6	1	2	1.6
CO contribution to PO		3	3	2.6	1.8	1	2.6	1	2	1.6

CORRECTIVE ACTIONS TO IMPROVE CO ATTAINMENTS

Overall CO attainment is achieved to the expected level. To improve term end examination attainment the following actions are to be carried out.

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ASSESSMENT TABLE
BOTANY SEM-IV PAPER-IV

PARTICULARS	INTERNAL ASSESSMENT (A)	SEMESTER EXAM (B)
Total Number of Students Appeared	81	81
Number of students Scoring above threshold(X)	71	54
Percentage	87.65%	66.66%
Attainment Level	3	3
Weightage	.25*3=.75	.75*3=2.25
Attainment factor (AF) (0.25*A+ 0.75*B)=(AF)	.75 + 2.25 = 3	

BOTANY SEMESTER-IV											
PAPER-IV											
B.Sc.		PLANT PHYSIOLOGY & METABOLISM		PAPER CODE:							
Hrs/Week :4 + 3		Hrs: 60		Credits: 5							
CODES	COURSE OUT COMES	BLOOM'S TAXONOMY	CORRELATING PROGRAM OUTCOMES								
			PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9
CO1	Comprehend the importance of water in plant life & mechanism for transport of water, solutes in plants & explain the physiology of plants under stress conditions.	A	3	3	2	1	1	3	1	2	1
CO2	Explain the role of minerals in plant nutrition and their deficiency symptoms.	U	3	3	1	1	1	2	1	2	1
CO3	Interpret the role of enzymes in plant metabolism.	A	3	3	1	1	1	3	1	2	1
CO4	Understand the light reactions & carbon assimilation, Respiration & Nitrogen & Lipid metabolism.	U	3	3	2	1	1	2	1	2	1
CO5	Understand the role of Plant growth regulators on growth & development in plants.	K	3	3	2	1	1	2	1	2	1
CO contribution to PO			3	3	1.6	1	1	2.4	1	2	1

Overall Course attainment (Direct) : 3 out of 3

CO contribution to Programme Outcomes:

