

**UNIVERSITY OF MUMBAI**

**No. UG/70 of 2015-16**

**CIRCULAR:-**

The Principals of the affiliated Colleges in Arts and the Heads of recognized Institutions concerned are hereby informed that the recommendation made by the Faculty of Arts at its meeting held on 20<sup>th</sup> February, 2015 has been accepted by the Academic Council at its meeting held on 26<sup>th</sup> February, 2015 **vide** item No. 4.17 and subsequently approved by the Management Council at its meeting held on 28<sup>th</sup> May, 2015 **vide** item No.16 and that in accordance therewith, in exercise of the powers conferred upon the Management Council under Section 54 (1) and 55 (1) of the Maharashtra Universities Act, 1994 and the Ordinances 6169 and 6170 and Regulations 8865, 8866, 8867 and 8868 and the syllabus as per the Credit Based Semester and Grading System for Certificate Course in Instructional Design has been introduced, which is available on the University's web site ([www.mu.ac.in](http://www.mu.ac.in)) and that the same has been brought into force with effect from the academic year 2015-16.

MUMBAI – 400 032  
8<sup>th</sup> September, 2015

– Sd –  
REGISTRAR

To,

The Principals of the affiliated Colleges in Arts and the Heads of Recognized Institutions concerned.

**A.C/4.17/26.02.2015**

**M.C/16/28.05.2015**

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No. UG/70 -A of 2015

MUMBAI-400 032

8<sup>th</sup> September, 2015

Copy forwarded with Compliments for information to:-

- 1) The Dean, faculty of Arts,
- 2) The Professor-cum-Director, Institute of Distance & Open Learning (IDOL)
- 3) The Director, Board of College and University Development,
- 4) The Co-Ordinator, University Computerization Centre,
- 5) The Controller of Examinations.

  
REGISTRAR

....PTO

AC 26/2/15

Item No. 4.17

# UNIVERSITY OF MUMBAI



**Program - Certificate**

**Course - Instructional Design**

(Be introduced as per Credit Based Semester and Grading System the academic year 2015–2016)

## UNIVERSITY OF MUMBAI

**O.6169 Title : CERTIFICATE PROGRAMME IN INSTRUCTIONAL DESIGN**

### **INTRODUCTION:**

This course is designed for schools and university instructors to enhance their skills in integrating instructional design for classroom instruction. The purpose of this course is to introduce students and teachers adapt to the systematic design of instruction. Learners are expected to learn how to plan, develop, and analyze the instructional design process effectively. The course covers various elements of instructional design (ID) process, including fundamentals of ID, basic psychological theories of learning, pedagogical designs and models of ID, Communication and Communication Technologies, Instructional Led Teaching, Computer Assisted Instruction and Handheld Technologies.

### **OBJECTIVES:**

#### **Learners**

- will apply knowledge of the Instructional Design and Designing Instruction incorporating Best Practices for Information Processing,
- will adapt instruction based on basic Psychological Theories,
- will develop Pedagogical Designs and apply Models of Instructional Design,
- will use Communication Technologies and Handheld Technologies.
- will develop Instructional Design unit in their Specified Subject,
- will develop material and upload on Handheld Technology.

**O. 6170 : ELIGIBILITY CRITERIA:** The Eligibility Criteria for the Certificate Course in Instructional Design are as follows:

Bachelor's degree from any recognized Indian or Foreign University.

OR

Completed Diploma / Degree in Teacher Education from any State.

**R.8865 DURATION: 6 months**

**R.8866 FEES: Rs.8, 000/- (All Inclusive)**

**R. 8867 INTAKE CAPACITY: 30**

**MEDIUM: English and Marathi**

**R.8868 SCHEME OF EXAMINATION:**

Internal Assessment for each Course: 40 Marks

External Assessment for each Course: 60 Marks

**The semester by final examination (external component) of 60 % for each course will be as follows:**

- 1) Duration – 2 Hours
- 2) Theory Question Paper Pattern:
  - There shall be six questions each of 10 marks based on entire syllabus.
  - All questions shall be compulsory with internal choice

**CERTIFICATION:**

A certificate of the course will be awarded to all successful candidates those who have successfully completed the theory as well as practical activity in all courses.

