

Detailed Syllabus for
Master of Science (New Media)
(Two Years Full-Time Postgraduate Degree Programme)
Effective from July 2026



Department of New Media Technology
Makhanlal Chaturvedi National University of Journalism and
Communication, Bhopal

Makhanpuram, Opposite M.P. State Shooting Academy, Bishankhedi,
Bhopal, Madhya Pradesh – 462044

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Master of Science (New Media): M.Sc. (NM)

About the Programme:

M.Sc. (New Media) is a 2-year (four semesters) Postgraduate programme with its own strengths and unique features in Media Studies. The programme is designed with the Choice-Based Credit System (CBCS) scheme.

The Media Industry has already changed from traditional media to Web-based, interactive, and Digital Media as a result of digitalization, web connectivity, and social media. This led to media organizations' requirement for Online Media specialists to create and disseminate content and to interact with the audience. The Media Studies M.Sc. (New Media) programme is introduced to fulfill the above-mentioned requirements.

The M.Sc. (New Media) programme provides an ideal pathway to a successful career across Online Media Platforms. The course structure and content have a strong emphasis on understanding the traditional media, along with the range of different concepts and technical skills required to create, deliver, analyze, and present content for online media.

Eligibility:

The eligibility for the 2-Year M.Sc. (New Media) programme is a graduation in any discipline from a recognized university.

Career Avenues:

The course enables the student to use technology for new media content production independently, integrating the content for different media and marketing for distribution. With these skills, the student can excel as a professional or entrepreneur for his/her own business platform. On completion of the course, the student will have multiple opportunities to work in private and public sectors as an Online Content Creator, Online News Producer, Content Writer, Social Media Content Generator, Social Media Manager, Data Analyzer, Data Visualizer, and New Media Researcher. M.Sc. (New Media) students with a research inclination can go ahead with New Media Research. As an entrepreneur, there is no limitation on creativity and innovative thoughts for New Media students.

Programme Educational Objectives:

The M.Sc. (New Media) programme is designed with the following educational objectives-

1. To inculcate the basics of communication and journalism in the present Digital Era.
2. To equip students with skills for data, web, and mobile journalism.
3. To understand theoretical, practical, and technical aspects of new media with creative and critical thinking.
4. To empower the student to become a skilled professional for new media content creation, production, distribution, and analysis of content for various new media

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platforms.

5. To prepare students to work as professionals, entrepreneurs, researchers, individually and also in collaboration with a team, following professional & media ethics.

Programme Educational Outcomes (PEOs):

Upon successful completion of M.Sc. (New Media), students shall be able to-

1. Demonstrate skills independently and in a team on various dimensions of traditional media and new media with creative, analytical, and critical thinking, following ethical aspects.
2. Develop competence to create, converge, and produce Text, Graphics, Audio, Video, and animation-based content for new media platforms.
3. Demonstrate skills in designing, developing, and publishing content for social media platforms and websites.
4. Develop competence to use digital platforms for personal and professional purposes effectively by abiding by legal norms, security issues, and ethical codes.
5. Acquire essential knowledge of social and political structure, and legal understanding to work in the media industry.

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Makhanlal Chaturvedi National University of Journalism and Communication, Bhopal
(Department of New Media Technology)
M. Sc. (New Media)

	S. No.	Core Course (Compulsory) (CCC) 6 Credits- All	Core Course (Elective) (CCE) 6 Credits- Any One	Open Elective (OE) 3 Credits- Any One in Each Semester	Credit Score
SEM I	1CCC-1	Basics of Communication	1CCE-1 Digital Layout Design OR 1CCE-2 Computer Applications for Media Professionals	OE-1 Digital Film Making	27
	1CCC-2	Fundamentals of Multimedia			
	1CCC-3	Media Language: Structure & Style			
SEM II	2CCC-4	Video Content Production	2CCE-3 Trends in New Media OR 2CCE-4 Social Media Data Analytics	OE-2 AI for Gaming and Animation	27
	2CCC-5	Media Information Literacy and Fact Checking			
	2CCC-6	Introduction to Socio Economic Polity			
SEM III	3CCC-7	AI Tools and Ethics	3CCE-5 Understanding Big Data OR 3CCE-6 Research for New Media	OE-3 Production Pipeline	27
	3CCC-8	Media Laws and Ethics			
	3CCC-9	Digital Content Creation			
SEM IV	4CCC-10	Digital Marketing	4CCE-7 Visual Storytelling OR 4CCE-8 Entrepreneurship Development	OE-4 Mobile Journalism	27
	4CCC-11	Data Journalism			
	4CCC-12	Major Project			
Total Course		12	4	4	108

Open Elective Papers offered by the Department of New Media Technology	
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OE-1	Digital Film Making
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OE-2	AI for Gaming and Animation
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OE-3	Production Pipeline
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OE-4	Mobile Journalism
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CCC - Core Course (Compulsory) (CCC) (6 Credits Each)

CCE - Core Course (Elective) (CCE), Discipline Specific (DSE) (6 Credits, Any One)

OE - Open Elective (3 Credits Each, Any One)

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Programme Structure

Semester – 1

S. No.	Course	Course ID	Course Name	Credit	Marks			
					Th	P.	IA	Total
1	1CCC-1	1 MSc (NM) 1	Basics of Communication	6	80	-	20	100
2	1CCC-2	1 MSc (NM) 2	Fundamentals of Multimedia	6	50	30	20	100
3	1CCC-3	1 MSc (NM) 3	Media Language: Structure & Style	6	50	30	20	100
4	1CCE-1 OR	1 MSc (NM) 4 (A) OR	Digital Layout Design OR	6	50	30	20	100
	1CCE-2	1 MSc (NM) 4 (B)	Computer Applications for Media Professionals	6	50	30	20	100
5	OE-1	1 MSc (NM) 5	Digital Film Making	3	-	40	10	50

Semester – 2

S. No.	Course	Course ID	Course Name	Credit	Marks			
					Th	P.	IA	Total
1	2CCC-4	2 MSc (NM) 1	Video Content Production	6	50	30	20	100
2	2CCC-5	2 MSc (NM) 2	Media Information Literacy and Fact Checking	6	80	-	20	100
3	2CCC-6	2 MSc (NM) 3	Introduction to Socio Economic Policy	6	80	-	20	100
4	2CCE-3 OR	2 MSc (NM) 4 (A) OR	Trends in New Media OR	6	50	30	20	100
	2CCE-4	2 MSc (NM) 4 (B)	Social Media Data Analytics	6	50	30	20	100
5	OE-2	2 MSc (NM) 5	AI for Gaming and Animation	3	-	40	10	50

Semester – 3

S. No.	Course	Course ID	Course Name	Credit	Marks			
					Th	P.	IA	Total
1	3CCC-7	3 MSc (NM) 1	AI Tools and Ethics	6	50	30	20	100
2	3CCC-8	3 MSc (NM) 2	Media Laws and Ethics	6	80	-	20	100
3	3CCC-9	3 MSc (NM) 3	Digital Content Creation	6	50	30	20	100
4	3CCE-5 OR	3 MSc (NM) 4 (A) OR	Understanding Big Data OR	6	80	-	20	100
	3CCE-6	3 MSc (NM) 4 (B)	Research for New Media	6	80	-	20	100
5	OE-3	3 MSc (NM) 5	Production Pipeline	3	-	40	10	50

Semester – 4

S. No.	Course	Course ID	Course Name	Credit	Marks			
					Th	P.	IA	Total
1	4CCC-10	4 MSc (NM) 1	Digital Marketing	6	50	30	20	100
2	4CCC-11	4 MSc (NM) 2	Data Journalism	6	50	30	20	100
3	4CCC-12	4 MSc (NM) 3	Major Project	6	-	80	20	100
4	4CCE-7 OR 4CCE-8	4 MSc (NM) 4 (A) OR 4 MSc (NM) 4 (B)	Visual Storytelling OR Entrepreneurship Development	6	50	30	20	100
				6	50	30	20	100
5	OE-4	4 MSc (NM) 5	Mobile Journalism	3	-	40	10	50

Open Electives

S. No.	Course	Course ID	Course Name	Credit	Marks			
					Th	P.	IA	Total
1	OE-1	1MSc (NM) 5	Digital Film Making	3	-	40	10	50
2	OE-2	2MSc (NM) 5	AI for Gaming and Animation	3	-	40	10	50
3	OE-3	3MSc (NM) 5	Production Pipeline	3	-	40	10	50
4	OE-4	4MSc (NM) 5	Mobile Journalism	3	-	40	10	50

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Basics of Communication

Theory	80	Practical	-	Internal	20	Credits	06
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Course Objectives

1. To familiarize students with the nature, evolutionary stages and core processes of human communication, from oral traditions to digital platforms and AI-mediated interactions.
2. To make students familiar with the sociological perspectives on communication, modern digital socialization and algorithmic workplace dynamics.
3. To explain and analyze classical communication models, contemporary agenda-setting theories and indigenous Indian perspectives like the Sadharanikaran model.
4. To orient students towards communicating effectively across interpersonal, organizational and virtual platforms while overcoming psychological, cultural and technological barriers.
5. To make students aware of the effective use of verbal and non-verbal cues—including body language, voice tones, avatars, emojis and haptics—in traditional and synthetic media environments.

Course Outcomes

1. Students would be able to understand the core concepts, evolutionary stages and modern dynamics of human, digital and AI-mediated communication.
2. Students would be able to apply effective verbal, non-verbal and digital communication strategies to overcome structural, cultural and algorithmic barriers.
3. Students would be able to lead and navigate group, organizational, virtual and platform-driven workplace interactions effectively.
4. Students would be able to evaluate and contrast the structural, cultural and engagement characteristics of traditional folk media forms with modern short-form, synthetic and immersive digital platforms.
5. Students would have the ability to critically evaluate media theoretical frameworks, while addressing ethical challenges like generative AI, deepfakes, algorithmic bias and data privacy.

Unit-1	Foundations and Evolution of Human Communication	L	T	P
1.1	Basics stages of communication: Oral Traditional Communication (Lecture, Discussion)	3	1	-
1.2	Evolutionary stages of communication: Digital Platforms Communication (Lecture, Discussion)	3	1	-

1.3	Elements, Process and Modern Digital Socialization (Lecture, Discussion)	3	1	-
1.4	Communication and Culture, Language and Communication (Lecture, Discussion, watching videos of famous regional orators)	3	-	-
1.5	Human-Computer Interaction (HCI) and AI-Mediated Communication (AMC) (Lecture, Discussion)	3	-	-

Unit-2	Conceptualizing Communication	L	T	P
2.1	Defining Communication: Nature & Scope of communication, Functions of communication (Lecture, Discussion)	3	1	-
2.2	Elements and Process of Communication: Sender, Receiver, Message, Medium, Noise, Feedback and Context (Lecture, Discussion)	3	1	-
2.3	Levels of Communication: Intrapersonal (Concept of self, Johari Window), Interpersonal dynamics, Mass Communication and Network Communications (Lecture, Discussion)	3	1	-
2.4	Formal and Informal Communication, Spiritual Communication, Algorithmic Workplace Communication (Lecture, Discussion)	3	-	-
2.5	Effective Communication: The Seven Cs of Communication; Barriers of Communications- Psychological, Cultural, Technological, and algorithmic noise (Lecture, Discussion)	3	-	-

Unit-3	Modern Dimensions & Media Dynamics	L	T	P
3.1	Non-Verbal Communication and Verbal Communication: Kinesics, Proxemics, Paralanguage, Avatars, Emojis and Haptics (Lecture, Discussion)	3	1	-
3.2	Oral literacy, verbal literacy and digital media literacy (Lecture, Discussion)	2	1	-

3.3	Comparative analysis of folk-art forms (e.g. street theater) with modern digital short-form video (Lecture, Discussion)	2	1	-
3.4	Mass Media and Interactional Media: Print, Broadcast, Digital Media (Lecture, Discussion)	3	1	-
3.5	Synthetic and Immersive Media: Characteristics and Function (Lecture, Discussion)	3	1	-

Unit-4	Communication Models & Theories	L	T	P
4.1	Aristotle, Shannon-Weaver Information Theory, Lasswell's Model (Lecture, Discussion)	3	1	-
4.2	Berlo's SMCR Model (Lecture, Discussion)	3	1	-
4.3	Uses & Gratification Theory, Encoding/Decoding (Stuart Hall) (Lecture, Discussion)	3	1	-
4.4	Traditional gatekeeping vs. Algorithmic agenda-setting (Lecture, Discussion)	2	2	-
4.5	Theories related to Indian Communication: <i>Sadharanikaran Model</i> and Asia-centric communication (Lecture, Discussion)	1	1	-

Unit-5	New Media, Generative AI & Critical Paradigms	L	T	P
5.1	Digital Journalism and Platformization: Creator Economy, Newsletter Journalism and Hyper-Local Media (Lecture, Discussion)	3	1	-
5.2	Manuel Castells' Theories, Online Communities and Digital Identity (Lecture, Discussion)	3	1	-
5.3	Generative AI Ethics, Fake News, Deepfakes, Echo Chambers and Fact-Checking Frameworks (Lecture, Discussion)	3	1	-
5.4	Algorithms and Deepfakes (Lecture, Discussion)	2	1	-

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5.5	Surveillance Capitalism Algorithmic Bias, Data Privacy (Lecture, Discussion)	2	1	-
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Practical/Projects/Assignments

1. Watch a 5-minute video of a regional orator. Write a 100-word note on how their local proverbs and body language reflect regional culture.
2. Map your Johari Window using feedback from 2 peers. Identify your biggest communication barrier and apply 2 of the 7 Cs to solve it.
3. Create a 1-page comparison table contrasting a traditional folk-art form (e.g., street theatre) with a modern digital platform (e.g., Instagram Reels)
4. Pick a trending news story and break it down using Berlo's SMCR model and Agenda-Setting theory in 150 words.
5. Write a 100-word critique of a digital news channel, analysing how algorithms and comment section echo chambers affect news quality.
6. Create two fresh social media accounts on a platform (e.g., YouTube or Instagram). On Account A, interact only with one political/social perspective for 3 days. On Account B, interact with the opposing perspective.
7. Select a popular Indian public address or campaign (e.g., a regional election speech or a social reform movement video).
8. Prompt a Generative AI tool to draft a 300-word news script on a sensitive social issue. Next, write or select a human-reported piece on the same topic.
9. Select a recent viral image, video, or claim circulating on messaging platforms (e.g., WhatsApp or X)
10. Plan and record a 3-minute solo podcast episode explaining a complex communication concept (e.g., Noise/Barriers or Spiral of Silence)

Suggested Readings

1. DeVito, J. A. (2024). *Human communication: The basic course* (Global ed.). Pearson.
2. Wood, J. T. (2020). *Communication in our lives* (8th ed.). Cengage Learning.
3. Kumar, K. J. (2021). *Mass communication in India* (5th ed.). Jaico Publishing House.
4. McQuail, D., & Deuze, M. (2020). *McQuail's media and mass communication theory* (7th ed.). SAGE.
5. Fuchs, C. (2021). *Social media: A critical introduction* (3rd ed.). SAGE Publications.
6. Griffin, E., Sparks, G., & Sparks, G. (2023). *A first look at communication theory* (11th ed.). McGraw Hill.
7. Littlejohn, S. W., Foss, K. A., & Oetzel, J. G. (2021). *Theories of human communication* (12th ed.). Waveland Press.
8. Chakravarty, G. (2020). *Indian communication media: From traditional to modern*. Oxford University Press.

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9. McQuail, D., & Deuze, M. (2025). *McQuail's media and mass communication theory* (8th ed.). SAGE Publications.
10. Sundar, S. S. (Ed.). (2023). *The handbook of the psychology of communication technology*. Wiley-Blackwell.

