

OBE DESIGN- EDUCATION DEPARTMENT

SHIVAJI UNIVERSITY KOLHAPUR (M.S.)

1. Course- Program outcome Matrix:

The Program Outcomes are developed through the curriculum (curricular/co-curricular-extra-curricular activities). The program outcomes are attained through the course implementation. As an educator, one must know, **“to which POs his/her course in contributing?”**. So that one can design the learning experiences, select teaching method and design the tool for assessment. Hence, establishing the Course-PO matrix is essential step in the OBE. The course-program outcomes matrix indicates the co-relation between the courses and program outcomes. The CO-PO matrix is the map of list of courses contributing to the development of respective POs.

The **CO-PO MATRIX** is provided in the below table.

Mater of Education

Course Title	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
Philosophical and Social Foundation of education	*	*	*				
Psychology learner and learning process	*	*	*				
Basics of Research and Statistics in Education				*	*	*	*
Yoga Education			*	*	*		
Guidance & Counseling	*	*	*				
Internal work							
Field & professional work				*	*	*	*
Sociological Foundation of Education	*	*	*				
Advance research and Statistics in Education				*	*	*	*
Teacher Education	*	*	*	*			
EDUEC-II		*	*	*	*		
Teaching learning process in Secondary and Higher Secondary Education		*	*	*			
Internal work			*	*			
Professional		*	*	*	*	*	
Educational Administration, Planning and economics of education			*	*			
Inclusive education			*	*			
Curriculum and evaluation I secondary and higher secondary education		*	*	*			
EDUO-III		*	*	*	*		
EPC-III		*	*	*	*		
Service Course				*	*		
Deprived and Women education in India				*	*		
EDUSC-III		*	*	*	*	*	*
EDUO-IV		*	*	*	*	*	*

EDUR W IB		*	*	*	*	*	*
EDURW IA		*	*	*	*	*	*
EPC-IV		*	*	*	*	*	

2. Course Outcomes (for all courses):

The course outcomes are the statement that describes the knowledge & abilities developed in the student by the end of course (subject) teaching. The focus is on development of abilities rather than mere content. There can be 5 to 7 course outcomes of any course. These are to be written in the specific terms and not in general. The list of suggested verbs is the part of **Annexure-B** attached herewith.

3. Set Target levels for Attainment of Course Outcomes:

The course outcome attainment is assessed in order to track the graduates' performance w.r.t target level of performance. The CO-PO attainment is the tool used for continuous improvement in the graduates' abilities through appropriate learning & teaching strategies. In order to assess students' performance with respect to abilities (at the end of course teaching/by the end of program) the course outcome attainment are measured/calculated. In order to calculate the program outcome attainment, the course outcome attainment is calculated. Prior to that, the course-program outcome mapping is done.

4. Set Target level for Attainment of Program Outcomes:

The program outcome attainment is assessed in order to track the graduates' performance w.r.t target level of performance. The CO-PO attainment is the tool used for continuous improvement in the graduates' abilities through appropriate learning & teaching strategies. In order to assess students' performance with respect to abilities (at the end of course teaching/by the end of program) the course outcome attainment and program outcome attainment is measured/calculated. The program outcome attainment is governed by curricular, co-curricular and extra-curricular activities including the stakeholders' participation. The direct method and indirect method is adopted to calculate the PO attainment. The direct method implies the attainment by course outcomes contributing to respective program outcomes. And indirect method is the satisfaction/feed-back survey of stakeholders. In order to calculate the program outcome attainment, the course outcome attainment is calculated. Prior to that, the course-program outcome mapping is done.

The set target level is the set benchmark to ensure the continuous improvements in the learners/ graduates' performance.

5. Course Attainment Levels:

- CO attainment is defined/set at three levels;
- The CO attainment is based on end term examination assessment and internal assessment;

- c. The Co attainment is defined at three levels in ascending order-
 - i. e.g. For end term and internal examination;
 - ii. Level-1: 40% students scored more than class average
 - iii. Level-2: 50% students score more than class average;
 - iv. Level-3: 60% students score more than class average.
- d. The target level is set (e.g. Level-2). It indicates that, the current target is level-2; 50% students score more than class average. The CO attainment is measured and the results are obtained. Based on the results of attainment, the corrective measures/remedial action are taken.
- e. CO Attainment= 80% (Attainment level in end term examination) + 20% (Attainment level in internal examination).

