Master of Arts/ Master of Science (eLearning)
(MA/ MSc - eLearning)
80 credits
2019-21

Programme Outcomes:

- Apply theories and models of Instructional Design,
- Plan face-to-face, online as well as blended learning environments,
- Design, develop and implement eLearning courses,
- Contribute effectively to the field of quality OER,
- Undertake Research in the field of educational technology and eLearning,
- Design co-operative and constructivist learning environments,
- Generate knowledge by co-creation

Courses and Evaluation Weightage

Courses	Internal	External	Credits
Semester I			
120011 Educational Technology and Instructional Technology	50	50	4
120012 Learner and the Process of Learning	50	50	4
120013 Instructional Systems Design: Basics *ADDIE*	50	50	4
120014 Open and Flexible Distance Learning System #	50	50	4
120015 Information Technology *	50	50 (Pract)	4
Semester II			
220011 Instructional System Design: Theories and Models	50	50	4
220012 Instructional Strategies for Face-to-face learning #	50	50	4
220016 eLearning *	50	50 (Pract)	4
220014 Research Methodology	50	50	4
220015 OER Development	50	50 (Pract)	4
Exit: PG Diploma in eLearning			
Semester III			
320011 Interactive Multimedia: Concept and Development	100		4
320012 Online Learning: Planning and implementation	100		4
320014 Modern Techniques in Educational Technology	100		4
320015 Visual Communication and Language Communication * #	100		4
320888 Research	100		4
Semester IV			
420011 Web-Application Skills *	100		4
420012 Project Management	100		4
420888 Research	50	50 (Pract)	4
420999 Internship	150	50 (Pract)	8

Assessment strategies to be used for "Practical external' are: Lab practical of software, Presentation/Seminar/Workshop evaluation, product evaluation, Viva Voce, etc. by external examiners. Theory papers are not to be set for these courses.

*** CBCS for other students # can be dropped out by DET students $**
Skill-based courses

Master of Arts / Science (eLearning) (MA/MSc eL)
Detailed Syllabus

Semester I

Courses		Internal	External	Credits
Semester I				
120011	Educational Technology and Instructional Technology	50	50	4
120012	Learner and the Process of Learning	50	50	4
120013	Instructional Systems Design: Basics	50	50	4
120014	Open and Flexible Distance Learning System	50	50	4
120015	Information Technology	50	50 (Pract)	4

Course 120011: Educational Technology and Instructional Technology

4 Credits: 100 marks

Course Outcomes: Learners will be able to

- Trace the development of the Concept of ET with special reference to Indian Context
- Analyse a given system
- Describe Communication process with the use of models.
- Derive specific objectives from the given goals
- Analyse the given content
- Differentiate between formative and summative evaluation.
- Classify instructional strategies using various criteria

Module 111: Concept of Educational Technology, Systems Approach to education and Process of Communication — Credit 1

LOs: Learners will be able to

- Trace the development of the Concept of ET with special reference to Indian Context
- State characteristics of a system.
- Develop a micro level system related to education field.
- Identify areas of application of system approach in Education
- Identify elements of Communication
- List characteristics of Communication process
- Describe Communication process with the use of models.
- Suggest applications of good communication to the process of education.

Content:

- **Concept of ET**: Meaning, Definition, Development
- **System** - definition, characteristics, Stages of Development of a System
- **Communication Process** - Definition, Elements, characteristics
- Models of Communication: Simple, Osgood and Schram, Shanon-Weaver
- Concepts of Noise and Distortion

Module 112: Goal Setting and Content Analysis — Credit 1

LOs: Learners will be able to

- derive specific objectives from the given goals
- Enlist objectives using Magerian System

- ♦ Place given objectives in Bloom's Taxonomy
- ♦ Analyse the given content

Content:

- Goals of Education (Domains: Cognitive, Affective, Psychomotor)
- Objectives
  - Instructional Objectives/ Performance Objectives
  - Characteristics, Criteria for writing objectives
  - Taxonomy of Educational Objectives
- Content Analysis – CDT Matrix
  - Process, Categories of content (Facts, Concepts, Principles, Procedures)

Module 113: Evaluation Strategies **Credit 1**

LOs: Learners will be able to

- ♦ State importance of Evaluation in the teaching learning process.
- ♦ Differentiate between formative and summative evaluation.
- ♦ Develop various types of test items.
- ♦ Develop an Achievement Test

Content:

- Evaluation
  - Process, Types (Formative Evaluation, Summative Evaluation)
  - Process of developing an Achievement Test
  - Characteristics of Diagnostic Test
- Mastery Learning

Module 114: Instructional Strategies Credit 1

LOs: Learners will be able to

- ♦ compare strengths and weaknesses of the Teacher determined, Group determined and individualized instructional strategies
- ♦ classify instructional strategies using various criteria

Content:

Instructional strategy

- Meaning, nature

Classification of Instructional Strategies

1. Teacher/Group/Individual determined strategies
2. Cooperative/Collaborative Strategies

Role of teacher/trainer in using various types of strategies

Assignments:

Analyse a system and show relationship between its components
Design Learning Outcomes and state their levels as per Revised Taxonomy
Design a blueprint for the stated LOs and two parallel tests on the basis of the blueprint

Course 120012: Learner and the Process of Learning

4 Credits, 100 marks

Course Outcomes: Learners will be able to

- Define process of learning.
- Describe process of attention and its aspects
- Describe the role of perception in the process of learning
- Explain the implications of theories of learning for classroom teaching
- Relate brain structure to process of learning
- Develop places of learning as an application of BBL.
- Identify Learning styles of learners
- Enumerate special characteristics of Adult Learning

Module 121: Learner Characteristics — Credit 1

LOs: Learners will be able to

- Define process of learning.
- State various aspects of process of learning.
- Relate brain structure to process of learning
- Identify learner characteristics.

Content:

- 1. Process of Learning
- 2. Individual Differences in learning
  - Intelligence
  - Multiple Intelligences
  - Emotional Intelligence
  - Creativity

Module 122: Processes and Factors Associated with Learning — Credit 1

LOs: Learners will be able to

- Define attention
- Describe process of attention and its aspects
- Define Perception
- Describe the role of perception in the process of learning
- State types of memory
- State various factors affecting/related to memory
- Identify Learning styles of learners

Content:

1. Psychological Processes associated with Learning
   - Attention
   - Perception
   - Memory
2. Learning styles
   - Concept and significance in TLP
   - Measuring Learning Styles

Module 123: Theories of Learning — Credit 1

LOs: Learners will be able to

- Compare various theories of learning
- Explain the implications of theories of learning for classroom teaching
- Apply theories of learning to Instructional Design

Content:

Theories of Learning and their educational implications for classroom teaching
1. Behaviourism
2. Cognitivism
3. Constructivism
4. Humanism

Module 124: Brain Based Learning and Adult Learning **Credit 1**

LOs: Learners will be able to
- Explain brain structure.
- Relate brain structure to process of learning
- Develop places of learning as an application of BBL.
- Differentiate between Pedagogy and andragogy
- Enumerate special characteristics of Adult Learning

Content:

The Brain: Structure and functions of parts of brain
- How Brain learns: Learning from Neuropsychological research.
- Brain Based Learning (BBL)
- Characteristics of adult learning
- Comparison between pedagogy and andragogy

Assignments:

Create an item of utility from the discarded material available around you. Evaluate the final product using the four criteria of assessing any creation.
Experiment on Multiple Intelligences – analyse our own pattern of intelligence using multiple intelligences inventory.
Experiments (3) on Attention, Perception and Memory
Analyse a given case study from application of theories point of view.
Collect at least 3 articles/ papers on BBL and prepare a 2-page report on the salient findings about BBL.

Course 120013: Instructional Systems Design: Basics

4 Credits, 100 marks

Course Outcomes: Learners will be able to
- Define Instructional Design
- Trace the historical development of the Instructional Design
- Explain the need for and importance of Instructional Design
- Explain various steps in ADDIE approach
- Prepare an ID note on given topic using ADDIE approach.
- Select media appropriate to objectives and Instructional strategies

Module 131: Instructional Design: Concept and Views **Credit 1**

LOs: Learners will be able to
- Define Instructional Design
- Trace the historical development of the Instructional Design
- Compare different views on Instructional Design
- Explain the need for and importance of Instructional Design

Content:

- Instructional Design
  Concept (Process, Product)
  Need and Importance in teaching/training
- Historical Development of the Instructional Design
- Characteristics of Instructional Design

Module 132: ADDIE Approach for ILT **Credit 1**

LOs: Learners will be able to

- Describe ADDIE approach of Instructional Design
- Explain various steps in ADDIE approach (Analysis, Design, Develop, Implement, Evaluate)
- Prepare an ID note on given topic using ADDIE approach.

Content:

- ADDIE Approach
  Concept
  Historical Perspective
  Steps in the ADDIE and their relationship with each other
  Analysis, Design, Develop, Implement, Evaluate

Module 133: Development of Instructional Material and Media **Credit 1**

LOs: Learners will be able to

- Describe the process of material development for the ILT
- Select media appropriate to objectives and Instructional strategies
- Develop Session Plan for the face-to-face session using ADDIE approach

Content:

Instructional Media

- Characteristics, Classification of Media
- Five generations of media
- Criteria for selection of media

Preparation of Teaching and Learning Material

Module 134: Preparation and Implementation of session Plan **Credit 1**

LOs: Learners will be able to

- Design template for session plan
- Prepare a session plan

Content:

Session Plan (Face-to-Face)

- Concept, Features, Characteristics
- Template for developing Session plan
- Evaluation of the Session Plan

Assignments:

Select a topic.
Analyse its content
Write Need Analysis, Context analysis and Learner Analysis as per the given template
Develop one non-digital teaching aid and one learning material for any topic
Design a session plan based on the selected topic for ID.