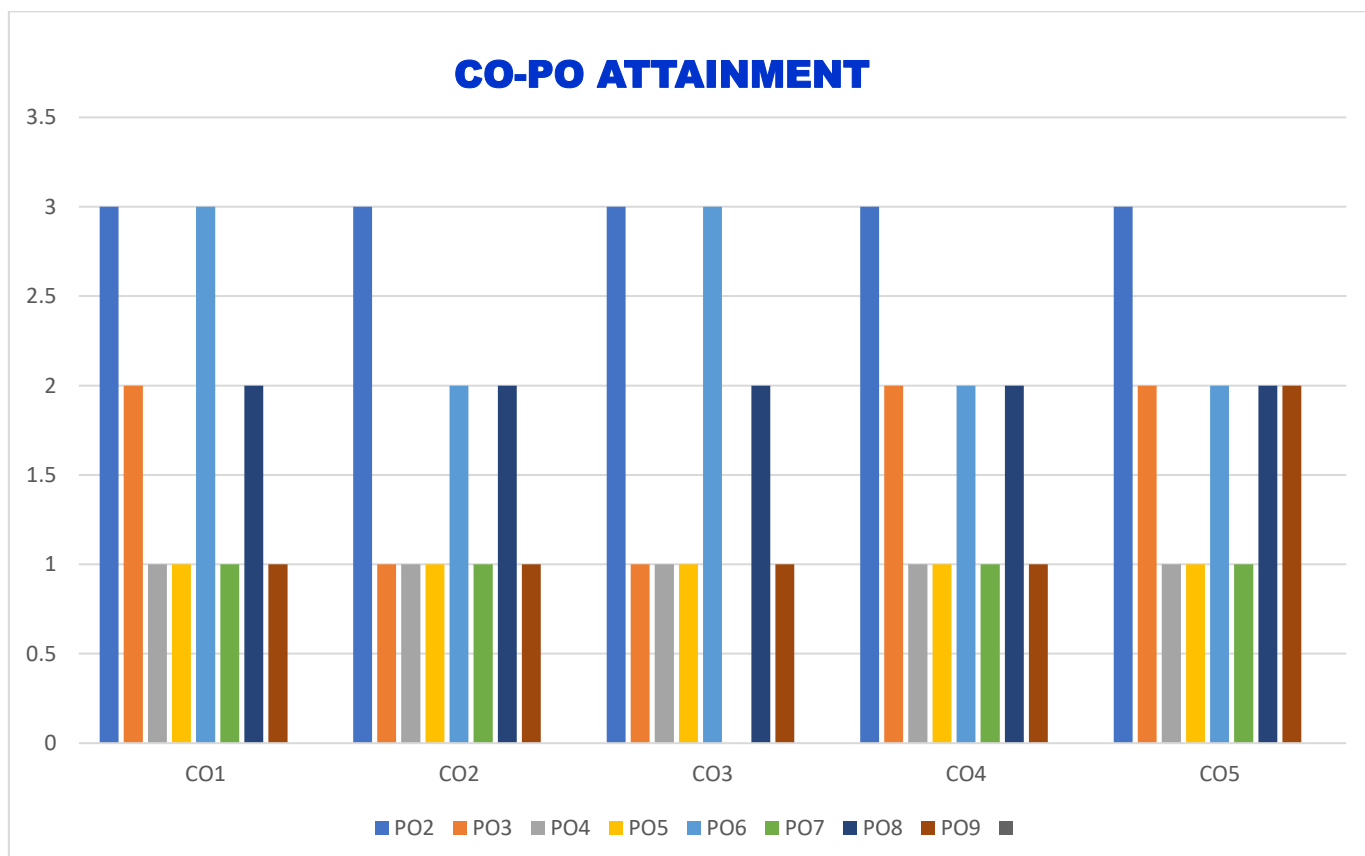
PO Attainment = (weighted average value of PO x AF) /3

Course Code	AF	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	3	3	3	1.6	1	1	2.4	.8	2	1
CO contribution to PO		3	3	1.6	1	1	2.4	.8	2	1

CORRECTIVE ACTIONS TO IMPROVE CO ATTAINMENTS

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ASSESSMENT TABLE

SEMESTER-V

BOTANY

PAPER - V

PARTICULARS	INTERNAL ASSESSMENT (A)	SEMESTER EXAM (B)
Total Number of Students Appeared	81	81
Number of students Scoring above threshold(X)	72	52
Percentage	88.88%	64.19%
Attainment Level	3	3
Weightage	.25*3=.75	.75*3=2.25
Attainment factor (AF) (0.25*A+ 0.75*B)= (AF)	.75 + 2.25 = 3	

BOTANY

SEMESTER-IV

PAPER-V

B.Sc.	CELL BIOLOGY, GENETICS & PLANT BREEDING		PAPER CODE:								
Hrs/Week : 4 + 3			Credits: 5								
CODES	COURSE OUT COMES	BLOOM'S TAXONOMY	CORRELATING PROGRAM OUTCOMES								
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	Distinguish prokaryotic & Eukaryotic cells & design the model of a cell & its components.	U	3	3	2	1	2	3	1	2	2
CO2	Explain the organization of a eukaryotic chromosomes & the structure of genetic material.	K	3	2	2		2	2	1	1	3
CO3	Discuss the basics of Mendelian genetics & role extra chromosomal genetic material.	A	3	2	1	1	2	3	1	2	2
CO4	Evaluate structure, function & regulation of genes.	A	3	3	1	1	2	2	1	1	2
CO5	Understand the application of principles in Plant breeding & Process of Selection & Hybridization for crop improvement	U	3	3	2		2	2	1	2	3
CO contribution to PO			3	2.6	1.6	1	2	2.4	1	1.6	2.4

Overall Course attainment (Direct): 3 out of 3

CO contribution to Programme Outcomes:

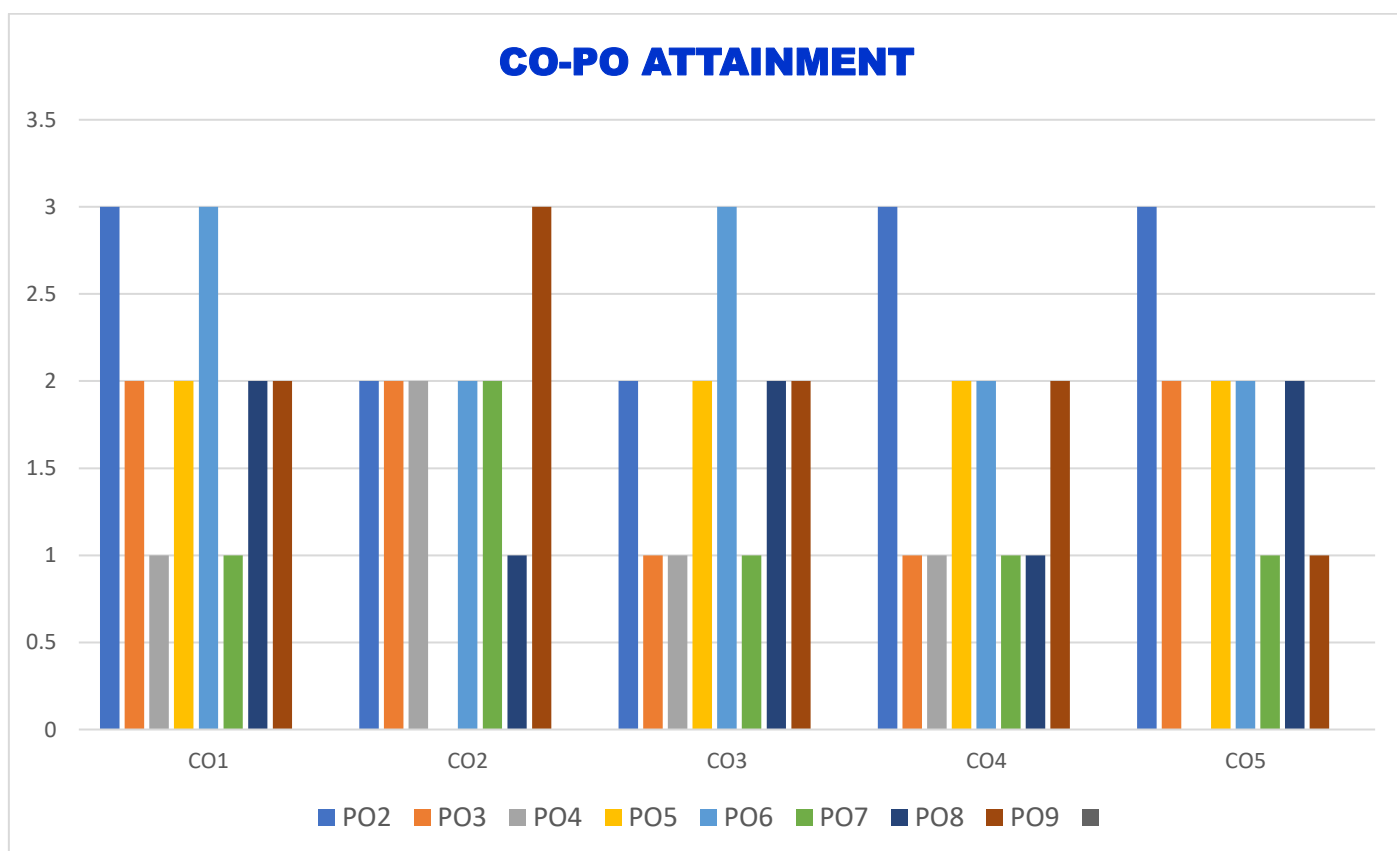
PO Attainment = (weighted average value of PO x AF) / 3

Course Code	AF	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	3	3	2.6	1.6	1	2	2.4	1	1.6	2.4
CO contribution to PO		3	2.6	1.6	1	2	2.4	1	1.6	2.4

CORRECTIVE ACTIONS TO IMPROVE CO ATTAINMENTS

Overall CO attainment is achieved to the expected level. To improve term end examination attainment the following actions are to be carried out.