6. Program attainment Level:

- a. PO attainment is defined at five levels in ascending order;
- b. The PO attainment is based on the average attainment level of corresponding courses (Direct Method) and feed-back survey (Indirect method);
- c. The PO attainment levels are defined / set as stated below;
 - i. Level-1: Greater than 0.5 and less than 1.0 (0.5>1)- Poor
 - ii. Level-2: 1.0>1.5-Average
 - iii. Level-3: 1.5>2.0-Good
 - iv. Level-4: 2.0>2.5-Very Good
 - v. Level-5: 2.5>3.0 -Excellent
- d. The PO attainment target level is set/defined (say, Level-4). It implies that, the department is aiming at minimum level-4 (very good) in the performance of abilities by the graduates. Based upon the results of attainment, the remedial measures are taken;
- e. PO Attainment= 80% (Average attainment level by direct method) + 20% (Average attainment level by indirect method).

7. The Results of CO Attainment:

The Result of CO attainment is provided in Annexure-B

For Example:

COURSE CODE/TITLE: Curriculum and Evaluation in Secondary & Senior Secondary Education: EDUSC-II

- e.g. For end term and internal examination;
- i. Level-1: 40% students scored more than class average
- ii. Level-2: 50% students score more than class average;
- iii. Level-3: 60% students score more than class average

Average Marks in External examination: 59.64 = i.e. 60.00

% Students score more than 60 is 10/14 i.e. 71.43% i.e. Level-3

Average Marks in Internal examination= 16.14 = i.e. 16.00

% Students score more than 16 is 9/14= 64.28%, i.e. Level-3

A (CO) EDUSC-II = 80% (3) +20(3)

=2.4+0.6

=3.00

Hence, the attainment level is Level-3 and the set target level is Level-2 and therefore the CO is fully attained.

Table No. 1.0: CO Attainment Level

Course Title	CO Attainment Value	Target Attainment Level	Fully Attained/Partly Attained	Remedial Measures
Philosophical and Social Foundation of education	3	2	Fully Attained	
Psychology learner and learning process	3	2	Fully Attained	
Basics of Research and Statistics in Education	3	2	Fully Attained	
Yoga Education	3	2	Fully Attained	
Guidance & Counseling	3	2	Fully Attained	
Internal work	3	2	Fully Attained	
Field & professional work	3	2	Fully Attained	
Sociological Foundation of Education	0.6	2	Not Attained	Assignments, Tutorials, exercise, coaching.
Advance research and Statistics in Education	3	2	Fully Attained	
Teacher Education	2.2	2	Fully Attained	
EDUEC-II	0.6	2	Not Attained	Assignments, Tutorials, exercise, coaching.
Teaching learning process in Secondary and Higher Secondary Education	1.4	2	Not Attained	

Internal work	3	2	Fully Attained
Professional	3	2	Fully Attained
Educational Administration, Planning and economics of education	3	2	Fully Attained
Inclusive education	3	2	Fully Attained
Curriculum and evaluation I secondary and higher secondary education	3	2	Fully Attained
EDUO-III	3	2	Fully Attained
EPC-III	3	2	Fully Attained
Service Course	3	2	Fully Attained
Deprived and Women education in India	3	2	Fully Attained
EDUSC-III	3	2	Fully Attained
EDUO-IV	3	2	Fully Attained
EDUR W IB	3	2	Fully Attained
EDURW IA	3	2	Fully Attained
EPC-IV	3	2	Fully Attained

8. The Results of PO Attainment:

The Result of PO attainment is provided in Annexure-B.

FOR EXAMPLE:

PO NO.: a

(Note: Refer point No. 11 above which describes the attainment level and set target attainment level)

PO Attainment= 80% (Average attainment level by direct method) + 20% (Average attainment level by indirect method).

$$A \text{ (PO) } a = 80\% (3+3+3+0.6+2.2)/5 + 20\% (2.)$$

$$=80\% (2.36) + 20\% (2.35)$$

$$= 1.89+0.47$$

$$= 2.36$$

Table No. 2.0 PO Attainment Level

PO/PSO number	PO Attainment Value	Target Attainment level	Fully attained/ Not Attained	Remedial Measures
a	2.36	4	Fully attained	Not Applicable
b	2.55	4	Fully attained	
c	2.67	4	Fully attained	
d	2.78	4	Fully attained	
e	2.85	4	Fully attained	
f	3.00	4	Fully attained	
g	3.00	4	Fully attained	

9. Planned Actions for Course Attainment:

The courses for which the level attained is less than Level-2, the remedial measures will be taken in plan way that includes, tutorial, assignments, field work and remedial coaching.

