

# Dr. BRR GOVERNMENT COLLEGE (Accredited with B<sup>++</sup> by NAAC) JADCHERLA-509301 MAHABUBNAGAR (DIST), T.S

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# **PROGRAMME OUTCOMES**

All the end of under graduate programme students will be able to do the following outcomes.

# PO1. Strengthening of knowledge:

Knowledge of domine subjects will be gained by students and be able to apply it wherever necessary in favorable manner.

## PO2. Modern tool usage

Create, select and apply appropriate techniques and modern tools including prediction and modeling to complex activities with an understanding of the limitations.

# PO3. Ethics and computing skills:

Students learn critical thinking and able to analyze and solve problems rationally and ethically for communication and express legal and ethical issues and understand the moral dimensions of decisions and responsibilities.

## PO4. Conduct investigations of complex problems:

Identify, formulate and review research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of the information to provide valid conclusions.

## PO5. Individuals and Team work:

Function effectively as an individual and a member of leader in diverse teams and in multidisciplinary settings,

## **PO6.** Effective communication:

Communicate clearly and concisely using the professional standards of their fields.

## PO7. Environment and sustainability:

Understand the impact of the environmental contents and demonstrate the knowledge for sustainable development.

## PO8. Student and Society:

Apply reasoning informed by the contextual knowledge to assess societal, health, safety legal and cultural issues and the consequent responsibilities relevant at regional, national and global levels.

## PO9. Project management and finance

Goals, objectives and components of a project identified and then implementation, so that goals are achieved, even when these are drawbacks.

#### METHODOLOGY FOR CALCULATING PROGAMME OUTCOME ATTAINMENT

The Program Outcomes (POs)/ Program Specific Outcomes (PSOs) are the qualities that must be imbibed in the graduates by the time of completion of their program. At the end of each program, the PO/PSO assessment is done from the CO attainment of all curriculum components. The PSOs are framed based on the guidelines of learning outcomes.

For every Course, there are number of outcomes to be achieved at the end of the course. This outcome is usually a combination of main course content and may cover more than one topic. All course out comes shall have linkage to programme outcomes in such a way that the strongest relation has the weight 3 and the weakest relation is 1. The relation is put into a table given below:

CO/ PO	PO1	PO2	PO3	PO4	PO5	PO6	<b>PO7</b>	PO8	PO9
CO1	3	2	2	3	3		3	1	
CO2	3	3	2	2	2	3	2	1	1
CO3	3	2	3	1	1	2	1	2	1
CO4	2	2	3	1	2	2		1	2
CO5	1	1		3		1	1	1	3
Average	2.4	2	2.5	1.8	2	2	1.75	1.2	1.8

Step1: Develop CO-PO mapping at each Course Level and Program Level

 $WP_i = \sum_{j=1}^{j} (CO_j) / 4(i=1 \text{ to } 10 \text{ and } j=1 \text{ to } 4)$ 

(where WP<sub>i</sub> is the Weight factor for Programme Outcome PO<sub>i</sub>

Course Evaluation	Levels of Assessment (Marks Distribution)	Target Fixed	Attainment Level
SEE(80Marks)	FA	>40Marks	1 otherwise0

#### Step2: Cos Attainment Targets at Course Level

(SEE –Semester End Exam, FA-Final Assessment)

#### Step3: Calculating Attainment at each Level of Assessment for Course

CO is said to be attained by a student if he/she gets greater than 40% of marks in FA. The fraction of students who attained the target is calculated for a course as a whole using the following formulas:

CO\_FA=Total Number of Students reached the target/Total number of students attended

 $P_{i \Box \Lambda} :=$ 

#### Step4: Calculating Semester-wise Attainment for each Level

#### 1. Calculating the Final PO attainment Levels for a Course and Semester:

After calculating weights and fraction of students attained at each level of assessment for a particular course, semester-wise PO attainment will be calculated by using the following formula final level of assessment.

#### **Final Assessment:**

 $\sum (WP_i * CO_FA)$ 

#### Step5: Calculating attainment at each level for a Programme

After calculating semester wise PO attainment for each level of assessment for six semesters, Programme wise attainment will be calculated by using the following formula for three different levels of assessment.

**Final Assessment:** 

$$P_{iFA} = \frac{\sum_{j} P_{iFAj}}{n} \times 100$$

(i=1,...10, j=1,...6 and n = Total No. of Semesters)

**For Example:** The PO Attainment for a Program BA/ B.Com/ B.Sc Life Sciences and B.Sc Physical Sciences for the 2019-2022batch is attained as follows:

The PO Attainment for a Program B.Sc. Life Sciences for the 2019-22 Batch is attained as follows:

PO/ Program Attainment	2 Batch	PO F	PO FINAL ATTAINMENT FOR A PROGRAM B.Sc Life Sciences for the batch (201 2022)										
<b>B.Sc Life</b>	9-22	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9			
Sciences	201	79.1	78.2	84.7	84	84.3	84.03007	84.34151	83.23053	84.67196			