**EMPLOYMENT OPPORTUNITIES:**

The certificate course in instructional design prepares you for service in Educational Institutions- Training Departments of large organizations, Government and Corporate Sectors.

**COMMITTEE MEMBERS**

**Convenor-**

Dr.Sunita Magre, Associate Professor, Department of Education, University of Mumbai.

**Members-**

- 1) Dr. Shefali Pandya, Professor, Department of Education, University of Mumbai.
- 2) Dr. Hemlata Chari, Deputy Director (Academic), IDOL, University of Mumbai.
- 3) Dr. Veena Deshmukh, Honorary Professor, K.K. College of Education, Mumbai.
- 4) Dr. Indira Shukla, Principal, Gokhale College of Education & Research, Mumbai.
- 5) Dr. Vandana Maheshwari, Principal, K.K. College of Education, Mumbai
- 6) Dr. Sally Enos, Principal, Pillai's College of Education & Research, Navi Mumbai.
- 7) Dr. Savita Sable, Principal, MCT's College of Education, Navi Mumbai.
- 8) Dr. Usha Borkar, Assistant Professor, H.J.College of Education, Mumbai.
- 9) Dr. Indu Garg Associate Professor, Department of Education, University of Mumbai
- 10)Dr. Sis.Lilian, Principal, St.Tressa College of Education, Mumbai.
- 11)Dr. Swarnalata Harichandan, Principal, H.B.B,Ed. College, Navi Mumbai.

## **COURSE DETAILS**

### **COURSE I** **PEDAGOGICAL BASES OF INSTRUCTIONAL DESIGN**

**Credit Points 6**  
**Marks 100**

#### **MODULE I: FUNDAMENTALS OF INSTRUCTIONAL DESIGN AND TECHNIQUES**

**Credit: 2**

**Study Hours:** 2 X 12 = 24

#### **Learning Outcomes:**

After learning this module the learner will

- Understand the information processing skills of the students for whom the instructions are designed.
- Explain the instructional design and process.
- Explain the components of instructional design and objectives.
- Explain, analyze and applies Models of Instructional Design

#### **Unit 1. Information Processing**

- a) Information Processing : ( Meaning, Concept and Principles)
- b) Cognitive Information Processing Model of Learning (CIP)
- c) Designing Instruction incorporating Best Practices for Information Processing

#### **Unit 2. Instructional Design and Process**

- a) Instructional Design (Meaning, Concept and Principles)
- b) Instructional Design Process
- c) Systems Approach to Instructional Design

#### **Unit 3. Components of Instructional Design, Instructional objectives**

- a) Components of Instructional Design: Instructional Problem (Identifying the need for Instruction)Learner Characteristics, Task Analysis, Instructional Objectives, Content Sequencing, Instructional Strategies, Instructional Delivery, Evaluation Instruments, Instructional Resources
- b) Instructional objectives (Cognitive) with reference to Andersen & Krathwohl
- c) Writing of performance objectives/Learning outcome.

#### **Unit 4. Models of Instructional Design**

- a) Use of Instructional Design, Levels of Instructional Design, Difference between Theory and Model of Instructional Design.
- b) An overview of Dick and Carey Model , ASSURE Model and ADDIE model
- c) David Merrill's Theory of Integration.

### **MODULE II: PSYCHOLOGICAL BASIS OF INSTRUCTIONAL DESIGN**

**Credit: 2**

**Study hours: 2 X 12 = 24**

#### **Learning outcomes:**

After learning this module the learner will

- Explain, analyze and applies to instruction of the basic psychological theories, motivation, Learning Styles, Interactivity, Memory and Retention.
- Give examples of instructional resources that are based on the behaviourist, Cognitive, and Constructivist Theory.
- Explain and Highlight instructional media that help visual learners learn, auditory learners and kinesthetic