10.Planned Actions for Program Outcome Attainment: Not Applicable

ANNEXURE-C
RESULT OF CO-PO ATTAINMENT

MASTER OF EDUCATION							
Course Title	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
Philosophical and Social Foundation of education	3	3	3				
Psychology learner and learning process	3	3	3				
Basics of Research and Statistics in Education				3	3	3	3
Yoga Education			3	3	3		
Guidance & Counseling	3	3	3				
Internal work			3	3	3		
Field & professional work			3	3	3	3	3
Sociological Foundation of Education	0.6	0.6	0.6				
Advance research and Statistics in Education				3	3	3	3
Teacher Education	2.2	2.2	2.2	2.2			
EDUEC-II		0.6	0.6	0.6	0.6		
Teaching learning process in Secondary and Higher Secondary Education		1.4	1.4	1.4			

Internal work			3	3			
Professional		3	3	3	3	3	
Educational Administration, Planning and economics of education			3	3			
Inclusive education			3	3			
Curriculum and evaluation I secondary and higher secondary education		3	3	3			
EDUO-III		3	3	3	3		
EPC-III		3	3	3	3		
Service Course				3	3		
Deprived and Women education in India				3	3		
EDUSC-III		3	3	3	3	3	3
EDUO-IV		3	3	3	3	3	3
EDUR W IB		3	3	3	3	3	3
EDURW IA		3	3	3	3	3	3
EPC-IV		3	3	3	3	3	
	2.36	2.55	2.67	2.78	2.85	3	3

ANNEXURE-C

COURSE OUTCOMES

Philosophical Foundation of Education

- Describe the scope and application of Philosophy of Education
- Analyze, interpret and synthesize various concepts and philosophical principles related to educational phenomena
- Explain the the impact of Eastern & Western Schools of philosophy on Education
- Describe the changing nature of Global Society and Role of Education in it.
- Explain the contributions made to education by educational thinkers .
- Describe the impact of socio-political-economic ideologies on Education.

Psychology of Learner and Learning Process

- Describe the concepts and principles of Educational psychology.
- Explain the significance of psychology in teaching learning process.
- Analyze the psychology of learners.
- Apply knowledge of psychology to make classroom teaching effective.
- Develop healthy attitude towards education.
- Practice/demonstrate the role of psychology in education.
- Describe the process of motivation and methods to produce motivation in them.

Basics of Research and Statistics in Education

- Explain the need, scope and importance of educational research.
- Describe different types of research.
- Describe the research methodology.
- Define the problem of educational research.
- Write problems in various methods for educational Research and prepare research proposal.
- Describe the different tools and techniques for research.
- Implement the statistical measures to interpret results of educational research.
- Prepare and present research report and evaluate it.

Guidance and Counseling

- Explain the concept, need, principles, objectives & bases of Guidance.
- Describe the different types of Guidance.
- Describe and demonstrate the concept, need, approaches and ethics of Counseling.

- Describe the tools and techniques used in Guidance and Counseling.
- Use techniques of Guidance & Counseling
- Describe and implement the concepts, meaning and need of guidance of children with special needs.
- Describe and implement the concepts, meaning, significance of guidance and Counseling Process and group counseling in education.

Special Education

- Explain the nature of Special Education.
- Describe the modes and approaches of Special Education and approaches of Identification for Special children.
- Describe the meaning, characteristics, types, causes educational programmes, Prevention and rehabilitation of various types of special children.
- Analyse from data and describe the meaning, concept, characteristics, causes and types of various types of Special children.
- Describe the significance, enrichment programmes, prevention & Rehabilitation Programmes of various types of special children and suggest sample examples.
- Explain the concept & nature of Inclusive Education.

Communication Skill

- Write official letters, notices, and circulars.
- Write report of the educational and official events.
- Demonstrate Mannerisms, etiquette and netiquettes in communication.
- Ability to use communication skills to face interview and to conduct interview

Sociological Foundation of Education

- Analyze and describe the impact of Eastern & Western Schools
- of philosophy on Education
- Analyze the changing nature of Global Society and describe the Role of Education in it.
- Explain the impact of socio-political-economic ideologies on Education

Advance Research in Education

- Explain a sampling design appropriate for a research study.
- Explain the importance of documentation and dissemination of researches in Education.

- Explain or predict values of a dependent variable based on the values of one or more independent variable.
- Estimate the characteristics of populations based on their sample data.
- Test specific hypotheses about populations based on their sample data.
- Use appropriate procedures to analyze qualitative data.
- Demonstrate competence in the use of statistical packages for analysis of data.
- Apply various methods for educational Research and prepare research proposal.
- Develop and use different tools and techniques for research.
- Use various statistical measures to interpret results of educational research.
- Prepare and present research report based on the above concepts, principles and methodology and evaluate it

Teacher Education

- Explain aims, objectives, structure and curriculum of Teacher education.
- Describe the development of teacher education in India
- Describe the managerial aspects of teacher educations.
- Analyze the views on professional development of Teacher Education.
- Explain the functions of various bodies of Education for ensuring the quality of teacher education.
- Gain the sense of laboratory & field experiences in teacher Education

Educational Evaluation and Measurement

- Explain the relationship between measurement and Evaluation
- Write items in various taxonomies of educational objective
- Describe various reforms in examination system
- Describe and design the tools of educational measurement and Evaluation.
- Constructing achievement test.
- Explain the methodology and procedures of standardizing a test.
- Use standardize test and interpret the scores.