E-Resources

1. Cole, N. L. (2024, July 16). *Understanding socialization in sociology*. ThoughtCo. accessed at <https://www.thoughtco.com/socialization-in-sociology-4104466>
2. Communication Theory. (n.d.). *Communication Theory*. Accessed at <https://www.communicationtheory.org/>
3. Prasad, N. (2013). Folk media: An active media for communication campaigns in digital era. *Global Media Journal - Indian Edition*, 4(2), 1–8. Accessed at https://caluniv.ac.in/global-media-journal/COMMENTARY-DEC%202013/Commentary_1_Neeru_Prasad.pdf
4. Chande, R. (2018). Johari Window: A useful communication model and psychological tool for improving understanding between individuals. *JournalNX - A Multidisciplinary Peer Reviewed Journal*, 1–4. Accessed at <https://media.neliti.com/media/publications/342398-johari-window-a-useful-communication-mod-6e63905f.pdf>
5. McQuail, D. (2010). *McQuail's mass communication theory* (6th ed.). SAGE Publications. Accessed at <https://nibmehub.com/opac-service/pdf/read/McQuail's%20Mass%20communication%20theory.pdf>
6. Miike, Y. (2024). Asiaticity and the Sadharanikaran model of communication: Deconstructing Western bias in media studies. *Bodhi: An Interdisciplinary Journal*, 10(2), 1–19. Accessed at <https://hilo.hawaii.edu/documents/depts/communication/YoshitakaMiikeBodhiVol.10No.2April-June2024pp.1-19.pdf>
7. Barthel, M., Mitchell, A., & Asare-Marfo, D. (2020). *Measuring news consumption in a digital era*. Pew Research Center. Accessed at https://www.pewresearch.org/wp-content/uploads/sites/20/2020/12/PJ_2020.12.08_News-Consumption_FINAL.pdf
8. Oxford Internet Institute. (2024). *Research on algorithms, misinformation, and digital society*. University of Oxford. <https://www.oii.ox.ac.uk/research/>
9. Reuters Institute for the Study of Journalism. (2025). *Digital news report 2025*. University of Oxford. <https://reutersinstitute.politics.ox.ac.uk/digital-news-report/>
10. Barthel, M., Mitchell, A., & Asare-Marfo, D. (2020). *Measuring news consumption in a digital era*. Pew Research Center. <https://www.pewresearch.org/journalism/2020/12/08/measuring-news-consumption-in-a-digital-era/>

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Fundamentals of Multimedia

Theory	50	Practical	30	Internal	20	Credits	06
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Course Objectives

1. The aim of this course is to help students develop an understanding of the fundamental principles of multimedia systems, production workflows, interactive platforms (Web, Mobile, AR/VR) and UI/UX basics.
2. The course will explain the technologies underlying digital images, camera optics, DSLR and smartphone photography, three-point lighting setups, and digital image editing techniques using Adobe Photoshop.
3. To acquaint the students with visual communication, digital typography, color theory and vector graphics creation using Adobe Illustrator.
4. To educate the students about video editing standards, 2D animation principles, timeline workflows, motion tweening and basic motion graphics using Adobe Animate and Adobe After Effects.
5. To train students in digital audio capturing, signal processing, podcasting, voice-over editing using Adobe Audition and basic multimedia authoring.

Course Outcomes

1. Students will have a sound knowledge of multimedia building blocks, Adobe Creative Cloud workflows, web-first file formats and interactive applications (AR/VR and UI/UX)
2. The student will apply and implement the skills of DSLR and smartphone photography, studio lighting and advanced image retouching using Adobe Photoshop.
3. The student will be able to design vector graphics, digital typography and brand collateral utilizing color theory and Adobe Illustrator tools.
4. Students will be able to create 2D animations and motion graphics using Adobe Animate and After Effects while applying core animation principles.
5. Students will be able to record, edit and finalize audio projects including podcasts and voice-overs using Adobe Audition and assemble integrated multimedia authoring projects.

Unit-1	Fundamentals of Multimedia	L	T	P
1.1	Introduction of Multimedia, Interactive Multimedia, New Multimedia Applications (Web, Mobile, AR/VR) (Lecture, Discussion)	2	1	1
1.2	The Multimedia Production Workflow: Hardware and Software Tools of the Adobe Creative Cloud Suite (Lecture, Discussion)	2	1	1
1.3	Multimedia Building Blocks: Text, Image, Audio, Video, Animation & Interactivity	2	1	1

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	(Lecture, Demonstration)			
1.4	Multimedia File Formats & Optimization: Raster vs. Vector; Lossy vs. Lossless; Web-first formats (JPEG, PNG, SVG, WebP) (Lecture, Demonstration)	2	-	1
1.5	Transition from conventional media to digital media and uses of Multimedia, a brief introduction to UI/UX (Lecture, Demonstration)	2	-	1

Unit-2	Visual and Image Editing	L	T	P
2.1	Anatomy of a DSLR camera- Viewfinder, ISO, shutter speed, Aperture, focus, Exposure, Matte Box, camera supports, and other accessories, sensor, full-frame camera, crop-frame sensor, Smartphone Photography & Videography (Lecture, Expert online tutorials, using visual archives for discussion)	2	1	1
2.2	Lenses and Angle of view- Prime lens, zoom lens, lens mounts, Angle of view, wide and telephoto lenses and their relationship with movements, Normal lens (Lecture, Expert online tutorials, using visual archives for discussion)	2	1	1
2.3	Photography Composition- Horizontal, Vertical composition, Rule of thirds, Basic lighting – Three-point lighting, low-key, high-key lighting, soft light, hard light source, soft box, flashlight (Lecture, research reports, tutorials, Expert online tutorials, using visual archives for discussion)	2	1	1
2.4	Adobe Photoshop: Tools and Interface, Basics of Image and Processing, Image Editing - Layers, Selections, Masks, and Adjustment Layers, 3D (Lecture, research reports, tutorials, Expert online tutorials, using visual archives for discussion)	2	-	1
2.5	White balance correction, Dynamic range correction, Gamma Correction, and Photo Retouching. Image compression and file formats (Lecture, Discussion)	2	-	1

Unit-3	Text & Graphic Design	L	T	P
3.1	Digital Typography: Fonts, Families, Kerning, Tracking, and Web Fonts, Introduction of Text, Attributes, Style, Families, Fonts, and Digital Fonts Techniques	2	1	1

	(Lecture, Demonstration)			
3.2	Vector Graphics: Principles and Applications, International Character Standard and Sets, Hypertext, and types (Lecture, Demonstration)	2	1	1
3.3	Basics of digital graphics and image, bitmap and vector images, Elements and Principles of graphics design (Lecture, Demonstration)	2	1	1
3.4	Colour Theory: Colour mode and palettes, dithering (Lecture, Demonstration)	2	-	1
3.5	Adobe Illustrator: Interface, menu, and tools, Effects and filters (Lecture, Demonstration)	2	-	1

Unit-4	Video and Animation	L	T	P
4.1	Introduction of Video, Video Process, Broadcast Video Standards, Analog Video, Digital Video (Lecture, Demonstration)	2	1	1
4.2	Introduction of Video Editing Tools and Formats (Lecture, Demonstration)	2	1	1
4.3	Introduction of Animation, Principles of Animation, Types (Lecture, Demonstration)	2	1	1
4.4	Adobe Animate: Interface, Tools, Command Palette, Timeline, Frame-by-Frame Animation, Basic Shapes, Shape Twining (Lecture, Demonstration)	2	-	1
4.5	Layer, Symbol, Library, Mask, Motion Twining, Button, Introduction to Adobe After Effects for motion graphics (Lecture, Demonstration)	2	-	1

Unit-5	Digital Audio and Authoring	L	T	P
5.1	Digital audio- capturing, recording, storage and file formats, Analog to digital conversion, Sample rate, sample size (Lecture, Demonstration)	2	1	1
5.2	Recording & editing: trimming, splicing and assembly, volume adjustments, format conversion, re-sampling or downloading, fade-ins and fade-outs, equalization, time stretching, digital signal processing, reverting sound. Special effects (Lecture, Demonstration)	2	1	1
5.3	Convert mono to stereo, looping. Finalize files: Burning the audio CD, MP3 (Lecture, Demonstration)	2	1	1
5.4	Making the remix soundtrack, audio player, and editing using Adobe Audition Audio for New Media: Podcast Intros and Voice-over Editing	2	-	1

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	(Lecture, Demonstration)			
5.5	Multimedia Authoring Basics (Lecture, Demonstration)	2	-	1

Practical /Projects/Assignments

1. Create a 1-page visual breakdown comparing a raster image (JPEG/PNG) and a vector graphic (SVG). Include a table detailing file size, scalability, compression type (lossy vs. lossless), and ideal web usage.
2. Shoot a 3-photo portfolio applying the Rule of Thirds and Three-Point Lighting. Process the RAW images in Adobe Photoshop to adjust white balance, exposure, and dynamic range, submitting both before and after files.
3. Design a vector brand identity asset (logo or icon) in Adobe Illustrator. Document your typographic choices (font family, kerning, tracking) and present the color palette using both RGB and CMYK codes.
4. Create a 10-second 2D motion graphics animation in Adobe Animate or After Effects demonstrating at least 3 core Principles of Animation (e.g., Squash & Stretch, Anticipation, Timing).
5. Record and produce a 1-minute podcast intro voice-over. Clean up the audio in Adobe Audition by removing noise, applying equalization, and mixing background music with proper fade-in/fade-out transitions.
6. Construct a detailed production workflow chart detailing the stages (Pre-production, Production, Post-production) and specific Adobe Creative Cloud tools used for an interactive web or mobile application.
7. Prepare a comparative table analyzing 5 web-first image and video formats (JPEG, PNG, SVG, WebP, MP4), evaluating lossy vs. lossless compression, transparency support, vector vs. raster nature, and optimal use cases.
8. Capture a series of 6 DSLR/Smartphone photographs demonstrating variation in the Exposure Triangle (Aperture/Depth of Field, Shutter Speed/Motion Blur, ISO/Noise) alongside Rule of Thirds and Three-Point Lighting setups.
9. Perform color correction (white balance, gamma, dynamic range) and photo retouching on an underexposed RAW image using non-destructive adjustment layers, layer masks, and frequency separation in Adobe Photoshop.
10. Design a digital typographical poster in Adobe Illustrator demonstrating font pairings, tracking, kerning, leading, and hierarchy, incorporating CMYK/RGB color palettes and dithering effects.

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Suggested Readings

1. Chavez, C. (2026). *Adobe Photoshop Classroom in a Book (2026 release)*. Adobe Press.
2. Fridsma, L., & Gyncild, B. (2026). *Adobe After Effects Classroom in a Book (2026 release)*. Adobe Press.
3. Jago, M. (2026). *Adobe Premiere Pro Classroom in a Book (2026 release)*. Adobe Press.
4. Langford, M., Bruce, A., Fox, A., & Sawdon Smith, R. (2025). *Langford's basic photography: The guide for serious photographers* (11th ed.). Routledge.
5. Lupton, E. (2024). *Thinking with type: A critical guide for designers, writers, editors, & students* (3rd ed.). Chronicle Books.
6. Lupton, E., & Phillips, J. C. (2024). *Graphic design: The new basics* (2nd ed. rev.). Princeton Architectural Press.
7. Savage, T. M., & Vogel, K. E. (2024). *An introduction to digital multimedia* (2nd ed.). Jones & Bartlett Learning.
8. Thomas, F., & Johnston, O. (2024). *The illusion of life: Disney animation* (Reprint ed.). Hyperion.
9. Vaughan, T. (2024). *Multimedia: Making it work* (9th ed.). McGraw-Hill Education.
10. Wood, B. (2026). *Adobe Illustrator Classroom in a Book (2026 release)*. Adobe Press.

E-Resource

1. Dr. Abhishek Kumar & Dr. Achintya Singhal (Banaras Hindu University / SWAYAM). (2026). *Animations* [Online Course]. SWAYAM Portal. Accessed at https://onlinecourses.swayam2.ac.in/cec22_cs01/preview
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6. California Institute of the Arts (Coursera). (2026). *The art of filmmaking and video production* [Specialization]. Coursera. Accessed at <https://www.coursera.org/courses?query=calarts>

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8. Adobe Creative Cloud Learn & Support. (2026). *Official tutorials and user guides for Photoshop, Illustrator, Animate, After Effects, and Audition*. Adobe Inc. Accessed at <https://helpx.adobe.com/support.html>
9. Cambridge Color. (2026). *Digital camera sensors, ISO, aperture, white balance, and exposure tutorials*. Cambridge in Colour. Accessed at <https://www.cambridgeincolour.com/>
10. SoundOnSound Digital Audio Academy. (2026). *Digital audio fundamentals, frequency equalization, dynamic compression, and voice-over production*. Sound On Sound. Accessed at <https://www.soundonsound.com/>

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1 M.Sc. (NM) 3

Media Language: Structure & Style

Theory	50	Practical	30	Internal	20	Credits	06
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Course Objectives

1. To critically examine the structure, style, grammar, tone, and evolution of language across print, broadcast, digital, social and AI-generated media platforms.
2. To develop advanced skills in digital content writing, SEO strategy, audience analytics, brand storytelling and content creation across blogs, podcasts, newsletters and OTT platforms.
3. To apply principles of English-Hindi media translation, paraphrasing, transcreation, localization and ethical practices regarding attribution, quoting, and avoiding plagiarism.
4. To create interactive and mobile-first multimedia content utilizing visual hierarchy, typography, data visualization, infographics, short-form video and cross-platform storytelling.
5. To critically assess and utilize AI writing tools, fact-verification frameworks, Unicode fonts and AI translation technologies for the growing regional Indian language digital media market.

Course Outcomes

1. Students will be able to analyze media grammar, vocabulary, tone and writing styles (expository, persuasive, narrative) to write effective headlines and copy across diverse platforms.
2. Students will be able to apply principles of digital content writing, SEO, search intent and audience analytics to produce engaging blog posts, newsletters and branded storytelling content.
3. Students will be able to demonstrate competence in English-Hindi news translation, paraphrasing, transcreation and cross-cultural localization while adhering to proper attribution and plagiarism-free standards.
4. Students will be able to design and produce mobile-first multimedia content integrating typography, infographics data visualization and audio-visual short-form video storytelling.
5. Students will be able to leverage AI tools, Unicode font systems and language technologies ethically to produce, fact-check and localize content for regional Indian language digital markets.

Unit-1	Understanding of Media Language	L	T	P
1.1	Language in Communication: Importance, Growth, Development and Evolution (Lecture, Presentation, Assignment)	2	-	1
1.2	Media Grammar, Vocabulary, Tone and Style: Selection and Use of Words, Phrases and Sentences (Lecture, Assignment)	2	-	2

1.3	Writing Styles: Expository, Descriptive, Persuasive, Narrative (Lecture, Assignment)	2	-	1
1.4	Evolution of Media Language: Print, Broadcast, Digital, Social Media and AI-generated Communication (Lecture, Group Discussion, Assignment)	2	1	1
1.5	Characteristics of Writing for Different Media, Language for Writing: Word and Sentence Making, Headline Writing (Practice) (Lecture, Presentation, Practical, Assignment)	2	-	2

Unit-2	Introduction to Digital Content Writing	L	T	P
2.1	Principles of Digital Content Writing, SEO Writing, Search Intent, and Audience Analytics (Lecture, Presentation, Group Discussion/Expert Lecture)	2	1	1
2.2	Purpose, Goal of Content and its Target Audience(s) (Lecture, Discussion)	2	1	1
2.3	Digital Content Formats: Websites, Blogs, News Portals, Social Media, Podcasts, Newsletters, OTT, and Content Communities (Lecture, Discussion)	2	-	2
2.4	Elements of Effective Writing (Lecture)	3	-	-
2.5	Online Content Writing: Content Marketing, Brand Storytelling, Influencer Content, Newsletter, Editorial, and Branded Content (Lecture, Discussion)	3	-	-

Unit-3	Translation and Paraphrasing	L	T	P
3.1	Effective and Ineffective Translation, Paraphrasing, Methods of Paraphrasing (Lecture, Group Discussion, Assignment)	3	-	-
3.2	Media Translation: English-Hindi and Hindi-English News Translation (Lecture, Practical, Presentation, Assignment)	2	-	2
3.3	Attribution, Quoting, and Avoiding Plagiarism (Lecture, Practical, Presentation, Assignment)	2	-	3
3.4	Transcreation, Localization, Transliteration, and Cross-Cultural Communication (Lecture, Practical, Presentation, Assignment)	1	-	2
3.5	AI Tools in Content Creation, Ethical Use of AI in Writing and Fact Verification (Lecture, Practical, Presentation, Assignment)	2	-	1

Unit-4	Online Content Creation	L	T	P
4.1	Interactive and Mobile-first Content Creation (Lecture)	2	1	1
4.2	Typography, Visual Hierarchy, Readability and Accessibility for Online Media (Lecture, Discussion)	2	1	1
4.3	Visual Language: Use of Photographs, Illustrations, Infographics and Data Visualization (Lecture, Assignment)	2	1	1
4.4	Video, Animation, Short-form Video, and Audio-Visual Storytelling (Lecture, Assignment)	2	-	1
4.5	Multimedia Storytelling and Cross-Platform Content Delivery (Lecture, Discussion)	2	-	1

Unit-5	Multilingual Content Creation	L	T	P
5.1	Multilingual Content (Lecture, Discussion)	3	-	-
5.2	Localization for Digital Media (Lecture, Discussion, Presentation)	2	1	2
5.3	Regional Language Digital Media Market and Audience Trends in India, Unicode Fonts (Lecture, Discussion, Presentation)	2	-	2
5.4	Content Writing in Local Language (Lecture, Assignment)	2	-	1
5.5	AI Translation and Language Technologies for Indian Languages (Lecture, Discussion)	2	1	-

Practical/Projects/Assignments

1. Critically analyze the language, discourse, framing, tone, and style of a contemporary issue across print, broadcast, digital and social media.
2. Adapt one news story for a digital news portal, social media, mobile notification, podcast and video platform.
3. Develop a content strategy incorporating audience profiling, search intent, SEO, platform selection, content formats and cross-platform distribution.
4. Create an SEO-optimized digital article using keyword research, search intent, headline optimization, metadata and audience analytics.
5. Translate and localize media content between English and Hindi, addressing cultural context, linguistic accuracy and audience relevance.
6. Use Generative AI for content creation and critically evaluate the output for accuracy,

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- bias, plagiarism, copyright, attribution and ethical concerns.
7. Produce a multimedia story integrating written content, photographs, infographics, audio, video, animation and interactive elements.
 8. Conduct a research-based study of regional-language digital media in India, focusing on audience, content trends, technology and market potential.
 9. Develop a digital campaign in English, Hindi and one Indian regional language using translation, transliteration, transcreation and localization.
 10. Create the same media content through human writing and AI-assisted writing, then critically compare both for language quality, creativity, factual accuracy, bias and editorial reliability.