#### **Unit 1: Basic Psychological Theories of Learning**

- a) The Behaviourist Theory and its applications to instruction : B.F. Skinner: Knowledge:, Learning, Motivation and implications of Behaviourism on ID (CBI)
- b) The Cognitivist theory and its application to instruction : Jean Piaget, Jerome Bruner Knowledge:, Learning, Motivation and implications of Cognitive Constructivism ID (Multimedia Learning)
- c) The Constructivism Theory and its application to instruction : Lev Vygotsky Knowledge:, Learning, Motivation and implications of Cognitive Constructivism ID (Multimedia Learning)
- d) Theory of Multiple Intelligences: Howard Gardner Knowledge:, Learning, Motivation

#### **Unit 2: Types of Learners, Learning Styles, and Interactivity**

- a) Innovative Learners, Analytic Learners Type, Common Sense Learners, Dynamic Learners
- b) Visual Learning Style, Auditory, Kinesthetic Learning Style
- c) Objects interactivity, Linear interactivity, Hierarchical interactivity

### **Unit 3: Motivation, Memory and Retention: Meaning and Theories**

- a) Attribution Theory, Expectancy-Value Theory, Goal Theory
- b) Process of Memory, Recall, Recognition
- c) Decay Theory: ii) Inferential Theory: iii) Loss of Retrieval Cues

### **Unit 4. Pedagogical Designs for e-learning**

- a) Use of Instructional Design Model for E-Learning
- b) Activity –based Learning
- c) Scenario Based Learning

### **MODULE III: INTERNAL ASSESSMENT**

**(CREDITS 2)**

<b>Sr.No</b>	<b>Particulars Marks</b>	<b>Marks</b>
<b>1</b>	Subject specific Term Work Module/assessment modes – at least two- as decided by the department/college in the beginning of the semester (written assignments, and Projects) to be selflessly assessed by the teacher/s concerned	20 Marks
2	One periodical Class Test	10 Marks
3	Active participation in routine class instructional deliveries (seminar Presentation/Group Discussion) and overall performance (Regular Attendance)	10 Marks

## **COURSE2**

### **TECHNOLOGICAL BASES OF INSTRUCTIONAL DESIGN**

**Credit Points 6**

**Marks 100**

#### **MODULE IV: INSTRUCTIONAL DESIGN AND MULTIMEDIA,SKILLS AND STRATEGIES**

**Credit: 2**

**Study Hours: 2 X 12 = 24**

**Learning Outcomes:**

After learning this module the learner will

- Use the basic features of Multimedia available in the Software selected.
- Insert Interactivity features in the Presentation.
- Understand the skills for Instructional Design Process.
- Apply Instructional Media and various Instructional Strategies in the field of Education.
- Plan assessment as a part of Instructional Design of a Given Topic.

#### **Unit 1. Instructional Design and Multimedia**

- a) Multimedia: Meaning, Uses, Advantages and Components,
- b) Instructional design using Interactive Multimedia
- c) Stages of Instructional Design

#### **Unit 2. Skills for Instructional Design Process**

- a) Content Structuring, Learning Modules, Usability, Chunking Text, Content Outline, Flow and Clarity.
- b) Niceties of Language Writing, Writing for different Audiences, Using National and Global Language and Language Writing Tips.
- c) Writing Style-Features of Technical writing, Style Tips, Forma of Writing.
- d) Special reference to Design and Development of Courses or Units.

#### **Unit 3.Instructional Strategies**

- a) Definition of Instructional Strategies, Need of Media in Instruction, Available Media and Need for Selection of Suitable Instructional Media
- b) Instructional Strategies-



1. Types of Instructional Strategy- Direct Instruction, Indirect Instruction, Experiential Instruction, Independent Instruction and Interactive Instruction
2. Instructional methods for Face to face mode/Blended Learning –  
Transition for creating Units from Conventional to Online.
- c) Storyboard and the Script-The development Team, Storyboarding, Planning a Storyboard, The Rough Draft, Tips to begin Storyboard and Page Design

#### **Unit 4. Assessment**

- a) General Principles of Assessment and Evaluation
- b) Models of Evaluation-Kilpatrick's
- c) Assessment Practices in Digital Environment-Geoffrey Crisp

### **MODULE V: COMMUNICATION TECHNOLOGIES ,HANDHELD TECHNOLOGIES AND COMPUTER ASSISTED INSTRUCTION**

#### **Credit-2**

**Study Hours:** 2 X 12 = 24

#### **Learning Outcomes:**

After learning this module the learner will

- Explain the communication and communication technologies.
- Apply the Dick and Carey Model to design a computer-based learning material.
- Develop a presentation based on the design. (PowerPoint or any other)
- Apply the use of handheld technologies.