Information Technology and education Technology

- Describe the nature, scope and types of the Information and Communication Technology to apply for Education.
- Describe Computer Hardware and Software use in Education
- Implement Media Technology and Instructional System for use in Education.
- Use Internet, www and Computer Multimedia and use them effectively and judiciously.
- Demonstrate the applications of IT in Education, Training and Research.

Value Education and Human Rights

- Describe the need and importance of Value-Education and Education for Human Rights.
- Analyze from point of implementing the nature of values, moral values, moral education and to differentiate such values from religious education, moral training or moral indoctrination.
- Describe/explain the basis of morality and with the place of reasons and Emotions in moral development of the child.
- Design/develop/describe the process of moral development, cognitive and social development.
- Identify/develop various intervention strategies for moral education and conversion of moral learning into moral education.

Teaching Learning process in Elementary Education

- Critically analyze the concept, nature and aspects of learning at Elementary level
- Design and demonstrate the pedagogical skills required for teaching at Elementary level
- Identify, Select, Prepare And Use Learning Resource
- Design Constructivist Teaching and Learning activities / programmes

Teaching Learning process in secondary and senior secondary education

- Critically analyze the concept, nature and aspects of learning at Elementary level
- Design and demonstrate the pedagogical skills required for teaching at Elementary level
- Identify, Select, Prepare And Use Learning Resource
- Design Constructivist Teaching and Learning activities / programmes

Education Planning, administration and Economics in Education

- Describe the concept and principles of Educational Administration to Education.
- Draw implications of theories to educations.
- Explain the meaning and nature of economics and economics of education and Educational costs and role of administrator.
- Analyze and describe the different aspects related to financing of Education.
- Develop T Q M based framework for education institute.
- Describe aspects related to performance appraisal system for teaching staff.

Inclusive Education

- Explain the features of the global and national commitments towards the education of Children with diverse needs.
- Explain the need for promoting inclusive practice and the roles and Responsibilities of all concerned personnel.
- Develop critical understanding of the recommendations of various commissions And committees towards teacher preparation for inclusive education,
- Analyze based on the reports and practice, the nature of difficulties encountered by children and prepare Conducive teaching learning environment in inclusive schools,
- Analyze special education, integrated education, mainstream and inclusive Education practices,
- Identify and utilize existing resources for promoting inclusive practice.
- Explain the needs and magnitude of the challenges faced By children and persons with diverse needs,
- Develop a positive attitude and sense of commitment towards actualizing the Right to education of all learners,
- Preparing a conducive teaching learning environment in varied school settings,
- Develop the ability to conduct and supervise action research activities,
- Identifying and utilizing existing support services for promoting inclusive Practice,

Curriculum and Evaluation in Elementary Education

- Describe and apply the underlying principles of curriculum development and evaluation at elementary stage
- Explain the need and importance of work experience, art education and health and physical education
- Describe the importance of teaching of language and mathematics at elementary level
- Develop the capability to use effectively various methods and approaches of teaching language, mathematics and evs elementary level
- Develop research insight for curriculum development in elementary education

Curriculum and Evaluation in Secondary and Senior Secondary Education

- Describe and apply the underlying principles of curriculum development and evaluation at Secondary and Senior Secondary Stage
- Explain the importance of teaching of language science and mathematics at secondary level
- Design and use effectively various methods and approaches of teaching learning of various subjects at secondary level
- Critically analyze the methodology and relevance of curriculum development in secondary level education.

- Describe the nature and uses of different types of tools and techniques of evaluation in education
- Construct the achievement and diagnostic tests
- Administer the tests and interpret the best scores and its implication to students and parents

Deprived and Women Education in India

- Analyze and describe the present status and problems of deprived in India
- Analyze and explain the Status, Problems and Issues of Girls' Education in India
- Describe the Constitutional provision and scheme for women development
- Analyze and describe the Role and function of NGO's for woman development

Elementary Teacher Education

- Analyze and describe the need and objectives of elementary teacher education,
- Critically analyze and explain the development of elementary teacher education in post-independent India,
- Explain the existing pre-service teacher education programmes and their organizational aspects,
- Describe the needs, importance and existing practices of in-service education of teachers and functionaries associated with elementary education,
- Analyze and describe the status of elementary teachers and the problems and issues related to professional growth.

Secondary and Senior Secondary Teacher Education

- Analyze and describe the need and objectives of secondary and senior secondary teacher education,
 - Critically analyze and explain the development of secondary and senior secondary teacher education in post-independent India,
 - Explain the existing pre-service teacher education programmes and their organizational aspects,
 - Describe the needs, importance and existing practices of in-service education of teachers and functionaries associated with secondary and senior secondary education,
 - Analyze and describe the status of secondary and senior secondary teachers and the problems and issues related to professional growth.
-