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**[OBE DESIGN- LIBRARY AND
INFORMATION SCIENCE
DEPARTMENT]**

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PREFACE

Outcome Based Education (OBE) is the educational approach which focuses on student centric education in the context of development of personal, social, professional and knowledge (KSA) requirements in one's career and life. It is the decade ago curriculum development methodology. The educational triangle of LEARNING-ASSESSMENT-TEACHING is the unique nature of the OBE approach. The curriculum practices such as Competency Based Curriculum, Taylor's Model of Curriculum Development, Spadys' Curriculum principles, Blooms taxonomy and further use of assessment methodologies like, Norm-reference testing and Criterion reference testing, etc is being practiced since decades. It is also interesting to know that, globally, different countries and universities adopts the curriculum development models/approaches such as, CDIO (Conceive-Design-Implement-Operate), Evidenced Based Education, Systems' Approach, etc as the scientific and systematic approaches in curriculum design.

The authorities of Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (M.S.) in-lieu of accreditation standards of National Assessment and Accreditation Council, decided to opt for Outcomes Based Education (OBE). As the part of the decision, different meetings, workshops and presentations were held at the campus of university.

This document is the outcome of different meetings and workshops held at university level and department level. The detailed document is designed and the existing curriculum of the department is transformed in to the framework of OBE. This is the first step towards the implementation of OBE in the department. The document will serve all stakeholders in the effective implementation of the curriculum. The OBE is continuous process for quality enhancement and it will go a long way in order to enhance the competencies and employability of the graduates/Post-graduates of the university department.

Head of Department

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OUTCOME BASED EDUCATION

Faculty of Interdisciplinary Studies

Department of Library and Information science

1. Mission:

Mission Statement

DLIS prepares professionals to exercise leadership in planning, implementing promoting the preservation, organization effective use of society's recorded information & ideas.

Mission of the DLIS is two fold:

- To educate diverse cadre of students who have the foundational knowledge and competencies for developing as their career unfold, into formal & informal leaders in library & information environment & in the library & information profession in 21 st century.
- To foster understanding of creation, organization, management, access use of knowledge information resources in libraries a multitude of settings & cultural communities.

2. Vision:

Vision Statement

- To increase its output from 22 to 200 by introducing skill and job oriented courses.
- To introduce 6 year integrated PG course with credit & cafeteria system inclusive of Distance Learning programmes.
- To design self-financed UG courses, PG Diploma, certificate/ vocational courses based on new skills. The courses will be job oriented courses.
- To provide consultancy services to school, college university, industrial or public libraries including Directorate of libraries as per their requirement. It would like to establish placement service for counseling & campus employment
- To establish excellent research center in the area of information technology, Library automation, knowledge Management Sciento-metrics internet searching, e-learning etc 'It will have links with major DLIS as well as libraries in the world DLIS plans to increase output of Ph.D. students in every year.

3. Title of the Program (s):

a. Master of Library Information System

4. Program Educational Objectives:

The program educational objectives (PEO) are the statement that describes the career and professional achievement after the program of studies (graduation/ post-graduation). The PEOs are driven from question no. (ii) of the Mission statement (What is the purpose of organization). The PEOs can be minimum three and maximum five.

PEO1: Mastery over the advanced knowledge of library science and information system.

PEO2: To provide the professional services in private and public sector.

PEO3: To undertake entrepreneurial activity in the domain of publication, ICT, Information science.

PEO4: To opt for higher education, research and to be a life-long learner.

PEO5: To provide value based and ethical leadership to the profession and social life.

5. Program Outcomes:

The program outcomes (PO) are the statement of competencies/ abilities. POs are the statement that describes the knowledge and the abilities the graduate/ post-graduate will have by the end of program studies.

- a. Can apply the skills and attitudes of visioning, entrepreneurship, advocacy, planning and management to leadership in the information field.
- b. Can manage information resources and the information life-cycle through the processes of collection development, representation, organization, preservation, curation, access, and dissemination in accordance with physical, virtual, and technical infrastructure and needs.
- c. Can apply appropriate pedagogical and learning theory principles in the design, development, implementation, and assessment of library instruction and learning that contribute towards an information and technology literate society.
- d. Can design and employ policies essential for creating and providing information services and resources guided by the values of patron privacy, equitable access, intellectual freedom, and ethical use of information.

- e. Possess the skills to respect, engage and collaborate with a diverse community in order to advocate for and construct inclusive, meaningful, and participatory library services, programs and resources.
- f. Can perform and assess research based practices through the application of information literacy, inquiry, and research methods including data discovery, analytics and qualitative measures.

6. 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.