Course 120014: Open and Flexible Distance Learning Systems
4 Credits, 100 marks

Course Outcomes: To enable learners to

- Discuss theoretical framework of Open Learning and Distance Education Systems
- Analyse Organizational structure of the given ODL organization
- Plan for assessments and evaluation in ODDL systems
- Develop ODLM

Module 141: OFDL Systems **Credit 1**

LOs: Learners will be able to

- Differentiate between Open Learning and Distance Education Systems
- Analyse ODL system in India
- Explain the organisational structure of Head Quarter in ODL
- Enlist roles and responsibilities of program coordinator

Content:

Concepts of Open Learning, Flexible learning, Distance learning
ODL in India
Characteristics of Distance Learners
Organisational Structure of Head Quarter in ODL
Roles and responsibilities of Program Coordinator

Module 142: Program Implementation and Evaluation System in ODL **Credit 1**

LOs: Learners will be able to

- Explain the importance of Student Support Services
- Explain the structure and functions of Regional Centers
- Design systems for Study centers
- Plan evaluation for ODL

Content:

Student Support Services
Study centers
Evaluation System in ODL

Module 143: ODLM development **Credit 1**

LOs: Learners will be able to

- Develop ODL modules
- Edit given ODL module

Content:

Nature and characteristics of ODLM
Design and development of ODLM
Assessment strategies in ODLM

Module 144: Writing Skills for ODLM **Credit 1**

LOs: To enable learners to

- Use appropriate language for writing ODLM

Content:

Language of ODLM
Accuracy of Language Structure in ODLM

Assignments:

Select a topic and develop at least 15 pages ODLM covering all components of ODLM
Critically evaluate one peer's ODLM

Course 120015: Information Technology

4 Credits, 100 marks

Course Outcomes: Learners will be able to

- Explain the structure of computer system.
- Appreciate the developments in computer and its application
- Use application software to present information
- Use application software to create data
- Explore FOSS software for Graphics creating and editing
- Explore FOSS software for photo-editing

Module No. 151: Hardware System, Networking and Operating System **Credit 1**

LOs: Learners will be able to

- Describe the concept of Information Technology.
- Explain the structure of computer system.
- State characteristics of LAN and WAN
- Appreciate the developments in computer and its application

Content:

- Information Technology: Overview
  Information Systems
  IT in Business, Education, Entertainment, Science and Engineering
- Computer System Hardware Orientation
  Types of Computers
  Basic structure of Computers:
  CPU
  Input-Output and Storage Devices (including cloud storage)
- Logical algorithm
- User Interface of OS
- Folder and files systems,
- effective use of browsers, appropriate use of search engines,
- database searches, bookmarking tools such as Diigo
- Google Drive tools

Module No. 152: Application Software: Office **Credit ~~1~~ 2**

LOs: Learners will be able to

- Use application software to present information
- Use application software to analyse information
- Use application software to create data

Content:

Application Packages
Open Source Software

- Computer Applications
  Word Processing
  Spreadsheet & Data Base Applications
  Presentation software

Module No. 153: Application Software: Graphics and Photo-editing **Credit ~~2~~ 1**

LOs: Learners will be able to

- Use Graphics software effectively
- Use GIMP to edit graphics/photo
- Explore FOSS software for Graphics creating and editing
- Explore FOSS software for photo-editing

Content:

- Infographic and one or two concept-mapping tools
- Graphics Software
  - Smart Drawing tool, smooth the curves, create perfect forms
  - Incorporate text, edit text
  - Inserting clip art images, photos and objects
  - Effects filters
  - Create backgrounds
- GIMP
    - image-editing capabilities, enhanced color-correction, cloning and healing
    - new Smart Filters, visualizing different image effects
    - multiple layers
- FOSS for graphic editing, photo editing

Assignments:

Format given documents as per the sample
Perform formatting and formulae related procedures on the given data
Develop a slide presentation as per the instructions
Edit at least 2 given graphic as per the instructions

Semester II

Courses	Internal	External	Credits
220011 Instructional System Design: Theories and Models	50	50	4
220012 Instructional Strategies for Face-to-face learning	50	50	4
220016 eLearning	50	50 (Pract)	4
220014 Research Methodology	50	50	4
220015 OER Development	50	50 (Pract)	4

Course 220011: Instructional System Design: Theories and Models

4 Credits, 100 marks

Course Outcomes: Learners will be able to

- Elaborate Instructional Design theories
- State various steps in ISD given by Dick and Carey Model
- Develop ISD for CBT using Dick and Carey Model

Module 211: Overview of Theories and Models of ISD **Credit: 1**

LOs: Learners will be able to

- State importance of Gagne's nine events of learning
- Apply Component Display Theory of ISD
- Apply Reigluth's Elaboration theory of ISD and develop ISD at Macro level.
- Apply learning theories (e.g. Behaviorists, Cognitivist and Constructivist) approach to ISD

Content:

- Theory of Instructional Design
  Bruner’s Theory of Instruction
  Kirk and Gusfatson, Reigluth's David Merill's, Gagne’s theories
- Theory and its application to ISD

Module 212: Dick and Carey Model: Analysis **Credit: 1**

LOs: Learners will be able to

- State various steps in ISD given by Dick and Carey Model
- Write analysis using Dick and Carey Model
- Identify goals as per Dick and Carey Model

Content:

- Introduction to Dick and Carey Model
- Identify instructional goals
- Conduct Instructional Analysis
- Analyse learners and context

Module 213: Dick and Carey Model: Design and Development **Credit: 1**

LOs: Learners will be able to

- Write performance objectives
- Develop criterion-reference tests
- Plan strategy and material

Content:

- Write performance objectives
- Develop assessment instruments
- Develop instructional strategy
- Develop and select instructional materials

Module 214: Dick and Carey Model: Design: Evaluation **Credit: 1**

LOs: Learners will be able to

- ♦ Design formative evaluation strategies as per Dick and Carey Model
- ♦ Design summative evaluation strategies as per Dick and Carey Model

Content:

- Design and conduct formative evaluation of instruction
- Revise instruction
- Design and conduct summative evaluation
- Application of the Model

Assignments:

Prepare Concept-maps of any two of the above theories and models.
Prepare an analysis document using Dick and Carey Model
Identify performance objectives
Plan for instructional strategy and material for session
Prepare evaluation tools for ISD document

Course 220012: Instructional Strategies for Face-to-face learning
4 Credits, 100 marks

Course Outcomes: Learners will be able to

- ♦ Plan large group instructional strategies for classroom sessions
- ♦ Plan co-operative learning activities for the class
- ♦ Design constructivist learning environments
- ♦ Plan for individualized learning opportunities
- ♦ Prepare a workshop plan

Module 221: Large group instructional strategies **Credit: 1**

LOs: Learners will be able to

- ♦ Plan sessions with large group teaching methods
- ♦ Design session with Concept-attainment model
- ♦ Design session with Role Play model
- ♦ Design session with Assertive training model
- ♦ Design session with Synnectics model

Content:

Lecturette, Demonstration, Story-telling
Learner-centred large group strategies: Brain-storming
Models of teaching: families, syntax
Concept-attainment Model,
Role-play Model,
Inquiry training Model,
Advance Organiser Model

Module 222: Co-operative instructional strategies Credit: 1

LOs: Learners will be able to

- Plan sessions with Co-operative instructional strategies
- Write procedures for conducting Co-operative instructional strategies

Content:

Psychological foundation for constructivist strategies
Classification of co-operative learning strategies
Procedure of at least 5 Strategies
Planning for co-operative learning strategies

Module 223: Individualised learning strategies Credit: 1

LOs: Learners will be able to

- Plan individualized instructional strategies
- Identify characteristics of various individualized instructional materials

Content:

Individualised learning: characteristics
Programmed Instruction
Computer-Assisted Learning
Self-learning material: Overview

Module 224: Planning Workshop Credit: 1

LOs: Learners will be able to

- Design workshop planning template
- Write a workshop session plan

Content:

Workshop plan template design
Ananlysis of Content
Designing Objectives
Identification of strategies
Planning of session
Material Development for Workshop

Assignments:

Prepare a session plan with any one large group instructional method
Write procedures for conducting sessions with any two models of teaching.
Write procedures of at least 2 co-operative strategies other than discussed in the class
Conduct a co-operative instructional strategy
Compare Programmed Instruction, Interactive Multimedia Packages and Self-learning modules
Write a workshop session plan for any one target group on a topic of your choice

Course 220016: eLearning

4 Credits, 100 marks

Course Outcomes: Learners will be able to

- Define the concept of eLearning
- Compare on-campus, Online and Blended Modes of Learning
- Analyze models of Blended Learning
- Design a course through MOOC
- Explain the new trends in eLearning

Module 231: Concept and Development of eLearning — Credit: 1

LOs: Learners will be able to

- Explain the concept of eLearning
- Differentiate between the various concepts related to eLearning
- Differentiate between the types of eLearning

Content:

Concept and history of eLearning
Concepts related to eLearning
Types of eLearning

Module 232: Online and Blended Learning — Credit: 1

LOs: Learners will be able to

- Compare on-campus, Online and Blended Modes of Learning
- Define Online Learning, Blended Learning
- Analyze models of Blended Learning
- Design Blended learning sessions

Content:

Online and Blended Learning: concept
Characteristics of Online learners
Facilitator's role in Online Learning environment
Asynchronous communication tools
Synchronous communication tools
Models of Blended Learning
Session plan for blended learning

Module 233: MOOCs and Its Deviated Formats — Credit: 1

LOs: Learners will be able to

- Define the concept of MOOCs
- Plan for MOOCs

Content:

Concept of MOOCs
Derivations of MOOCs
Learner analytics in MOOCs
Distributed classroom, digital classroom

Module 234: New Trends in eLearning — Credit: 1

LOs: Learners will be able to

- Anayse mLearning environments
- Establish need of AR, VR, AI in education systems
- Differentiate between Web 2.0 and 3.0
- Illustrate integrated digital learning environments

Content:

mLearning
Augmented Reality
Virtual Reality, Artificial Intelligence
Web 2.0 and Web 3.0
Integrated digital learning environments and support systems

Assignments:

Prepare a visual about various types of elearning.
Compare Online and Blended Environments
Prepare a visual about roles of teachers and learners in blended learning environment.
Design a session plan for Blended mode
Explore various derivatives of MOOCs and prepare a write up on that.
Critique the effects of AI and VR on teaching-learning process.