#### **Unit 1: Communication**

- a) Effective Communication
- b) Barriers in Communication
- c) Modes of Communication

#### **Unit 2: Computer Mediated Communication Technologies**

- a) e-mails and Web surfing
- b) Inter-relay Chat, face book, Google chat.
- c) Electronic Bulletin Boards and Computer Conferences, Twitter, Skype.

#### **Unit 3: Handheld Technologies**

- a) Meaning, Uses, and Modes of Handheld Technology(HHT)
- b) Android and IOS
- c) Various components of HHT- I-Pad, Smartphone's and Upload Coursework on HHT.

#### Unit 4: Computer Assisted Instruction

- a) ISD model for CAI: Dick and Carey Model
- b) CAI: Meaning, Characteristics, Uses, Advantages and Modes
- c) CAI: Process of Development and Story Board Writing

#### MODULE VI: INTERNAL ASSESSMENT

(CREDITS 2)

Sr.No	Particulars Marks	Marks
1	Subject specific Term Work Module/assessment modes – at least two- as decided by the department/college in the beginning of the semester (written assignments, and Projects) to be selflessly assessed by the teacher/s concerned	20 Marks
2	One periodical Class Test	10 Marks
3	Active participation in routine class instructional deliveries (seminar Presentation/Group Discussion) and overall performance (Regular Attendance)	10 Marks

#### References

- [e-Learning and the Science of Instruction](#) by Ruth Colvin Clark & Richard E. Mayer
- [Making Sense of Online Learning : A Guide for Beginners and the Truly Skeptical](#) by Patti Shank & Amy Sitze
- [The Online Learning Idea Book: 95 Proven Ways to Enhance Technology-Based and Blended Learning](#) edited by Patti Shank
- [The E-Learning Handbook: Past Promises, Present Challenges](#) by Saul Carliner & Patti Shank
- [Designing Successful e-Learning](#) by Michael Allen
- [Evidence-Based Training Methods](#) by Ruth Clark
- [Preparing Instructional Objectives : A Critical Tool in the Development of Effective Instruction](#) by Robert F. Mager
- [Instructional Design Strategies and Tactics](#) by Cynthia B. Leshin, Joellyn Pollock, and Charles M. Reigeluth
- [ISD: From the Ground Up : A No-Nonsense Approach to Instructional Design](#) by Chuck Hodell
- [The Art of Facilitation](#) by Dale Hunter and Anne Bailey and Bill Taylor
- [The Systematic Design of Instruction](#) by Walter Dick, Lou Carey, James O. Carey
- [Instructional Design](#) by Tillman J. Ragan & Patricia L. Smith
- [eLearning by Design](#) by William Horton
- [Graphics for Learning: Proven Guidelines for Planning, Designing, and Evaluating Visuals in Training Materials](#) by Ruth C. Clark and Chopeta Lyons
- [Guide to eLearning](#) by Micheal Allen

- [Creative Training Techniques Handbook: Tips, Tactics, and How-To's for Delivering Effective Training](#) by Robert Pike
- [Made to Stick](#) by the Heath brothers
- [Designing Effective Instruction](#) by Gary R. Morrison, Steven M. Ross, and Jerrold E. Kemp
- [The Principles of Instructional Design](#) by Gagne et al
- [e-Learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning](#) by Ruth C. Clark, Richard E. Mayer
- [Train for Results](#) by Catherine Mattiske
- [First Principles of Instruction](#) by M David Merrill
- Clark, R., (2009). Accelerating expertise with scenario based learning. Learning Blueprint. Merrifield, VA: American Society for Teaching and Development.

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Schamber, L. (1994). "Relevance and information behavior." *Annual Review of Information Science and Technology*, Medford, NJ: Learned Information, Inc. (EJ 491 620)

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