Course Title	a	b	c	d	e	f		
Foundations of Information Science	*	*	*					
Knowledge Organization	*	*	*					
Information Sources and Services	*	*	*					
Information Search Strategies	*	*	*					
Practical Based on LISc45101T	*	*	*					
Practical Based on LISc45102T	*	*	*					
Practical Based on LISc45103T	*	*	*					
Practical Based on LISc45104A1T	*	*	*					
Management of Library and Information Centres		*	*	*	*			
Knowledge Processing		*	*	*	*			
Information Technology- Basics		*	*	*	*			
Technical Writing						*		
Practical Based on LISc45201T		*	*	*	*			
Practical Based on LISc45202T		*	*	*	*			
Practical Based on LISc45203T		*	*	*	*			
Practical Based on LISc45204A2T		*	*	*	*			
Research Methods & Statistical Techniques						*		
Information Technology-		*	*	*				

Applications								
Information Analysis, Repackaging and Consolidation		*	*	*				
Service Course					*	*		
Practical Based on LISc45301T		*	*	*				
Practical Based on LISc45302T		*	*	*				
Practical Based on LISc45303T		*	*	*				
Information Retrieval		*	*	*				
Project Work	*	*	*	*	*	*		
Marketing of Libraries & Information Centres		*	*	*	*			
Thesaurus Construction		*	*	*	*			
Practical Based on LISc45401T		*	*	*	*			
Practical Based on LISc45402T		*	*	*	*			
Practical Based on LISc45403A1T		*	*	*	*			
Practical Based on LISc45404A3T		*	*	*	*			

7. 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 Course Outcomes is the part of **Annexure-C** attached herewith.

8. 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.

9. 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.

10. Course Attainment Levels:

- a. CO attainment is defined/set at three levels;
- b. 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).

11. 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).

12. The Results of CO Attainment:

The Results of CO attainment are provided in Annexure-B

FOR EXAMPLE:

COURSE CODE/TITLE: LISC45302T

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

Average Marks in External examination: 50

% Students score more than 50 is 62 % i.e. Level-3

Average Marks in Internal examination= 20

% Students score more than 20 is 100% Level-3

A (CO) LISC45302T = 80% (3) +20(3)

$$=2.4+0.6$$

$$=3.0$$

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 /Not attained	Remedial Measures
Foundations of Information Science	1	2	Not attained	Assignments, Tutorials, Exercise and coaching.
Knowledge Organization	2.2	2	Fully attained	
Information Sources and Services	1.4	2	Not attained	Assignments, Tutorials, Exercise and coaching.
Information Search Strategies	2.2	2	Fully attained	

Practical Based on LISc45101T	3	2	Fully attained	
Practical Based on LISc45102T	2	2	Fully attained	
Practical Based on LISc45103T	3	2	Fully attained	
Practical Based on LISc45104A1T	3	2	Fully attained	
Management of Library and Information Centres	2.2	2	Fully attained	
Knowledge Processing	2.2	2	Fully attained	
Information Technology- Basics	2.2	2	Fully attained	
Technical Writing	2	2	Fully attained	
Practical Based on LISc45201T	3	2	Fully attained	
Practical Based on LISc45202T	3	2	Fully attained	
Practical Based on LISc45203T	2.2	2	Fully attained	
Practical Based on LISc45204A2T	3	2	Fully attained	
Research Methods & Statistical Techniques	2.2	2	Fully attained	
Information Technology- Applications	3	2	Fully attained	
Information Analysis, Repackaging and Consolidation	2.2	2	Fully attained	
Service Course	3	2	Fully attained	
Practical Based on LISc45301T	3	2	Fully attained	
Practical Based on LISc45302T	3	2	Fully attained	
Practical Based on LISc45303T	3	2	Fully attained	
Information Retrieval	3	2	Fully attained	
Project Work	3	2	Fully attained	

Marketing of Libraries & Information Centres	3	2	Fully attained	
Thesaurus Construction	3	2	Fully attained	
Practical Based on LISc45401T	3	2	Fully attained	
Practical Based on LISc45402T	3	2	Fully attained	
Practical Based on LISc45403A1T	3	2	Fully attained	
Practical Based on LISc45404A3T	3	2	Fully attained	

13.The Results of PO Attainment:

The Results of PO attainment are 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).

$$A (PO) a = 80\% (1+2.2+1.4+2.2+3+2+3)/7 +20\% (2.31)$$

$$=80\% (2.31) + 20\% (2.31)$$

$$= 2.31$$

$$= 2.31 \text{ i.e. Level-4. The target level is Level-4.}$$

Hence, PO attained.

Table No. 2.0 PO Attainment Level

PO/PSO number	PO Attainment Value	Target Attainment level	Fully attained/ Not Attained	Remedial Measures
a	2.31	4	Fully attained	Not Applicable
b	2.64	4	Fully attained	
c	2.61	4	Fully attained	
d	2.74	4	Fully attained	
e	2.71	4	Fully attained	
f	2.55	4	Fully attained	

14. Planned Actions for Course Attainment:

The courses having CO attainment less than Level-2 shall be addressed by planning remedial measures such as, assignments, tutorials, exercise and coaching.