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ASSESSMENT TABLE
BOTANY **SEMESTER-VI** **PAPER-VI**

PARTICULARS	INTERNAL ASSESSMENT (A)	SEMESTER EXAM (B)
Total Number of Students Appeared	81	81
Number of students Scoring above threshold(X)	73	58
Percentage	90.12%	71.60%
Attainment Level	3	3
Weightage	.25*3=.75	.75*3=2.25
Attainment factor (AF) (0.25*A+ 0.75*B)= (AF)	.75 + 2.25 = 3	

SEMESTER-VI											
BOTANY						PAPER-VI					
B.Sc.	PLANT TISSUE CULTURE		PAPER CODE:								
Hrs/Week: 4 + 3	Hrs: 60		Credits: 5								
CODES	COURSE OUT COMES	BLOOM'S TAXONOMY	CORRELATING PROGRAM OUTCOMES								
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO-1	Comprehend the basic knowledge & applications of plant tissue culture.	K	3	3	2	2	1	3	1	1	2
CO-2	Identify various facilities required to set up a plant tissue culture lab.	U	3	2	2	2	1	2	1	2	3
CO-3	Acquire a critical knowledge on sterilization techniques related to tissue culture.	A	3	3	2	2	1	3	1	1	3
CO-4	Demonstrate skills of callus culture through hands on experience.	U	3	2	2	2	1	2	1	2	2
CO-5	Understand the biotransformation technique for production of secondary metabolites.	U	3	2	2	2	1	2	1	2	2
CO contribution to PO			3	2.5	2	2	1	2.5	1	1.5	2.5

Overall Course attainment (Direct): 3 out of 3

CO contribution to Programme Outcomes:

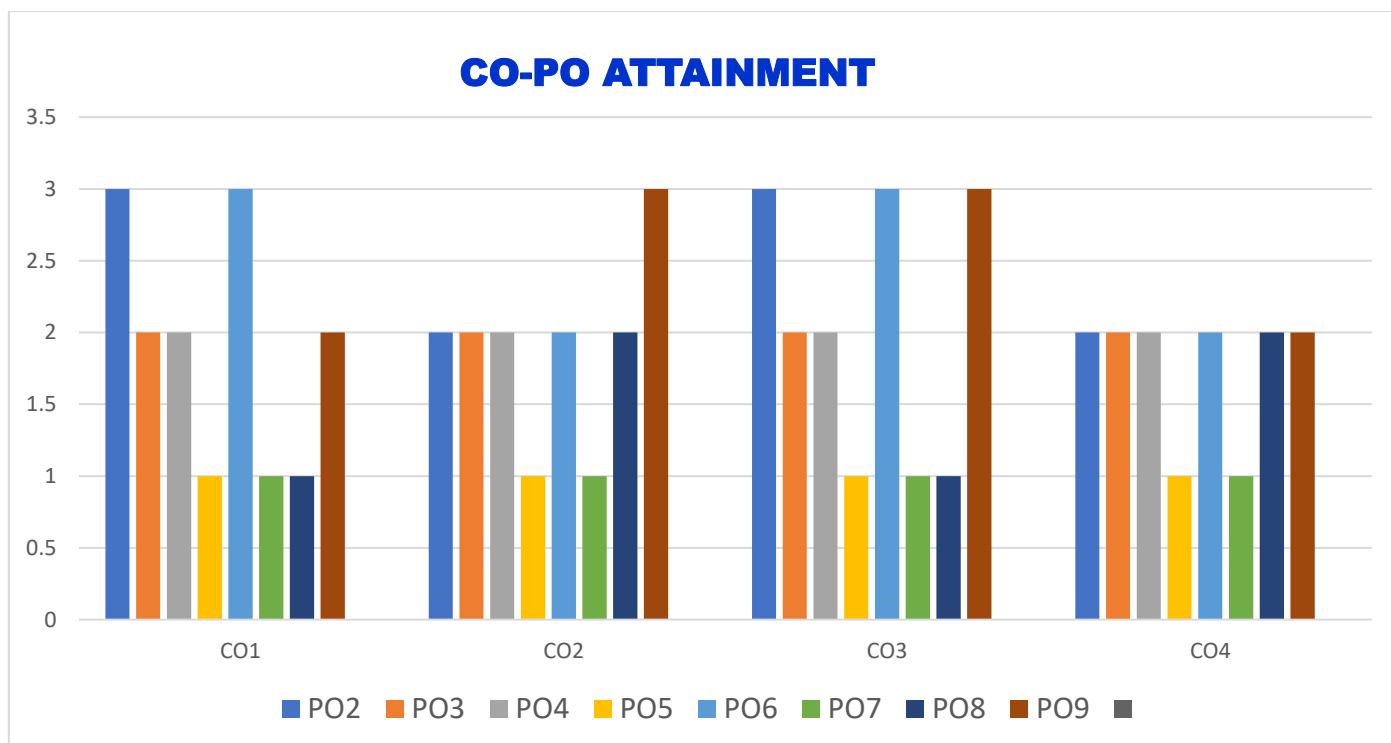
$$\text{PO Attainment} = (\text{weighted average value of PO} \times \text{AF}) / 3$$

