MIT-ADT UNIVERSITY
PUNE, INDIA
A leap towards World Class Education

MIT Art, Design & Technology University, Pune

School of Education & Research

Detail Syllabus For

Master of Science in e-Learning (M.Sc. in e-Learning)
To be implemented from 2021-22

Faculty of Humanities & Social Sciences

MIT Art, Design & Technology University

Pune

School of Education & Research

Detailed Syllabus

For

Master of Science in e-Learning

(M.Sc. in e-Learning)

FACULTY OF HUMANITIES & SOCIAL SCIENCES

Nomenclature of the Program:

Master of Science in e - Learning

Program Code: MScEL

Background & Preface of the Program:

Technology in the classroom is here to stay. Sometimes technology *is* the classroom, and there's an increasing need for education experts who understand—and can help others understand—modern learning technologies and e-learning ecologies. Earning a master's in e-learning can open up a world of opportunity in education. The Master of Science in e - Learning is aimed to be a bridge between the fields of education and educational technology. This course seeks to train personnel with interdisciplinary skill sets required for the e-learning domain. This program is a focused programme of study that includes theory, practice, and research in e-learning. It has sought to forge interconnections with the pedagogy, media and communications, Online technologies for online Education. It attempts to develop e- learning professionals capable of analysis, reflection, conceptual thinking, and meaningful action required for the e-learning industry. The main goal of this course is to develop entire learning environments based on technology-driven models of education.

Objectives:

The programme intends to provide learners an insight into understanding of the online education system and the e-learning industry. The amalgamation of newer pedagogies and technologies that forms the crux of the e-learning industry requires professionals with a mindset of lifelong learning and agility. This course, which is essentially a skill-based course, aims to equip learners with basic skills required for their journey to become proficient professionals in the e-learning field.

Program Outcomes:

Program Outcomes (Maximum 12)		Relevant to Local National / Regional / Global needs (Write the one with maximum focus)
1	**PO1**.**Professional Capacity Building:** Apply the knowledge of aspects of pedagogy, and ICT tools in the context of online teaching environments.	Local
2	**PO2. Academic Integrity and Professional Ethics:** Demonstrate academic integrity and professional ethics by keeping self-abiding to rules, regulations, values, and high standards in teaching, research, administration particularly in online educational settings.	National
3	**PO3. Resilience and cope up with Complex issues:** Demonstrate the spirit of work in diversified situations and apply knowledge & skills to cope with educational issues in complex online situations with appropriate consideration for the rules, norms, and the Social, cultural, and environmental context particularly in online learning environments.	Global
4	**PO4. Academic Administration and Management Capacities:** Apply the knowledge of educational administration & Project management according to predetermined goals, norms, and standards of the eLearning industry.	Local
5	**PO5. Continuous Academic Development:** Identify their own educational needs and requirements, keep academic development and lifelong learning in the context of change in different aspects of eLearning.	Global
6	**PO6. Commitment towards Society and National Goals:** Recognize areas of commitment, accountability, constitutional values, and national goals in the sphere of educational technology and eLearning contribute accordingly towards larger goals.	National
7	**PO7. Sensitivity for Emerging topics:** Apply the knowledge & skills to deal with topics related to	Global

	population, environment, gender equality, digital literacy, healthy practices in education and respond by applying skills of problem solving, critical, constructive, and creative thought process.	
8	**PO8. Research and Knowledge Creation:** Involve in knowledge dissemination, knowledge creation, research and innovative educational practices related to different stakeholders of online learning and education.	Global
9	**PO9. Independent and Team Work Capacities:** Perform effectively either in the role of member or leader in diversified online educational settings.	Local
10	**PO10: Professional Communication Skills:** Use diversified tools & technologies of communications and communication skills to serve the professional purpose and standards expected from eLearning professionals.	Local
11	**PO11: Interdisciplinary capacities:** Explore and adapt to integration of appropriate disciplines as an eLearning professional	Global
Program Specific Outcomes (Maximum 4)		
1	**PSO1:** Explore ICT tools and techniques for co-operative and constructivist online learning environments.	Local
2	**PSO2:** Apply basic concepts and theories related to learning in the Instructional Design	Global
3	**PSO3:** Plan learner centric learning experiences for online learning and blended learning environments	National
4	**PSO4:** Develop templates, plans and e-content for online as well as blended learning environments	Global
5	**PSO5:**Design and develop content for eLearning courseware	National
6	**PSO6:**Undertake Research in the field of educational technology and eLearning	Global

Unique features of the Program:

The M.Sc. in e-learning course has following USP:

- One Specialization given for PG Diploma and dual specialization for M.Sc e- learning.
- Focused course on Instructional Design with a specific focus on e-learning industry
- Multiple Exit and entry points. On successful completion of requirements, the candidate can exit after one year with a Post Graduate Diploma e learning.
- Strong foundation of pedagogy required for the e-learning industry.
- More focus on Practical and hands-on for developing skills.
- Internship for the entire duration of last semester.
- Project based on specialization in the 4th semester helps strengthen the specialization.
- Value added course on technologies and applications.
- New trends in the field of education incorporated so as to keep the students abreast with latest developments in the field of e-learning.

Eligibility Criteria:

1. Candidates having graduation and / or post graduation in Commerce, Arts, Humanities including Management and Law can apply for M.A in e-learning.
2. Candidates who have a degree in B.E / B.Tech / B.Sc / M.Sc. / Medical and Paramedical students can apply for M.Sc in e learning.
3. Graduates belonging to the Open category from any discipline which is a recognized / statutory University or Institute should have a minimum of 50% of equivalent in the qualifying exam.
4. The reservation and relaxation of 5 % marks will be given to the candidates belonging to S.C./ S.T./ V.J.N.T./ O.B.C./P.W.D. and other notified categories as per the State Government Rules.
5. For Foreign students, the University rules will be applicable.
6. A candidate who has completed a qualifying degree from any Foreign University must obtain an equivalence certificate from the Association of Indian Universities (AIU) and need to be verified from AIU by the candidate before seeking admission for the programme.
7. All the candidates applying for his course need to have basic computer knowledge of MS office.

Duration: **2 years - Full time - M.Sc. e-learning**

Exit point: Those students who complete 40 Credits including a project will be qualified to exit with PG Diploma in e - learning.

Entry Point: Those students who have completed a PG Diploma in e-learning can later come back and pursue to complete M.A/M.Sc in e-learning within **3 years** from completion of the PG Diploma course.

Semesters: 4 semesters with minimum 80 credits distributed over two years

Maximum Age Limit: No bar

Entrance Examination:

Candidates who satisfy the above criteria, will appear for an entrance examination. The entrance exam will assess the basic English language, Presentation skills, Computer Operations, and Logical thinking. It will be an online examination of 50 marks for 100 minutes. This exam will be based on application of all the above mentioned topics. To qualify in this exam candidates must score 50%.

Those whose medium of instruction was not English can take admission but the admission will be based on successful completion of a **bridge course**.

SOP: Candidates who qualify in the entrance exam will submit a statement of purpose. Based on which final call letter for admission will be sent to the candidates.

Intake of the program: 20 students

Faculty: Renowned in e-learning Academia and Industry from all over the country.

Potential Scope after completion of the program:

Candidates after completing the course in Master of e-learning will be able to work in the e-learning industry and institutions including NGOs that support/ function in the e-learning domain. The candidates upon their proven merit can be employed in various capacities, indicative list being as follows:

- Instructional Designers
- Story- board developers
- e-Content developers
- Online content creators
- Consultants in e-learning
- Corporate trainers
- Researchers in varied dimensions of online education/Educational technology
- Entrepreneurs of e-learning related areas/Edupreneurs

Program Structure:

The Programme is structured with a common core curriculum that lays the foundations and all courses have less theory and more of application.

- The program has two exit points: If students want to leave the course after a year they can complete the project in Semester 2 and get a degree of post graduate diploma in e learning.
- Students who complete all the credits for 2 years get M.A. /M.Sc. in e learning.
- Program has courses with internal and external assessments and few courses with 100% practical.

a) **Value added courses:** Swayam and NPTEL courses can be considered as value added courses as per requirement of the industry and availability of the course.

- Basics of Learning Analytics
- Relevant and recommended courses on platforms like SWAYAM, edX and Coursera. (CBCS applicable)
- Basics of Cyber Security

b) **Internship (compulsory component)**: Candidates will be required to complete one semester as internship/ industrial training at an e-learning company/institute as part of this course. They need to contribute to the projects at the institute/ industry, learn about the implications of e - learning by relevant activities planned.

c) **Project**: Students when going for internship they need to complete a capstone project which may involve them studying an issue / developing a product / case study etc. and create a report using research principles and process. They will be given a supervisor for the same (mentor) for helping students complete the project.

Mode of Delivery

The course sessions- both theory and practical will be conducted using the constructivist approach. Active Learning Strategies will form the basis of Course Delivery and student presentations, seminars etc. will be an inherent part of the course design.

Course structure

Course Structure: M.Sc. in e-learning

Semester I

Course code	Course Title	Credit Distribution	Total Credits	Teaching period/week (1 hour)			Evaluation Scheme (Internal Marks)			End course Assessment	Total Marks	Passing %	Minimum marks for passing
				L	T	P	CA	Midcourse	Total				
21MScEL101	e-learning - Theories, & Practice	L – 0 – P 2 – 0 - 2	4	2	0	4	20	30	50	50	100	50%	50
21MScEL102	Computer fundamentals and internet for e-learning	L – 0 – P 1 – 0 - 1	2	1	0	2	20	30	50	00	50	50%	25
21MScEL103	Communication in e-learning	L – 0 – P 2 – 0 - 2	4	2	0	4	20	30	50	50	100	50%	50
21MScEL104	Assessment in e-learning	L – 0 – P 2 – 0 - 2	4	2	0	4	20	30	50	50	100	50%	50
21MScEL105	Introduction to Research	L – 0 – P 2 – 0 - 2	4	2	0	4	20	30	50	50	100	50%	50
	Total		**18**	**9**	**0**	**18**	**100**	**150**	**250**	**200**	**450**	**50%**	**225**