Course 220014: Research Methodology

4 Credits, 100 marks

Course Outcomes: Learners will be able to

- Select appropriate Research Methodology
- Prepare a Research Proposal on a selected topic
- Write a research report using the International specifications
- Prepare a Bibliography

Module 241: Research in Education **Credit: 1**

LOs: Learners will be able to

- Describe various types of research
- Select appropriate sources of information for identifying a research problem
- Select appropriate type of research for the problem selected for research
- Prepare a Bibliography

Content:

- What is Research?
- Types of Research (Pure, Applied, Action Research)
- Steps in conducting research
- Basic Concepts in Research
- APA in Educational Research
- Literature and Research Review

Module 242: **Methodology of Research** **Credit: 1**

LOs: Learners will be able to

- Select appropriate research design
- State characteristics of research methods
- Explain various Experimental designs and select the most appropriate for the research problem in hand

Content:

- Methods of Research (Qualitative, quantitative)
- Types of quantitative researches
- Types of Descriptive researches
- Types of Experimental researches

Module 243: Sampling, Instruments of Data Collection and Research Proposal **Credit: 1**

LOs: Learners will be able to

- Choose appropriate sampling procedures for a given research
- Prepare at least 2 instruments and 2 tests for data collection
- State the procedure for data collection
- Prepare a plan for data analysis
- Prepare research proposal

Content:

- Sampling
  - Sampling Procedure: Types
  - Procedure for Sample Selection
- Data Collection:
  - instruments and Techniques of data collection
  - Procedure for development of the instrument
  - Procedure for data collection
  - Scoring Procedure
  - Planning for data Analysis: coding of the responses
- Research Proposal

Module 244: **Statistical Techniques and Report Writing** **Credit: 1**

LOs: Learners will be able to

- Compute measures of Central Tendency
- Compute measures of Variability
- State statistical significance of the techniques used.
- Test hypothesis using appropriate statistical technique.
- Write a research report using the International specifications

Content:

- Statistical techniques
  - Types of Data (Nominal, Ordinal, Interval and Ratio Scale)
  - Measures of Central Tendency: Mean, Median, Mode
  - Normal Distribution
  - Measures of Variability (Range, rank, percentile rank, Standard Deviation)
  - Testing hypothesis for Correlation (Coefficient of Correlation) - using software for hypothesis testing
  - Testing hypothesis for Comparison (Chi square, t-ratio, One-way ANOVA) - using software for hypothesis testing
- Report writing

Assignments:

Prepare a Research Proposal on a selected topic
Prepare a Bibliography for the selected Research Topic
Review two research papers (Publisher in referred journals) and prepare a report on appropriateness of research method employed.
Develop Experimental Design for a given research topic and suggest a plan for sample selection.
Prepare two different tools for data collection and validate the same.
Test the hypothesis and write statistical significance for a given t-ratio or chi square for the given data.

Course 220015: OER Development

4 Credits, 100 marks

Course Outcomes: Learners will be able to

- Define OER
- Map OER movements across the world
- Explore OER repositories
- Design OER for various platforms and devices
- Develop OER for various platforms and devices

Module 251: Conceptual Framework **Credit: 1**

LOs: Learners will be able to

- Define OER
- Differentiate FOSS, OER and OCW
- Trace historical movements of OER
- Compare Creative Commons licenses

Content:

Concept of FOSS, OER, OCW
Characteristics of OER
Open Knowledge, IMS, Learning Objects
Historical development of OER
Copyright Issues, Creative Commons Licenses

Module 252: OER Movement **Credit: 1**

LOs: Learners will be able to

- Map OER movements across the world
- Explore OER repositories
- Compatibility Guidelines (IEEE standards)

Content:

OER Movements
Global Initiatives such as OER University, COL, OER Asia
OER standards

Module 253: Types of OER **Credit 1**

LOs: Learners will be able to

- Explore OER formats in eContents
- Compare different formats of OER

Content:

Video, Audio, Interactive animations, simulation formats in eContents
Digitized Library Collections
Open Textbooks
OER Courseware

Module 254: Design and Development of OER **Credit 1**

LOs: Learners will be able to

- Prepare a Storyboard for eContent
- Develop eContent for OER

Content:

Storyboarding for eContent
Multimedia development of eContent
Authoring tools for eContent development

Assignments:

Explore and elaborate one Global OER initiative

Identify and compare at least two OER repositories

Identify and analyse at least 3 types of existing OER.