Suggested Readings

1. Kumar, K. J. (2020). Mass communication in India (5th ed.). Jaico Publishing House.
2. Pavarala, S., & Malik, K. K. (2021). Other voices: The struggle for community radio in India. SAGE Publications.
3. Sinha, A. (2019). Digital media: An introduction. Oxford University Press.
4. Pande, R. (2018). Digital journalism and communication. SAGE Publications India.
5. Mishra, S. (2022). New media and digital communication in India. New Century Publications.
6. Bradshaw, P. (2017). The online journalism handbook: Skills to survive and thrive in the digital age (2nd ed.). Routledge.
7. Flew, T. (2021). Understanding global media (2nd ed.). Palgrave Macmillan.
8. Kress, G. (2019). Multimodality: A social semiotic approach to contemporary communication. Routledge.
9. Harcup, T. (2019). Journalism: Principles and practice (3rd ed.). SAGE Publications.
10. Franklin, B., & Eldridge, S. A., II (Eds.). (2019). The Routledge companion to digital journalism studies. Routledge.

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2. Google. (n.d.). *Google Search Central*. Accessed at <https://developers.google.com/search/docs>
3. Google. (n.d.). *Google Trends*. Accessed at <https://trends.google.com/>
4. Poynter Institute. (n.d.). *Poynter Institute*. <https://www.poynter.org/>
5. Press Information Bureau. (n.d.). *Press Information Bureau, Government of India*. Accessed at <https://pib.gov.in/>
6. Reuters Institute for the Study of Journalism. (n.d.). *Reuters Institute for the Study of Journalism*. Accessed at <https://reutersinstitute.politics.ox.ac.uk/>
7. SWAYAM. (n.d.). *SWAYAM: Study Webs of Active-Learning for Young Aspiring Minds*. Accessed at <https://swayam.gov.in/>
8. UNESCO. (n.d.). *Media and information literacy*. Accessed at <https://www.unesco.org/en/media-information-literacy>

9. Udemy. (n.d.). *Udemy*. Accessed at <https://www.udemy.com/>

10. World Wide Web Consortium. (n.d.). *Web Accessibility Initiative (WAI)*. Accessed at <https://www.w3.org/WAI/>

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1 M.Sc. (NM) 4 (A)

Digital Layout Design

Theory	50	Practical	30	Internal	20	Credits	06
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Course Objectives

1. To educate students on design elements, principles, grid mechanics, and visual hierarchy in print and digital media.
2. To introduce the user interface, typography tools, and workspace architecture of Adobe InDesign.
3. To train students on advanced layout features, including Master Pages, Paragraph/Character Styles, tables, and pre-flight packaging.
4. To develop competency in vector graphic design using Adobe Illustrator for logo creation, iconography, and layout integration.
5. To teach students how to use Canva's free AI tools to create designs for both print and the web.

Course Outcomes

1. Analyze and apply design principles, grid structures (column, modular, hierarchical), and visual hierarchies across diverse layout projects.
2. Construct single- and multi-page print and digital layouts using fundamental InDesign tools, text wrapping, and frame fitting.
3. Utilize advanced InDesign features—such as Master Pages, nested styles, color management, and pre-flight diagnostics—to package error-free commercial documents.
4. Create and edit scalable vector graphics, brand logos, and custom illustrations in Adobe Illustrator for layout placement.
5. Utilize Canva to quickly create posters, brochures, websites, and social media designs.

Unit-1	Fundamental Elements of Design	L	T	P
1.1	Basics of Design (Lecture, Discussion)	3	-	-
1.2	Elements and Principles of Design (Unity, Balance, Hierarchy, etc.), Two- and Three-Dimensional Form (Lecture, Discussion)	2	-	-
1.3	Grid Systems: Manuscript, Column, Modular, and Hierarchical Grids in Print and Web (Lecture, Presentation)	3	2	-
1.4	Visual Analysis of Professional Layouts: Examples of Design (Presentation, Demonstration, Discussion)	2	2	-

1.5	Creativity and Design Process, Importance of Design (Lecture, Discussion)	3	1	-
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Unit-2	InDesign & Page Layout	L	T	P
2.1	Introduction to Adobe In-Design, Tools of In-Design, Creating and Viewing Documents, Understanding Workspace (Lecture, Discussion)	2	1	1
2.2	Specifying Document Setting, Creating and Opening Publications (Lecture, Discussion)	2	1	1
2.3	Inserting and Placing Text and Picture, Box and Line Manipulations, Choosing a Measurement, Adjusting Layout (Lecture, Demonstration)	2	1	1
2.4	Creating Columns, Grouping and Locking Subject, Wrapping Text around Pictures and Graphics (Lecture, Demonstration)	2	-	1
2.5	Tab setting, Columns & Gutters. Import & Export of files (Lecture, Demonstration)	2	-	1

Unit-3	Advanced: In-Design	L	T	P
3.1	Developing & Designing Posters, Flyers, Brochures, Magazines, Newspapers, Presentations, Books and e-Books (Lecture, Demonstration)	2	1	1
3.2	Managing and Transforming Objects, Character and Paragraph Formatting (Lecture, Demonstration)	2	1	1
3.3	Points and Paths, Using Styles, Using Libraries, Creating Columns, Applying and Editing Colours, Creating Style and Alignment, Formatting Objects, Working with Colour (Lecture, Demonstration)	2	1	1
3.4	Pages, Working with Master Pages, Working with Type, Working with Graphics, Use of Palettes, Positioning, Resizing (Lecture, Demonstration)	2	-	1
3.5	Tables, Long and Interactive Documents, Packaging and Printing (Lecture, Demonstration)	2	-	1

Unit-4	Adobe Illustrator	L	T	P
4.1	Introduction, Interface and Tools of Adobe Illustrator (Lecture, Discussion)	2	1	1
4.2	Panels & Workspaces in Adobe Illustrator (Lecture, Demonstration)	2	1	1

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4.3	Using Colour, Swatches, Pantone's and Gradients (Lecture, Demonstration)	2	1	1
4.4	Drawing Tools of Adobe Illustrator (Lecture, Demonstration)	2	-	1
4.5	Selecting and Editing Objects (Lecture, Demonstration)	2	-	1

Unit-5	AI Layout Design using Canva	L	T	P
5.1	Getting Started with Canva: Understanding the Canva interface and learning how AI helps in graphic design (<i>Lecture, Discussion</i>)	2	1	1
5.2	Creating Layouts with AI: Using text prompts to automatically generate designs for posters, flyers, and banners (<i>Lecture, Practice</i>)	2	1	1
5.3	Editing Images with AI: Using simple AI tools to remove backgrounds, replace objects, and fix photos for layouts (<i>Lecture, Practice</i>)	2	1	1
5.4	Designing Simple Websites: Creating basic 1-page website layouts and digital banners in Canva (<i>Lecture, Practice</i>)	2	-	1
5.5	Resizing and Exporting: Changing a print design into web sizes and saving files for print (PDF) or web (PNG/Web link) (<i>Lecture, Practice</i>)	2	-	1

Practical/Projects/Assignments

1. Select 3 professional print/web page samples (a news portal, a magazine spread, and a brochure) and draw their underlying grid structures (Manuscript, Column, or Modular) while identifying visual hierarchy, balance, and margins.
2. Set up a 4-page A4 newsletter document in Adobe InDesign incorporating specified document bleeds, margins, columns, gutters, character/paragraph styles, and imported external body text.
3. Place high-resolution images into InDesign frames, applying precise frame-fitting controls, baseline grid alignment, tab settings, and custom text wrap contours around dynamic graphic shapes.
4. Create a master page system in Adobe InDesign containing automatic page numbering, running headers, section footers, and background tint blocks applied consistently across a multi-page document.
5. Construct an interactive 8-page digital brochure containing dynamic hyperlinks, bookmarks, a live Table of Contents (TOC), formatted data tables, and preflight package the final file for commercial print (CMYK PDF/X) and digital export.

6. Draw a complex vector logo in Adobe Illustrator using precision path tools, shape builders, custom gradients, and defined Pantone spot color swatches saved into a custom workspace library.
7. Design a single-page vector infographic utilizing Illustrator's panels, drawing tools, appearance effects, compound paths, and typographic hierarchy to communicate statistical data visually.
8. Utilize Canva's Magic Studio AI tools to generate a full promotional poster from a text prompt, refining generated typography, color palettes, and visual hierarchy for a live event.
9. Process a series of product photos using Canva AI features (Magic Eraser, Magic Edit, background remover, and auto-retouching) and integrate them into a promotional banner layout.
10. Convert a single print poster design in Canva into 3 distinct web/social media dimensions (Instagram Story 9:16, Web Banner 16:9, and Print PDF with crop marks) using Magic Switch AI, ensuring all element alignments remain balanced.

Suggested Readings

1. Anton, K. K., & DeJarld, T. (2026). *Adobe InDesign Classroom in a Book* (2026 release). Adobe Press.
2. Elam, K. (2024). *Grid systems: Principles of organizing type and graphics* (2nd ed.). Princeton Architectural Press.
3. Golombisky, K., & Hagen, R. (2024). *White space is not your enemy: A beginner's guide to communicating visually through graphic, web & multimedia design* (4th ed.). Routledge.
4. Lupton, E. (2024). *Thinking with type: A critical guide for designers, writers, editors, & students* (3rd ed.). Chronicle Books.
5. Lupton, E., & Phillips, J. C. (2024). *Graphic design: The new basics* (2nd ed. rev.). Princeton Architectural Press.
6. Poulin, R. (2024). *The language of graphic design: An illustrated handbook for understanding the foundations of design* (2nd ed.). Rockport Publishers.
7. Samara, T. (2025). *Making and breaking the grid: A graphic design layout workshop* (3rd ed.). Rockport Publishers.
8. Tondreau, B. (2024). *Layout essentials: 100 design principles for using grids* (2nd ed.). Rockport Publishers.
9. Wood, B. (2026). *Adobe Illustrator Classroom in a Book* (2026 release). Adobe Press.
10. Tapp, A., & Tapp, J. (2025). *EPUB 3 digital publishing and interactive layout design*. Focal Press.

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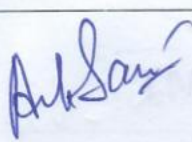
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1. Adobe Systems. (2026). *Adobe InDesign official user guide and layout tutorials*. Adobe Inc. Accessed at <https://helpx.adobe.com/indesign/user-guide.html>
2. Adobe Systems. (2026). *Adobe Illustrator official user guide and vector graphics documentation*. Adobe Inc. Accessed at <https://helpx.adobe.com/illustrator/user-guide.html>
3. Interaction Design Foundation. (2025). *The basics of user experience design and visual hierarchy principles*. Accessed at <https://www.interaction-design.org/literature/book/the-basics-of-user-experience-design>
4. W3C Publishing Maintenance Working Group. (2026). *EPUB 3.3 specification and digital publication standards*. World Wide Web Consortium. Accessed at <https://www.w3.org/TR/epub-33/>
5. W3C. (2024). *Scalable Vector Graphics (SVG) 2 specification for online layouts*. World Wide Web Consortium. Accessed at <https://www.w3.org/TR/SVG2/>
6. W3Schools. (2026). *Grid layout fundamentals and visual design hierarchy*. Accessed at https://www.w3schools.com/css/css_grid.asp
7. Canva Design School. (n.d.). Learn graphic design and AI tools. Canva. Accessed at <https://www.canva.com/designschool/>
8. Prof. Pradeep Yammiyavar (IIT Guwahati / NPTEL / SWAYAM). (2026). Understanding design [Online Course]. NPTEL SWAYAM. Accessed at https://onlinecourses.nptel.ac.in/noc20_de01/preview
9. SWAYAM Plus & LEPL. (2026). Visual design essentials with Canva [Certification Course]. SWAYAM Plus. Accessed at <https://learnpact.com/find-free-courses/course/swayam-plus-lepl-canva0824-01/>
10. California Institute of the Arts (Coursera). (2026). Graphic design specialization [Specialization]. Coursera. Accessed at <https://www.coursera.org/specializations/graphic-design>


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1 M.Sc. (NM) 4 (B)

Computer Applications for Media Professionals

Theory	50	Practical	30	Internal	20	Credits	06
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Course Objectives

1. The aim of this course is to help students master word processing skills including formatting, tables, time-saving tools, and reference markers (citations, bibliographies, TOC) for academic and professional documentation.
2. The course will explain presentation design, enhanced graphic techniques, media embedding (audio/video), data-driven chart animations, and multi-format publishing (video, web).
3. To acquaint the students with core spreadsheet management, data validation, custom data layouts, conditional formatting, and essential logical/lookup formulas (VLOOKUP, HLOOKUP, nested functions).
4. To educate the students about advanced data processing, spreadsheet charts, Pivot Tables, What-If Analysis (Goal Seek, Scenarios), security settings, and Macro automation.
5. To train students in visual data analytics using Sparklines, interactive Dashboards, Excel Add-Ins, and cloud-based collaboration tools like Google Sheets and Excel Online.

Course Outcomes

1. Students will be able to apply advanced word processing techniques, including custom tables, reference tools (footnotes, citations, TOC), auto-text, mail merge, and SmartArt graphics.
2. The student will apply and implement the skills to build, deliver, and publish multimedia-rich presentations featuring embedded audio/video, photo albums, pie charts, and custom animation effects.
3. The student will be able to construct and manage spreadsheet workbooks using data validation rules, named ranges, conditional formatting, and multi-condition lookup/math formulas.
4. Students will be able to execute advanced data analysis in spreadsheets using Pivot Tables, What-If scenarios, Goal Seek, workbook protection, and recorded Macros.
5. Students will be able to build interactive spreadsheet Dashboards (with Sparklines, icon sets, and color scales), integrate Excel Add-Ins, and collaborate online using Google Sheets and cloud platforms.

