BLDEA'S JSS COLLEGE OF EDUCATION VIJAYAPUR
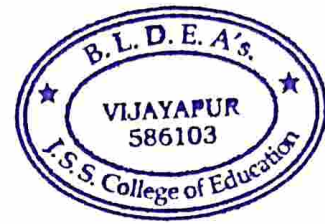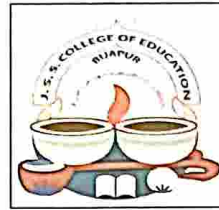
OUTCOME-BASED EDUCATION FOR EDUCATORS

MANUAL FOR CO-PO/PSO ATTAINMENT AND ASSESSMENT PROCESS

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BLDEA'S

J.S.S. COLLEGE OF EDUCATION

POST GRADUATE STUDIES IN EDUCATION AND RESEARCH CENTRE

VIJAYAPUR

Website: https://bldejss.ac.in

VISION

BUILDING

COMPETENT CREATIVE AND COMMITTED

NATION BUILDERS FOR THE FUTURE

MISSION

TO BE AN INSTITUTION OF EXCELLENCE FOR BUILDING
THE SOCIETY THROUGH ENLIGHTENMENT AND
EMPOWERMENT OF TEACHERS WHO ARE COGNITIVELY

2. PROGRAMME EDUCATIONAL OBJECTIVES

PEO1: To Train Student-Teachers Academically Excellent, Cognitively enriched Professionals.

PEO2: To Empower Student-Teachers with Pedagogic Principles for Implementing them in Schools.

PEO3: To Enthuse Teacher-Educators to become Role Models.

PEO4: To promote Student-Teachers' Potentialities with a view to realize Moral Socio-Cultural values of the Society.

PEO5: To Inculcate Modern and Scientific Attitudes and Outlook to meet the Challenges of Modern Context.

PEO6: To Redefine the Role of Teachers in the context of Spirit of Living Together.

PEO7: To Train the New Generation Teachers to preserve the Spiritual Values of India.

PEO8: To Collaborate with Government and Non-Government Organisations in Community Welfare Activities.

3. PROGRAMME SPECIFIC OUTCOMES

PSO1 Curriculum and Planning:	Student-Teachers will apply their knowledge of core content and pedagogy to set goals and objectives for learning based on state and national standards and local curriculum, and design instruction that engages students in meaningful learning.
PSO2 Learner and the Learning Environment:	Student-Teachers will demonstrate their understanding of cognitive, affective, and psychomotor domains, and other characteristics of their diverse learners, and create an environment of respect, rapport, collaboration and a culture for learning.
PSO3 Teaching:	Student-Teachers will design and deliver meaningful learning experiences for all students by integrating their knowledge of content, pedagogy, the learner and the learning environment by engaging in the reflective instructional cycle of planning, instruction, feedback and assessment.
PSO4 Professional Responsibilities for Self-Renewal:	Student-Teachers will demonstrate their commitment to continuous self-improvement by engaging in collaboration, reflective practice, and research to enhance their teaching skills.
PSO5 Professional Responsibilities for School and Community:	Student-Teachers will demonstrate leadership by participating in the implementation of the vision and mission of the institute, strategic planning/continuous improvement, curriculum initiatives, student support and management systems; and demonstrate a commitment to ethical and equitable behaviour.
PSO6 Professional Responsibilities for Technology in Education:	Student-Teachers will model and apply the National Educational Technology Standards for Teachers, as they design, implement, and assess learning experiences by engaging students through creative and innovative endeavours.
PSO7 Culturally Responsive Teaching Practice:	Student-Teachers will engage in culturally responsive and inclusive teaching practice to help all students regardless of their language, culture, race, geographic location, special needs, or poverty and facilitate learning through collaboration among teachers and students, developing students' competence and potential.
PSO8 Effective Communication:	Student-Teachers use effective and appropriate verbal, nonverbal, written, and media communication techniques in their teaching, professional collaboration, and interactions with students, colleagues, parents, and the community.
PSO9 Professional Dispositions:	Student-Teachers will demonstrate a disposition of professionalism, efficiency, and integrity in their teaching and interactions with students, colleagues, parents, and the community.