Course Code	AF	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	3	3	2.5	2	2	1	2.5	1	1.5	2.5
CO contribution to PO		3	2.5	2	2	1	2.5	1	1.5	2.5

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ASSESSMENT TABLE

BOTANY SEMESTER-VI PAPER-VII

PARTICULARS	INTERNAL ASSESSMENT (A)	SEMESTER EXAM (B)
Total Number of Students Appeared	79	79
Number of students Scoring above threshold(X)	69	53
Percentage	87.34%	67.08%
Attainment Level	3	3
Weightage	.25*3=.75	.75*3=2.25
Attainment factor (AF) (0.25*A+ 0.75*B)= (AF)	.75 + 2.25 = 3	

BOTANY SEMESTER-VI PAPER-VII

MUSHROOM CULTIVATION

B.Sc.		PAPER-VII	PAPER CODE:								
Hrs/Week: 3 + 3		Hrs: 60	Credits: 5								
CODES	COURSE OUT COMES	BLOOM'S TAXONOMY	CORRELATING PROGRAM OUTCOMES								
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	Understand the structure & life of a mushroom.	K	3	2	3	1	2	2	2	1	1
CO2	Discriminate edible & poisonous mushrooms.	U	3	2	2	1	1	2	1	1	1
CO3	Identify the basic infra structure to establish a mushroom culture unit.	K	3	2	2	2	1	2	1	1	1
CO4	Demonstrate skills on preparation of compost & spawn.	U	3	3	3	2	2	1	1	1	1
CO5	Acquire knowledge on cultivation of some edible mushrooms.	K	3	3	3	1	1	1	2	1	1
CO6	Explain the methods of storage, preparation of value added products & marketing.	A	3	3	3	1	1	2	1	1	1
CO contribution to PO			3	2.5	2.67	1.33	1.33	1.67	1.33	1	1

Overall Course attainment (Direct): 3 out of 3

CO contribution to Programme Outcomes:

$$\text{PO Attainment} = (\text{weighted average value of PO} \times \text{AF}) / 3$$

Course Code	AF	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	3	3	2.5	2.67	1.33	1.33	1.67	1.33	1	1
CO contribution to PO		3	2.5	2.67	1.33	1.33	1.67	1.33	1	1

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CO-PO ATTAINMENTS