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Unit-1	Word Processing	L	T	P
1.1	Formatting and Editing Creating a document and template, importing PDF, inserting text from a file or external source, Insert hyperlinks, Search for text, Create bookmarks, navigating a document, Insert headers and footers, and page numbers, Format page background elements, line and paragraph spacing and indentation (Lecture, Discussion, Practical)	1	-	2
1.2	Creating Table Create a Table, Convert text to tables, and tables to text, Apply table styles, Sort table data, Configure cell margins and spacing, Merge and split cells, Split tables, Configure a repeating row header, Create and modify numbered or bulleted list, Restart or continue list numbering, Set starting number value (Lecture, Discussion, Practical)	1	-	2
1.3	Working with Reference Tool Create and Manage Reference Markers, Insert and modify footnotes and endnotes properties, Create bibliography citation sources, and insert citations for bibliographies, Insert figure and table captions, Modify caption properties, Insert a standard table of contents, Update a table of contents, Insert a cover page (Lecture, Discussion, Practical)	1	-	3
1.4	Using time saving tools Checking for Spelling and Grammar, Using the Translate and Research Pane, Inserting Autotext, Using the Navigation Pane, mail merge, different types of view, word shortcuts, undo, redo tool, auto save, format painter (Lecture, Discussion, Practical)	1	-	3
1.5	Working with advance graphic Insert shapes, pictures, ,screen clipping, text boxes, Apply artistic and picture effects, Wrap text around objects, Position objects, Create a SmartArt graphic, Format a SmartArt graphic, Modify SmartArt graphic content (Lecture, Discussion, Practical)	1	-	3

Unit-2	Presentation	L	T	P
2.1	Overview of a PowerPoint Presentation Navigate the PowerPoint Environment: View and Navigate a Presentation ,Create and Save a PowerPoint Presentation, Select a Presentation Type, Edit Text, Build a Presentation, Format Characters, Format Paragraphs, Format Text Boxes, Insert Images, Insert Shapes (Lecture, Discussion, Practical)	1	-	2

2.2	Apply Enhanced Graphic Techniques and Insert Audio and Video Use picture corrections, Add borders to a picture, Change the shape of a picture, Add a picture to a WordArt object and merge shapes, Enhance a presentation with audio and video, Create a photo album, Edit a photo album and add captions, Crop a picture (Lecture, Discussion, Practical)	1	-	2
2.3	Deliver a Presentation Apply and modify slide transitions, Utilize custom animation effects, Modify animation effects, Insert hyperlinks, Create custom slide shows, Present and view a slide presentation (Lecture, Discussion, Practical)	1	-	3
2.4	Create Presentations using Tables and Pie Charts Add a table to a presentation, Add or delete table rows, columns, or cells, Move and size a table, Modify a table, Insert a section header, Create and modify pie charts, Create and apply a chart template, Apply animation to a chart (Lecture, Discussion, Practical)	1	-	3
2.5	Publish Presentations Save a presentation in other formats, Create a video, Copy a presentation to CD, DVD, network, or local drive, Publish presentation to web (Lecture, Discussion, Practical)	1	-	3

Unit-3	Spread Sheet	L	T	P
3.1	Manage Workbook Options and Settings Working Worksheets and Workbooks, Import CSV Files ,Add delete and move and rename a worksheet , Search for data within a workbook,, Insert and remove hyperlinks, working with row and columns , workbook themes, Insert headers and footers Hide or unhide worksheets, Modify document properties, Display formulas (Lecture, Discussion, Practical)	1	-	2
3.2	Apply Custom Data Formats and Layouts Apply Custom Data Formats and Validation, advanced Fill Series options, Configure data validation, Apply Advanced Conditional Formatting and Filter ingles, Create and Modify Custom Workbook Elements, Create and modify simple macros, Insert and configure form controls (Lecture, Discussion, Practical)	1	-	2

3.3	Create Tables Create and Manage Tables, Create table from a cell range, Convert a table to a cell range, Table Styles and Options, Filter and Sort a Table, , Sort data by multiple columns, Remove duplicate records, Define Named Ranges and Objects, Name cells, Name data ranges, Name tables, Manage named ranges and objects (Lecture, Discussion, Practical)	1	-	3
3.4	Formulas and Functions Perform calculations by using SUM, MIN and MAX COUNT AVERAGE function, Perform logical operations by using the IF , SUMIF AVERAGEIF function, Perform statistical operations by using the COUNTIF function, Format and Modify Text by using Functions, RIGHT, LEFT, and MID ,UPPER, LOWER, PROPER CONCATENATE function (Lecture, Discussion, Practical)	1	-	3
3.5	Advanced Formulas Apply Functions in Formulas, Perform logical operations by using AND, OR, and nested functions, Perform statistical operations by using SUMIFS, AVERAGEIFS, and COUNTIFS functions, Look up data by using the VLOOKUP and HLOOKUP function, Advanced Date and Time Functions, NOW and TODAY functions, (Lecture, Discussion, Practical)	1	-	3

Unit-4	Spreadsheet Charts and Objects	L	T	P
4.1	Working with Chars Create and modify chart, switch between rows and columns in source data, Quick Analysis, Add and modify chart elements, layouts, and styles, Move charts to a chart sheet, Insert and Format Objects, text boxes, shapes, and images, (Lecture, Discussion, Practical)	1	-	2
4.2	Manage Workbook Options and Settings Manage Workbooks, Save a workbook as a template, Enable macros in a workbook, Display hidden ribbon tabs, Manage Workbook Review Restrict editing, Protect a worksheet, protect	1	-	2

	workbook structure, Manage workbook versions, Encrypt a workbook with a password (Lecture, Discussion, Practical)			
4.3	Advance Data Processing Scenarios, Goal Seek , Absolute and constant cell References, Pivot Tables, What-If Analysis (Lecture, Discussion, Practical)	1	-	3
4.4	Macros Introduction and Macro Security, Recording a Macro, Assign a Macro to a Button or Shape, Run a Macro upon Opening a Workbook, Inspect and Modify a Macro (Lecture, Discussion, Practical)	1	-	3
4.5	Adding Graphics to Spreadsheets Introduction, Insert Pictures, Modifying Pictures, insert Shapes, insert SmartArt, Apply Themes, graphics for chart, Insert Drawing Objects (Lecture, Discussion, Practical)	1	-	3

Unit-5	Advanced Features of Spreadsheet	L	T	P
5.1	Sparkline Introduction and use, creating a sparkline, changing the design of sparklines dealing with empty cells, and removing sparklines from a sheet (Lecture, Discussion, Practical)	1	-	2
5.2	Data Gathering and Automations Importing and linking data - Advanced copy and paste options - Automation with Macros - Reviewing tools Object Linking and Embedding (Lecture, Discussion, Practical)	1	-	2
5.3	Google Sheet Introduction, uploading, downloading loading, sharing Google sheet creating link, Excel Online, office live (Lecture, Discussion, Practical)	1	-	3
5.4	Excel Add-Ins Introduction, add-ins source, add and delete add-Ins, free and paid add-Ins (Lecture, Discussion, Practical)	1	-	3
5.5	Dashboards Introduction to Dashboards, Cell Highlighting, Icon Sets, Color Scales (Lecture, Discussion, Practical)	1	-	3

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Practical/Projects/Assignments

1. Create a letterhead in Word using Word Art.
2. Create an attendance sheet using the table feature of Word.
3. Mail-merge a notice to at least 10 employees of a company.
4. Create a form using a Word template or create a customized form, including the following: 5 Text fields, 2 Check Box fields, 2 Drop-Down menus, 3 Customized Styles.
5. Create a mark sheet in Excel for at least 10 students, calculate the total marks obtained, and the percentage.
6. Calculate the maximum and minimum marks obtained by each student using Excel functions.
7. Create a progress graph for each student.
8. Create a PowerPoint presentation about your educational institute.
9. Use SUM, MIN, MAX, COUNT, AVERAGE on a data range. Use SUMIF, AVERAGEIF, and COUNTIF with criteria.
10. Use VLOOKUP/HLOOKUP to fetch product details from a small reference table.

Suggested Readings

1. OpenStax. (2024). *Workplace Software and Skills*. OpenStax, Rice University. Open-Access URL: <https://openstax.org/details/books/workplace-software-skills>
2. Brown, N., Lave, B., Romey, J., Schatz, M., & Shingledecker, D. (2024). *Beginning Excel*. Open Oregon Educational Resources. Open-Access URL <https://openlibraryrepo.ecampusontario.ca/jspui/bitstream/123456789/384/4/Beginning-Excel.pdf>
3. Lacher, M. (2025). *The most EXCELlent OER spreadsheets textbook published*. Minnesota State Pressbooks. Open-Access URL: <https://minnstate.pressbooks.pub/spreadsheets2025/>
4. Lambert, J. (2022). *MOS study guide for Microsoft Excel expert (Exam MO-201)*. Microsoft Press.
5. Kusleika, R. (2022). *Excel 2021 formulas and functions*. Microsoft Press / Wiley.
6. McFedries, P. (2022). *Microsoft Office matrix: Word, Excel, PowerPoint, and Outlook for Microsoft 365 and Office 2021*. Pearson.
7. Alexander, M. (2022). *Excel dashboards and reports* (3rd ed.). Wiley.
8. Rishabh, A., & Verma, S. (2024). *Advanced spreadsheet techniques and data automation for business applications*. Academic Press.
9. Walkenbach, J., & Alexander, M. (2023). *Microsoft Excel 365 power programming with VBA*. John Wiley & Sons.
10. Apress Editorial Board. (2023). *Data analysis and reporting with Microsoft Excel 365*. Apress.

E-Resources

1. OpenStax. (2024). *Workplace software and skills open courseware*. Rice University / LibreTexts. Accessed at <https://openstax.org/details/books/workplace-software-skills>
2. Microsoft Support. (2026). *Microsoft Excel help & learning portal: Formulas, PivotTables, and dynamic charts*. Microsoft Inc. Accessed at <https://support.microsoft.com/en-us/excel>
3. Microsoft Support. (2026). *Microsoft Word help & learning portal: Layout, references, and mail merge*. Microsoft Inc. Accessed at <https://support.microsoft.com/en-us/word>
4. Microsoft Support. (2026). *Microsoft PowerPoint help & learning portal: Transitions, animations, and multimedia*. Microsoft Inc. Accessed at <https://support.microsoft.com/en-us/powerpoint>
5. Google Developers. (2026). *Google Sheets API and automation documentation*. Google Workspace. Accessed at <https://developers.google.com/sheets/api/guides/concepts>
6. GCFGlobal. (2025). *Free Microsoft Office learning tutorials: Word, Excel, and PowerPoint*. Goodwill Community Foundation. Accessed at <https://edu.gcfglobal.org/en/topics/office/>
7. Prof. Santanu Kumar Karmakar (IIT Kharagpur / SWAYAM). (2026). Computer fundamentals and office automation [Online Course]. SWAYAM Portal. Accessed at <https://onlinecourses.swayam2.ac.in/>
8. Microsoft (Coursera). (2026). Microsoft 365 fundamentals specialization [Specialization]. Coursera. Accessed at <https://www.coursera.org/specializations/microsoft-365-fundamentals>
9. Macquarie University & Prashan S. M. Karunaratne (Coursera). (2026). Excel skills for business specialization [Specialization]. Coursera. Accessed at <https://www.coursera.org/specializations/excel>
10. Google Cloud (Coursera). (2026). *Google Sheets and cloud data collaboration* [Online Course]. Coursera. Accessed at <https://www.coursera.org/learn/google-sheets>

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1 M.Sc. (NM) 5
Digital Film Making

Theory	-	Practical	40	Internal	10	Credits	03
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Course Objectives

1. To learn and introduce the key concepts of digital filmmaking.
2. To introduce and understand the digital film-making equipment and allied operations.
3. To develop the concept of cinematography in digital filmmaking.
4. To develop the concept of the film production process.
5. To understand the role and applications of AI in digital filmmaking.

Course Outcomes

1. The student will be able to develop an understanding of digital filmmaking.
2. The student will be able to identify digital filmmaking equipment used in various stages.
3. The student will be able to identify and apply the various aspects of cinematographic techniques for digital film.
4. Student will be able to enhance their technical skills to produce a digital film.
5. Ability to use AI tools in filmmaking and evaluate their impact, benefits, and ethical challenges.

Unit 1	Basics of Film Making	L	T	P
1.1	Film and society (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation)	1	-	1
1.2	Concept of film Making (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation)	1	-	1
1.3	Elements of film (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation)	1	-	1
1.4	Script for film (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation)	1	-	1
1.5	Various stages of Film Production (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation)	-	-	1
Unit 2	Introduction to Film Making Equipment's & Operation	L	T	P
2.1	Anatomy of DSLR camera and Digital camcorder & Advanced Camera stabilizer in film making (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	1	-	1

2.2	Types of lens & Filters :-Prime/block lens, zoom lens, fisheye lens, micro lens, ND filter, Primary colour filter, star filter, polarizing filter (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	1	-	1
2.3	Different types of lightings:- Fresnel spot light, HMI, PAR, keno, ellipsoidal reflector light, soft box, led panel , cool lights (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	1	-	1
2.4	Basic three point lighting, lighting for one character, lighting for moving character, lighting for more than one character (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	1	-	1
2.5	Different types of microphone & pickup pattern (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	-	-	1

Unit 3	Cinematography	L	T	P
3.1	Visual grammar: Image size, Frame, Shot, Scene, Sequence. (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	1	-	1
3.2	Vantage point, Camera Angle (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	1	-	1
3.3	Camera movement (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	1	-	1
3.4	Continuity, 180-Degree Rule, point of view (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	1	-	1
3.5	Pacing: Slow, Medium, Fast (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	-	-	1

Unit 4	Film Production	L	T	P
4.1	Selection of Equipment for single camera production (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	1	-	1
4.2	Single camera production techniques (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	1	-	1
4.3	Selection of equipment for multi camera production (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	1	-	1
4.4	Multi camera production techniques	1	-	1

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	(Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)			
4.5	Outdoor/ Indoor shooting Techniques (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	-	-	1

Unit 5	Digital Filmmaking and AI: Relationship and Impact	L	T	P
5.1	AI in Pre-Production :- Script Writing and Story Development, Storyboarding and Concept Art (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	1	-	1
5.2	AI in Production :- Virtual Production, Camera and Cinematography ,Performance Capture (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	1	-	1
5.3	AI in Post-Production:- Video Editing, Visual Effects (VFX), Color Grading, Audio Enhancement. (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	1	-	1
5.4	AI in Distribution and Marketing:- AI analyzes audience behaviour and predicts content performance. Personalized trailers and targeted advertisements improve audience engagement. Streaming platforms use AI-based recommendation systems. (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	1	-	1
5.5	Advantages of AI in Filmmaking and Challenges and Ethical Concerns (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	-	-	1

Practical/Projects/Assignments

1. Shot Composition Practice:-

- Capture 10 different shots using a mobile or DSLR camera:- ELS,MLS,MCU,CU,BCU,ECU,Over-the-Shoulder,,Low Angle,High Angle,Dutch ,Angle,POV Shot,Tracking Shot,Static Shot
- Submit a short report explaining the mood and purpose of each shot.

2. One-Minute Silent Short Film:-

- Create a 1-minute silent film (no dialogue, only visuals and music).

3. Documentary

- Duration: 4 to 6 minutes
- Topic: Social issue, local personality, cultural tradition, etc.
- Must include interviews, research, and narration
- Focus: Real-life storytelling and factual representation

4. Advertisement/PSA (Public Service Announcement):-

- Duration: 30 to 60 seconds
- Product or social message based
- Focus: Branding, message clarity, visual impact

5. Pre-Production:-

- Concept idea & script/storyboard,
- Location recce report
- Shot list & production plan
- Crew and equipment list

6. Production:-

- Use any video-capable device (DSLR, mirrorless, smartphone)
- Apply proper composition, lighting, and sound recording
- Minimum 3 different shot types: wide, medium, close-up

7. Post-Production:-

- Video editing (basic cuts, transitions, sound sync)
- Add background score/sound effects

8. Using AI tools, create an Advertisement or a 2-3 minutes short film and include the Script, Story board, and Final video.

9. Utilize AI generative tools (text/image prompts) to create a concept art deck, automated script breakdown, and visual style guide for a 2-minute short film project.

10. Assemble your captured footage into a polished 60-second short film sequence in an NLE (Premiere Pro or DaVinci Resolve). Perform rough cuts, audio leveling (-14 LUFS), basic color grading, and export a final 1080p/24fps MP4 deliverable.

Suggested Readings

1. Pugalendhi, R., & Kalaiselvi, B. A. (2025). *AI tools for film making: A guide for film makers & media students*. Pugalendhi Publishing.
Open-Access URL:
https://www.researchgate.net/publication/393159437_AI_Tools_for_Film_Making_by_DrPugalendhi_Guide_for_Film_Makers_and_Students
2. Bowen, C. (2023). *Grammar of the shot* (5th ed.). Routledge.
3. Sawicki, M., & Moody, J. (2025). *Virtual production: Essential elements on a budget*. Routledge.
4. Zwerman, S., & Okun, J. A. (Eds.). (2023). *The VES handbook of virtual production*. Visual Effects Society / Focal Press.
5. Carter, S. (2025). *AI in filmmaking: Revolutionizing cinematic arts from script to screen*. Publifye AS.
6. Landau, D. (2023). *Lighting for cinematography: A practical guide to the art and craft of lighting for the moving image* (2nd ed.). Bloomsbury Academic.
7. Proferes, N. T. (2024). *Film directing fundamentals: Analysis, coordination, and practice* (5th ed.). Routledge.
8. Musburger, R. B., & Kindem, G. (2022). *Introduction to media production: The path to digital media production* (5th ed.). Focal Press.

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9. Tumminello, W. (2023). *Exploring storyboarding: Principles, techniques, and AI workflows*. Cengage Learning.
10. Vineyard, J. (2022). *Setting up your shots: Great camera moves every filmmaker should know* (3rd ed.). Michael Wiese Productions.