Semester II

Course Code	Course Title	Credit Distribution	Total Credits	Teaching period/week (1 hour)			Evaluation Scheme (Internal Marks)			Semester End JURY	Total Marks	Passing %	Minimum marks for passing
				L	T	P	CA	Mid-course	Total				
21MScEL201	Instructional Design Models & Theories	L – 0 – P 2 – 0 - 2	4	2	0	4	20	30	50	50	100	50%	50
21MScEL202	Interactive multimedia (Practical Based)	L – 0 – P 2 – 0 - 2	2	2	0	4	20	30	50	50	100	50%	50
21MScEL203	Storyboarding (Practical Based)	L – 0 – P 1 – 0 - 2	3	1	0	4	20	30	50	50	100	50%	50
21MScEL204	Introduction to Visual Design	L – 0 – P 1 – 0 - 2	3	1	0	4	20	30	50	50	100	50%	50
21MScEL205	Online Learning: Designing & Development	L – 0 – P 2 – 0 - 2	4	2	0	4	20	30	50	50	100	50%	50
21MScEL206A	**Specialization I:** Developing Self Instructional material (SIM)	L – 0 – P 2 – 0 - 4	6	2	0	8	30	40	70	80	150	50%	75
21MScEL206B	**Specialization II:** Educational Video Creation	L – 0 – P 2– 0 -4	6	2	0	8	30	40	70	80	150	50%	75
	Total		**22**	**12**	**0**	**28**	**130**	**190**	**320**	**330**	**650**	**50%**	**325**
	Project work (For PG Diploma Exit)	L – 0 – P 0 – 0 - 4	4	0	0	8	50	50	100	00	100	50%	50
For PGDEL	**Total**		**24**	**08**	**0**	**32**	**300**	**140**	**440**	**160**	**600**	**50%**	**300**

Semester III

Course code	Course Title	Credit Distribution	Total Credits	Teaching period/week (1 hour)			Evaluation Scheme (Internal Marks)			Semester End Exam Marks	Total Marks	Passing %	Minimum marks for passing
				L	T	P	Practical	CA Activity	Total				
21MScEL301	Project Management	L – 0 – P 2 – 0 - 2	4	2	0	4	20	30	50	50	100	50%	50
21MScEL302	Learning Management Systems	L – 0 – P 2 – 0 - 2	4	2	0	4	20	30	50	50	100	50%	50
21MScEL303	Fundamentals of Design Thinking	L – 0 – P 1 – 0 - 1	2	1	0	2	20	30	50	00	50	50%	25
21MScEL304	Advanced Research Methodology + Basics of Data Analytics (Audit Course)	L – 0 – P 2 – 0 - 2	4	2	0	4	20	30	50	50	100	50%	50
21MScEL305A	**Specialization I:** LCM Design and development	L – T – P 2 – 0 -4	6	2	0	8	30	40	70	80	150	50%	75
21MScEL305B	**Specialization II:** Educational Game Design & Development	L – T – P 2 – 0 - 4	6	2	0	8	30	40	70	80	150	50%	75
21MScEL305C	**Specialization III:** Virtual Laboratory Design & Development	L – T – P 2 – 0 - 4	6	2	0	8	30	40	70	80	150	50%	75
	Total		**20**	**09**	**0**	**22**	**110**	**160**	**270**	**230**	**500**	**50%**	**250**

Semester IV

Course Code	Course Title	Credit Distribution	Total Credits	Teaching period/week (1 hour)			Evaluation Scheme (Internal Marks)			Semester End Exam Marks	Total Marks	Passing %	Minimum marks for passing
				L	T	P	Practical	CA Activity	Total				
21MScEL401	Capstone Project	L – 0 – P 0 – 0 - 10	10	0	0	20	250	00	250	00	250	50%	125
21MScEL402	Internship	L – 0 – P 0 – 0 - 10	10	0	0	20	150	100	250	00	250	50%	125
	Total		**20**	**0**	**0**	**40**	**400**	**100**	**500**	**00**	**500**	**50%**	**250**

M. Sc. Syllabus Details

Semester 1

101: e-learning- Theories and Practice:

Course Credits: 4

Program Name	**Master of Science in e-Learning MScEL**
Course Code	**21MScEL101**
Course Title	**e-learning -Theories, & Practice**
Credits	4
Focuses on (Write the one with maximum focus)	Employability
Integrates cross-cutting issues (Write the one with maximum focus)	Professional Ethics

Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
2	0	2	50	50	100

Prerequisites:

- Basic understanding of learning process
- Exposure to learning through various media

Course Outcomes:

1. Devise pedagogical plans for emergency remote learning and planned online learning using various e-learning platforms and strategies.
2. Develop modules of e- learning with respect to affordances of various devices, and platforms in order to ensure equitable access to diverse learners
3. Apply models related to various schools of psychology in e-learning to develop modules of subject specific, topic specific e-content
4. -Design subject specific, topic specific e-content for diverse and challenged learners and to suit various learning styles of learners in e-learning environments.

No.	Description	Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)
CO1	Devise pedagogical plans for emergency remote learning and planned online learning using various e-learning platforms and strategies.	Global
CO2	Develop modules of e- learning with respect to affordances of various devices, and platforms in order to ensure equitable access to diverse learners	Global
CO3	Apply models related to various schools of psychology in e-learning to develop modules of subject specific, topic specific e-content	Local
CO4	Design subject specific, topic specific e-content for diverse and challenged learners and to suit various learning styles of learners in e-learning environments.	National

Module 1: e-learning: a 360 degree turn in pedagogy:

1.1: Basics: definitions, scope, terms and mechanics of e-learning, evolution of e-learning.

1.2: Remote teaching, online teaching: Definitions, scope, working, difference, Agility involved, implementation and innovation

1.3: Comparative discourse with Distance learning: evolution of distance education, comparison of distance learning, remote teaching, online teaching and e-learning

Activity:

FA: Quiz, brainstorming and discussion

SA: Presentation of development of e-learning (timeline), comparative discourse analysis, Mechanics and the 360 degree turn- justification

Module 2: Components of e-learning: Devices, Access, Diversity , Equity.

2.1: Variety of devices and the different affordances of each in case of e-learning.

2.2: Access to e-learning, research base, latest research and innovations. Relationship of access and the path of e-learning

2.3: Diversity of students: geographic, linguistic, regional, literacy, socio-economic and various other diversity. The relationship between diversity and e-learning, which diversities guide e-learning and how. Researches upon diversity in e-learning

2.4: Equity and accessibility: definitions, policies -national and international and implementation; gap identification.

Activity: FA: Policy review, brainstorming and discussion of ground level

SA: Policy review paper and way forward

Module 3: Schools of Thoughts and theories:

3.1: Behaviorism, Cognitivism, Andragogy, Social Learning, Constructivism, Connectivism. Each thought theory and its implementation in e-learning

3.2: Introduction to Experiential learning, Project based learning in e-learning. TPACK basics, evolution, scope, implementation

3.3: 11 principles of of e- learning (ID), types of cognitive load

3.4: Bases of perspectives and derived pedagogy : associative, cognitive, situative

3.5: Models: E.g. Learning Objects model of e-learning, The CSALT Networked Learning Model, Mayes & Fowler's framework. Etc. Implication of each theory and model in e-learning

Activity:

FA: Quiz, brainstorming and discussion, application of each model

SA: Presentation of application of any one topic based on any one or combination of above model/ theory of e-learning

Module 4: Learning Styles of students (focus on 21st century learners):

4.1: Learning styles like visual, verbal, kinesthetic etc in pedagogy.

4.2: Learning styles w.r.t online learning: independent learners, Engaged learners, physical learners, concrete learners, logical learners etc (10 styles of online learning)

Activity:

FA: Game based practical

SA: Research on a group of learners to identify the styles OR Analyse an online course to map it to the styles of learners addressed.

Assessment: Jury for SA mentioned above

Suggested readings:

1. Vai,M. Sosulski. K.,(2011). Essentials of Online Course Design: A Standards-Based Guide (Essentials of Online Learning). 2nd Edition.Routledge
2. Kenneth Fee, Delivering E-Learning: A Complete Strategy for Design, Application and Assessment. 1st Edition

3. Singh, Tarsem (2009). Basic Computer Education. Ludhiana: Tandon Brothers.
4. Singh, Tarsem (2009). ICT Skill Development. Ludhiana: Tandon Brothers.

Students are expected to track the following sites on daily basis:

https://diksha.gov.in/fln.html

https://ncert.nic.in/

https://iite.unesco.org/

https://www.education.gov.in/en

Course Outcomes (COs)	**Program Outcomes (POs)**											**Program Specific Outcomes (PSOs)**					
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	3	---	---	---	---	---	---	---	---	---	---	3	3	3	3	3	3
CO2	3	---	3	---	---	---	3	---	---	---	---	3	---	3	3	---	---
CO3	3	---	---	---	---	---	---	---	---	---	---	---	3	---	3	3	---
CO4	3	---	---	---	---	---	3	---	---	3	---	3	3	3	---	3	---

102: Computer Fundamentals and Internet basics

Course Credits: 2

Program Name	**Master of Science in e-Learning - MScEL**
Course Code	**21MScEL102**
Course Title	**Computer fundamentals and internet for e-learning**
Credits	2
Focuses on (Write the one with maximum focus)	Skill development
Integrates cross-cutting issues (Write the one with maximum focus)	Professional Ethics

Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
1	0	2	50	50	100

Prerequisites:

- Basic know how of internet surfing

Course Outcomes:

1. Navigate the web environments
2. Explain the relationship between technological developments and its impact
3. Use various basic offline and online ICT tools

No.	**Description**	**Relevance to Local / National / Global /**

		Regional needs (Write the one with maximum focus)
CO1	Navigate the web environments	Global
CO2	Explain the relationship between technological developments and its impact	Global
CO3	Use various basic offline and online ICT tools	Local

Module 1: Evolution of Ed tech:

1.1: Definition, terms, scope, journey and evolution of edtech starting from 18th century to present day. Fragmentation of EdTech, Disruption at every stage, socio-political impact, economics and industry.

1.2: Web 1.0, Web 2.0, Web 3.0: definitions, features, evolution, comparison,

Module 2: e-Learning environments:

2.1: Definitions, characteristics, functionality. VLE vs LMS, Exploring TCSion, blackboard, MOODLE and other available resources.

2.2: ICT tools - Basic tools - All tools of MS Office, Google Apps and Open Docs- explore the functions and features for using in collaborative environments as well as e-learning components for enabling accessibility.

2.3: ICT tools- in VLE plugins- Explore tools like Edpuzzle, Flashcards, quizziz etc. ePortfolio, Websites: Elements, layout, composition, functions.