4. PROGRAMME OUTCOMES

PO1	To help students discover and appreciate their unique vocation in society.
PO2	To create a learning environment, which integrates theory and practice.
PO3	To nurture, in particular, the values of peace, justice, equality and fraternity.
PO4	To enable students to understand and cater to the needs of a diverse student population.
PO5	To encourage students to become catalysts of social transformation.
PO6	To revitalise education through collaboration with different organisations and universities.
PO7	To provide prospective teachers with a stimulating and catalytic environment that is both futuristic in outlook and holistic in perspective for the achievement of excellence.
PO8	To provide theoretical knowledge interwoven with a repertoire of pedagogical practices, hands-on teaching experience and the inclusion of technology as a teaching and learning tool.
PO9	To draw out latent talents and creativity through varied co-curricular programmes.

5. DISSEMINATION OF PROGRAMME EDUCATIONAL OBJECTIVES

LOCATIONS	Institution's Entrance Corridor	Institution's Website
	Ground Floor Lecture Hall	Prospectus
	First Floor-Corridor	Observation Book
	Library	Principal's Chamber
How PEOs Disseminated	Discussed in the Induction Programme Discussed in the Introductory Classes Discussed during Parent Teacher Association Meeting	

PROGRAMME EDUCATIONAL OBJECTIVES

PROGRAMME SPECIFIC OUTCOME

PROGRAMME OUTCOMES

COURSE OUTCOMES
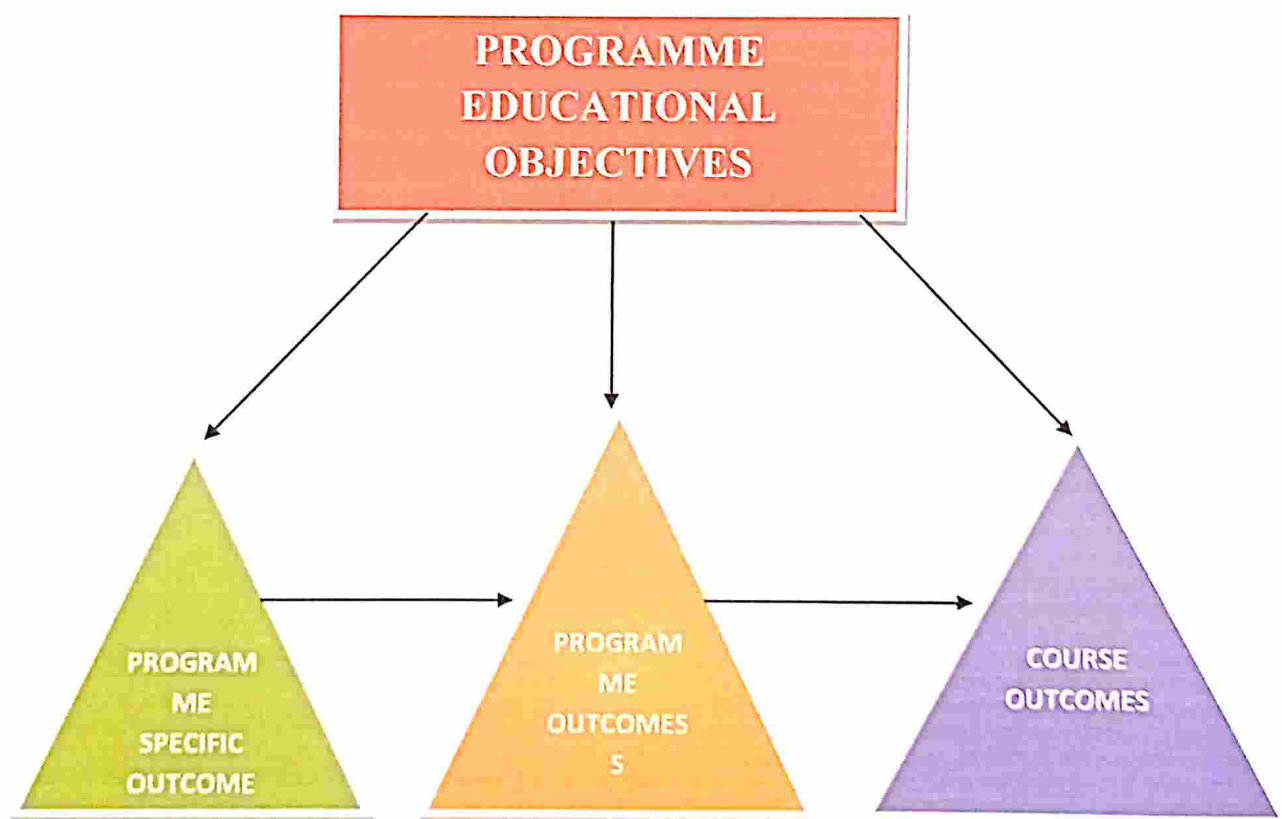
6.THE PROCESS FOR ESTABLISHING THE PEOS AND PSOS

The PEOs and PSOs are established through the following process steps:

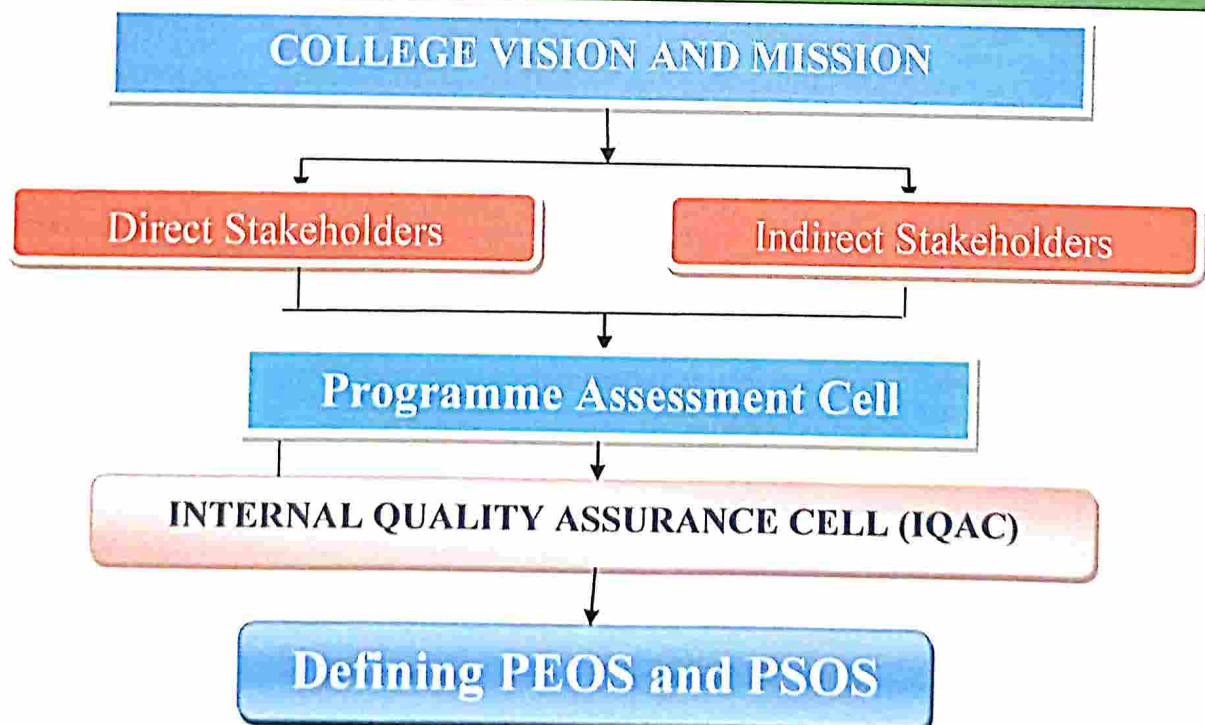The Vision, Mission of the Institution in defining the PSOs.