Design and develop at least 2 types of OER modules.

Semester III

Courses		Internal	External	Credits
320011	Interactive Multimedia: Concept and Development	100		4
320012	Online Learning: Planning and implementation	100		4
320014	Modern Techniques in Educational Technology	100		4
320015	Visual Communication and Language Communication	100		4
320888	Research	100		4

Course 320011: Interactive Multimedia (IMM): Concept and Development

4 Credits, 100 marks

Course Outcomes: Learners will be able to

- State characteristics of CAI, CBT, CML
- Compare characteristics of major CAI modes
- Prepare an Instructional Design for IMM
- Prepare a Storyboard for IMM
- Plan activities for providing Interactivity in IMM
- Develop Multimedia projects

Module 311: CAI/CBT: Concept, Characteristics and Modes **Credit: 1**

Objectives: Learners will be able to

- State characteristics of CAI, CBT, CML
- Distinguish between CAI, CML, CBT
- Compare characteristics of major CAI modes
- Prepare a Storyboard for CAI/CBT from the Instructional Design

Content:

- Concept, Definition, Characteristics of CAI, CAL, CML, CBT
- Characteristics of CAI
- CAI and CML, CAL and CBT, mLearning eContent
- Modes of CAI
- User Interfaces for desktop-based, mLearning devices

Module 312: Storyboard Writing for IMM **Credit: 1**

LOs: Learners will be able to

- Prepare a Storyboard for IMM
- Define Navigation, Hyper-linking and Interactivity
- Review various views on Interactivity as defined by experts
- Define levels of Interactivity for CAI in one's own words
- Plan activities for providing Interactivity in IMM

Content:

- Storyboard Writing
  - Concept, Need and Styles of Storyboard writing
  - Steps in developing Storyboard for the given ID
- Interactivity: Concept, Need
- Techniques of building Interactivity in IMM

Module 313: **Designing scenes with Multimedia components** **Credit: 1**

LOs: Learners will be able to

- Create Multimedia screens
- Create animation scenes and movies

Content:

Interface
Toolbar and Menu bar
Exploring Timeline
Animating objects

Module 314: **Building Interactivity** **Credit: 1**

LOs: Learners will be able to

- Develop Multimedia projects
- Create interactive multimedia scenes
- Insert sound in scenes
- Insert video in scenes

Content:

Adding basic Interactivity
Creating quizzes
Publishing project in stand-alone format
Integration of audio in Multimedia
Integration of video in Multimedia

Assignments:

Review at least two CAI packages of each mode and write a report
Identify online examples of Game types and Simulation characteristics
Prepare at least 30 screens for interactive multimedia
Design multimedia scenes with the given set of instructions
Design interactive multimedia scenes with at least 3 types of quizzes, at least 1 audio and 1 video

Course 320012: Online Learning: Planning and implementation

4 Credits, 100 marks

Course Outcomes: Learners will be able to

- Describe various stages in offering online course
- Evaluate appropriateness of the online course activities.
- Select appropriate Cognitive Strategies for Instructional Design.
- Use various ID Models for developing web-based training.
- Conduct an online course using an LMS.
- Evaluate available e-portfolio (individual or course portfolio)
- Develop an evaluation rubric on a given topic.
- Use evaluation strategies for student evaluation

Module 321: Online Course Development **Credit: 1**

LOs: Learners will be able to

- Describe features of online learning
- Describe various stages in offering online course
- Create various activities for the online course
- Evaluate appropriateness of the online course activities.

Content:

A. Online Learning
   Features
   5-stage Framework
B. Creating Online Activities under each of these stages

Module 322: Cognitivism-Constructivism and e-learning **Credit 1**

LOs: Learners will be able to

- Identify various Cognitive Strategies used in Instructional Design.
- Select appropriate Cognitive Strategies for Instructional Design.
- Describe Constructivist's approach to Instructional Design.
- Compare traditional Learning Communities with Community of Practices.

Content:

Constructivist strategies e-learning
   Problem Based Learning
   Learning Communities (Communities of Participation)
Cognitive Strategies
- Classification of cognitive strategies

Module 323: **Creating an Online Course on LMS** **Credit: 1**

LOs: Learners will be able to

- Use LMS (Commercial or open Source) comfortably for offering an online course.
- Explain the structure of LMS
- Evaluate the GUI of a LMS
- Conduct an online course using an LMS.