2.3: Websites: structure, elements, components, navigation, interaction

Practical/Project: Develop website as their e-Portfolio using Wordpress/Google Sites or other tools

Reference Readings:

1. Goel, A., Computer Fundamentals, Pearson
2. Comer, D., Computer Networks & Internets: With Internet Applications, 4th ed Pearson
3. Black, U., Computer Networks: Protocols, Standards & Interfaces, 2nd ed PHI

CO-PO Matrix

Course Outcomes (COs)	Program Outcomes (POs)											Program Specific Outcomes (PSOs)					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO1	3	3			3	3						3	3	3	3		3
CO2	3			3	3	3				3							
CO.3	3				3					3		3	3	3		3	

103: Communication in e-learning

Course Credits: 4

Program Name	**Master of Science in e-Learning -MScEL**				
Course Code	**21MScEL103**				
Course Title	**Communication in e-learning**				
Credits	4				
Focuses on (Write the one with maximum focus)	Skill development				
Integrates cross-cutting issues (Write the one with maximum focus)	Sustainability				
Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
2	0	2	50	50	100

Prerequisites:

- Basic knowledge of Communicative English

Course Objectives:

1. Understand the forms and methods of communication required for e-learning
2. Collate, structure, organize content suitable for e-learning purposes
3. Apply models of communication to create variety of content for e-learning

Course Outcomes:

1. Identify the appropriate writing styles according to the need of content and the learners
2. Conduct the need analysis for developing the e-content
3. Collate, Structure and organize the content
4. Apply forms of writing to develop subject specific, topic specific e-content
5. Use offline and web based authoring tools for variety of content development

No.	Description	Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)
CO1	Identify the appropriate writing styles according to the need of content and the learners	Local
CO2	Conduct the need analysis for developing the e-content	National
CO3	Collate, Structure and organize the content	Local
CO4	Apply forms of writing to develop subject specific, topic specific e-content	National
CO5	Use offline and web based authoring tools for variety of content development	Global

Module 1: Understanding Basics of Communication

1.1: Basics of Communication- Meaning, Definition, Features, Process, Principles

1.2: Theories of Communication: Attitudinal Change Theory, Theory of Social Learning, Technological Determinism and Audience Theory

1.3: Models of Communication: Harold Lasswell, Shannon and Weaver's Mathematical Model of Communication, Osgood and Schramm's Model of Communication, Berlo's Model of Communication,, Westley and Maclean's Model (good for mass media), Barnlund's Transactional Model, Dance's Helical Model

Activity FA: Quiz and Discussion

SA: Comparative discussion on theories and models

Module 2: Communications and its Forms

2.1: Types of Communication –Formal & Informal Communication, Synchronous and Asynchronous

2.2: Forms of Writing: Self Learning Material, Writing for Audio, Writing for Video, Writing for Comic Strips

2.3: Presentation formats for Audio and Video: Talk, Documentary, Interviews, Features, Magazine, Docudrama, Demonstrations, Game shows

Activity

FA: Quiz and Discussion on application of forms of writing and presentation formats

SA: Comparative discussion on presentation formats and presentation of application of forms of writing

Module 3: Fundamentals to Writing

3.1: Stages of Writing: Pre- writing (Selecting a topic, Identifying audience and purpose, Gathering ideas, Organizing Information/ outlining), Writing (Drafting- Gain attention; Introduce the subject, Organizing Paper), Post Writing (Revising and editing, Proofreading)

3.2: Key Writing Elements: Unity, Tone, Organizations, Citations, Argument stated, structure of Argument, Structure of Introductions and Conclusions

3.3: Content structuring (Introduction or Opening, Body or Climax, Conclusion with main points or Ending), Process of collating and sorting ideas, Organize writing ideas

Activity

FA: Quiz, Discussion and content structuring

SA: Content development along with structuring and organizing

Module 4: Writing and Authoring

4.1: Writing Styles: Narrative, Descriptive, Expository, Persuasive, along with Argumentative and Analytical

4.2: Authoring Tools: What, Why, How of Authoring tools, Different Authoring tools

4.3: Tools: quizizz, edpuzzle, and other appropriate tools

Activity:

FA: Quiz and comparative Discussion

SA: Project -Creating one kind of writing piece to demonstrate use of relevant authoring tool

Course Outcomes (COs)	**Program Outcomes (POs)**											**Program Specific Outcomes (PSOs)**					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO1	PSO 2	PSO3	PSO4	PSO5	PSO6
CO1	3	---	---	---	---	---	---	---	3	3	---	---	3	---	---	---	3
CO2	3	---	---	---	---	---	---	---	3	3	---	---	---	---	---	---	3
CO3	3	---	---	---	---	---	---	---	---	3	3	3	---	---	---	3	---
CO4	3	---	---	---	---	---	---	---	---	3	3	3	---	---	---	3	---
CO5	---	---	---	---	---	---	---	---	---	3	3	3	---	---	3	---	---

104: Assessment in e-learning:

Course Credits: 4

Program Name	**Master of Science in e-Learning MScEL**				
Course Code	**21MScEL104**				
Course Title	**Assessment in e-learning**				
Credits	4				
Focuses on (Write the one with maximum focus)	Skill development				
Integrates cross-cutting issues (Write the one with maximum focus)	Professional Ethics				
Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
2	0	2	50	50	100

Prerequisites:

- Basics about educational process

Course Objectives:

1. Understand components of measurement, assessment and evaluation
2. Develop formats of assessment of different levels for e-learning purposes
3. Design rubrics and auto-grading tests with a blue print

Course Outcomes:

1. Develop learning outcomes based on Bloom's taxonomies (revised and digital)
2. Analyze the various types of assessments
3. Design types of appropriate e-assessments with evaluation criteria

No.	Description	Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)
CO1	Develop learning outcomes based on Bloom's taxonomies (revised and digital)	National
CO2	Analyze the various types of assessments	Global
CO3	Design types of appropriate e-assessments with evaluation criteria	Local

Module 1: Understanding Basics:

1.1: Measurement, assessment, Evaluation: Basic concepts and relationships, introduction to e-assessments, history and development of e-assessments, importance, characteristics and challenges of e-assessment

1.2: A test for everything: Developing/Writing: Objectives, Outcomes, Bloom's (revised) Taxonomy, Bloom's digital taxonomy

1.3: Assessment to enhance learning: Assessment of Learning and Assessment for Learning (AOL vs AFL)

Module 2: Approaches and perspectives of assessment:

2.1: Perspectives of Assessment :Behaviourist, Cognitivist and Constructivist)

2.2: Approaches to Evaluation : Placement, Formative, Diagnostic and Summative

Norm referenced and Criterion-Referenced Tests Goal-Centered Criteria, Learner-Centered Criteria, Context-Centered Criteria , Assessment-Centered Criteria, Setting Mastery Criteria and Mastery levels,

2.3: Designing a Test : Entry Behaviors Test. Pretest,Practice Tests ,Posttests, teacher made Achievement tests- blueprint. Writing Test Items.

2.4: e-assessments: Online, Offline, computer assisted, computer based; linear, adaptive; game based, mobile based, electronic marking, autograding etc

Module 3: Continuous and Comprehensive Evaluation :

3.1: Variety for CCE: Individual and group : Peer evaluation, portfolio, discussions, debates, online participation, quizzes, observation, project, co-operative assignments and other new trends as applicable

3.2: Developing Rubrics: for CCE, assignments and summative assessments

3.3: ICT Tools **:** hot potatoes, kahoot, quizlet, rubistar, rubric maker etc

Practical/Project: Development of tests for e-learning

Reference Readings:

1. Azevedo, J., Oliveira, E. P., & Beites, P. D. (2019). E-Assessment and Multiple-Choice Questions: A Literature Review. In Handbook of Research on E-Assessment in Higher Education (pp. 1-27). IGI Global.
2. Conole, G., & Oliver, M. (Eds.). (2006). Contemporary perspectives in e-learning research: themes, methods and impact on practice. Routledge.
3. Crisp, G. (2007). The e-assessment handbook. New York: Continuum.

4. Guàrdia, L., Crisp, G., & Alsina, I. (2017). Trends and challenges of e-assessment to enhance student learning in Higher Education. In Innovative practices for higher education assessment and measurement (pp. 36-56). IGI Global.
5. Williams, D. D., Howell, S. L., Hricko, M., & Stewart, H. (2006). Online assessment, measurement and evaluation: Emerging practices. Information Science Publishing.

Course Outcomes (COs)	**Program Outcomes (POs)**											**Program Specific Outcomes (PSOs)**					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO1	PSO 2	PSO3	PSO4	PSO5	PSO6
CO1	3	---	---	---	---	---	---	---	---	---	---	3	3	---	3	3	---
CO2	---	---	3	---	---	---	---	---	---	---	---	3	3	---	---	---	---
CO3	---	3	---	3	---	---	---	---	---	---	---	3	---	3	3	3	---

105: Introduction to Research

Course Credits: 4

Program Name	**Master of Science in e-Learning MScEL**
Course Code	**21MScEL105**
Course Title	**Introduction to Research**
Credits	4
Focuses on (Write the one with maximum focus)	Employability
Integrates cross-cutting issues (Write the one with maximum focus)	Sustainability

Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
2	0	2	50	50	100

Course Outcomes:

1. Explain the concept and summarize different qualitative research methods.
2. Identify and describe qualitative research approaches and data analysis.
3. Explain the concept and summarize different quantitative research methods.
4. Appropriately use quantitative research designs.

No.	Description	Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)
CO1	Explain the concept and summarize different qualitative research methods.	Global
CO2	Identify and describe qualitative research approaches and data analysis.	National
CO3	Explain the concept and summarize different quantitative research methods.	Global
CO4	Appropriately use quantitative research designs.	National

Module 1:

1.1: Concept of Research: Meaning and importance of Research – Types of Research – Selection and formulation of Research Problem – Identification of a research topic - Proposal Writing – Research Design.

1.2: Research Methods: (a) Traditional Methods – Historical, Institutional, Legal, Philosophical, Comparative, Ethical methods, etc.

(b) Modern Methods – Survey of Literature, Sampling method, Questionnaire, Schedule, etc., Field studies, Interview method, and Focus Group discussion, Observation Method, Case Study method, Content analysis, Delphi method, Statistical Method, Experimental method, Brainstorming Techniques, etc.

Module 2

2.1: Data Collection and Data Analysis: I. Types of data - (a) Primary, Secondary and Tertiary Data. (b) Construction and adaptation of instruments, Administration of questions and tests,

Tabulation of data. (c) Data organization in SPSS and Excel (d) Graphical representation of data.

2.2: Analysis of Data - (a) Discussion and Interpretation of results. (b) Testing of Hypothesis: Logical and Statistical Techniques.

Module 3

3.1: Report Writing: Organization of the Research Report Preliminaries, Contents of Report, Bibliography, Appendices - Style Manuals - Criteria for the evaluation of the Research Report.

Practical:

RESEARCH PROJECT SUBMISSION: As part of the Course each student would have to conduct and analyze research, develop a thesis, and organize his/her ideas.

The topics will be of the candidate's own choosing but approved by the faculty guide. The Research paper should have the following components:

1. Abstract in 100 words, Keywords (5-7) Introduction, Discussion, Conclusion & Works Cited/References.

2. Keywords should avoid Proper names and words from the title of the article.

3. The document shall not be less than 50 pages on A4 size, Times New Roman, Font 12 with 1.5-line spacing and the title can be in font 14.

4. The entire document shall be 1.5 line-spaced and paragraphs should be indented from the left margin. Avoid justifying the pages.