Step 1: The Program Assessment Cell consults the key constituents: faculty and collects their views and prepares the draft version of the PEOs and PSOs.

Step 2: It also gathers views from the Alumni, Professional Body representatives,

Practice Teaching representatives / Employer along with the faculty and revise the draft.

Step 3: The Program Assessment Cell then analyzes and express its opinion on the revised PEOs and PSOs and forwards the same for final approval to IQAC.

Step 4: IQAC deliberates on the views expressed by the Program Assessment Cell and finalises the accepted views based on which PSOs are to be established.

PROCESS OF ESTABLISHING PEOS AND PSOS

COLLEGE VISION AND MISSION

Direct Stakeholders   Indirect Stakeholders

Programme Assessment Cell

INTERNAL QUALITY ASSURANCE CELL (IQAC)

Defining PEOS and PSOS

7. BLOOM'S TAXONOMY

Bloom's Taxonomy was created in 1956 under the leadership of educational psychologist Dr Benjamin Bloom in order to promote higher forms of thinking in education, such as analyzing and evaluating concepts, processes, procedures, and principles, rather than just remembering facts. Its revised form is most often used when designing educational, training, and learning processes.
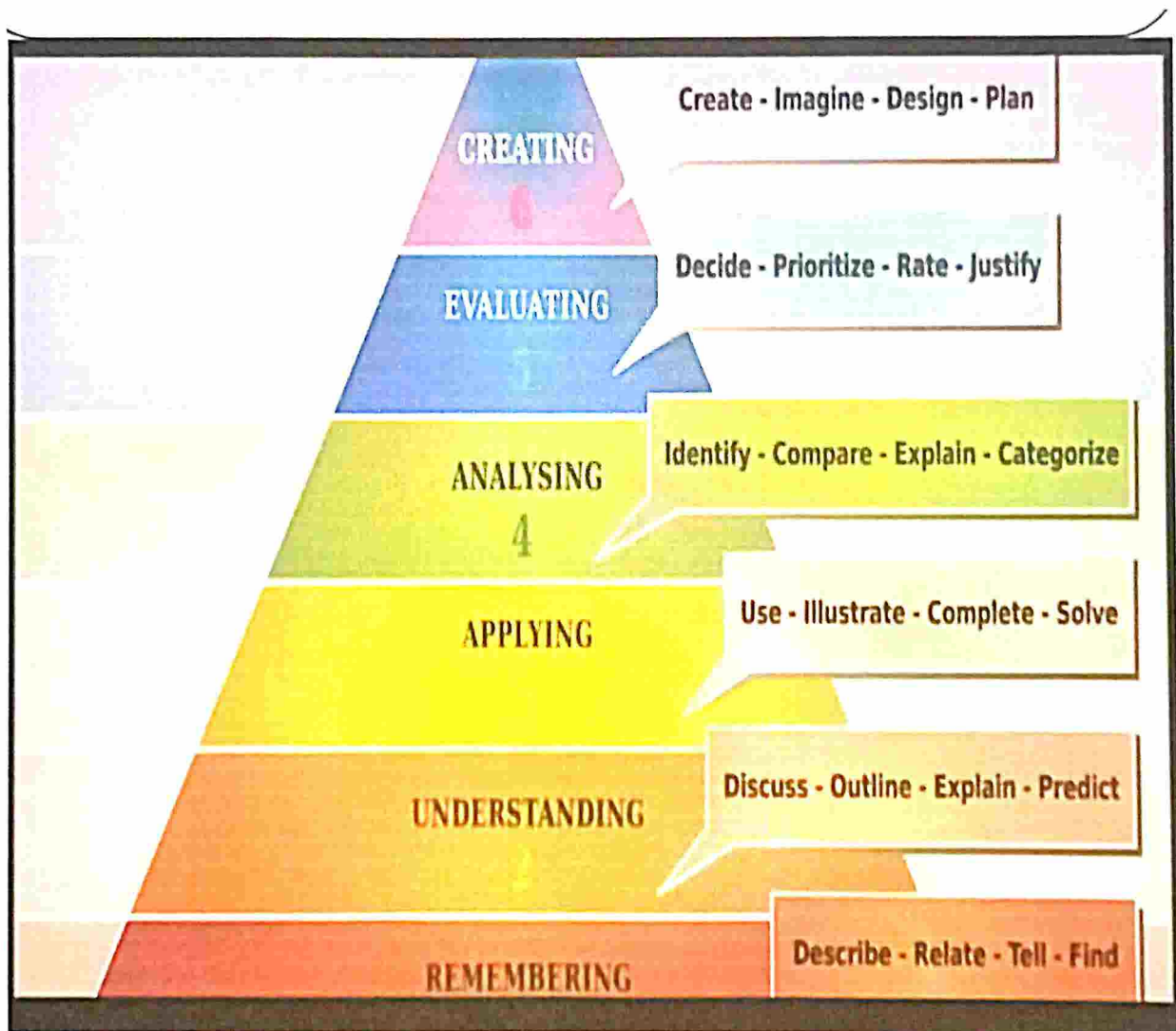
Table: Bloom's Taxonomy Action Verbs