Content:

Instructional Design used by various Educational Organizations
   Asynchronous Mode
   Synchronous and Asynchronous Mode
   Virtual Learning Environment (VLE)
Planning of various communication modes
LMS and its features: Facilitating student learning
   Structure of LMS

Features facilitating student learning

Module 324: **Evaluation Strategies for Online Learning** **Credit: 1**

LOs: Learners will be able to

- Explain the significance of Kilpatrick's Evaluation model.
- Create an e-portfolio.
- Evaluate available e-portfolio (individual or course portfolio)
- Develop an evaluation rubric on a given topic.
- Use evaluation strategies for student evaluation
- Use evaluation strategies for course evaluation

Content:

Kirkpatrick's 4-level Model of Evaluation
e-portfolio: Concepts, Aspects
Rubrics for Evaluation
Need to create Rubrics
Steps in preparing Rubrics

Assignments:

Develop atleast 5 activities (1 per stage) for an online course using Gilly Salmon's model.
Draw a Concept-map on "Online Learning".
Select any two cognitive strategies appropriate for a particular content area. Write this strategy for selected topic.
Identify one communication tool of each type and demonstrate the usage of the same.
Plan evaluation strategies for a given system according Kirkpatrick's levels of Evaluation.
Identify 2 individual and 2 institutional portfolios. Critically analyse and write reports on the same.
Prepare all pages of e-portfolio in text format only
Develop rubrics on a topic.
Plan at least two evaluation strategies for an Online Course.

Course 320015: Visual Communication and Language Communication

4 Credits, 100 marks

Course Outcomes: Learners will be able to

- Use appropriate language structures
- Evaluate various calligraphy, typography patterns with respect to multimedia
- Prepare Visual Designs for eContents
- Analyse User Interfaces

Module 331: Basics of Visual Communication **Credit: 1**

LOs: Learners will be able to

- Define Visual Communication
- Differentiate between signs and symbols
- Discuss the role of images in visual media
- Evaluate various calligraphy, typography patterns with respect to multimedia

Content:

Visual Communication: Concept, Definition and Scope
Linguistic Signs and Symbols
Calligraphy, Typography, Compugraphy, Type Design
Graphics, Photographs, Illustrations as visual media

Module 332: **Visual Design: Concept, Elements and Assembly** **Credit: 1**

LOs: Learners will be able to

- Define Visual Design
- State characteristics of effective Visual Design in Educational Media
- Discuss the role of Visual Design elements in Visual Assembly
- Prepare various Visual Design

Content:

Visual Design: Concept
Elements of Visual Design: Abstract lines, tones, shapes, colour
Progression, Subtraction, Addition of Elements
Assembly of Visual Design Elements

Module 333: **Language Structures and vocabulary Credit: 1**

LOs: Learners will be able to

- Use appropriate structures
- Use appropriate vocabulary

Content:

Tenses
Voice
Spelling rules
Vocabulary
UK and US dictionary

Module 334: **Writing skills** **Credit: 1**

LOs: Learners will be able to

- Write effective letters
- Write appropriate scripts
- Prepare manuals

Content:

Letter writing
Video script writing
Storyboard writing in accurate language
Dialogue writing
Writing storyboard instructions
Manual writing

Assignments:

Prepare a project on illustrations from calligraphy and compugraphy
Evaluate a Multimedia package from Visual Communication point of view
Prepare visual designs on given topic/scenario
Make a presentation with demonstration on any one model/theory of HCI
Design User Interfaces for at least two types of eContent formats

Course 320014: Modern Techniques in Educational Technology

4 Credits, 100 marks

Course Outcomes: Learners will be able to

- Explore modern techniques in Educational technology
- Study at least four modern techniques/recent trends in depth
- Share own knowledge about three modern techniques using appropriate techniques of training
- Create Discussion Forum threads to discuss 5 new trends.

Module 341: Classroom Seminar on Modern Techniques **Credit: 1**

LOs: Learners will be able to

- Present seminar to the class on a recent trend in Educational Technology

Practical/ Internal Assignment:

Perform content analysis for workshop
Present a seminar

Module 342: Workshop on Modern Techniques **Credit: 1**

LOs: Learners will be able to

- Conduct a workshop for a different group on any recent trend in Educational Technology/ ICT in Education

Practical/ Internal Assignment:

Perform content analysis for workshop
Design session plan for workshop
Develop material for workshop
Present a Workshop

Module 343: Webinar on Modern Techniques **Credit: 1**

LOs: Learners will be able to

- Present webinar on a recent trend in Educational Technology/ICT

Practical/ Internal Assignment:

Perform content analysis for webinar
Present a webinar

Module 344: Web-based Discussion on Modern Techniques **Credit: 1**

Course Outcomes: Learners will be able to

- Create Discussion forum and keep it activated till at least 5 new topics of discussion

Assignments:

Present a seminar
Design session plan for workshop
Develop material for workshop
Conduct a Workshop
Present a webinar
Initiate and conduct asynchronous discussions on any 5 threads.