Reference Readings:

1. Research Methodology: An Introduction: C.R Kothari.

2. Research Methodology: A Step by Step Guide for Research: Renjith Kumar.

3. Research Methodology: Paneerselvam.

4. Sampling Techniques: William G. Cochran

5. Scientific Method and Social Research: B.N. Ghosh.

6. The Indian Media Business: Vanita Kohli – Khandekar

7. Research Methodology: Methods and Techniques: C R Kothari & Gaurav Garg

8. Media Education in India: Jacob Srambickal

9. Teaching-Learning Process: Dr.J.S.Walia

10. Principles, Methods & Techniques of Teaching: J. C. Aggarwal

11. Effective Teaching Methods: Gary D Borich

12. Teaching in a Digital Age: A.W. Tony Bates

13. Educational Psychology: Dr. G. M Chaudhary

14. Methods in Social Research: Goode and Hatte.

Course Outcomes (COs)	**Program Outcomes (POs)**											**Program Specific Outcomes (PSOs)**					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO1	PSO 2	PSO3	PSO4	PSO5	PSO6
CO1	---	3	---	---	---	---	---	3	---	---	---	3	---	---	---	---	3
CO2	---	3	---	---	---	---	---	3	---	---	---	3	---	---	---	---	3
CO3	---	3	---	---	---	---	---	3	---	---	---	3	---	---	---	---	3
CO4	---	3	---	---	---	---	---	3	---	---	---	3	---	---	---	---	3

Semester 2

201: Instructional Design- I

Course Credits: 4

Program Name	**Master of Science in e-Learning MScEL**
Course Code	**21MScEL201**
Course Title	**Instructional Design Models & Theories**
Credits	4
Focuses on (Write the one with maximum focus)	Entrepreneurship
Integrates cross-cutting issues (Write the one with maximum focus)	Professional Ethics

Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
2	0	2	50	50	100

Prerequisites:

- Has basic understanding of learning processes
- Has basic knowledge of Educational Psychology

Course Objectives:

1. Understand learner characteristics in e-learning environments
2. Understand Instructional Design structure
3. Apply Instructional design theories

Course Outcomes:

CO1:Characterize learners in e-learning environments

CO2: Apply models of Instructional Design for developing e-content

No.	Description	Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)
CO1	Characterize learners in e-learning environments	National
CO2	Apply models of Instructional Design for developing e-content	Global

Module 1 : **Understanding Instruction Design (ID):**

1.1: ID: meaning, concept, Principles. Steps

1.2: Instructional Analysis- Identifying related Skills and Entry Behaviors, Context analysis

Module 2: Learner Analysis:

2.1: Analyzing Learners Entry behaviors, Prior knowledge of topic area, Group characteristics,General learning preferences,

2.2: Academic motivation, Educational and ability levels, Attitudes toward content and potential delivery system, social interaction and profiles

Module 3: Major models for ID::

3.1: UTAUT model, ADDIE model, Gagne's model, Kirk Patrick's model, Design thinking, Information Processing, Emergent theories and models, ARCS model

3.2: Application of models in Types of e-learning: Synchronous, Asynchronous, Blended learning, Flipped learning, Hybrid learning, Mobile learning

Activity:

FA: Developing protocol/ procedure for learner analysis

SA (any 1)

Use any 1 model to design a e-learning module

Develop a specific e-learning workshop or training plan

Assessment: Jury for SA

Reference Readings

1. Blaauw, G., & Brooks, F. (1997). Computer architecture: Concepts and evolution. Reading, MA: Addison Wesley Longman
2. Gibbons, A. S. (2013). An architectural approach to instructional design. New York: Routledge
3. Gibbons, A., & Rogers, P. C. (2009). The architecture of instructional theory. In C. M. Reigeluth & A. Carr-Chellman (Eds.), Instructional-design theories and
4. models: Vol. 3. Building a common knowledge base . New York: Routledge.
5. Ramo, S., & St. Claire, R. K. (1998). The systems approach, anaheim, CA: KNI Incorporated. Retrieved from http://www.incase.org/productspubs/doc/systemsapproach .
6. Gagné, R. M., & Briggs, L. J. (1979). Principles of instructional design (2nd ed.). New York: Holt, Rinehart, & Winston.
7. Skinner, B. F. (1954). The science of learning and the art of teaching.
8. Harvard Educational Review, 24, 86-97.
9. Tennyson, R.D. (2010). Historical Reflection on Learning Theories and Instructional Design.
10. Contemporary Educational Technology, 2010, 1(1), 1-16
11. Gustafson, K.L. (1996). International Encyclopedia of Educational Technology.
12. Edited by Plomp, T. & Ely, A.P. Pergamon, USA.

Course Outcomes (COs)	Program Outcomes (POs)											Program Specific Outcomes (PSOs)					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO1	PSO 2	PSO3	PSO4	PSO5	PSO6
CO1	2	2	2	---	---	2	---	---	---	---	---	2	2	2	---	2	---
CO2	2	2	2	---	---	---	---	2	2	2	---	2	2	2	---	2	---

202: Interactive Multimedia

Course Credits: 2

Program Name	**Master of Science in e-Learning MScEL**
Course Code	**21MScEL202**
Course Title	**Interactive multimedia**
Credits	2
Focuses on (Write the one with maximum focus)	Skill development
Integrates cross-cutting issues (Write the one with maximum focus)	Sustainability

Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
1	0	1	50	50	100

Prerequisites:

- Has basic skill of navigation of internet
- Basic understanding of engagement in learning

Course Objectives:

1. Understand the significance of interaction in e-learning environments
2. Know various types of interactions in e-learning environments
3. Use tools for creating interactive content

Course Outcomes:

CO1: Choose appropriate interaction for e-learning environment
CO2: Explore formats of interactive texts
CO3: Analyze use of simulations and games in e-learning contexts

No.	Description	Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)
CO1	Choose appropriate interaction for e-learning environment	Local
CO2	Explore formats of interactive texts	Global
CO3	Analyze use of simulations and games in e-learning contexts	Global

Module 1: Interactive texts:

1.1: Interactive textbooks: e-books, flip books, epub and other formats: features, characteristics

1.2: Interactive texts in action: implementation, comparative study of user interaction.

Module 2: Simulations and Games:

2.1: Need, scope, choice of simulations and games. Difference between animation and simulation. Features of each.

2.2: Elements of each and process; identifying and scripting changes during possible interconversion, limitations while conversion

Module 3: Interactivity in e-learning multimedia

3.1: Bringing in Interactivity, anticipating interactivity, identifying spots for interaction, anticipating interaction and further path, redesigning to align the interactivity.

3.2: Creating interactive e-content including videos, adding interactivity to the existing content, tools used for the same such as h5p.

Activity:

FA: Explore simulations and games developed by educational institutions and GoI. Eg: OLabs, VLabs.

SA: (any 1)

1. Present the observations w.r.t to at least 2 simulation based websites or interactive text formats
2. Create an interactive multimedia on a topic of a school subject.

Jury for SA above

Reference Readings:

1. Alessi, Stephen, & Trollip, Stanley (2001). Multimedia for Learning: Methods and Development. 3rd ed. Allyn and Bacon, U.S.A.
2. Boyle, T. (1997). Design for Multimedia Learning, London: Prentice Hall
3. Bruntlett, Steve (1999). Selecting, Using and Producing Classroom-based Multimedia. In Leask-Marilyn and Pachler Norbett (Eds.) Learning to Teach Using ICT in the Secondary School. Routledge, N.Y. pp. 71-94.
4. Dornan, Ellen (2004). Road Map for Educational Multimedia Design: A Content Developer's Approach, University of New Mexico. Posted on ITFORUM on September 30, 2004. Available at http://it.coe.uga.edu/itforum/paper80/ paper80.htm
5. Elson-Cook, Mark (2001). Principles of Interactive Multimedia. The McGraw-Hill Co., U.K.
6. Jolliffe, Alan, Ritter, Jonathan, & Stevens, David (2001). The Online Learning Handbook: Developing and Using Web-Based learning. London: Kogan Page
7. Kjelladahl, Lars (1992). Collected Conclusions. In Kjelladahl Lars (Ed.) Multimedia: Systems, Interaction, and Application / 1st Eurographics Seminars. The European Association for Computer Graphics, Germany.
8. Koumi, J. (2006). Designing Video and Multimedia for Open and Flexible Learning, London: Routledge. Mayer, R. E. (2001). Multimedia learning. Cambridge, UK: New York: Cambridge University Press.
9. Mayer, R. E. (Ed.). (2005). The Cambridge handbook of multimedia learning. Cambridge, UK: New York: University of Cambridge.
10. Mishra, Sanjaya, & Sharma, Ramesh (Eds.) (2005). Interactive Multimedia in Education and Training. Hershey: Idea Group Publishing
11. Mitra, Sugata, & Mitra, Sushmita (1998). Education and Technology. In Quest of Bharateeya Shikshan, IX(1/3), Jan-March, pp. 1-18.

12. Perrin, Donald (1991). Level of Interactivity on the Internet and the web. USDLA Online, U.S. Available at http://www.usdla.org/html/journal/APR99_Issue/16_ed_apr_99c.htm
13. Ravet, S., & Layte, M. (1997). Technology Based Training. Kogan Page, London.
14. Reddi, U., & Mishra, S., Eds. (2003). Educational Multimedia: A Handbook for TeacherDevelopers. The New Delhi :Commonwealth of Learning Commonwealth Educational Media Centre for Asia, Available at http://www.cemca.org/emhandbook/edmul_full.pdf
15. Sanky, Michael (2005). Multiple Representations in Multimedia Materials: An Issue of Literacy. in Mishra, Sanjaya and Sharma, Ramesh. (ed.) Interactive Multimedia in Education and Training. Hershey: Idea Group Publishing

Course Outcomes (COs)	**Program Outcomes (POs)**											**Program Specific Outcomes (PSOs)**					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	2	2	---	2	---	---	2	2	---	---	2	---	---	2	2	2	2
CO2	2	---	2	---	2	---	---	2	---	2	---	2	---	---	2	2	2
CO3	2	---	---	---	---	---	---	2	---	---	2	---	---	---	---	---	2

203: Storyboarding

Course Credits: 3

Program Name	**Master of Science in e-Learning -MAEL / MScEL**				
Course Code	**21MScEL203**				
Course Title	**Storyboarding**				
Credits	3				
Focuses on (Write the one with maximum focus)	Entrepreneurship				
Integrates cross-cutting issues (Write the one with maximum focus)	Human values				
Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
1	0	2	50	50	100

Prerequisites:

- Understanding of comic strips
- Basic Understanding of stories

Course Objectives:

1. Understand the importance of storytelling in e-learning
2. Know the structure of vocabulary and language in e-learning stories
3. Understand the elements and composition of storyboards for e-learning

Course Outcomes:

1. Develop characters, scenes and plots for e-learning stories
2. Develop a storyboard for e-learning scenarios
3. Interpret and analyse storylines in e-learning scenarios

No.	Description	Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)
CO1	Develop characters, scenes and plots for e-learning stories	Global
CO2	Develop a storyboard for e-learning scenarios	National
CO3	Interpret and analyse storylines in e-learning scenarios	Global

MODULE 1: Basics of storytelling (specifically in e-learning)

1.1: Brief history of storytelling, Finding and developing ideas; Story, fitting story in e-learning

1.2: Developing a Story into Synopsis; Plot,Plot Structures; length of the story

1.3: Characters, Characterization, Sub-characters; Act Structures in e-learning

MODULE 2: Elements of storytelling

2.1: Concept of Script, What is visual writing, Shot – Scene – Sequence, Actions w.r.t e-learning,

2.2: Cinematic Vocabulary Dialogues: Types and and its functions, Script: Format, Style;

2.3: Understanding the audience, Target Audience; Visualizing of script

MODULE 3: Story to storyboard

3.1: Introduction to Storyboarding: The process of visual storytelling: Composition and frame, components of storyboard

3.2: Representation of characters and detailing, character actions, Different shot types, Camera angles, Camera moves,

3.3: Continuity, Pacing, Transitions, mock graphics, timeline.