Level	Description	Verbs — Knowledge dimension				Examples
		Factual	**Conceptual**	**Procedural**	**Metacognitive**	
Creating	Using those elements to build a completely new structure. It also involves putting various parts together to form a whole.	Generate (a daily activity log) / Write (a short story) / Combine (the components)	Gather (an experts team) / Devise (a classification system) / Plan (the activities)	Design (a workflow project) / Develop (an approach to solve the problem) / Compose (poetry)	Produce (a theory of learning styles) / Create (a portfolio) / Actualize (the plan)	Turn a "regular" recipe for oranges into a "healthy" recipe by finding replacements for certain ingredients. Explain why the chosen substitutes are better than the original ingredients. Write a working manual for a company's employees.
		Invent, categorize, compile, compose, explain, modify, organize, plan, arrange, summarize, tell, build, choose, construct, estimate, formulate, imagine, invent, make up, originate, predict, propose, solve, discuss, modify, change, improve, adapt, minimize, maximize, elaborate, test, improve				
Evaluating	Defending your own opinion, or presenting a new one. Judging the value and quality of work, information and ideas. The judgment is based on certain criteria and standards.	Check (the consistency of sources) / Criticize (an article) / Rank (the current issues)	Define (the relevance of an outcome) / Review (the objectives) / Assess (the likeliness of a result)	Judge (the efficiency of a process) / Evaluate (the rightness of a technique) / Conclude (the system's working mechanism)	Reflect (on the progress) / Rate (the effectiveness of a strategy) / Prioritize (the use of programs)	Choose the best blogging platform for beginners. Explain the reasons for such a choice. Judge the effectiveness of a learning style and select an option that is more efficient.
		Appraise, compare, conclude, defend, describe, discriminate, explain, justify, relate, summarize, support, award, decide, determine, dispute, measure, mark, recommend, select, agree, prove, perceive, value, estimate, influence, deduct				
Analyzing	Examining the information and separating it into component parts. Determining and understanding the organizational structure and relation between those parts. Distinguishing facts and hypothesis.	Choose (the fullest activity list) / Classify (the words) / Order (the importance of the events)	Distinguish (the attitudes) / Identify (the levels of awareness) / Explain (the importance of understanding the rule)	Integrate (the acquired framework) / Compare (the learning approaches) / Differentiate (the related terms)	Match (the learning styles) / Analyze (one's prejudice) / Achieve (a level of understanding)	List 3 apps for keeping notes and talk about the advantages of each one. Add references. Gather the information about the new students and select the best studying program for them.
		Break down, contrast, deconstruct, illustrate, infer, outline, select, separate, categorize, discover, dissect, divide, examine, inspect, simplify, survey, list, assume, conclude				
Applying	Solving problems and dealing with issues by using acquired knowledge. Applying the rules, facts and techniques to new situations and scenarios.	Use (a certain algorithm) / Answer (the common question) / Classify (the principles of fundraising)	Give (the advice) / Set (the objectives) / Experiment (with the reactions between components)	Carry out (the laboratory trials) / Employ (the method) / Calculate (the amount of possible damage)	Select (the matching solutions) / Enhance (the professional skills) / Construct (the section of a site)	Deciding whether or not increased the consumption of carrots improves eyesight. Measure the reliability of a test using statistics laws.
		Apply, change, compute, construct, demonstrate, manipulate, modify, operate, predict, prepare, produce, show, solve, build, choose, develop, interview, make use, organize, experiment, plan, utilize, model, identify				
Understanding	Delivering the main ideas, as well as translating, comparing, interpreting, organizing, and describing information. Stating a problem idea in a fact in your own words to demonstrate your comprehension.	Interpret (a paragraph) / Categorize (a product's features) / Summarize (an article in your own words)	Categorize (the species) / Describe (the role in your own words) / Consider (the connection between structure and its function)	Paraphrase (the definition for better understanding) / Clarify (the given instructions) / Predict (the future of an industry)	Foresee (the experiment's outcomes) / Explain (the working principles) / Execute (a particular technique)	Compare the main characteristics of two devices with different types of processors. Make a step-by-step explanation of how to use a tool for gathering statistics.
		Comprehend, convert, distinguish, estimate, extend, generalize, translate, compare, contrast, demonstrate, illustrate, outline, rephrase, show, classify, infer, exemplify, tag, comment, annotate				
Remembering	Answering the questions, as well as describing terms, facts and basic concepts through retrieving or recalling previously learned information. This doesn't necessarily involve a complete understanding of the meaning.	Label (routes on the map) / Spell (a difficult word) / List (the European capitals)	Recognize (the author of a composition) / Name (the levels of Bloom's taxonomy) / Describe (the history of a nation)	Recall (how to research keywords) / Recap (the steps in reaching the agreement) / Tabulate (the evaluated process)	Outline (the process of finding an imperative) / Identify (the downsides of a learning method) / Cite (the standard terminology)	Recite a poem in a passage from a novel. Name the prices for the products and services of a company from memory.
		Retrieve, state, define, know, match, reproduce, select, omit, choose, find, show, relate, tell, locate, point out, highlight, bookmark, search				