E-Resources

1. Apple Education. (2024). *A curriculum for digital media creation: Sixteen lessons from storyboarding to producing a documentary*. Apple Inc. Accessed at <https://www.apple.com/education/docs/Apple-Moviemakingcurriculum.pdf>
2. The Film Foundation. (2024). *The story of movies: Making movies curriculum manual*. The Film Foundation. Accessed at <http://www.film-foundation.org/Making-Movies-Manual.pdf>
3. Vidyard. (2026). *How to make a documentary: A step-by-step guide to filming like a pro*. Vidyard Content Studio. Accessed at <https://www.vidyard.com/blog/how-to-make-a-documentary/>
4. Unreal Engine / Epic Games. (2026). *Virtual production field guide and LED volume workflows*. Epic Games. Accessed at <https://dev.epicgames.com/documentation/en-us/unreal-engine/virtual-production-in-unreal-engine>
5. Arri Academy. (2026). *Camera, lens, and lighting tech guides*. Arnold & Richter Cine Technik. Accessed at <https://www.arri.com/en/learn-help>
6. No Film School. (2026). *Cinematography, lighting setups, and AI tools for independent filmmakers*. No Film School Press. Accessed at <https://nofilmschool.com/>
7. SWAYAM / NPTEL (IIT Madras): *Introduction to Film Studies* (Prof. Aysha Viswamohan) Accessed at <https://onlinecourses.swayam2.ac.in/>
8. <https://onlinecourses.swayam2.ac.in/>
9. SWAYAM / NPTEL (IIT Tirupati): *Indian Popular Culture & Visual Narratives* Accessed at <https://onlinecourses.swayam2.ac.in/>
10. IGNOU eGyanKosh: *Production Design, Camera Mechanics & Film Grammar (Course Material)* Accessed at <https://egyankosh.ac.in/>

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2 M.Sc. (NM) 1

Video Content Production

Theory	50	Practical	30	Internal	20	Credits	06
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Course Objectives

1. To introduce the core fundamentals, scripting principles, and pre-production workflows of video content creation.
2. To train students on camera anatomy, lenses, filters, specialized lighting setups, and audio capture equipment.
3. To impart knowledge of visual grammar, framing, composition, lens mechanics, and continuity in cinematography.
4. To develop practical competency in executing single-camera and multi-camera productions in both indoor and outdoor environments.
5. To master post-production techniques, including non-linear editing, audio design, color grading, and platform-specific content delivery (e.g., YouTube).

Course Outcomes

1. Analyze and execute pre-production workflows, from initial conceptualization and scriptwriting to production planning.
2. Operate and deploy production hardware—including DSLR/camcorders, lenses, optical filters, three-point lighting setups, and directional microphones.
3. Apply principles of visual grammar, camera movement, continuity, and visual pacing to construct coherent visual sequences.
4. Demonstrate technical proficiency in executing both single-camera and multi-camera production setups across studio and field locations.
5. Synthesize post-production skills to edit video content, perform color correction, assemble Foley/voiceover audio, and export optimized videos for YouTube and digital platforms.

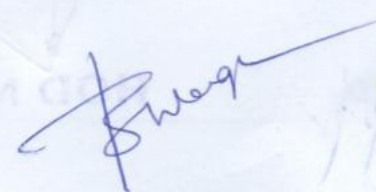
Unit-1	Fundamentals of Video Content Production	L	T	P
1.1	Video Content and Society (Lecture, Tutorial, Practice)	2	1	1
1.2	Concept of Video Making (Lecture, Tutorial, Practice)	2	1	1
1.3	Elements of Video Content Production (Lecture, Tutorial, Practice)	2	1	1
1.4	Script for video content making (Lecture, Tutorial, Practice)	2	-	1
1.5	Pre-Production for video content making (Lecture, Tutorial, Practice)	2	-	1

Unit-2	Introduction to Video Making Equipment & Operations	L	T	P
2.1	Anatomy of DSLR camera and digital camcorder & advanced camera stabilizer in filmmaking (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	1	1
2.2	Types of lens & Filters :-prime/block lens, zoom lens, fisheye lens, micro lens, ND filter, Primary colour filter, star filter, polarizing filter (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	1	1
2.3	Different types of lights:- Fresnel spot light, HMI, PAR, keno, ellipsoidal reflector light, soft box, led panel , cool lights (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	1	1
2.4	Basic three point lighting, lighting for one character, lighting for moving character, lighting for more than one character (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	-	1
2.5	Different types of microphone & pickup pattern (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	-	1

Unit-3	Cinematography	L	T	P
3.1	Visual grammar: Image size ,Frame , Shot, Scene, Sequence (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	1	1
3.2	Vantage point, Camera Angle (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	1	1
3.3	Camera movement (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	1	1
3.4	Continuity, eye line, crossing the line, point of view (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	-	1
3.5	Pacing: Slow, medium, fast (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	-	1

Unit-4	Video Production	L	T	P
4.1	Selection of equipment for single camera production (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	1	1
4.2	Single camera production techniques (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	1	1
4.3	Selection of equipment for multi camera production (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	1	1
4.4	Multi camera production techniques (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	-	1
4.5	Outdoor/ Indoor shooting Techniques (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	-	1

Unit-5	Post Production of Video Content Production	L	T	P
5.1	Audio Production: Foley Artist, background music, dialog, narration. Voice-over (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	1	1
5.2	Editing using Editing Software (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	1	1
5.3	Colour Correction (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	1	1
5.4	YouTube content making techniques (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	-	1
5.5	You Tube content production (Lecture, Discussion, Practice, Demonstration, Assignment, Presentation, Practical)	2	-	1


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Practical/Projects/Assignments

1. Analyze 2 existing video blogs/vlogs (1 high-performing "good" example and 1 poorly structured "bad" example), detailing script structure and societal impact. Then, draft a 2-page AV script and a complete pre-production breakdown (shot list, target demographic analysis, and filming schedule) for your own academic or narrative video blog.
2. Conduct a studio equipment lab. Set up a DSLR/camcorder with a prime lens, ND filter, and a 3-point lighting setup (soft box and LED panels) for a subject. Record short interview clips using both a cardioid shotgun mic and an omnidirectional lavalier mic, creating a side-by-side technical report on lighting quality and audio pickup patterns.
3. Shoot a 60-second narrative sequence demonstrating visual grammar rules. Capture at least 5 distinct shot sizes, 3 camera movements (pan, tilt, tracking), an eyeline match, and strict 180-degree line continuity. Edit two variations of the scene—one with slow pacing and one with fast cuts—to demonstrate how camera work and pacing alter viewer perception.
4. Execute two production setups for a panel discussion or interview: a single-camera setup using multiple takes and a multi-camera synchronized setup (2–3 cameras). Document outdoor vs. indoor white-balance and exposure challenges, and submit a comparative analysis log on production efficiency and shot continuity.
5. Edit a 3-minute video using NLE software (Premiere Pro or DaVinci Resolve) with multi-track Foley/audio mixing and color correction. Publish the final video to YouTube with optimized metadata (SEO title, thumbnail, chapter markers). Finally, create a companion social media promotion campaign: conduct a Twitter/X poll to gauge viewer feedback, publish a blog post embedding the video, and host a group discussion on digital safety and copyright ethics.
6. Edit a 3-minute video using NLE software (e.g., Premiere Pro or DaVinci Resolve) incorporating multi-track audio mixing (Foley, narration, background music) and primary/secondary color correction. Export and publish the final video to a YouTube channel with complete optimization (SEO title, description, custom thumbnail, chapters, and tags). Submit a production log analyzing copyright-safe audio usage and video playback performance.
7. Produce and finalize a 3-to-5-minute YouTube-style video incorporating a custom hook, lower thirds, call-to-action overlays, end screens, and a custom thumbnail. Export the final video as 1080p/4K H.264/MP4 and draft SEO metadata (title, description, tags).
8. Import single-camera coverage footage into an NLE (Adobe Premiere Pro or DaVinci Resolve). Assemble a 60-second sequence testing three distinct cut paces (slow, medium, and fast/frenetic) to match varying mood requirements.
9. Set up a 3-camera interview shoot (Master Wide, Guest Close-Up, Host Close-Up). Execute synchronized timecode recording or live vision switching to capture a 3-minute studio panel discussion.

10. Direct and shoot a 2-character dialogue scene ensuring strict maintenance of the 180-degree axis line, eyeline matches, and match-on-action cuts across master shots, medium shots, and reverse close-ups.

Suggested Readings

1. National Institute of Agricultural Extension Management (MANAGE). (2024). *Video production skills for extension professionals*. MANAGE Press. Accessed at Open-Access URL: <https://www.manage.gov.in/publications/eBooks/Video%20Production.pdf>
2. Smithsonian Center for Folklife and Cultural Heritage. (2022). *Video production handbook: Visual storytelling*. Smithsonian Institution. Open-Access URL: https://folklife-media.si.edu/docs/folklife/education_exhibits/resources/English-Video-Handbook.pdf
3. Dr. Babasaheb Ambedkar Open University. (2023). *Handling video camera and basic video editing*. BAOU Press. Open-Access URL: https://baou.edu.in/assets/pdf/BCADES_207_slm.pdf
4. Indira Gandhi National Tribal University (IGNTU). (2023). *Post production: Video editing, audio mixing, and color correction*. IGNTU e-Content. Open-Access URL: <https://www.igntu.ac.in/eContent/BVoc-Media-06Sem-VinodVerma-%20Post%20Production.pdf>
5. Bowen, C. (2023). *Grammar of the shot* (5th ed.). Routledge.
6. Musburger, R. B., & Kindem, G. (2022). *Introduction to media production: The path to digital media production* (5th ed.). Focal Press.
7. Landau, D. (2023). *Lighting for cinematography: A practical guide to the art and craft of lighting for the moving image* (2nd ed.). Bloomsbury Academic.
8. Hullfish, S. (2023). *The art and technique of digital color correction* (3rd ed.). Focal Press.
9. Purcell, J. (2022). *Dialogue editing for motion pictures: A guide to the invisible art* (3rd ed.). Routledge.
10. Richards, G. (2024). *YouTube content strategy: Production, analytics, and platform growth*. Apress.

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1. Apple Education. (2024). *A curriculum for digital media creation: Sixteen lessons from storyboarding to producing a documentary*. Apple Inc. Accessed at <https://www.apple.com/education/docs/Apple-Moviemakingcurriculum.pdf>
2. The Film Foundation. (2024). *The story of movies: Making movies curriculum manual*. The Film Foundation. Accessed at <http://www.film-foundation.org/Making-Movies-Manual.pdf>
3. YouTube Creators. (2026). *Official YouTube Creator Academy & content production channel guides*. Google LLC. Accessed at <https://www.youtube.com/creators/>

4. Blackmagic Design. (2026). *DaVinci Resolve official training books and video editing guides*. Blackmagic Design Pty. Ltd. Accessed at <https://www.blackmagicdesign.com/products/davinciresolve/training>
5. Arri Academy. (2026). *Camera, lens, and lighting tech guides*. Arnold & Richter Cine Technik. Accessed at <https://www.arri.com/en/learn-help>
6. Vidyard. (2026). *How to make video content: Production, equipment, and lighting setups*. Vidyard Studio. Accessed at <https://www.vidyard.com/blog/how-to-make-a-documentary/>
7. University of Colorado Boulder. (n.d.). Ready to roll: The video production process [Online course]. Coursera. Accessed at <https://www.coursera.org/learn/video-production-process>
8. SWAYAM / NPTEL (IIT Kharagpur): *Digital Video Production and Editing* (Prof. Nimai Chandra Saha) Accessed at <https://onlinecourses.swayam2.ac.in/>
9. SWAYAM / NPTEL (IIT Madras): *Introduction to Film Studies & Visual Media* (Prof. Aysha Viswamohan) Accessed at <https://onlinecourses.swayam2.ac.in/>
10. IGNOU eGyanKosh: *Video Production Process & Post-Production Techniques (Course Material)* Accessed at <https://egyankosh.ac.in/>

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2 M.Sc. (NM) 2
Media Information Literacy and Fact Checking

Theory	80	Practical	-	Internal	20	Credits	06
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Course Objectives

1. To introduce students to the foundational concepts of information ecology, media ecosystems, and digital literacy.
2. To cultivate critical thinking skills required to analyze, evaluate, and synthesize complex media messages.
3. To equip students with advanced forensic skills and tools for verifying online text, images, geolocation, and video content.
4. To instill an ethical framework regarding digital citizenship, data privacy, and responsible content sharing.
5. To understand the systemic mechanics behind online propaganda, deepfakes, and algorithmic bias.

Course Outcomes

1. The student would have a comprehensive knowledge of the information disorder matrix and its impact on society.
2. The student would be able to critically decode media texts and identify underlying biases or agendas.
3. The student would master advanced digital verification tools and lateral reading strategies for real-time fact-checking.
4. The student would recognize and combat the psychological and technological drivers of viral misinformation.
5. The student would be able to design, write, and execute data-driven verification reports adhering to international professional standards.

Unit-1	Media Literacy & Information	L	T	P
1.1	Introduction to MIL: Definition, Evolution from Traditional to Digital Media Literacy, Information Ecology. (Lecture, Reading)	3	1	-
1.2	The New Media Landscape: Democratic Potential vs. Algorithmic Gatekeeping, Filter Bubbles, and Echo Chambers. (Lecture, Discussion)	3	1	-
1.3	Information Matrix: Defining Misinformation, Disinformation, and Mal-information with historical and contemporary case studies. (Lecture, Reading)	3	1	-

1.4	Cognitive Biases in Information Consumption: Confirmation Bias, Backfire Effect, Selective Exposure, and the Psychology of Belief. (Lecture, Participation)	3	-	-
1.5	Anatomy of Fake Content: Types of Online Misinformation - Clickbait, Imposter Content, Manipulated Content, Fabrication, and Satire/Parody. (Lecture)	3	-	-

Unit-2	Ecosystem of Fact-Checking	L	T	P
2.1	Institutional Fact-Checking: History and Evolution of Professional Fact-Checking, IFCN (International Fact-Checking Network) Principles and Code of Conduct. (Lecture, Reading)	3	1	-
2.2	Sourcing and Tracing Information: Primary vs. Secondary Sources, Evaluating Source Credibility, Investigating Digital Footprints, Handling Anonymous Sources. (Lecture, Assignment)	3	1	-
2.3	Lateral Reading Strategies: Fact-checking open tabs, investigation of 'About Us' sections, assessing hyperlink networks, and identifying domain authority. (Lecture, Practice Exercise)	3	1	-
2.4	Platform Policies on Misinformation: Reviewing content moderation guidelines, civic integrity policies, and warning labels of Meta, YouTube, and X (Twitter). (Lecture, Reading)	3	-	-
2.5	Fact-Checking Video & Platform Content: Practical execution of claims verification on mainstream streaming and social video networks. (Practice, In-Class Exercise, Assignment)	3	-	-

Unit-3	Digital Forensics & Verification Tools	L	T	P
3.1	Advanced Search Techniques: Google Dorking, Boolean Operators, Social Media Advanced Search UIs, Tracking Trends, and Scraping Public Data. (Lecture, In-Class Exercise)	3	1	-

3.2	Image Verification Forensics: Reverse Image Search Engines (Tin Eye, Yandex, Google Lens), Metadata Analysis, and EXIF data extraction. (Lecture, Quiz, Assignment)	3	1	-
3.3	Video Verification Forensics: Keyframe Analysis, using InVID/WeVerify Extensions, Analyzing Upload Timestamps, and Visual Anomalies. (Lecture, Quiz, Assignment)	3	1	-
3.4	Geolocation and Chronolocation: Using Google Earth, Street View, Satellite Imagery, and Weather Data to pinpoint exact event coordinates and time. (Lecture, Workshop)	3	-	-
3.5	Social Media Forensic Audit: Investigating automated bots, coordinated inauthentic behavior (CIB), tracking domain registration (WHOIS), and fact-checking Facebook/Meta content. (Lecture, Reading, Assignment)	3	-	-

Unit-4	Synthetic Media, Ethics, and Cyber Laws	L	T	P
4.1	Synthetic Media & AI: Understanding Deepfakes, Cheap-fakes, AI-Generated Text (LLMs), Generative AI Images, and Audio Manipulations. (Lecture, Reading, Assignment)	3	1	-
4.2	Open-Source Materials & Intellectual Property: Copyright guidelines, Fair Use doctrines, Plagiarism detection, and identifying News Sense in viral content. (Lecture, Reading, In-Class Exercise)	3	1	-
4.3	Cyber Laws & Legal Frameworks: Information Technology (IT) Act provisions against spreading rumors, online defamation, impersonation, and state-sponsored information warfare. (Lecture, Case Study)	3	1	-
4.4	Open-Source Intelligence (OSINT) Ethics: dropping documents, handling sensitive user data, trauma literacy when dealing with graphic viral content, and digital privacy security. (Lecture, Reading)	3	-	-

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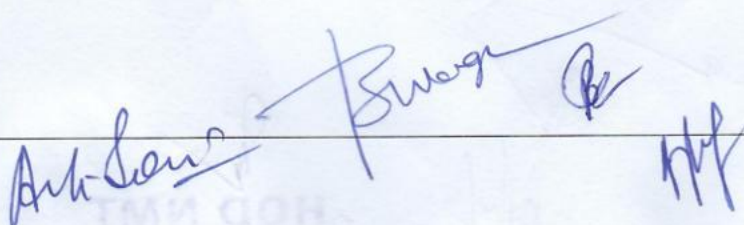
4.5	Archiving the Web: Preserving ephemeral digital evidence, creating time-stamped records using tools like Wayback Machine, Archive.is, and Perma.cc. (Lecture, Practice, In-Class Exercise)	3	-	-
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Unit-5	Writing, Visualizing, and Publishing the Fact-Check	L	T	P
5.1	Media Impact on Newsrooms: Misinformation in modern news operations; utilizing fact-checking workflows as a primary investigative resource. (Lecture, Reading, In-Class Exercise)	3	1	-
5.2	Crafting the Fact-Check Article: Structure, Headline Writing (avoiding the reinforcement of the lie), Transparency in Methodology, and Evidence Presentation. (Lecture, Reading, Assignment)	3	1	-
5.3	Data Visualization in Verification: Creating clear annotations, charts, timelines, and maps to expose manipulated context to the public. (Lecture, In-Class Exercise, Assignment)	3	1	-
5.4	The Correction Psychology: Communicating debunks effectively, managing public pushback, and issuing corrections without triggering the backfire effect. (Lecture, Discussion)	3	-	-
5.5	Building Pre-bunking and Media Literacy Campaigns: Designing short vertical videos, social media carousels, and community alert systems to build public immunity to fake news. (Lecture, Practice, Assignment)	3	-	-

Practical/ Projects/ Assignments

1. Find an example of a viral "manipulated image" or "deepfake" and write a comprehensive forensic report exposing it.
2. Conduct a full geolocation and chronolocation exercise on an assigned raw video clip to identify its exact coordinates and time of capture.
3. Build an automated monitoring dashboard using advanced search queries to track a specific misinformation trend or keyword over two weeks.
4. Write an original, publication-ready fact-check article complete with reverse-search links, archived evidence, and transparent sources.