Project: Development of storyboard

FA: Brainstorming on concepts and storybuilding followed by peer-review of story

SA: Creation of a module or content containing all pre-production stages of a 15-20 min video project – Process and execution of an idea through Script to Storyboard.

Assessment: Evaluation of Storyboard by jury

Reference Readings

1. Script Writing: Syd Field
2. How to get Ideas: Jack Foster
3. Writing for Visual Media : Anthony Friedman
4. Writing TV Scripts: Steve Wetton
5. Lateral Thinking: Edward De Bono
6. Storyboards: Motion in Art: Mark A. Simon

Course Outcomes (COs)	Program Outcomes (POs)											Program Specific Outcomes (PSOs)					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO1	PSO 2	PSO3	PSO4	PSO5	PSO6
CO1	2	---	---	---	---	---	2	---	---	2	2	2	2	2	2	---	---
CO2	2	---	2	---	---	---	2	2	---	---	2	2	2	---	2	2	---
CO3	2	---	2	---	---	---	2	2	---	---	---	2	---	---	---	2	---

204: Introduction to Visual Design

Course Credits: 3

Program Name	**Master of Science in e-Learning -MAEL / MScEL**
Course Code	**21MScEL204**
Course Title	**Introduction to Visual Design**
Credits	3
Focuses on (Write the one with maximum focus)	Skill development
Integrates cross-cutting issues (Write the one with maximum focus)	Professional Ethics

Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
1	0	2	50	50	100

Prerequisites:

- Identification of colours (Not having visual impairment/color blindness)

Course Objectives:

1. Understand visual design principles
2. Develop e-content based on visual design principles

Course Outcomes: 1. Apply visual design principles to e-content 2. Experiment with various media for integration in development of e-content.		
No.	**Description**	**Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)**
CO1	Apply visual design principles to e-content	Global
CO2	Experiment with various media for integration in development of e-content.	Local

Module1: Basics of Visual Design

1.1: Design theory, Fundamentals of visual design, colour, visual, pattern, rhythm and composition basics in e-learning

1.2: Screen and visual design, digital environments and visual design

Module 2: Composition of visuals:

2.1: Elements of visual design, Understanding space in visuals, lines, shapes, Weight, scale, direction of visuals

2.2: Image styles including cartoons, memes etc

Module 3: Designing in texts:

3.1: Typography, typesetting, headlines, body, fonts etc

3.2: Experimenting with fonts, mix media texts

Activity:

FA: Applying visual design principles to e-content

SA: Develop e-content using visual design principles

Jury for SA

Reference

1. Kress, G. R., & Van, L. T. (2006). Reading images: The grammar of visual design. London: Routledge.

2. Books listed in instructional Design

Course Outcomes (COs)	Program Outcomes (POs)											Program Specific Outcomes (PSOs)					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO1	PSO 2	PSO3	PSO4	PSO5	PSO6
CO1	2	---	---	---	2	---	---	---	---	2	2	2	---	---	2	2	2
CO2	2	---	---	---	2	---	2	2	---	---	2	2	---	---	2	2	2

205: Planning and development of online learning

Course Credits: 4

Program Name	**Master of Science in e-Learning -MAEL / MScEL**
Course Code	**21MScEL205**
Course Title	**Online Learning: Designing & Development**
Credits	4
Focuses on (Write the one with maximum focus)	Skill development
Integrates cross-cutting issues (Write the one with maximum focus)	Sustainability

Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
2	0	2	50	50	100

Prerequisites:

- Basic understanding of teaching learning process and elearning

Course Objectives:

1. Understand the mechanics of e-learning platforms
2. Know the redflags in e-learning content
3. Explore MOOCs and their characteristics

Course Outcomes: 1. Apply taxonomy of Instructional Design to develop e-content 2. Experiment with LMS with respect to content and course design 3. Analyze components and learner interaction with e-content within MOOCs		
No.	**Description**	**Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)**
CO1	Apply taxonomy of Instructional Design to develop e-content	Global
CO2	Experiment with LMS with respect to content and course design	Local
CO3	Analyze components and learner interaction with e-content within MOOCs	National

Module 1: Taxonomy for ID:

1.1: Relation of Bloom's taxonomy to ID, developing and mapping bloom's taxonomy in e-learning scenario

1.2: Levels of Instructional design of learning experiences: Reception, Application, Extension, Generation and Challenge.

Module 2: Redflags for ID:

2.1: Concept of redflags, meaning and impact, distraction and distractors in e-learning and all its components including assessment.

2.2: Theories and their impact :Elaboration theory, Cognitive Load theory and Cognitive Flexibility theory

Module 3: MOOCs:

3.1: MOOCs: concept, scope, claims and latest research. Components of MOOCs, objections and hurdles in MOOCs,

3.2: Learner centricity in MOOCs, interaction and interactivity in MOOCs, Addressing diversity in MOOCs, comparing and contrasting at least 3 MOOCs from different platforms.

Module 4: Systems for Management of Learning:

4.1: Content management, multimedia management, learning objects and their positioning

4.2: Platforms: offline and cloud based; proprietary and FOSS LMSs- Handson on Moodle, Canvas etc (at least 3 platforms)

Activity:

FA: Review of designed ID material w.r.t theories discussed.

SA: Development of unit for e learning and implementation on LMS

Assessment: Developed e-learning material uploaded on the LMS

Course Outcomes (COs)	Program Outcomes (POs)											Program Specific Outcomes (PSOs)					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO1	PSO 2	PSO3	PSO4	PSO5	PSO6
CO1	2	---	---	2	2	---	---	---	---	---	2	---	2	2	2	2	2
CO2	2	2	---	---	---	---	---	2	2	2	2	2	2	2	2	2	---
CO3	2	---	2	---	2	2	---	2	---	---	2	2	2	2	2	2	---

Specialization 1:

205A: Developing self-instructional material:

Program Name	**Master of Science in e-Learning - MScEL**
Course Code	**21MScEL206A**
Course Title	**Developing** **Self Instructional material**
Credits	6
Focuses on (Write the one with maximum focus)	Employability
Integrates cross-cutting issues (Write the one with maximum focus)	Human values

Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
2	0	4	50	50	100

Prerequisites:

- Have a sound knowledge of language to express in lucid format
- Basic understanding of interactivity
- Basic understanding of learning processes

Course Objectives:

1. Develop self instructional materials to be used in e-learning environments.

Course Outcomes:

1. Strategize the development of Self instructional material
2. CO2: Design workflow and process protocol for developing self instructional material
3. CO3: Develop a self instructional material

No.	Description	Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)
CO1	Strategize the development of Self instructional material	Global
CO2	Design workflow and process protocol for developing self instructional material	Local
CO3	Develop a self instructional material	National

Module 1: Understanding Self-instructional Materials (SIM):

1.1 Self Instructional material : meaning concept, scope and types,

1.2 compare and contrast with textbooks, reference and other traditional face to face materials

Module 2: Strategizing for SIM:

2.1 Understanding audience,

2.2 Developing an Instructional Strategy for inclusion, windows for assistive SIM,

2.3 Design thinking process and instructional strategy,

2.4 process and workflow, reach analysis

2.5 roles and responsibilities of team members in development of SIM,

Module 3: Preparing the SIM:

3.1 Selection of content, Content Sequence and Clustering ;

3.2 Identification of Learning Components of Instructional Strategies;

3.3 Pre-instructional Activities , Content Presentation and Examples,

3.4 Learner Participation, Assessment, Follow-Through Activities

SA: Project: Development of an SIM for a unit/module of a subject

Course Outcomes (COs)	Program Outcomes (POs)											Program Specific Outcomes (PSOs)					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO1	PSO 2	PSO3	PSO4	PSO5	PSO6
CO1	2	---	---	---	2	2	2	2	---	2	2	2	2	2	2	2	---
CO2	---	---	2	2	---	2	2	2	---	---	---	2	2	2	2	2	---
CO3	2	---	---	---	---	2	2	2	---	---	2	2	---	---	---	2	2

Specialisation 2:

205 B: Basics of Educational Video creation:

Course Credits: 6

This is a skill based course. *Students will identify (minimum 3 topics) from a variety of subjects and levels for each of the following modules and apply sub topics/ components of each module.*

Program Name	**Master of Science in e-Learning -MAEL / MScEL**
Course Code	**21MScEL206B**
Course Title	**Educational Video Creation**
Credits	6
Focuses on (Write the one with maximum focus)	Skill development
Integrates cross-cutting issues (Write the one with maximum focus)	Professional Ethics

Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
2	0	4	50	50	100

Prerequisites:

- Adequate knowledge of visual medium

Course Objectives:

1. Develop instructional video to be used in e-learning environments.

Course Outcomes:

1. Design a protocol for pre-production, production and postproduction
2. Experiment techniques of video production
3. Create an instructional video for e-learning environments.

No.	Description	Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)
CO1	Design a protocol for pre-production, production and postproduction	National
CO2	Experiment techniques of video production	Local
CO3	Create an instructional video for e-learning environments	Global

Module 1: Pre-production:

- Proposal
- Scheduling
- Budgeting
- Location identification
- Storyboarding, Screenplay, Scripting, Revisions
- Casting, Costumes etc

Module 2: Production

- Camera operations- hardware and software
- Camera Angles, shot positions, lighting principles and techniques, composition rules etc.

- Shooting: Basic videos and other common types of videos used in educational systems.
- Maintaining shots log

Module 3: Postproduction

- Editing
- Adding audio tracks
- Sub-Titling

SA: Project: Create an educational video: total duration of 1 hr, including the editing, audio tracks etc.

Course Outcomes (COs)	Program Outcomes (POs)											Program Specific Outcomes (PSOs)					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO1	PSO 2	PSO3	PSO4	PSO5	PSO6
CO1	2	2	---	---	2	2	2	---	2	2	2	---	2	---	---	2	2
CO2	2	---	---	---	2	---	---	2	2	2	2	2	2	---	---	2	2
CO3	2	---	---	---	2	2	2	2	2	2	2	---	2	2	---	2	2

Semester3

301: Project Management

Course Credits: 4

Program Name	**Master of Science in e-Learning MScEL**
Course Code	**21MScEL301**
Course Title	**Project Management**
Credits	4
Focuses on (Write the one with maximum focus)	Entrepreneurship
Integrates cross-cutting issues (Write the one with maximum focus)	Professional Ethics

Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
2	0	2	50	50	100

Course Objectives:

1. Gain an understanding of the skills required for an entry-level project
2. management position
3. Develop immersive understanding of practices in project management.