8.. Mapping of Programme Specific Outcomes (PSOs) and Programme Outcomes(POs)

PSOs / POs	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
PO1	2	0	0	0	0	0	0	3	0
PO2	0	0	0	2	0	0	0	1	1
PO3	0	3	0	1	0	0	0	0	0
PO4	0	0	0	0	0	0	0	2	1
PO5	0	1	0	0	0	0	2	1	0
PO6	0	2	0	1	0	0	0	0	3
PO7	0	0	0	0	0	2	0	3	0
PO8	0	0	1	0	2	1	0	0	0
PO9	0	0	1	2	1	0	0	0	0

Note: **Level of Attainment:**
Mapping **3** indicates High Correlation
Mapping **2** indicates Moderate Correlation
Mapping **1** indicates Low Correlation
Mapping **0** indicates No Correlation

9. COURSE OUTCOME STATEMENT

Course Outcomes (COs):

Statements indicating what a student can do after the successful completion of a course. Every Course leads to some Course Outcomes. The CO statements are defined by considering the course content covered in each module of a course. For every course there may be five COs. The keywords used to define COs are based on Bloom's Taxonomy.

SAMPLE CO STATEMENTS:

B.Ed. Semester –I   Understanding Discipline and Pedagogy: Science

Table: Sample CO Statements

	COURSE OUTCOMES
CO1	Student-Teachers explain the Nature - Perspective and Development of Science
CO2	Student - Teachers analyse critically the science with respect to the learner Context
CO3	Student-Teachers differentiate the Curriculum, Syllabus and Textbook,
CO4	Student-Teachers list the Pedagogical practices in Science Curriculum

All the courses together must cover all the POs (and PSOs). For a course we map the COs to POs through the CO-PO matrix and to PSOs through the CO-PSO matrix as shown below. The various correlation levels are:

"1" – Slight (Low) Correlation

"2" – Moderate (Medium) Correlation

"3" – Substantial (High) Correlation

"-" indicates there is no correlation.

Levels of Outcomes