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5. Design a 60-second vertical video or an infographic carousel meant for "pre-bunking" a common online scam or rumor.
6. Analyze two synthetic media samples (one AI-generated audio clip and one deepfake video/image). Write a technical report detailing visual/auditory artifacts, facial inconsistencies, lip-sync mismatches, and spectral anomalies.
7. Capture, timestamp, and archive 3 ephemeral social media posts containing misinformation before they are deleted. Create permanent, tamper-proof digital records using Wayback Machine, Archive.today, and Perma.cc.
8. Write a 600-word debunks report based on a real-world case study following IFCN Code of Conduct principles. Draft a non-reinforcing headline, detail step-by-step verification methodologies, and embed annotated visual evidence.
9. Investigate a trending hashtag on X (Twitter) or Meta. Audit 5 suspected bot accounts using automated metrics (account age, posting frequency, ratio of retweets to original content) to detect Coordinated Inauthentic Behavior (CIB).
10. Pinpoint the exact physical location and time of a viral event using satellite imagery on Google Earth Pro, Street View, shadow analysis, landmark matching, and historical weather data logs.

Suggested Readings

1. Silverman, C. (Ed.). (2022). Verification Handbook for Disinformation and Media Manipulation (3rd ed.). European Journalism Centre / Craig Newmark Graduate School of Journalism. (Gold-standard manual on investigative verification, deepfake detection, OSINT techniques, and digital forensics)
2. Wardle, C., & Derakhshan, H. (2022). Information Disorder: Toward an Interdisciplinary Framework for Research and Policy Making (Reprint ed.). Council of Europe / Harvard Kennedy School. (Foundational text establishing the Information Disorder Matrix: Misinformation, Disinformation, and Mal-information)
3. Kovach, B., & Rosenstiel, T. (2022). The Elements of Journalism: What Newspeople Should Know and the Public Should Expect (4th ed.). Crown / Penguin Random House. (Essential benchmark for sourcing, verification, independent inquiry, and journalistic ethics)
4. Indira Gandhi National Open University (IGNOU). (2023). Digital Media Literacy (BLI-012). eGyanKosh e-Content.
Direct Open-Access PDF:
<https://www.egyankosh.ac.in/bitstream/123456789/115761/1/Block-1.pdf>
5. Hobbs, R. (2021). Media Literacy in Action: Questioning the Media. Rowman & Littlefield Publishers. (Covers cognitive biases, filter bubbles, digital gatekeeping, and critical media consumption)
6. Howard, P. N. (2020). Lie Machines: How to Stop AI, Bots, and Algorithms from Destroying Our Democracy. Yale University Press / Oxford University Press India. (Explores computational propaganda, coordinated inauthentic behavior, and social media bot networks)

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7. Indira Gandhi National Open University (IGNOU). (2023). Information Technology Act & Regulation of Cyberspace (MIR-012). eGyanKosh e-Content.
Direct Open-Access PDF: <https://egyankosh.ac.in/bitstream/123456789/49407/1/Block-3.pdf>
8. Posetti, J., & Bontcheva, K. (2020). Journalism, 'Fake News' and Disinformation: Handbook for Journalism Education and Training. UNESCO Publishing. (Global reference for newsroom fact-checking workflows, debunks, and pre-bunking strategies)
9. Karnika, S. (2023). Cyber Laws & Information Technology in India (6th ed.). Universal Law Publishing / LexisNexis India. (Standard Indian text on IT Act provisions, legal liability for online rumors, defamation, impersonation, and digital evidence)
10. Indira Gandhi National Open University (IGNOU). (2023). News Reporting and Verification (MJM-021). eGyanKosh e-Content.
Direct Open-Access PDF: <https://egyankosh.ac.in/bitstream/123456789/86120/1/Unit-2.pdf>

E-Resources

1. International Fact-Checking Network (IFCN) - Poynter Institute. (2026). Code of Principles and Global Fact-Checking Signatory Database. Accessed at <https://www.poynter.org/ifcn/>
2. InVID & WeVerify Verification Plugin Project. (2026). Open-Source Image & Video Forensics Toolkit. Accessed at <https://www.invid-project.eu/>
3. Information Futures Lab (Brown University School of Public Health). (2026). Information Ecosystem Monitoring & First Draft Verification Archives. Accessed at <https://www.brown.edu/academics/public-health/ifl/>
4. Internet Archive & Wayback Machine. (2026). Digital Preservation and Web Archiving Tools. Accessed at <https://archive.org/web/>
5. Bellingcat Open Source Intelligence (OSINT) Toolkit. (2026). Geolocation, Chronolocation, and Digital Forensics Guides. Accessed at <https://www.bellingcat.com/resources/>
6. Ministry of Electronics and Information Technology (MeitY) & CERT-In. (2026). Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules. Government of India. Accessed at <https://www.meity.gov.in/>
7. SWAYAM / NPTEL (IIT Madras): Privacy and Security in Online Social Media Accessed at <https://onlinecourses.swayam2.ac.in/>
8. Poynter Institute (International Fact-Checking Network - IFCN): Hands-On Fact-Checking and Verification Certificate Accessed at <https://www.poynter.org/>
9. First Draft News Training Hub: Verification, Misinformation, and Disinformation Masterclass Accessed at <https://firstdraftnews.org/>
10. Google News Initiative Training Center: Verification, Fact-Checking Tools & Geolocation Techniques Accessed at <https://newsinitiative.withgoogle.com/training/>

2 M.Sc. (NM) 3
Introduction to Socio Economic Polity

Theory	80	Practical	-	Internal	20	Credits	06
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Course Objectives

1. To develop a thorough understanding of the Indian Constitution, electoral transparency, campaign finance, Fundamental Rights, Emergency Powers, and modern democratic processes.
2. To orient students in political systems, parliamentary proceedings, judicial remedies (PIL, Lok Adalat), RTI, Right to Privacy, and comparative media freedom/censorship models (USA, UK, India, China).
3. To acquaint students with Indian history, cultural diversity, nationalism, socio-economic issues, and prominent Indian political ideologies (Ambedkar, Gandhi, Tagore, Deendayal Upadhyay, Lohia, M.N. Roy).
4. To analyze the Indian and global economy through indicators like GDP, HDI, and SDGs, while examining economic reforms, the digital economy, trade bodies (WTO, BRICS-NDB), and cross-border data policies.
5. To develop critical thinking about foreign policy, multi-alignment, global tech diplomacy, soft power projection, and key international organizations (UN, G20, ASEAN, WEF, UNFCCC).

Course Outcomes

1. Students will be able to analyze the Indian Constitution, electoral processes, electoral transparency, and constitutional rights to function as informed citizens and analytical media practitioners.
2. The student will be able to evaluate parliamentary procedures, digital governance platforms, judicial mechanisms (PIL), and compare political-media censorship models across global political structures.
3. The student will be able to articulate concepts of Indian nationalism, cultural diversity, gender rights, human rights, and core Indian political thought in media reporting and discourse.
4. Students will be able to interpret economic indicators (GDP, HDI, SDGs), industrial/agricultural policies, global trade frameworks (WTO, BRICS-NDB), and the dynamics of the digital economy.
5. Students will be able to report on and evaluate international relations, foreign policy shifts from NAM to multi-alignment, global tech diplomacy, and the roles of international bodies like the UN, G20, and UNESCO.

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Unit-1	Indian Constitution: Basic Characteristics	L	T	P
1.1	Objectives and Sources of Indian Constitution (Lecture, PPT)	3	1	-
1.2	Fundamental Rights, Fundamental Duties, and Directive Principles of State (Lecture, PPT)	3	1	-
1.3	Federal and Unitary Nature, Center-State Relations (Lecture, PPT)	3	1	-
1.4	Election Commission Process, Electoral Reforms, and Electoral Transparency, Free Speech & Campaign Finance (Lecture, Expert Lecture, GD)	3	-	-
1.5	Emergency Powers, Amendments to the Constitution (Lecture, PPT)	3	-	-

Unit-2	Political System and Parliamentary Proceedings	L	T	P
2.1	Comparative Media-Political Systems: How political structures (USA, UK, India, China) shape media freedom, state broadcast networks, and censorship models. (Lecture, PPT)	3	1	-
2.2	Parliamentary and Legislative Procedure in India (Lecture, PPT, Visit)	3	1	-
2.3	Social Security Schemes, Right to Information Act (RTI), Digital Governance, and Citizen Participation and its Platforms (Lecture, Expert Lecture)	3	1	-
2.4	Right to Privacy, Right to Education (RTE), National Food Security Act, and Digital Rights (Lecture, Expert Lecture)	3	-	-
2.5	Indian Judicial System, Lok Adalat, PIL (Lecture, Expert Lecture)	3	-	-

Unit-3	History, Culture, and Society	L	T	P
3.1	Cultural Diversity of India, Concept of Nationalism (Lecture, Presentations)	3	1	-
3.2	Nationalism of Tagore, Nationalism of Gandhi and Cultural Nationalism (Lecture, Presentations)	3	1	-
3.3	Political Ideologies and Indian Political Thought: Liberalism, Socialism, Communism, Integral Humanism, Constitutionalism; M.N. Roy, Deendayal Upadhyay, Dr. B.R. Ambedkar, Ram Manohar Lohia	3	1	-

	(Lecture, Expert Lecture)			
3.4	Contemporary Social Concerns: Poverty, Gender Studies, Social Inclusion, Census and Demographic Changes (Lecture, Expert Lecture)	3	-	-
3.5	Women's Rights and Empowerment, Child Rights & Human Rights (Lecture, Expert Lecture)	3	-	-

UNIT-4	Introduction to the Indian Economy and the World	L	T	P
4.1	Nature of Indian Economy, Economic Reforms, Liberalization, Privatization, Globalization and Digital Economy (Lecture, case study)	3	1	-
4.2	Inflation, Fiscal Deficit, GDP, GNP, Human Development Index (HDI), Sustainable Development Goals (SDGs) (Lecture, PPT)	3	1	-
4.3	Indian Agriculture: Issues and Problems, Indian Industry: Challenges (Lecture, case study)	3	1	-
4.4	Role of WTO, World Bank, and BRICS-NDB alongside cross-border data flows, digital trade tariffs (Lecture, PPT)	3	-	-
4.5	Capitalism, Socialism, and Mixed Economic Systems (Lecture, Expert Lecture)	3	-	-

Unit-5	Current Affairs-Issues & International Scenario	L	T	P
5.1	India's Foreign Policy (Lecture, Expert Lecture)	3	1	-
5.2	NAM to Multi-Alignment, Global tech diplomacy, Diaspora communication, and soft power projection (Lecture, Expert Lecture)	3	1	-
5.3	United Nations System, BRICS, G20, OPEC, African Union and ASEAN (Lecture, PPT, Expert Lecture)	3	1	-
5.4	Introduction to International Relations and Politics: Current Major Issues (Lecture, Expert Lecture)	3	-	-
5.5	UNESCO, UNDP, UNEP, UNFCCC, World Economic Forum, Amnesty International, Transparency International and Sustainable Development Frameworks (Lecture, Expert Lecture)	3	-	-

Practical/Projects/Assignments

1. Summarize the key differences between Fundamental Rights and Directive Principles.
2. Draft a standard 1-page Right to Information (RTI) query for a local public service and outline a 5-point mock Lok Sabha Bill.
3. Create a 1-page comparative chart mapping the core ideas of Gandhi, Ambedkar, and Deendayal Upadhyay on social inclusion and democracy.
4. Track and present India's current GDP growth rate, inflation rate, fiscal deficit, and HDI ranking in a clean 1-page visual table using government data.
5. Write a 500-word diplomatic policy brief analyzing India's strategic stance at recent G20/BRICS summits through the lens of Strategic Autonomy.
6. A 1-page Fact-Check & Verification Report breaking down one specific piece of misleading political content using verification tools (e.g., reverse image search, metadata analysis).
7. A 750-word multimedia feature story or audio-visual script highlighting the human and economic realities of India's gig economy.
8. Extract and analyze open dataset parameters from the Census of India / NFHS (National Family Health Survey) regarding gender ratios, literacy rates, and social group demographics. Visualize key trends using data charts and write an inclusion policy note.
9. Roleplay as a spokesperson for the Ministry of External Affairs (MEA). Draft a 3-minute official opening statement and a Q&A defense document addressing India's multi-alignment stance during an active global geopolitical crisis.
10. Conduct a fact-checking verification of a viral international news claim or global index report.

Suggested Readings

1. Laxmikanth, M. (2023). Indian Polity (7th ed.). McGraw Hill Education India.
2. Indira Gandhi National Open University (IGNOU). (2023). Indian Government and Politics (BPSE-142). eGyanKosh e-Content.
Direct Open-Access PDF: <https://egyankosh.ac.in/bitstream/123456789/54003/1/Block-2.pdf>
3. Singh, Ramesh. (2024). Indian Economy (15th ed.). McGraw Hill Education India.
4. Indira Gandhi National Open University (IGNOU). (2024). Indian Economy-I (BECC-105). eGyanKosh e-Content.
Direct Open-Access PDF: <https://www.egyankosh.ac.in/bitstream/123456789/116063/1/Unit-9.pdf>
5. Chakrabarty, B., & Pandey, R. K. (2022). Indian Government and Politics (2nd ed.). SAGE Publications India.
6. Guha, R. (2023). India After Gandhi: The History of the World's Largest Democracy (3rd ed.). Pan Macmillan India.
7. Indira Gandhi National Open University (IGNOU). (2023). India's Foreign Policy in a Globalising World. eGyanKosh e-Content.

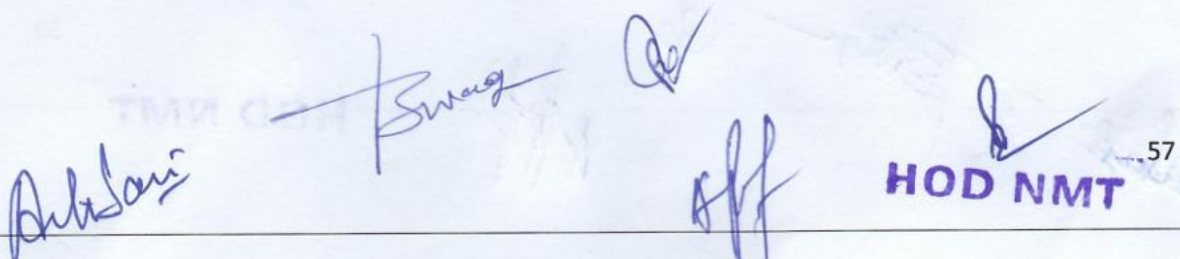
Direct Open-Access PDF: <https://egyankosh.ac.in/bitstream/123456789/24414/1/Unit-6.pdf>

8. Pant, Pushpesh. (2023). International Relations in the 21st Century. McGraw Hill Education India.
9. Singhanian, Nitin. (2024). Indian Art and Culture (5th ed.). McGraw Hill Education India.
10. Puri, V. K., & Misra, S. K. (2023). Indian Economy (41st ed.). Himalaya Publishing House.