Course Outcomes:

1. Examine the types of projects, roles and responsibilities of stakeholders in a project, protocols in each step of a project.
2. Weigh methods for tracking a project at each stage; cost and benefits for business decisions of a project
3. Develop a start-to-finish project plan

No.	Description	Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)
CO1	Examine the types of projects, roles and responsibilities of stakeholders in a project, protocols in each step of a project.	National
CO2	Weigh methods for tracking a project at each stage; cost and benefits for business decisions of a project	Global
CO3	Develop a start-to-finish project plan	Local

Module 1: Fundamentals of Project management:

1.1: Definitions and terms involved in “project” and “project management”; developing project management skills; difference in “project” and “program”

1.2: Types of projects and categorisation; lifecycle of a project; program management methodologies and approaches;

1.3: organizational structure and its impact on project; roles and responsibilities of project managers, core skills of a project manager.

Module 2: Initiating a project:

2.1: Project initiation phase and significance; stakeholder analysis, defining scope and differentiating tasks, measurables and deliverables of a project

2.2: Define project success criteria, assessing cost and benefits (CBA), developing project management plan, project charters, Utilize RACI matrix for project management

2.3: Explore tools for communication and collaboration for project management and assessment of the tools via case studies.

Module 3: Implementing a project

3.1: Estimating and Setting milestones of a project, building a project database, developing procurement protocols, estimating costs and developing a budget keeping in mind the CBA; developing a business case , RoI and NPV.

3.2: Establishing critical path; using critical path project management tools; tracking project milestones and budget, PERT, fishbone and other contemporary tools and techniques, identifying and documenting best practices.

3.3: Maintaining quality standards; continuous quality improvement techniques and methods; introduction to concept of Agile and Scrum; entering into a contract: scope and care, legalities involved.

Module 4: Execution and Closing a Project

4.1: Managing: scope creep, risks, communication, quality assurance and quality control; tracking different aspects of the project.

4.2: People management: assembling project team, strategizing and human resource planning, management of team, conflict resolution, team satisfaction and motivation, fostering teamwork and leadership.

4.3: Prioritize and analyze data, communicate data analysis, weave an effective story to communicate analyses, measure customer satisfaction, retrospective analyses; closure and handing over of the project

Activity:

FA: Quiz and/or seminar on each module

SA: Development of a detailed real-world project plan demonstrating skills acquired in each module.

Assessment: SA mentioned above by the Jury comprising industry experts.

Suggested Readings:

Production and Operation Management: K. Ashwathappa and Siddharth Bhat, Himalaya Publishing House,2010 editions

2. Project Management: Samule J Mantel, Jr, Jack R. Meredith, Scott M. Shafer, Margaret M, Sutton with M.R. Gopalan, Wiley India Pvt. Ltd.

3. Business Administration with G. M. Dumbre: Success Publications, Pune.

4. Successful Project Management: Milton D. Rosenau, Jr., Cregory D. Githens, Wiley India Pvt. Ltd

5. Project Management: Vasant Desai, Himalaya Publishing House

6. Project Management: A Managerial Approach, Jack R. Meredith, Samuel J. Mantel Jr. Wiley India Pvt. Ltd.

7. Principles of Management: T. Ramasamy, Himalaya Publishing House 8. The McGraw-Hill 36-Hour Project Management Course -McGraw-Hill

Course Outcomes (COs)	**Program Outcomes (POs)**											**Program Specific Outcomes (PSOs)**					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO1	PSO 2	PSO3	PSO4	PSO5	PSO6
CO1	2	2	2	2	---	---	---	---	2	2	2	---	---	---	---	---	2
CO2	2	---	---	2	---	2	---	2	2	2	---	---	---	2	---	---	2
CO3	2	---	---	2	---	---	---	2	---	2	---	---	---	---	---	---	2

302: Learning Management Systems

Course Credits: 4

Program Name	**Master of Science in e-Learning -MScEL**
Course Code	**21MScEL302**
Course Title	**Learning Management Systems**
Credits	4
Focuses on (Write the one with maximum focus)	Entrepreneurship
Integrates cross-cutting issues (Write the one with maximum focus)	Sustainability

Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
2	0	2	50	50	100

Prerequisites:

- Knowledge of internet navigation
- Should have completed at least one Online course through SWAYAM/ Coursera etc

Course Objectives:

1. Gain an understanding of functioning of LMS
2. Develop skills to develop a course on any one LMS

Course Outcomes:

1. Experiment aspects and features of LMS
2. Develop a 1 credit course on any one LMS as per the syllabus.

No.	Description	Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)
CO1	Experiment aspects and features of LMS	Global
CO2	Develop a 1 credit course on any one LMS as per the syllabus.	Local

LMS used: MOODLE and Canvas. Any other available LMS/CMS will be incorporated.

Module 1: Understanding learning management systems

1.1: Content Management System (CMS) and LMS – Installation and configuration – Appearance – Front page Settings

1.2: LMS fundamentals, Features of LMS , Personalized Learning, configuring an LMS, settings and profiles. Course Management, Learners' Profile, Assessment, Reporting Tools, Communication, Modules

Module 2: Course Creation on LMS and Management:

2.1: Course Category ; Course Format ; Course study Plan; User Enrollment ; User Management; User Accounts; User Actions; User Profile ; Upload user Details ; User Permissions ; User Policies ; Define Roles ; Roles and Permissions

2.2: Content on LMS: Content management regarding : e-Book ; File ; Folder Management ;Video Content , Audio Content, Page; URL Management ; Course Activity, Assignment , Chat , Choice , database , External tool , Forum , Glossary ,Lesson , Quiz , SCORM Package , Survey , Wiki , Assessment , Question bank , Questions ,Categories , Import and Export functions , Grade book setup for course Third party questionnaire ; MOODLE Plugins Directory.

Module 3: Technology and Standards in using LMS

3.1: LMS and Standards –Introduction to SCORM & SCORM packs ; Requirement of Reference Model, Content Aggregation Model (CAM), Shared Content Object (SCO), Run Time Environment (RTE), Sequencing and Navigation(S&N)

3.2: Technology and use – Hypertext, Hypermedia, HTTP, Web Technology; LAMP/XAMPP, HTML, XML; Social Media; Learning 2.0; Internet Technology, TCP/IP Protocol, Web 2.0

Module 4: Other important aspects

4.1: Security, privacy controls: need, risk analysis and steps taken towards privacy

4.2: Plagiarism, plagiarism check tools, anti plagiarism software

Activity:

FA: Practicals for each chunk of the course on the LMS

SA: Develop a 1 credit course on a small topic using each module of the paper

Reference Readings:

1. Learning Management System Technologies and Software Solutions for Online Teaching – Yefin Kats, Information Science Reference, 2010.
2. Higher Education Institutions and Learning Management Systems Adoption and Standardization – Rosalina Babo & Ana Azevedo, Information Science Reference, 2012
3. Sharable Content Object Reference Model: SCORM Content Aggregation Model Version 1.3.1 – ADL, July 2004
   https://web.fe.up.pt/~ee92193/documentacao/scormcam.pdf DOA: 31/12/2019
4. Paul Jesukiewicz - SCORM 2004 4th Edition: Content Aggregation Model, ADL, August 2009
   https://www.immagic.com/eLibrary/ARCHIVES/TECH/US_DOD/A090814J.pdf
   DOA: 31/12/2019
5. Diane Elkins and Desiree Pinder – E-Learning Fundamentals: A Practical Guide: ATD Press 2015.

Course Outcomes (COs)	Program Outcomes (POs)											Program Specific Outcomes (PSOs)					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO1	PSO 2	PSO3	PSO4	PSO5	PSO6
CO1	2	2	---	2	2	2	2	---	---	2	2	2	---	---	---	2	2
CO2	2	2	---	2	2	---	2	2	---	2	---	---	2	---	---	2	2

303: Fundamentals of Design Thinking

Course Credits: 2

Program Name	**Master of Science in e-Learning MScEL**
Course Code	**21MScEL303**
Course Title	**Fundamentals of Design Thinking**
Credits	2
Focuses on (Write the one with maximum focus)	Skill development
Integrates cross-cutting issues (Write the one with maximum focus)	Professional Ethics

Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
1	0	1	50	50	100

Prerequisites: Nil

-

Course Objectives:

1. Understand the basics of Design Thinking
2. Apply principles of Design thinking to e-learning

Course Outcomes:

1. Apply the basic principles of design thinking for developing e-learning courses.
2. Develop a curriculum chunk by applying design thinking process

No.	Description	Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)
CO1	Apply the basic principles of design thinking for developing e-learning courses.	Global
CO2	Develop a curriculum chunk by applying design thinking process	National

Module 1: Understanding Design Thinking

1.1: Design thinking: concept, definitions, need and scope; evolution of design thinking, applications, use and significance

1.2: Difference between design thinking, problem based, project based learning and understanding by design

Module 2: Design thinking Process

2.1: Principles and Phases of design thinking process, multi stage process, Steps for every phase, exploring and experimenting with each stage

2.2: Case studies of design thinking in education; curriculum design on the bases of design thinking, tools and technology aids for design thinking process

2.3: Integrating design thinking process in instructional design, benefits and limitations

Activity:

FA: Seminar presentation/Reflective Journal on application of design thinking principles and steps during course development

Reference Readings:

- IDEO.org. (2015). The Field Guide to Human-Centered Design (Community Engagement Manual). Retrieved from https://www.designkit.org/
- Riverdale Country School & IDEO.org. (2019). Design Thinking for Educators Toolkit (2nd Edition). Retrieved from https://designthinkingforeducators.com/

- Edutopia, Design Thinking Video Collection
- Design Thinking For Educators" context / profession / practice / mindset

Course Outcomes (COs)	Program Outcomes (POs)											Program Specific Outcomes (PSOs)					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO1	PSO 2	PSO3	PSO4	PSO5	PSO6
CO1	2	---	2	---	2	2	2	---	---	2	2	2	---	---	---	---	2
CO2	2	---	2	---	2	2	2	---	---	2	2	2	---	---	2	2	2

304: Advanced Research Methodology

Credits: 4

Program Name	**Master of Science in e-Learning MScEL**
Course Code	**21MScEL304**
Course Title	**Advanced Research methodology**
Credits	4
Focuses on (Write the one with maximum focus)	Skill Development
Integrates cross-cutting issues (Write the one with maximum focus)	Sustainability

Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
2	0	2	50	50	100

Prerequisites:

- Completed Basics in Research

Course Objectives:

1. Understand concept, Characteristics & Themes of Qualitative & Quantitative Research.
2. Examine different types of qualitative & quantitative research and their characteristics.
3. Examine the concept of Qualitative & Quantitative Research.
4. Develop a tool that allows for the evaluation and data collection of Qualitative & Quantitative Research.