There are four levels of outcome such as Course Outcome (CO), Program Outcome (PO), Program Specific Outcome (PSO) and Program Educational Objective (PEO).

Course Outcomes are the statements that declare what students should be able to do at the end of a course.

Programme Outcomes are the statements about the knowledge, skills and attitudes, graduate attributes of a formal Teacher Education Program should have.

The Program Outcomes reflect the ability of Student-Teachers to demonstrate knowledge in fundamentals Social Sciences and apply these principles in understanding and practically apply the knowledge in professional core subjects,

electives and projects which enables the Student-Teachers to be competent at the time of graduation.

The Student-Teachers must adhere to professional and ethical responsibilities in the pursuit of their careers and also for the benefit of the society. These outcomes also enable the Student-Teachers to pursue higher studies and engage in Research and Development for a successful professional career.

The proper definition and the attainment of POs contribute to the attainment of Program Educational Objectives which will help the Student-Teachers to perform his/ her duties, professional responsibilities. .

Program Specific Outcomes are the statements that assert what the grandaunts of a specific Pre-Service Teacher Education program should do what they can able to do.

Program Educational Objectives are the broad statements which describe in detail about the career and professional accomplishments after significant years of graduation that the program prepares the grandaunts to achieve.
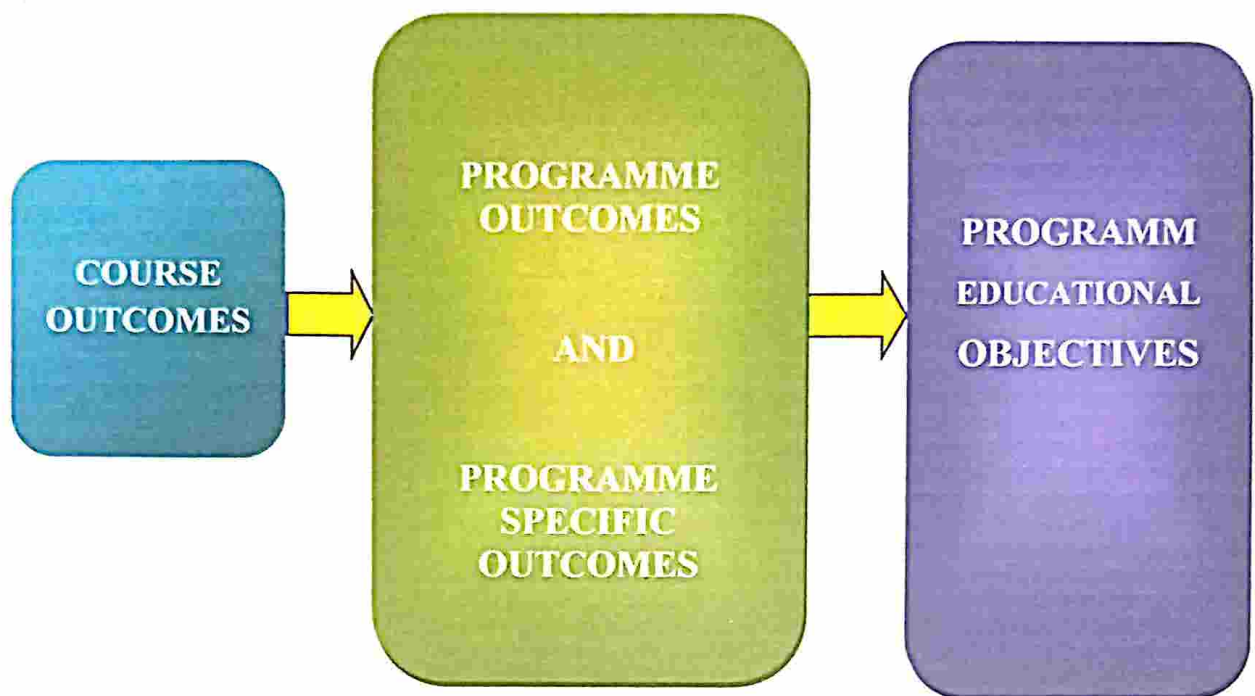
COURSE OUTCOMES → PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC OUTCOMES → PROGRAMM EDUCATIONAL OBJECTIVES