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1. Legislative Department, Ministry of Law and Justice. (2026). The Constitution of India (Full Text & Amendments). Government of India. Accessed at <https://cdnbbsr.s3waas.gov.in/s380537a945c7aaa788ccfcd1b99b5d8f/uploads/2024/07/20240716890312078.pdf>
2. Election Commission of India (ECI). (2026). Electoral Manuals & Statistics. ECI Portal. Accessed at <https://eci.gov.in/manuals-instructions/>
3. NITI Aayog, Government of India. (2026). National SDG India Index Dashboard. NITI Aayog. Accessed at <https://www.niti.gov.in/reports-and-publications>
4. Ministry of External Affairs (MEA). (2026). India's Foreign Relations & Summit Briefs. MEA Portal. Accessed at <https://www.mea.gov.in/>
5. United Nations Development Programme (UNDP). (2026). Human Development Reports. UNDP. Accessed at <https://hdr.undp.org/>
6. Press Information Bureau (PIB). (2026). Fact Sheets on Schemes & Digital Governance. Government of India. Accessed at <https://pib.gov.in/>
7. NITI Aayog. (2022). *Booster shot for India's booming gig and platform economy: Perspectives and recommendations on the future of work*. Government of India. <https://www.niti.gov.in/reports-and-stats/>
8. Reuters Institute for the Study of Journalism. (2025). *Digital news report: Global and country-level news consumption trends*. University of Oxford <https://reutersinstitute.politics.ox.ac.uk/digital-news-report>
9. Internet Freedom Foundation. (2024). *Digital rights, free speech, and privacy in India: Policy repository*. IFF India. <https://internetfreedom.in>

10. Vidhi Centre for Legal Policy. (2025). *Technology, digital governance, and constitutional law research reports*. Vidhi Legal Policy India. <https://vidhilegalpolicy.in>

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2 M.Sc. (NM) 4 (A)

Trends in New Media

Theory	50	Practical	30	Internal	20	Credits	06
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Course Objectives

1. To understand the principles of media convergence, digital culture, cyberspace, and the role of digital media in development communication and self-demonstration.
2. To explore the socio-political impact of new media, including digital democracy, mobile media-in-motion, social media activism, consumer behavior, and the digital divide.
3. To analyze contemporary new media applications, including cloud services, visual search engines, chatbots, webcasting, e-publishing, and crowd-economy models (crowdsourcing, crowdfunding).
4. To examine emerging media technologies, such as 5G, IPTV, RoIP, AR/VR, Metaverse, and the operational goals and applications of Artificial Intelligence in media content creation.
5. To introduce the fundamentals of the Internet of Things (IoT), evaluating its hardware/software frameworks, security and legal issues, and media applications in personalization, smart authentication, and advertising.

Course Outcomes

1. Students will be able to evaluate concepts of media convergence, digital culture, and cyberspace to leverage digital platforms effectively for development communication.
2. The student will be able to analyze the impact of new media on democratic processes, youth behavior, social change, digital marketing strategies, and online community dynamics.
3. The student will be able to utilize modern digital tools, cloud technologies, visual search platforms, and crowdfunding models to streamline digital content workflows.
4. Students will be able to evaluate advanced technological frameworks—including 5G, IPTV, AR/VR, and AI tools—for automated content creation, captioning, and immersive storytelling.
5. Students will be able to assess IoT architecture and address its legal, privacy, and security challenges while applying IoT solutions for personalized media delivery, smart authentication, and target advertising.

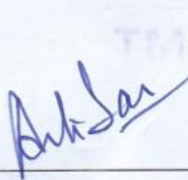
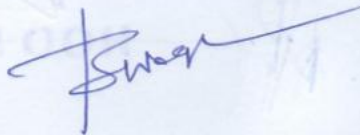
Unit-1	Understanding New Media	L	T	P
1.1	Introduction of Media Convergence (Lecture, Discussion, demonstration)	3	1	-
1.2	Integration of New Media (Lecture, Discussion)	3	1	-
1.3	New Media, Cyber Space and Cyber Culture (Lecture, Discussion)	3	1	-
1.4	Development Communication through Digital Media (Lecture, Discussion, demonstration)	3	-	-

1.5	New Media for Self-Demonstration (Lecture, Discussion)	3	-	-
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Unit-2	New Media for Social Change	L	T	P
2.1	Digital Democracy and People's Participation (Lecture, Discussion)	2	1	1
2.2	Media-in-Motion (mobile devices), Location-Based Services (Lecture, Discussion)	2	1	1
2.3	Digital Society, Digital Divide, Effects of Social Media on Youth: Pros and Cons (Lecture, Discussion)	2	1	1
2.4	Social Media Influence on Thinking, Buying and Behavioral Pattern, Digital Marketing (Lecture, Discussion)	2	-	1
2.5	Online Communities and Channels, Social Media Activism (Lecture, Discussion)	2	-	1

Unit-3	Trends in New Media Applications	L	T	P
3.1	Social Networking Apps, Messenger Apps, Blogs, Micro Blogs, Wikis, Chatbots (Lecture, Discussion, quiz)	2	1	1
3.2	Google Lens, Google Translate, Google Earth, Google Street View (Lecture, Discussion, quiz)	2	1	1
3.3	Webcasting, Video Sharing Platforms, Cloud Technologies and Cloud Services for Media. (Lecture, Discussion)	2	1	1
3.4	E-book, E- Pub, Online Education Platforms (Lecture, Discussion)	2	-	1
3.5	Crowdsourcing, Crowdfunding, Crowd Seeding (Lecture, Discussion)	2	-	1

Unit-4	Trends in New Media Technologies	L	T	P
4.1	Radio over Internet Protocol (RoIP), Internet Protocol Television (IPTV), 5G (Lecture, Discussion)	2	1	1
4.2	MOOCS, CMS, LMS (Lecture, Discussion)	2	1	1
4.3	Augmented Reality/ Virtual Reality, Metaverse, Online Gaming (Discussion)	2	1	1



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4.4	Artificial Intelligence (AI): Definition, Goals, and Types (Lecture)	2	-	1
4.5	AI Application in Media Industry: Advanced Search, Specific Segment Retrieval, Quicker and Easier Content Creation, Automatic Captioning (Lecture)	2	-	1

Unit-5	IOT and Its Application in New Media	L	T	P
5.1	Introduction to IoT, Key Features of IoT, Advantages and Disadvantages (Lecture, Discussion)	2	1	1
5.2	IoT Hardware, Software (Lecture, Discussion, assignment)	2	1	1
5.3	Key Issues in IoT: Security, Privacy, Interoperability and Standards, Legal, Regulatory, and Rights (Lecture, assignment)	2	1	1
5.4	IoT Applications in Media - Personalization, Smart Authentication (Lecture)	2	-	1
5.5	IoT Applications in Media - Effective Advertising, New User Acquisition Channel, Data Security, and Validation (Lecture)	2	-	1

Practical/Projects/Assignments

1. Prepare a detailed report on Growing Social Media Activism in the world with five suitable examples.
2. Explain the role of new Media in Education Delivery.
3. Role of Video Content is increasing with time. Explain the growth of Video Streaming and Sharing Platforms in detail with examples.
4. Explain the role of Artificial Intelligence (AI), Internet of Things (IoT), and Virtual Reality/ Augmented Reality (VR/AR) in the growth of new Media.
5. Social Media is influencing the thinking, buying, and behavioral patterns of its users. Analyse and make a presentation on the above.
6. Write an essay on privacy issues on Social Media.
7. The menace of Fake News is a threat to the credibility of New Media. Elaborate with suitable examples.
8. Identify the role and future scope of AI in Media and Entertainment (reporting and editing, Marketing and Advertising, Gaming, Sports and Movies, Search Optimisation and Classification, Personalisation of user experience)
9. Execute a media production workflow leveraging generative AI tools. Utilize LLMs for script ideation, AI image generators for concept art, automated speech-to-text engines for captioning, and evaluate the final output for editorial quality and ethics.

10. Draft an interactive visual story script for an AR or VR environment. Design 3D spatial user interaction paths using WebXR tools or Unity/Unreal Engine visual storyboards, specifying user interaction triggers and ambient audio.

Suggested Readings

1. Greengard, S. (2021). *The Internet of Things* (Revised ed.). MIT Press.
2. Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York University Press.
3. Lister, M., Dovey, J., Giddings, S., Grant, I., & Kelly, K. (2009). *New media: A critical introduction* (2nd ed.). Routledge.
4. Manovich, L. (2001). *The language of new media*. MIT Press.
5. Miller, V. (2020). *Understanding digital culture* (2nd ed.). SAGE Publications.
6. Papacharissi, Z. (Ed.). (2010). *A networked self: Identity, community, and culture on social network sites*. Routledge.
7. Russell, S., & Norvig, P. (2020). *Artificial intelligence: A modern approach* (4th ed.). Pearson.
8. Siaper, E. (2018). *Understanding new media* (2nd ed.). SAGE Publications.
9. van Dijk, J. (2020). *The network society* (4th ed.). SAGE Publications.
10. Fuchs, C. (2021). *Social media: A critical introduction* (3rd ed.). SAGE Publications.

E-Resources

1. SWAYAM / NPTEL (IIT Kharagpur): *Introduction to Industry 4.0 and Industrial Internet of Things* Accessed at <https://onlinecourses.swayam2.ac.in/>
2. SWAYAM / NPTEL (IIT Kanpur): *New Media and Culture*. Accessed at <https://onlinecourses.swayam2.ac.in/>
3. Coursera (University of Illinois at Urbana-Champaign): *Emerging Technologies in Media and Communication*. Accessed at <https://www.coursera.org/>
4. Coursera (Meta): *Introduction to Virtual Reality and the Metaverse*. Accessed at <https://www.coursera.org/>
5. edX (MIT): *Internet of Things: Business Implications and Technology*. Accessed at <https://www.edx.org/>
6. Google AI Education Hub: *Artificial Intelligence, Machine Learning & Media Applications*. Accessed at <https://ai.google/education/>
7. AWS Academy / Cloud Training: *Cloud Technologies, Media Webcasting & Storage Solutions*. Accessed at <https://aws.amazon.com/training/>
8. UNESCO Open Access Repository: *Digital Divide, Information Society, and Digital Democracy Frameworks* Accessed at <https://unesdoc.unesco.org/>
9. Stanford Online: *Artificial Intelligence in Society and Media Ecosystems*. Accessed at <https://online.stanford.edu/>
10. Mozilla Foundation / Electronic Frontier Foundation (EFF): *Digital Rights, IoT Privacy, and Data Security Guides*. Accessed at <https://www.eff.org/>

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2 M.Sc. (NM) 4 (B)
Social Media Data Analytics

Theory	50	Practical	30	Internal	20	Credits	06
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Course Objectives

1. To introduce students to social media types, platforms, communication etiquette, privacy policies, safety guidelines, and mechanisms of online misinformation and disinformation.
2. To educate students about platform-specific policies, analytics, and operational guidelines across YouTube, Wikipedia, Pinterest, and Facebook.
3. To provide knowledge on social media strategy building using Content Pillars, Persona Development, the SMART Framework, and professional networking on LinkedIn.
4. To enable students to execute workplace brand selection, influencer outreach, copyright/plagiarism compliance, and strategic content promotion using principles and models of virality.
5. To instruct students on using social media professionally for journalism, newsroom operations, crisis communication, and advanced fact-checking via reverse image searches and verification tools.

Course Outcomes

1. Students will have a sound knowledge of social media platform classifications, privacy policies, etiquette, and the structural differences between misinformation and disinformation.
2. The student will be able to manage platform-specific features, including YouTube Analytics, Wikipedia community guidelines, Pinterest Rich Pins, and Facebook Insights/Studio tools.
3. The student will be able to construct strategic social media plans incorporating content pillars, target personas, SMART goals, professional blogs, and LinkedIn network building.
4. Students will be able to apply models of virality, analyze viral content formats (memes, trolls, audio-visuals), manage monetization processes, and ensure copyright/open-source compliance.
5. Students will be able to utilize social media for professional journalism and newsroom workflows, execute crisis communication strategies, and conduct rigorous fact-checking using reverse image search and digital verification tools.


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Unit-1	Introduction to Social Media	L	T	P
1.1	Definition of Social Media, Types of Social Media, Role of Social Media in Society (Lecture, Reading)	3	1	-
1.2	Pros and Cons of Social Media Platforms, Social Media for Business, and Individual (Lecture)	2	-	2
1.3	Social Media Communication Etiquettes, Privacy Policy, and Safety Guidelines of Social Media (Lecture, Reading, and Participation)	2	-	2
1.4	Types of Social Media Platforms: Document Sharing, Forum, Quora, Networking, Video, Pictures, and Bookmarking. Podcast, Gaming, Trends in Social Media (Lecture, Participation, Quiz)	2	-	-
1.5	Fake Content, Types of Online Misinformation- Text, Pictures, Videos. Reasons for sharing false information, Source Verification, Misinformation & Disinformation in Social Media (Lecture, Participation, Quiz)	3	-	1

Unit-2	Social Media Policy & Guidelines	L	T	P
2.1	YouTube: YouTube Policies and Guidelines, Using YouTube, Quality of Content, YouTube Video Lists, YouTube Analytics, YouTube Advertiser (Lecture, Reading, Assignment)	2	-	2
2.2	Wikipedia: Definition, Feature, Possible Uses, Advantages, Wiki Community Guideline, Wiki Examples, Wiki Software (Lecture, Reading, Assignment)	2	-	2
2.3	Pinterest: How to Join, Terminology, How to Pin, Repin, and Upload Pinterest Adds, Tools- In Alerts, Rich Pin (Lecture, Reading, Assignment)	2	-	2
2.4	Facebook Privacy Policy and Guidelines (Lecture, Reading)	2	-	-
2.5	Fact-check YouTube Content	2	-	2

	Practice, In-Class Exercise, Assignment			
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Unit-3	Social Media Strategy and Management	L	T	P
3.1	Blogs: Creating, Growing, and Maintaining a Blog, Success Tactics of Blog, Elaborate Various Platforms allow Blogging, Create a Blog of Class as a Diary or a Professional Category (Lecture, Reading, Assignment)	2	-	2
3.2	Facebook: How people use FB- Group, Event, Business Page, Messenger Etiquette Guideline. Tactics to Use Professionally, Security Guidelines of Facebook (Lecture, Reading, Quiz, Assignment)	2	-	2
3.3	Facebook for Academic Purpose and Business, Various FB Tools: Facebook Brand, Facebook Ads, Facebook Page Insight, Facebook Studio (Lecture, Reading, Quiz Assignment)	2	-	2
3.4	Social Media Strategy Building - Content Pillars, Persona Development, SMART Framework (Lecture. Reading. Assignment)	2	-	2
3.5	Professional Community on Social Media Through LinkedIn, Interface, Effective use of LinkedIn, Fact check Face Book Content (Lecture Reading. Assignment)	2	-	-

Unit-4	Social Media at the Workplace	L	T	P
4.1	Selection of Network for your Brand, Create and Promote Profile of your Brand (Lecture, Reading, Assignment)	3	1	-
4.2	Content Quality for Various Platforms, Topic Consistency and Regularity, Connect With Influencers (Lecture, Reading, Assignment, In-Class Exercise)	3	1	-
4.3	Open Source Materials, Copyright and Plagiarism, Identifying News Sense in Social Media Contents (Lecture, Reading, Assignment. In Class Exercise)	3	1	-
4.4	Various Models of Virality and their Principles, Monetization Process of Viral Content, Content Promotion & Marketing Through Virality	2	1	-

	(Lecture, Reading, Assignment, In-Class Exercise)			
4.5	Viral Content Platform and Medium: Video, Image, Troll, Meme, Audio & other Media, Viral Messaging Capabilities, Virality Functions (Lecture, Reading, Assignment, In-Class Exercise, Special Lecture)	2	1	-

Unit-5	Using Social Media Professionally	L	T	P
5.1	Social Media Impact on News Organizations, Social Media as a source & Resource (Lecture Reading In Class Exercise)	3	-	2
5.2	Use of YouTube in Social Media & Journalism, LinkedIn: How to Develop a Profile & Professional Network as a Journalist (Lecture Reading, Assignment in Class Exercise)	3	1	2
5.3	Crisis Communicators through Social Media (Lecture Reading, In-Class Exercise, Assignment)	3	-	-
5.4	Social Media News Rooms (Lecture Reading, In-Class Exercise, Assignment)	2	-	-
5.5	Fact Checking using Reverse image search, Search Engines, Fact check tools, Websites (Lecture Reading, In-Class Exercise, Assignment)	2	-	-

Practical/Projects/Assignments

1. Conduct a personal and brand security audit across three major social media platforms. Draft a comprehensive policy document covering privacy settings, two-factor authentication, communication etiquette, and digital safety guidelines.
2. Analyze a selected brand's YouTube channel against official community guidelines. Evaluate audience retention curves, CTR, and traffic sources using YouTube Analytics, then present a policy compliance and optimization report.
3. Develop a complete social media strategy deck for a niche brand. Define 3 core content pillars, construct 2 detailed target audience personas, and set SMART goals for organic engagement across LinkedIn, Facebook, and Pinterest.
4. Set up a domain/blog on WordPress or Medium for an academic/niche category. Draft, format, and publish two SEO-optimized articles complete with custom metadata, hyperlinked citations, open-source images, and platform distribution tags.
5. Create a professional Facebook Business Page and an academic study group. Set up Meta Business Suite, configure automated messaging workflows, schedule 5 varied posts (polls, live links, videos), and analyze initial Page Insights.