Course Outcomes:

1. Explain the concept and summarize different qualitative research methods.
2. Identify and describe qualitative research approaches and data analysis.
3. Explain the concept and summarize different quantitative research methods.
4. Appropriately use quantitative research designs.

No.	Description	Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)
CO1	Explain the concept and summarize different qualitative research methods.	Global
CO2	Identify and describe qualitative research approaches and data analysis.	Global
CO3	Explain the concept and summarize different quantitative research methods.	Global
CO4	Appropriately use quantitative research designs.	Local

Module 1: **Introduction to Qualitative Research**

- Meaning, concept, and types of Qualitative Research.
- Relevance of Qualitative Research in education.
- Themes of Qualitative Research & research question.
- Ethnographic Approaches in Qualitative Research

Module 2: **Qualitative Research- Approaches & Data analysis**

- Qualitative research approaches-Phenomenology, Ethnography, Case studies, and Grounded theory
- Grounded theory: Goals, perspectives, Methods and steps of Ethnography. theory.

- Participatory Research. Content & Trend analysis: Meaning, concept, assumption, and steps.
- Phenomenology & Historical Research: Meaning, concept, assumption, and steps.
- Issues of reliability and validity of Discourse analysis.
- Coding of qualitative data – Axial coding, Selective coding
- Methods of qualitative data analysis—content analysis, logical and inductive analysis, illustrative method analogies, meta-analysis & Triangulation of data.

Module 3: **Introduction to Quantitative Research**

- Quantitative Research: Meaning, concept, steps, and characteristics.
- Relevance of Quantitative Research in education.
- Sources of educational data: Individual, Institutions, Documents, Census, Journals,
- Books, Schools of thought, etc.
- Sampling techniques: Concept, need probability and non-probability samples, sampling errors, and their control.
- Techniques and Tools of data collection: Observation, interview, questionnaire, scale, inventory, checklist, content analysis, focus group discussions.

Module 4: **Quantitative Research Designs**

- Experimental Research designs: Single-Group Pre-test-Post-test Design, Pre-test and Post-test Control-Group Design, Post-test only Control-Group Design, and Factorial Design
- Quasi-Experimental Designs: Non-equivalent Comparison Group Design, and TimeSeries Design
- Ex-post facto research-design and variables, Simple cases of Causal-Comparative and Correlational research; necessary conditions for causation.
- Techniques of control: matching, holding the extraneous variable constant and statistical control
- Classification by Time: Cross-sectional, Longitudinal (Trend and Panel studies), and Retrospective; and classification by research objectives Descriptive, Predictive, Explanatory, and Triangulation.

Reference Readings:

- Best J.W. (2005). Research in Education, New Delhi: Prentice-Hall of India Pvt. Ltd.
- Creswell, John W. (2007). Qualitative Inquiry and Research Design: Choosing Among Five Approaches. SAGE Publication.
- Elliott, Jane (2005).Using Narrative in Social Research: Qualitative and Quantitative Approaches. SAGE Publication.
- Fraenkel, J.R., Wallen, N.E. (1983). How to Design and Evaluate Research in Education, Singapore: McGraw Hill, Inc.
- Gravetter. F.J. & Wallanau, C.B. (2002). Essentials of Statistics for the Behavioural Sciences (4th edition) Australia, Wordsworth.
- Kerlinger, F.N. (1973). Foundations of Behavioural Research, New York: Holt, Rinehart and Winston.
- Kaul, Lokesh (2005). Methodology of Educational Research, New Delhi: Vikas Publications.
- Leary, M.R. (2004). Introduction to Behavioural research Methods (4th edition) Boston: Pearson Prentice Hall.
- Srivastava, G.N.P. (1994). Advanced Research Methodology, New Delhi: Radha Publications.
- Anfara, Vincent & Mertz Norma T. (2006). Theoretical Frameworks in Qualitative Research. SAGE Publication.

Course Outcomes (COs)	Program Outcomes (POs)											Program Specific Outcomes (PSOs)					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO1	PSO 2	PSO3	PSO4	PSO5	PSO6
CO1	2	2	---	---	---	---	---	2	---	---	---	2	---	---	---	---	2
CO2	2	2	---	---	---	---	---	2	---	---	---	2	---	---	---	---	2
CO3	2	2	---	---	---	---	---	2	---	---	---	2	---	---	---	---	2
CO4	2	2	---	---	---	---	---	2	---	---	---	2	---	---	---	---	2

Specialization 1:

305A: LCM Design and Development of Courses:

Program Name	**Master of Science in e-Learning MScEL**				
Course Code	**21MScEL305A**				
Course Title	**LCM Design and development**				
Credits	6				
Focuses on (Write the one with maximum focus)	Skill development				
Integrates cross-cutting issues (Write the one with maximum focus)	Professional Ethics				
Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
2	0	4	50	50	100
Prerequisites: ● Should have completed at least one Online course through SWAYAM/ Coursera etc					

Course Objectives:

1. Understand the Learner Centricity in a MOOC
2. Understand the elements of of LCM model
3. Design LCM elements for a MOOC

Course Outcomes:

1. Identify the guidelines and best practices for designing each LCM element
2. Design LCM elements for your own course by adhering to the guidelines

No.	Description	Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)
CO1	Identify the guidelines and best practices for designing each LCM element	Global
CO2	Design LCM elements for your own course by adhering to the guidelines	National

Module 1: Introduction to LCM model

1.1: SWAYAM quadrants: concept and limitations. Introduction, need and scope of LCM model, understanding of LCM model w.r.t to SWAYAM quadrants.

1.2: Components of LCM model : concept and philosophy of each component, position, use, significance in course.

Module 2:

2.1: Converting videos into learner centric, interactive videos- LeDs, Learning by Doing - LbD activities to follow up LED, juxtaposition, impact, data feed and analysis, interpretation 0f the data.

2.2: Addressing learner diversity in MOOCs- LxTs, maintaining learner interaction- LxIs in MOOCs, data-driven orchestration of the course, tools to be incorporated in the MOOCs

Module 3: Active Learning Strategies

3.1: Active learning: meaning, concept, need and scope, application in online learning environments, Application in MOOC environments

3.2: Active learning and co-operative learning in types of MOOCs-small and large groups learning and projects

Activity:

FA: Development of each component of LCM based course

SA: Development of a 1 credit LCM based course

Reference Readings:

- S. Murthy et. al. LCM: A model for planning, designing and conducting Learner-Centric MOOCs. IEEE Conference on Technology for Education (T4E) 2018.
- K.F. Hew. Promoting engagement in online courses. British Journal of Educational Technology, 47(2), 320-341, 2016.
- M. Bali. MOOC Pedagogy: Gleaning good practice from existing MOOCs. MERLOT JOLT, 10(1), March 2014.

Course Outcomes (COs)	**Program Outcomes (POs)**											**Program Specific Outcomes (PSOs)**					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO1	PSO 2	PSO3	PSO4	PSO5	PSO6
CO1	2	---	2	---	2	2	2	2	---	---	2	---	---	---	2	2	2
CO2	2	---	2	---	2	2	2	2	---	---	2	---	---	---	2	2	2

Specialization 2:

305B: Educational Game Design and Development

21MScEL305B: Educational Game Design and Development

Program Name	**Master of Science in e-Learning MScEL**				
Course Code	**21MScEL305B**				
Course Title	**Educational Game Design & Development**				
Credits	6				
Focuses on (Write the one with maximum focus)	Entrepreneurship				
Integrates cross-cutting issues (Write the one with maximum focus)	Professional Ethics				
Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
2	0	4	50	50	100
Prerequisites: Completed the course in basic in design thinking					

Course Objectives:

1. Understand basics of game design
2. Apply principles of game design to e-learning

Course Outcomes:

1. Connecting game design to instructional design
2. Integration of game mechanics, story elements, and non-game contexts in elearning environments.
3. Design of game space and mapping gameplay in elearning environments.
4. Designing Scoring, feedback and reward systems elearning environments.

No.	Description	Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)
CO1	Connecting game design to instructional design	Global
CO2	Integration of game mechanics, story elements, and non-game contexts in elearning environments.	Global
CO3	Design of game space and mapping gameplay in elearning environments.	Global
CO4	Designing Scoring, feedback and reward systems elearning environments.	National

Module 1: **Introduction to Educational Games**

1.1 Definition of a Game, Elements of educational games (game objects, setting, rules...), Structure of educational games. Learning Objectives of Games.

1.2 Game theory, Overview, Nature of Play and Games (core mechanics, game theory, balance...), Characteristics of good educational games, Pedagogical considerations in educational games, Fun (kinds of fun, why people play...)

1.3 Approaches to game design (top-down, bottom-up, player experience...)

1.4 Ideas (idea generation, evaluating game concepts...), Idea to Game concept, Concept to implementation, Importance of Prototyping.

1.5 Board Game design

Module 2: Game design components and Processes

2.1 Introduction to Game Space (Game Worlds, Characters, Teams..)

2.2 Understanding your players (Player taxonomies, Players' Learning styles..)

2.3 Competition and Collaboration, Game tasks, Team roles

2.4 Exploratory games for skill development, Embedded assessment,

Module 3: Game Storytelling and Narrative

3.1 Key concepts

3.2 The storytelling engine

3.3 Linear and Non Linear stories

3.4 Designing characters, interactivities, tasks, Scripts

Module 4: User Interfaces Design

4.1 Player Centric Interface Design

4.2 Visual Elements, Audio Elements, Aesthetics in Game Design

4.3 Interaction Models and Navigation Mechanisms

4.4 Effective Communication and Instructions

4.5 Principles of Game levels design and implementation

Formative Assessment:

Quizzes, Templates, Worksheets towards Game designing

Come up with Game ideas and concepts

Summative Assessment:

Final Project: Design, Implement and Assessment of

individual educational game. Jury of cumulative work done towards game development.