Course 320888: Research

4 Credits, 100 marks

LOs: Learners will be able to

- Explore current research trends in Educational technology
- Identify Research problem suitable to the field
- Review related studies
- Design data collection tools

Module 351: **Credit 1**

Identification of Topics and Sample
Writing Concept-paper

Module 352: **Credit 1**

Review of Related Literature and Studies

Module 353: **Credit 1**

Preparation of Proposal
Presentation of proposal

Module 354: **Credit 1**

Designing Tools of data Collection

Assignments:

Identification of Topics and Sample
Writing Concept-paper
Review of Related Literature and Studies
Preparation of Proposal
Designing Tools of data Collection

Semester IV

Courses	Internal	External	Credits
420011 Web-Application Skills *	100		4
420012 Project Management	100		4
420888 Research	50	50	4
420999 Internship	150	50	8

Course 420011: Web-Application Skills

4 Credits, 100 marks

Module 411: **HTML and Web Development Environment** **Credit: 1**

Course Outcomes: Learners will be able to
- ♦ Use HTML to create a Web Page
- ♦ Use web development environment to design a Web page

LOs: Learners will be able to
- ♦ Use HTML to create a Web Page

Content:
- HTML:
  - Basic HTML Tags
  - HTML colour palette
  - List, Tables, Links, Image Maps
  - Frame
  - HTML Forms
  - Scripts

- Website Development Environment:
  - Creating new site
  - Types of views
  - Inserting and embedding images, tables, interactive images, layers, frames, form objects, tabular data, date, link, special character
  - Aligning graphics
  - Sorting format table
  - Creating animations
  - Windows: Objects, Properties, Launch

Module 412: **Design Issues of Website and web applications** **Credit: 2**

LOs: Learners will be able to
- ♦ Analyse stakeholders' need
- ♦ Analyse educational websites worldwide
- ♦ Design an effective navigational GUI for educational website
- ♦ Develop an interface for educational website

Content:
- Features and Components of website
- Use experience analysis
- User-interface of websites, site maps, navigational paths
- Facilities and functionalities
- Web-applications/ mobile applications
  - Functionality

- Navigational paths
- UX
- Wizards: logical sequencing, wizard design

Module 413: **ePortfolio Development** **Credit: 1**

LOs: Learners will be able to
- ♦ Evaluate User Interface of ePortfolio aesthetically
- ♦ Prepare effective GUI for ePortfolio
- ♦ Design ePortfolio

Content:
- User Interface (UI) for eportfolio
- e-portfolio design and development

Assignments:

Develop a webpage using HTML
Develop a website on the given topic using Google Site tool
Design and develop a portal on the given topic
Develop your ePortfolio using Wix

Course 420012: Project Management

4 Credits, 100 marks

Course Outcomes: Learners will be able to
- ♦ Compare between Project, Programme and Portfolio Management,
- ♦ Manage eLearning projects
- ♦ Suggest strategies for monitoring and controlling process groups
- ♦ Design processes for all knowledge areas of Project Management
- ♦ Define project management processes for eLearning projects

Module 421: Introduction to Project Management Credit 1

LOs: Learners will be able to
- ♦ Define 'Project Management'
- ♦ Discuss characteristics of Project Life cycle

Content:
Concept and Meaning of Project Management
Project Management, Programme Management and Portfolio Management
Role of a Project Manager
Project Life cycle: Characteristics
Project phases

Module 422: Project Management Processes **Credit 1**

LOs: Learners will be able to
- ♦ Discuss Project Management processes
- ♦ Suggest strategies for monitoring and controlling process groups

Content:
Initiating Process Group
Planning process group

Monitoring and controlling Process group
Closing Process Group

Module 423: Project Management Knowledge Areas **Credit 1**

LOs: Learners will be able to
- Discuss various project knowledge areas
- Design processes for all knowledge areas of Project Management

Content:
Project Integration Management
Project Scope Management
Project Time Management
Project Cost Management
Project Quality Management
Project Human Resource Management
Project Communications Management

Module 424: eLearning Project Management **Credit 1**

LOs: Learners will be able to
- Define project management processes for eLearning projects
- Prepare eLearning project proposal

Content:
Defining eLearning projects
Planning project strategies
Writing project proposal
Open Source Project Management Software
Planning eLearning project evaluation strategies

Assignments:

Define an eLearning project
Identify stakeholders
Suggest strategies for monitoring and controlling process groups
Design a workflow
Define project management processes for eLearning projects
Prepare budget for the given project

Course 420888: Research

4 Credits, 100 marks

Course Outcomes: Learners will be able to
- Analyse the data collected during the research
- Write research dissertation
- Appear for viva-voce

Output:
Continuation of research work done during Semester III
Data-analysis
Chapter-writing
Viva-voce

Course 420999: Internship

8 Credits, 200 marks

Course Outcomes: Learners will be able to

- Apply the knowledge and skills learnt during Master's degree at the place of work
- Write internship report
- Appear for viva-voce

MA-ET students will work as Educational Technologists, eContent developers, Pedagogy consultants, Instructional Designers, etc. in educational organizations as well as eLearning industries.

Internship period: minimum 240 hours
Two months full-time for 5 days a week

Output:

Formative evaluation of internship work through Evaluation Rubrics
Internship-report writing
Viva-voce