The PO Attainment for a Program B.Sc. Physical Sciences for the 2019-22 Batch is attained as follows:

PO/ Program Attainment	2 Batch	PO F	PO FINAL ATTAINMENT FOR A PROGRAM B. Sc Physical Sciences for the batch (2019-2022)										
B.Sc Physical	19-22	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9			
Sciences	203	73.781	75.01	73.518	78.6	95.877	75	73.647	77.64388	73.5323468			

The PO Attainment for a Program B.Sc. Social Sciences for the 2019-22 Batch is attained as follows:

PO/ Progamme Attainment	Batch	PO FIN	AL ATTAI	NMENT F	OR A Pro	gram of B	3.A Social S	Sciences fo	r the batch	2019-2022
B.A. Social	9-22	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
Sciences	201	78.5582	78.2864	72.5325	73.6679	61.268	73.0002	61.9569	42.62955	63.4863415

The PO Attainment for a Program B.Com for the 2019-22 Batch is attained as follows:

POs/ Program	Batch	PO FINA	PO FINAL ATTAINMENT FOR A PROGRAM B.Com(Computer Applications) for the batch 2019-2022											
Attainment	9-22	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9				
B.Com	201	69.7362	72.7259	69.7362	69.6257	69.5562	69.5562	71.09926	71.0992	69.080 4				

The PO Attainment for a Program B. Sc Social Sciences for the 2018-21 Batch is attained as follows:

	PO FINAL ATTAINMENT FOR A PROGRAM B.Sc. Life Sciences for the 2018-21 Batch										
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9			
64.340876	63.746	69.53996	71.937706	70.86293	67.50565	72.48260487	69.5198389	69.9786532			

The PO Attainment for a Program B. Sc Physical Sciences for the 2018-21 Batch is attained as follows:

PO/ Program Attainment	21 Batch	PO FINAL	O FINAL ATTAINMENT FOR A PROGRAM B. Sc for the batch 2018-21 (Ht. No. 18033006)									
B.Sc	2018-	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9		
Physical Sciences		83.5567	83.9032	85.6	87.9716	85.9496	80.1	82.0802	78.86963	84.9387		

The PO Attainment for a Program B.A Social Sciences for the 2018-21 Batch is attained as follows:

PO/ Progamme Attainment	Batch	PO F	PO FINAL ATTAINMENT FOR A Program of BA Social Sciences for the batch 2018-21 (Ht. No. 18033006)												
B.A. Social	8-21	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9					
Sciences	201	57.0222	69.7715	69.77	71.7958	73.2801	67.92	72.6959	73.28013	72.69589463					

The PO Attainment for a Program B.Com for the 2018-21 Batch is attained as follows:

POs/		PO FINAL ATTAINMENT FOR A PROGRAM B.Com(Computer Applications) for the batch 2018-20 No. 18033006)										
Programs	2018-21	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9		
B.Com		58.83126	54.5309	59.11172	58.7403	59.66142	58.85243	56.36323	56.7423 3	60.168 83		

The PO Attainment for a Program B.Sc. Life Sciences for the 2017-20 Batch is attained as follows:

	PO FINAL ATTAINMENT FOR A PROGRAM B.Sc. Life Sciences for the 2017-20 Batch										
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9			
63.563766	63.563766 62.91732 68.903 71.139103 70.03496 66.58594 71.69950883 68.7557184 69.0073										

The PO Attainment for a Program B.Sc. Physical Sciences for the 2017-20 Batch is attained as follows:

PO/ Program Attainment	20 Batch	PO FIN	IAL ATTAII	NMENT	FOR A PROG	GRAM B.Sc. 1	for the b	atch 2017-2	0 (Ht No. 170	33006)
B.Sc. Physical	2017-:	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
Sciences		56.877	58.503	59	61.9114	59.9299	55.8	56.6711	56.11469	59.07851

The PO Attainment for a Program B.A. Social Sciences for the 2017-20 Batch is attained as follows:

PO/ Progamme Attainment	Batch	P.O. F	INAL ATTA	INMENT FO	R A Progra	m of BA So 17033006		es for the ba	atch 2017-20	) (Ht. No.
B.A. Social	17-20	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
Sciences	20	61.8104	61.7504	61.7504	63.2549	64.3581	59.4781	63.9239	64.35811	63.923895

The PO Attainment for a Program B.Com(C.A) for the 2017-20 Batch is attained as

follows:

POs/ Programs	0	PO FINAL /	PO FINAL ATTAINMENT FOR A PROGRAM B.Com(Computer Applications) for the batch 2017-2020 (Ht. No. 17033006)											
	017-2	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9				
B.Com(CA)	07	61.79447	58.58393	62.00385	61.72656	62.41424	61.81027	59.9519	60.23493	62.79307				

The PO Attainment for a Program B.Sc. Life Sciences for the 2016-19 Batch is attained as follows:

PC	PO FINAL ATTAINMENT FOR A PROGRAM B. Sc for the Batch 2016-2019(Ht No. 16033)											
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9				
56.436455	55.57725	62.75002	64.80363	63.64759	60.03646	65.48705478	62.0863179	63.3408				