Suggested Readings:

- Paris Buttfield-Addison et al., Unity Game Development Cookbook: Essentials for Every Game, 1st Edition, O'Reilly Media, 2019
- Fullerton, T. (2007). Game Design Workshop (GDW): A playcentric approach to creating innovative games. Burlington, MA: Morgan Kaufmann Publishers.
- Anthropy, A. & Clark, N. (2014) A Game Design Vocabulary
- Schell, J. (2008) The Art of Game Design. Burlington
- Salen, K. and Zimmerman, E. (2004) Rules of Play: Game Design Fundamentals

Course Outcomes (COs)	**Program Outcomes (POs)**											**Program Specific Outcomes (PSOs)**					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO1	PSO 2	PSO3	PSO4	PSO5	PSO6
CO1	2	2	2	---	---	---	2	2	---	---	2	2	2	---	---	---	2
CO2	2	2	2	---	---	---	2	2	---	---	2	2	2	---	---	---	2
CO3	2	2	2	---	---	---	2	2	---	---	2	2	2	---	---	---	2
CO4	2	2	2	---	---	---	2	2	---	---	2	2	2	---	---	---	2

Specialization 3:

305C: Virtual Laboratory Design & Development:

Program Name	**Master of Science in e-Learning -MAEL / MScEL**					
Course Code	**21MScEL305C**					
Course Title	**Virtual Laboratory Design & Development**					
Credits	6					
Focuses on (Write the one with maximum focus)	Skill development					
Integrates cross-cutting issues (Write the one with maximum focus)	Professional Ethics					
Contact Hours / Week			**Examination Scheme**			
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**		**Total**
2	0	4	50	50		100
Prerequisites: ● Have completed course in basics of Design thinking ● Have completed courses in Interactive Multimedia, Instructional Design and Storyboarding						

Course Outcomes:

1. Use the existing Virtual labs & integrate lab activities in online teaching-learning processes.
2. Come up with effective virtual laboratory experiment designs.
3. Design the simulator incorporating the various design aspects and develop the complete code using HTML5 and other open-source technologies.
4. Use Google web designer to create animations.
5. Upload the developed experiment code after thorough review on Virtual labs Server.

No.	Description	Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)
CO1	Use the existing Virtual labs & integrate lab activities in online teaching-learning processes.	Global
CO2	Come up with effective virtual laboratory experiment designs.	National
CO3	Design the simulator incorporating the various design aspects and develop the complete code using HTML5 and other open-source technologies.	Global
CO4	Use Google web designer to create animations.	National
CO5	Upload the developed experiment code after thorough review on Virtual labs Server.	Local

Module 1: Introduction to Virtual labs

1.1. Overview of Virtual Labs

1.2. Hands on training on the use of Virtual labs.

1.3. Analysis of Virtual Labs

1.4. Evaluation of Virtual Lab experiment

Module 2: Virtual lab experiment design

2.1. Virtual lab experiment design, Scientific Design of Virtual Lab Experiment

2.2. Selection of Broad Goal of the Virtual Lab Experiment, Formulation of Learning Objectives of the Virtual Lab Experiment

2.3. Instructional Strategies in Virtual Lab Experiment

2.4. Task Design in Virtual Lab Experiment, Assessment Design in Virtual Lab Experiment

Module 3: Storyboarding for the Virtual Lab

3.1. Storyboarding for simulator, Design storyboard of the Simulator, Elements in the Simulator

3.2. Introduction to User Interface, User Interface Design Principles

3.3. Designing Interactivities in the Simulator

3.4. Simulator User Interface Design

Module 4: Development of Virtual Lab Experiment Design

4.1. Virtual Lab Experiment Design: Introduction, Basics.

4.2. Writing the code for the Simulator,Google web designer

4.3. Developing the animations

4.4. Introduction to VR/AR

4.5. AR/VR Tools and Technologies

Note: This paper includes Code writing Practice sessions, GWD Practice session, AR/VR Tools Practice session, Final development of the code for the designed Virtual lab experiments.

Prerequisites: HTML5 and JAVAScript.

Reference Readings:

- Enhance Science Learning with Virtual Labs.: The Impact of a Web-Based Virtual Lab on the Development of Students' Conceptual Understanding and Science Process Skills by Hassan Abd El-Aziz, Lambert Publication
- Electronic Experiences in a Virtual Lab by Roberto Gastaldi, Giovanni Campardo
- The Web Designer's Idea Book by Patrick McNeil
- The Essential Guide to User Interface Design: An Introduction to GUI Design Principles and Techniques by Wilbert O. Galitz
- Designing Interfaces: Patterns for Effective Interaction Design by Jenifer

- Tidwell, Charles Brewer, Aynne Valencia
- Online Resources : specially developed virtual labs.

Course Outcomes (COs)	Program Outcomes (POs)											Program Specific Outcomes (PSOs)					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO1	PSO 2	PSO3	PSO4	PSO5	PSO6
CO1	2	---	2	2	---	2	---	---	---	---	---	2	---	---	---	2	---
CO2	2	---	2	2	---	2	---	2	---	2	---	2	---	---	---	2	---
CO3	2	---	2	2	---	2	---	2	---	2	---	2	---	---	---	2	---
CO4	2	---	2	2	---	2	---	---	---	---	---	2	---	---	---	2	---
CO5	2	---	2	2	---	2	---	---	---	2	---	2	---	---	---	2	---

Semester4

401: Project

Course Credits: 10

Program Name	**Master of Science in e-Learning - MScEL**
Course Code	**21MScEL401**
Course Title	**Capstone Project**
Credits	10
Focuses on (Write the one with maximum focus)	Employability
Integrates cross-cutting issues (Write the one with maximum focus)	Professional Ethics

Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
0	0	10	50	50	100

Prerequisites:

- Completed all credits of earlier three semesters

Course Objectives:

1. A detailed submission in the format of a report/thesis along with presentation is required as partial fulfillment of the Program Credits.

Course Outcomes:

1. Demonstrate a sound knowledge of Instructional design in various domains
2. Demonstrate the ability to develop an online course/curriculum/e-content as per client requirements
3. integrate information from various sources to solve problems in e-learning

No.	Description	Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)
CO1	Demonstrate a sound knowledge of Instructional design in various domains	Global
CO2	Demonstrate the ability to develop an online course/ curriculum/ e-content as per client requirements	Local
CO3	Integrate information from various sources to solve problems in e-learning	Local

Details:

The final project is the culmination of maximum knowledge and skills acquired in this program. A detailed submission in the format of a report/thesis along with presentation is required as partial fulfillment of the Program Credits.

Course Outcomes (COs)	Program Outcomes (POs)											Program Specific Outcomes (PSOs)					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO1	PSO 2	PSO3	PSO4	PSO5	PSO6
CO1	2	2	2	2	---	---	2	2	---	2	---	---	2	---	---	2	2
CO2	2	2	2	2	---	---	2	2	---	2	---	---	2	---	---	2	2
CO3	2	2	2	2	---	---	2	2	---	2	---	---	2	---	---	2	2

402: Industrial Internship

Course Credits: 10

Program Name	**Master of Science in e-Learning -MScEL**
Course Code	**21MScEL402**
Course Title	**Internship**
Credits	10
Focuses on (Write the one with maximum focus)	Employability
Integrates cross-cutting issues (Write the one with maximum focus)	Professional Ethics

Contact Hours / Week			**Examination Scheme**		
Lecture	**Tutorial**	**Practical**	**CA**	**Jury**	**Total**
0	0	10	50	50	100

Prerequisites:

- Completed all credits of earlier three semesters

Course Objectives:

1. to apply their learning of this program into the real world..

Course Outcomes:

1. Apply the theories and skills learnt through this Program into practice.
2. Learn to appreciate work and its function in the economy.
3. Develop work habits and attitudes necessary for job success.
4. Develop communication, interpersonal and other critical skills in the job
5. Build a record of work experience.

No.	Description	Relevance to Local / National / Global / Regional needs (Write the one with maximum focus)
CO1	Apply the theories and skills learnt through this Program into practice.	Global
CO2	Learn to appreciate work and its function in the economy.	National
CO3	Develop work habits and attitudes necessary for job success.	Local
CO4	Develop communication, interpersonal and other critical skills in the job	Global
CO5	Build a record of work experience.	Local

Duration: Students will do an industrial internship for 12-16 weeks. During this internship, they will get an opportunity to apply their learning of this program into the real world. With respect to e-learning industry, it extends into institutions that have departments of online learning and also includes content creating platforms

Course Outcomes (COs)	Program Outcomes (POs)											Program Specific Outcomes (PSOs)					
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO1	PSO 2	PSO3	PSO4	PSO5	PSO6
CO1	2	2	2	2	---	---	2	2	---	2	---	---	2	---	---	2	2
CO2	2	2	2	2	---	---	2	2	---	2	---	---	2	---	---	2	2
CO3	2	2	2	2	---	---	2	2	---	2	---	---	2	---	---	2	2

List of books recommended for the entire Program:

Name of The Book	Author	Publisher
Essentials of Online Course Design: A Standards-Based Guide (Essentials of Online Learning). 2nd Edition.	Marjorie Vai, Kristen Sosulski	Routledge
Delivering e-Learning: A Complete Strategy for Design, Application and Assessment. 1st Edition	Kenneth Fee	Kogan Page
Systematic Design of Instruction. 8th Edition	Walter Dick, Lou Carey & James O. Carey	Pearson
Principles of Instructional Design. 5th Edition	Robert M. Gagne, Walter W. Wager & Katharine Golas	Cengage Learning
e-Learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning. 3rd Edition	Ruth C. Clark, Richard E. Mayer	Pfeiffer
e-Learning by Design. 2nd Edition	William Horton	
Scenario-based e-Learning: Evidence-Based Guidelines for Online Workforce Learning. 1st Edition	Ruth C. Clark, Richard E. Mayer	
Project Managing e-Learning: A Handbook for Successful Design, Delivery and Management. 1st Edition	Maggie McVay Lynch, John Roecker	Routledge
Rapid Instructional Design: Learning ID Fast and Right. 3rd Edition	George M. Piskurich	Wiley
Instructional Design: The ADDIE Approach	Robert Maribe Branch	Springer
The Handbook of Blended Learning: Global Perspectives, Local Designs	Curtis J. Bonk, Charles R. Graham & Jay Cross	Wiley
Blended Learning: Convergence between Technology and Pedagogy	Martín-García, Antonio Víctor	Springer
Essentials for Blended Learning, 2nd Edition A Standards-Based Guide	Jared Stein, Charles R. Graham	Routledge
Blended Learning in Grades 4–12	Catlin R. Tucker	Corwin
Best Practices for Blended Learning: Practical ideas and advice for language teachers and school managers running Blended Learning courses	Pete Sharma & Barney Barrett	Pavilion Publishing

MIT School of Engineering

Maharashtra Academy of Naval Education & Training

MIT Institute of Design

MIT School of Food Technology

MIT School of Bioengineering Science & Research

MIT College of Management

MIT School of Architecture

MIT International School of Broadcasting & Journalism

MIT School of Fine Arts & Applied Art

MIT Vishwashanti Sangeet Kala Academy

MIT School of Film & Television

MIT School of Drama

MIT School of Education & Research

Maharshi Veda Vyas MIT School of Vedic Sciences

MIT School of Humanities

MIT School of Holistic Development

MIT School of Corporate Innovation & Leadership

MIT Centre for Future Skills Excellence

AIC-MIT ADT Incubator Forum

MIT School of Indian Civil Services

MIT-ADT UNIVERSITY
PUNE, INDIA
A leap towards World Class Education

MIT Art, Design & Technology University, Pune, INDIA

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