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6. Build an executive-ready LinkedIn profile tailored for media professionals. Write a keyword-optimized bio, publish a long-form industry opinion piece, engage with 5 industry influencers, and construct a company page profile.
7. Deconstruct 3 viral campaigns (including memes, short-form video reels, and trolls). Write a critical analysis evaluating the emotional triggers, distribution channels, monetization paths, and algorithmic principles behind their virality.
8. Simulate an online brand crisis scenario. Build a mock "Social Media Crisis Protocol" and draft a press release, 3 real-time platform statements (Twitter/X, Facebook, LinkedIn), and a monitoring plan to mitigate reputational damage.
9. Perform a practical verification on 3 suspicious online media items (manipulated images, re-contextualized videos, and misleading quotes). Utilize Google Lens, TinEye, InVID WeVerify, and Yandex to trace original sources and document the verification trail.
10. Conduct a full investigation into a viral misinformation case study. Utilize geolocation verification, metadata analysis (EXIF readers), archived web tools (Wayback Machine), and official databases to publish a 1,000-word fact-check report adhering to IFCN standards.

Suggested Readings

1. Mathur, B., et al. (2025). Social Media 2.0: Power of AI. Academic Press India.
2. Dr. Babasaheb Ambedkar Open University. (2023). Social Media and Blog Writing. BAOU Press.
Direct Open-Access PDF: <https://baou.edu.in/assets/pdf/BSCITRAE-305%20Social%20Media%20and%20Blog%20Writing.pdf>
3. Indira Gandhi National Open University (IGNOU). (2023). Internet, Social Media, and Online News Sharing. eGyanKosh e-Content.
Direct Open-Access PDF: <https://egyankosh.ac.in/bitstream/123456789/86163/1/Unit-6.pdf>
4. Fuchs, C. (2024). Social Media: A Critical Introduction (4th ed.). SAGE Publications India.
5. UNESCO. (2025). Verification of Information: Media & Information Literacy Guide. UNESCO Digital Library.
Direct Open-Access PDF: https://articles.unesco.org/sites/default/files/medias/fichiers/2025/04/Guide%20on%20MIL_Pherton%20Casimir.pdf
6. Quesenberry, K. A. (2024). Social Media Strategy: Marketing, Advertising, and Content in the Digital Age (4th ed.). Rowman & Littlefield / Bloomsbury India.
7. Dwivedi, Y. K., et al. (2023). Social Media Marketing: Emerging Concepts and Applications. Springer Nature India.
8. Poynter Institute / IFCN. (2026). State of the Fact-Checkers & Digital Media Literacy Manual. International Fact-Checking Network.
Direct Open-Access PDF: <https://www.poynter.org/wp-content/uploads/2026/03/2026-State-of-Fact-Checkers-4.pdf>

9. Tuten, T. L. (2023). *Social Media Marketing* (4th ed.). SAGE Publications India.
10. Howard, P. N. (2022). *Lie Machines: How to Stop Big Tech from Infiltrating Our Digital Lives*. Oxford University Press India.

E-Resources

1. YouTube Official Creator Academy & Safety Center. (2026). *YouTube Policies, Monetization, and Content Guidelines*. Google LLC. Accessed at <https://www.youtube.com/creators/>
2. Meta for Business & Creator Hub. (2026). *Facebook Pages, Insights, Brand Safety, and Ad Studio Guides*. Meta Platforms. Accessed at <https://www.facebook.com/business/learn>
3. LinkedIn Professional Branding Hub. (2026). *Developing a Professional Identity, Network, and Personal Brand*. LinkedIn Corporation. Accessed at <https://www.linkedin.com/learning/>
4. Google Fact Check Tools & Explorer. (2026). *Search Engines, Fact-Check Markup, and Claim Verification*. Google Tools. Accessed at <https://toolbox.google.com/factcheck/explorer>
5. UNESCO Media and Information Literacy (MIL) Platform. (2026). *Combating Disinformation, Fake News, and Digital Safety Guidelines*. UNESCO. Accessed at <https://www.unesco.org/en/media-information-literacy>
6. Poynter Institute Fact-Checking 101. (2026). *Verification Frameworks, Reverse Image Search, and Source Analysis*. Poynter / IFCN. Accessed at <https://www.poynter.org/ifcn/>
7. SWAYAM / NPTEL (IIT Kharagpur): *Social Media and Society* <https://onlinecourses.swayam2.ac.in/>
8. SWAYAM / NPTEL (IIT Madras): *Privacy and Security in Online Social Media* (Prof. Ponnurangam Kumaraguru) Accessed at <https://onlinecourses.swayam2.ac.in/>
9. Coursera (Northwestern University): *Social Media Marketing Specialization* Accessed at <https://www.coursera.org/specializations/social-media-marketing>
10. edX (Knight Center for Journalism in the Americas): *Digital Journalism and Verification Strategies* Accessed at <https://www.edx.org/>

2 M.Sc. (NM) OE -2
AI for Gaming and Animation

Theory	-	Practical	40	Internal	10	Credits	03
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Course Objectives

1. To introduce students to the fundamentals of AI, Machine Learning, and Deep Learning in creative media, analyzing the AI pipeline and human-AI collaboration in gaming and animation.
2. To explore AI-driven techniques in gaming, including procedural content generation, intelligent NPC behaviors/emotions, adaptive difficulty adjustment, and branching narrative design.
3. To learn automated animation techniques, including no-code motion capture, automated inbetweening, AI lip-syncing, voice synthesis, and visual style transfer tools like Runway ML and D-ID.
4. To critically examine the ethical, legal, and social implications of AI media creation, including deepfakes, IP ownership, algorithmic bias, employment shifts, and Indian/Global regulatory frameworks.
5. To evaluate future AI trends, generative pre-production tools, AR/VR integration, digital humans, and industry tools such as Unreal Engine MetaHuman, NVIDIA Omniverse, and Adobe Firefly.

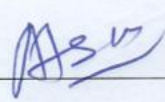
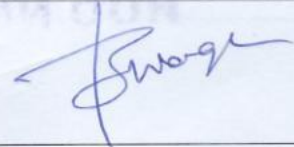
Course Outcomes

1. Students will be able to analyze the creative AI pipeline, human-AI collaboration dynamics, and foundational ML/DL principles across gaming and animation industries.
2. The student will apply and implement AI techniques to design intelligent NPCs, procedural game environments, adaptive difficulty systems, and branching narrative structures.
3. The student will be able to automate animation workflows using AI tools for no-code motion capture, lip-syncing, voice synthesis, and visual style transfers (Runway ML, D-ID).
4. Students will be able to evaluate ethical, legal, and social issues surrounding AI media, including deepfakes, copyright ownership, bias mitigation, and Indian/Global legal guidelines.
5. Students will be able to build prototypes and portfolios incorporating immersive technologies, generative pre-production assets, digital humans, and industry platforms like Unreal Engine MetaHuman, NVIDIA Omniverse, and Adobe Firefly.

Unit-1	Introduction to Artificial Intelligence in Media	L	T	P
1.1	Introduction to AI, ML, and Deep Learning (Lecture, Tutorial, presentation)	1	-	1
1.2	Evolution of AI in Creative Industries: Gaming & Animation (Lecture, Tutorial, presentation)	1	-	1
1.3	Real-World Examples: From Pac-Man to Red Dead Redemption & Pixar's AI-assisted Films (Lecture, Tutorial, presentation)	1	-	1
1.4	The AI Creative Pipeline: Where and How AI Fits into the Process (Lecture, Tutorial, presentation)	1	-	1
1.5	Understanding Human-AI Collaboration in Creative Workflows (Lecture, Tutorial, presentation)	-	-	1

Unit-2	AI in Gaming – Design, Immersion, and Storytelling	L	T	P
2.1	AI for Game Design: Procedural Content Generation & Dynamic World Building (Lecture, Tutorial, Presentation)	1	-	1
2.2	Intelligent NPCs (Non-Playable Characters): Behavior, Emotion, and Decision-Making (Lecture, Tutorial, presentation)	1	-	1
2.3	Adaptive Gameplay: AI-Driven Personalization and Difficulty Adjustment (Lecture, Tutorial, presentation)	1	-	1
2.4	AI and Storytelling: Branching Narratives and Player Choices (Lecture, Tutorial, presentation)	1	-	1
2.5	Case Studies: Games like <i>The Last of Us</i> , <i>Middle-earth: Shadow of Mordor</i> , <i>Detroit: Become Human</i> (Lecture, Tutorial, presentation)	-	-	1

Unit-3	AI in Animation – Creativity, Automation, and Style	L	T	P
3.1	No-Code Approach AI in Character Design and Motion Capture (Lecture, Tutorial, Presentation)	1	-	1
3.2	Automating Animation: Inbetweening, Lip-Syncing, and Facial Animation (Lecture, Tutorial, presentation)	1	-	1
3.3	Style Transfer and Visual Enhancements using AI Tools (e.g., Runway ML, D-ID) (Lecture, Tutorial, Presentation)	1	-	1
3.4	Voice Synthesis and AI-Generated Dialogue for Animated Content	1	-	1



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	(Lecture, Tutorial, Practical)			
3.5	Case Studies: Pixar, Netflix AI Workflows, and Indie Creators Using AI Tools (Lecture, Tutorial, Presentation)	-	-	1

Unit-4	Ethical, Legal, and Social Implications	L	T	P
4.1	Deepfakes vs Creativity: Ethics of AI-Generated Characters and Voices (Lecture, Tutorial, presentation)	1	-	1
4.2	Ownership in AI-Generated Art and Stories: Who Owns What? (Lecture, Practical)	1	-	1
4.3	Representation & Bias in AI-generated Content (e.g., race, gender, culture) (Lecture, Tutorial, presentation)	1	-	1
4.4	Impact on Employment: AI as Threat or Collaborator? (Lecture, Practical)	1	-	1
4.5	Legal Frameworks and Industry Guidelines: India & Global Context (Lecture, Tutorial, presentation)	-	-	1

Unit-5	The Future of AI in Gaming and Animation	L	T	P
5.1	Generative AI in Game Development and Animation Pre-Production (Lecture, Tutorial, presentation)	1	-	1
5.2	AI and Virtual Reality (VR) / Augmented Reality (AR) Convergence (Lecture, Tutorial, presentation)	1	-	1
5.3	Role of AI in Metaverse, Digital Humans, and Immersive Storytelling (Lecture, Tutorial, presentation)	1	-	1
5.4	Industry Tools Overview: Unreal Engine Meta Human, NVIDIA Omniverse, Adobe Firefly (Lecture, Tutorial, presentation)	1	-	1
5.5	Preparing for AI-Driven Creative Careers: Skills, Roles & Portfolios (Lecture, Tutorial, presentation)	-	-	1

Practical/Projects/Assignments

1. Create a pathfinding demo using A* algorithm in a 2D game environment.
2. Develop an NPC with behavior trees and decision-making logic.
3. Build a procedural level generator using AI-based logic.
4. Automate lip-sync animation using AI-driven voice recognition tools.

5. Design a simple AI vs Player combat scenario using Unity or Unreal Engine.
6. Create a character turnaround sheet (front, side, back) and write a short report explaining the AI-assisted workflow, prompt engineering process, and manual refinements.
7. Demonstrate how AI can support dialogue generation, story variation, or adaptive storytelling. Compare the AI-assisted workflow with a traditional workflow in a brief report.
8. Ethical Analysis of AI in Gaming and Animation - Select a recent AI-based game or animated production.
9. Develop a complete concept document for an AI-powered game or animated short film containing AI features to be implemented.
10. Develop a comprehensive AI-based game or animation concept portfolio, including story, characters, AI workflow, and production plan.

Suggested Readings

1. Yannakakis, G. N., & Togelius, J. (2018). Artificial Intelligence and Games. Springer. (Gold-standard academic benchmark covering procedural content generation, player modeling, dynamic difficulty, and game aesthetics)
2. Millington, I., & Funge, J. (2019). Artificial Intelligence for Games (3rd ed.). CRC Press / Taylor & Francis. (Standard industry text for pathfinding, decision trees, agent behaviors, and autonomous state machines)
3. Rabin, S. (Ed.). (2023). Game AI Pro: Collected Wisdom of Game AI Professionals (Reprint ed.). A K Peters / CRC Press. (Industry case studies, NPC architectures, dynamic world-building, and AAA production workflows)
4. Palacios, J. (2016). Unity 5.x Game AI Programming Cookbook. Packt Publishing. (Hands-on practical guide for Unity AI systems, steering behaviors, decision-making, and navigation meshes)
5. Buckland, M. (2004). Programming Game AI by Example. Wordware Publishing / Jones & Bartlett. (Classic technical reference for finite state machines, steering behaviors, and autonomous agent decision-making)
6. Indira Gandhi National Open University. (2023). Artificial Intelligence and Machine Learning (MCS-224). eGyanKosh e-Content.
Direct Open-Access PDF:
<https://egyankosh.ac.in/bitstream/123456789/91581/1/Block-3.pdf>
7. Indira Gandhi National Open University. (2023). Computer Animation & Graphics (MCS-053). eGyanKosh e-Content.
Direct Open-Access PDF: <https://egyankosh.ac.in/bitstream/123456789/10497/1/Unit-1.pdf>
8. Boden, M. A. (2020). AI: Its Nature and Future (2nd ed.). Oxford University Press. (Key text on computational creativity, human-AI collaboration, and generative media workflows)

9. Duggal, P. (2024). *Law Relating to Artificial Intelligence & Cyber Crime in India* (3rd ed.). Universal Law Publishing / LexisNexis India. (Seminal Indian text addressing copyright, IP ownership in AI art, deepfakes, and IT Act provisions)
10. Roth, D., & Crawford, K. (2023). *Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence*. Yale University Press. (Global text on algorithmic bias, ethical data usage, representation, and labor impacts)

E-Resources

1. Epic Games. (2026). *Unreal Engine MetaHuman creator guides and learning documentation*. Epic Developer Community. Accessed at <https://dev.epicgames.com/community/learning>
2. NVIDIA Corporation. (2026). *NVIDIA Omniverse Audio2Face-3D microservice and generative AI developer documentation*. NVIDIA Developer Hub. Accessed at <https://developer.nvidia.com/omniverse>
3. Partnership on AI. (2026). *Responsible AI guidelines for synthetic media and content authenticity*. PAI Publications. Accessed at <https://partnershiponai.org/>
4. Runway AI. (2026). *Runway research academy: Generative video, style transfer, and motion control workflows*. Runway ML. Accessed at <https://runwayml.com/>
5. Unity Technologies. (2026). *Unity AI and Sentis runtime inference engine documentation*. Unity Solutions. Accessed at <https://unity.com/solutions/ai>
6. World Intellectual Property Organization. (2026). *WIPO AI and intellectual property policy toolkit & copyright guidelines*. WIPO Knowledge Repository. Accessed at https://www.wipo.int/about-ip/en/artificial_intelligence/
7. Build with AI 1.0 (2026), Build Games with AI. Accessed at <https://learnwithhasan.com/courses/build-with-ai-10/>
8. Learn.com (2026) AI games for beginners. Accessed at <https://learn.unity.com/course/artificial-intelligence-for-beginners>
9. Nilo (2026). Create a 3D Game with AI. Accessed at <https://nilo.io/articles/ai-game-generator-tutorial>
10. Chatforce (2026), How to Make a Game with AI. Accessed at <https://chatforce.com/how-to-make-a-game-with-ai/>