The PO Attainment for a Program B.Sc. Physical Sciences for the 2016-19 Batch is attained as follows:

PO/ Program Attainment	29 Batch	PO FIN/	PO FINAL ATTAINMENT FOR A PROGRAM B. Sc for the batch 2016-19 (Ht. No. 16033006)											
B.Sc.	2016-2	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9				
Physical Sciences	2	56.2692	58.3265	58.5	61.1936	59.749	55.7	56.1506	56.64432	58.80892				

The PO Attainment for a Program B.A. Social Sciences for the 2016-19 Batch is attained as follows:

PO/ Progamme Attainment	Batch	PO FIN	IAL ATTAIN	NMENT FO	R A Progra	m of BA So 16033006		es for the b	oatch 2016-1	l9 (Ht. No.
B.A. Social	16-19	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
Sciences	201	69.2588	69.2195	69.2195	70.2057	70.9288	68.3172	70.6442	70.92885	70.6442199

The PO Attainment for a Program B.Com (C.A) for the 2016-19 Batch is attained as

follows:

POs/ Programs	-19	PO FINAL	PO FINAL ATTAINMENT FOR A PROGRAM B. Com (Computer Applications) for the batch 2016-2019 (Ht. No. 16033006)										
Trograms	16-	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9			
B.Com(CA)	20	57.35763	52.77325	57.65662	57.26067	58.24262	57.3802	54.7266	59.57969	59.6106			

The PO Attainment for a Program B.Sc. Life Sciences for the 2015-18 Batch is attained as follows:

	PO FINAL ATTAINMENT FOR A PROGRAM B.Sc. Life Sciences for the 2015-18 Batch												
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9					
57.16263	57.26306	67.95229	70.30965	69.21277	65.78645	70.88615889	67.8083398	68.667269					

The PO Attainment for a Program B.Sc. Physical Sciences for the 2015-18 Batch is attained as follows:

PO/ Program Attainment	ßatch	PO FINA	PO FINAL ATTAINMENT FOR A PROGRAM B.Sc for the batch 2016-19 (Ht. No. 16033006)											
B.Sc Physical	5-18 B	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9				
Sciences	201	57.2837	58.5826	59.4	62.4474	60.0114	55.9	57.0114	55.6646	59.2276				

The PO Attainment for a Program B.A. Social Sciences for the 2015-18 Batch is attained as follows:

PO/ Progamme Attainment	Batch	PO FIN	IAL ATTAIN	NMENT FOI	R A Prograi	n of BA So 300615.		es for the b	atch 2015-1	.8 (Ht. No.
B.A. Social	15-18	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
Sciences	20:	74.8545	74.8106	74.8106	75.9111	76.7181	73.8037	76.4005	76.71812	76.4004914

The PO Attainment for a Program B.Com (C.A) for the 2015-18 Batch is attained as follows:

POs/ Programs	18	PO FINAL	PO FINAL ATTAINMENT FOR A PROGRAM B.Com (Computer Applications) for the batch 2015-2018 (Ht. No. 300615)											
Trograms	15-	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9				
B.Com(CA)	07	54.94328	49.25194	53.90609	58.72999	55.42117	52.9541	58.0422	52.20442	58.99651				

The PO Attainment for a Program B.Sc. Life Sciences for the 2020-23 Batch is attained as follows:

PO FINAL ATTAINMENT FOR A PROGRAM B.Sc. Life Sciences for the 2020-23 Batch (H.T. No. 203300)												
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9				
73.72619	74.11132	81.77069	81.225721	81.3573	80.87273	81.59027052	80.4128947	81.7531585				

The PO Attainment for a Program B.Sc. Physical Sciences for the 2020-23 Batch is attained as follows:

PO/ Program Attainment	23 Batch	PO FINA	L ATTAINM	IENT FOR A	A PROGRA	M BSc for t	he batch 2	020-2023	(Ht No. 2003	3006)
B.Sc	2020-2	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
Physical Sciences	2	71.179	72.3951	70.919	75.609	92.2332	72.395	71.047	81.27635	70.837

The PO Attainment for a Program B.A. Social Sciences for the 2020-23 Batch is attained as follows:

PO/ Progamme Attainment	.23 Batch	PO FINAL ATTAINMENT FOR A Program of BA Social Sciences for the batch 2020-2023 (Ht No. 20033006)										
B.A. Social Sciences	2020-	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9		
		84.95	84.7987	84.799	85.351	85.2037	84.799	85.479	85.20366	86.45732		

The PO Attainment for a Program B.Com (C.A) for the 2020-23 Batch is attained as follows:

POs/ Programs	2020-23	PO FINAL ATTAINMENT FOR A PROGRAM B.Com(Computer Applications) for the batch 2015-2018 (Ht. No. 300615)								
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
B.Com(CA)		77.40975	80.94944	77.40975	77.2765	77.19269	77.19269	79.05318	79.56675	62.79307