15.Planned Actions for Program Outcome Attainment: NOT APPLICABLE

ANNEXURE-B

RESULTS OF CO-PO ATTAINMENT

MASTER OF LIBRARY & INFORMATION SCIENCE						
Course Title	a	b	c	d	e	f
Foundations of Information Science	1	1	1			
Knowledge Organization	2.2	2.2	2.2			
Information Sources and Services	1.4	1.4	1.4			
Information Search Strategies	2.2	2.2	2.2			
Practical Based on LISc45101T	3	3	3			
Practical Based on LISc45102T	2	2	2			
Practical Based on LISc45103T	3	3	3			
Practical Based on LISc45104A1T	3	3	3			
Management of Library and Information Centres		2.2	2.2	2.2	2.2	
Knowledge Processing		2.2	2.2	2.2	2.2	
Information Technology- Basics		2.2	2.2	2.2	2.2	
Technical Writing			2	2	2	2
Practical Based on LISc45201T		3	3	3	3	
Practical Based on LISc45202T		3	3	3	3	
Practical Based on LISc45203T		2.2	2.2	2.2	2.2	
Practical Based on LISc45204A2T		3	3	3	3	
Research Methods & Statistical Techniques				2.2	2.2	2.2
Information Technology- Applications		3	3	3		
Information Analysis, Repackaging and Consolidation		2.2	2.2	2.2		
Service Course					3	3
Practical Based on LISc45301T		3	3	3		
Practical Based on LISc45302T		3	3	3		
Practical Based on LISc45303T		3	3	3		
Information Retrieval		3	3	3		
Project Work	3	3	3	3	3	3
Marketing of Libraries & Information Centres		3	3	3	3	

Thesaurus Construction		3	3	3	3	
Practical Based on LISc45401T		3	3	3	3	
Practical Based on LISc45402T		3	3	3	3	
Practical Based on LISc45403A1T		3	3	3	3	
Practical Based on LISc45404A3T		3	3	3	3	
PO ATTAINMENT	2.31	2.64	2.61	2.74	2.71	2.55

ANNEXURE-C

COURSE OUTCOMES

LIBRARY AND INFORMATION SCIENCE

Foundation of information science

- Assess information services required in library
- Explain the history and ethics to develop a professional LIS identity
- Describe the information resources
- Apply information technologies in library
- Describe information needs and perspectives of indigenous cultures and/or diverse communities

Information Services and Resources

- Identify library services and availability of resources in order to develop a realistic overall plan for implementation.
- Use general information resources to increase familiarity amongst the users
- Identify keywords, synonyms and related terms in order to flexibly search information resources.
- Identify the range of information source types available (such as peer-reviewed journals, newspaper articles, books, reference sources, etc.), their distinguishing characteristics and intended audiences, in order to select those appropriate based on the information need.
- Develop a strategy for persisting in information seeking to the users.

Management of Library information center

- Analyze a particular institution to determine the relevant proactive information services.
- Analyze a company's organizational structure and develop an organizational chart showing the position of the library manager within its organization.
- Recognize various management styles and understand when they should be used to facilitate a particular outcome.
- Analyze the theory and application of planning, organizing and staffing a special library.
- Apply marketing services and develop effective public relations programs within an organization.
- Recognize the importance of providing the level of service needed, not the service requested or expected.
- Understand the budgeting process within the organizational setting.

Information processing

- Distinguish between format and method of access, understanding that these are separate entities
- Articulate the capabilities and constraints of various processes of information creation
- Recognize that similar content may be presented in different formats, which may affect interpretation of the content
- Select a source that best meets an information need based on the audience, context, and purpose of various formats

Information technology

- Use of Operating System
- Operate Word Processors, Spread Sheets
- Create and maintain databases by using excel/ library automation software.
- Operate the library automation software.

Electronic information system

- Design, provide, and assess information services
- Apply history and ethics to develop a professional LIS identity
- Create, organize, manage and discover information resources
- Evaluate and apply information technologies
- Analyze and apply knowledge about information needs and perspectives of indigenous cultures and/or diverse communities
- Demonstrate skills necessary to manage and work effectively within information organizations

Electronic Publications

- Explain the Concept, Definition, Scope, Types of e-publications
- Describe the trends in future of e-publications, Problems related to e-publications
- Explain and demonstrate the Media usage, file formats, Software & Hardware technologies
- Explain the Standards in E-publishing

Information technology applications

- Describe the different networking systems
- Demonstrate the technology and use of internet.
- Describe the concept of digital library
- Explain the requirement for management and administration of digital library.
- Explain the use of artificial intelligence in library

Information Retrieval

- Describe Cataloguing & Subject Indexing: Principles and Practices
- Describe Indexing Language & Vocabulary Control.
- Assigned Indexing Practice, Using LCSH & Sear's List
- Derived Indexing Practice
- Design and Development of IR Thesaurus
- Search Methods and Formulation of Search Strategy