Fig: Relationship between COs, POs, PSOs and PEOs

After CO statements are developed by the course in-charge, CO will be mapped with the appropriate PO's based on the relationship that exist between them. If the PO's are not necessarily mapped with any one CO and it may be left blank. However, it is mandatory that all POs should be mapped with any one of PSO and PEO which are specified in the program.

SAMPLE CO-PO AND CO-PSO MAPPING:

Course: Understanding Discipline and Pedagogy-Science
Course Code: A080060

Mapping of COS with POS

The Course Outcomes should be named after the year and semester and A sample course outcome statements and sample CO-PO matrix are given based on CO statements.

The CO-PO mapping has been done with correlation levels of 3, 2, 1 and '-'. The notation of 3, 2 and 1 denotes substantially (high), moderately (medium) and slightly (low). The meaning of '-' is no correlation between CO and PO.

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	***	***	---	----	---	*	**	**	---
CO2	**	***	---	**	---	----	----	***	**
CO3	-----	***	**	---	***	**	**	***	**
CO4	***	***	---	---	-----	**	*	**	***
Average COS	**2**	**3**	**0.5**	**0.5**	**0.75**	**1.25**	**1.25**	**2.5**	**1.25**

SAMPLE OF PO-CO MATRIX

COURSE OUTCOMES	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9
CO1	***	***	***	**	**	**	**	*	-
CO2	***	***	***	**	**	***	***	***	-
CO3	***	**	***	**	**	**	***	***	**
CO4	**	**	***	**	*	**	**	**	*
Average COS	2.75	2.5	3.0	2.0	1.75	2.25	2.5	2.25	0.75

SAMPLE OF PSO-CO MATRIX

11. ASSESSMENT TOOLS

Direct Assessment Tools:

Direct assessment tools are used for the direct assessment of POs and PSOs. Initially, the attainment of each course outcome is determined using internal as well as external (university exam) assessment. The each PO attainment of corresponding to a particular course is determined from the attainment values obtained for each Course Outcome related to that PO and the CO-PO mapping values. Similarly, the values of PSO attainment are also determined.

Indirect Assessment Tools:

Indirect assessment is done through Course End Survey, Program exit survey, Alumni survey and Employer survey.

Supplement the above explanation to the Excel sheet given for evaluating the CO's, PO's and PSO's. All the outcomes are set for a 3 point scale.

Thank you