

Maulana Abul Kalam Azad University of Technology, WB
(Formerly known as West Bengal University of Technology)
Syllabus of B.Sc. in Multimedia Animation & Graphics
Effective from academic session 2023-24

Semester-VII

Paper: **Interaction Design & New Media**

Paper Code: **BMAGD 701, 791**

Total Contacts Hours / Week: Credits: **5 (3L) + (2P)**

Aim of the Course

The aim of the course is to enable students to create engaging interactive user experience design.

Course Objective

To familiarise with the basic concepts, process and philosophy of interaction design to enable design effective UI/UX for digital products. Provide students with a comprehensive understanding of interaction principles and processes, to enable design effective UI/UX for digital products. To equips students with the knowledge of user research leading to designing for interaction.

Sl. No.	Course Outcomes	Mapped to Modules
CO1	Develop an understanding about interface of different types of interactive devices and user interactivity.	M1
CO2	Learning about the process of Interface design and the industry standard software.	M2, M4
CO3	Understand the role of user study its process and application in interaction design	M2, M5,
CO4	Understand Information Architecture and Walkthrough of the Application, and the process of Prototyping with navigation options for various platforms.	M3, M4
CO5	Understanding the design process for UX development. To playful experiment with multiple possibilities of interacting from the world around us for interaction design concepts	M5, M6
CO6	Developing strategy for creating a smooth User Experience Design and inclusive user-centric design process.	M6

Learning Outcome/ Skills

Module Number	Content	Total Hours	% of Questions	Blooms Level (Applicable)	Remarks, if any
THEORY					
M1	Introduction to Interaction Design	10	35%	1, 2, 3	NA
M2	Interaction Design process	15	35%	2, 3, 4, 5	NA
M3	Product development & Multiplatform design application	20	30%	1, 2, 3, 4	NA
TOTAL (THEORY)		45			
PRACTICAL					

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M4	UI/UX Fundamentals	20	NA	2, 3, 4, 5, 6	NA
M5	User study & User experience Design	20	NA	1, 2, 3, 4	NA
M6	Interaction Design Development and prototype making	20	NA	3, 4, 5, 6	NA
TOTAL (PRACTICAL)		60			
GRAND TOTAL		105			

DETAILED SYLLABUS

PAPER CODE: BMAGD 701			CREDIT: 03	TOTAL HOURS: 45
SL. NO.	MODULE NO	MODULE TITLE	DETAILS	TOTAL HOURS
1	Module-1	Introduction to Interaction Design	Basics of Interactive devices. Design process for digital products Design Research Interaction design principles Interaction design patterns 10 heuristic principles of usability Laws of UX Norms and attributes of digital product categories (Considerate products, smart products, social products)	10
2	Module-2	Interaction Design process	User study and mapping techniques & processes. User Needs User Segmentation Usability and User Research Creating Personas Interaction Design and Information Architecture Ethnography Visual interface design Colour selection for digital interfaces. Typography for digital interfaces. Elements design – Icons, Tabs and Navigations Layout development for the Interface.	15
3	Module-3	Product development & Multiplatform design application	Wireframe development and prototyping. Interface Design Navigation Design Information Design Wayfinding Wireframes Multi modal platforms and interaction design (Desktop app, Mobile and other devices, Web based interaction) Prototype testing. Walkthrough of the application.	20
PAPER CODE: BMAGD 791			CREDIT: 02	TOTAL HOURS: 60

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4	Module- 4	UI/UX Fundamentals	Fundamentals of UI/UX Different components of the business and service. Introduction to Interactive devices. 10 heuristic principles of usability Design process for digital products Norms and attributes of digital product categories (Considerate products, smart products, social products)	20
5	Module- 5	User study & User experience Design	Understanding the user. Understanding the People: Personas and Goals. Contextual Inquiry - Immersive, contextual method of observing and interviewing that reveals underlying work structure. User study and mapping techniques & processes. User Needs User Segmentation Usability and User Research Creating Personas Interaction Design and Information Architecture Ethnography Visual interface design Colour selection for digital interfaces. Typography for digital interfaces. Elements design – Icons, Tabs and Navigations Layout development for the Interface.	20
6	Module-6	Interaction Design development and prototype making	Understanding the various dimensions of the experience. Wireframe development and prototyping. Interface Design Navigation Design Information Design Wayfinding Wireframes Multi modal platforms and interaction design (Desktop app, Mobile and other devices, Web based interaction) Prototype testing. Final information architecture and Walkthrough of the application.	20

References

1. *Interdisciplinary Interaction Design: A visual guide* - James Pannafino - Assiduous Publishing
2. *About Faces: The essentials of interaction design*. Alan Cooper, Robert Reimann, David Cronin, Christopher Noessel. 4th Edition, Wiley India Pvt. Ltd.
3. *Universal Principles of UX* by Irene Pereyra. Rockport Publishers Inc.
4. *The Art and Science of UX Design: A step-by-step guide to designing amazing user experiences* by Anthony Conta. Pearson Education (US) New Riders Publishing
5. *The Principles and Processes of Interactive Design* by Jamie Steane Ava Pub Sa
6. *UI AND UX DESIGN* by Dr. K. SARASWATHI. SPI Publications
7. *101 UX Principles: A definitive design guide* by Will Grant.

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8. *The Elements of User Experience: User centred design for the web and beyond* by Jesse James Garrett. New Riders
9. *Type on Screen: A Critical Guide for Designers, Writers, Developers, and Students* - Ellen Lupton - Princeton Architectural Press
10. *Human Computer Interaction Handbook: Fundamentals, Evolving Technologies, and Emerging Applications*, by Jacko, J. A. Third Edition. Taylor & Francis.
11. *Thoughts on Interaction Design* by Jon Kolko. Elsevier.
12. *Designing for the Digital Age: How to Create Human-Centered Products and Services* by K Goodwin, Wiley
13. *Designing Interfaces* by Jenifer Tidwell - O'Reilly
14. *Interface Design: An introduction to visual communication in UI design* by Dave Wood. Bloomsbury Publishing Plc
15. *The User Experience Team of One: A Research and Design Survival Guide* by Leah Buley & Joe Natoli. Rosenfeld Media
16. *Interviewing Users: How to Uncover Compelling Insights* by Steve Portigal. Rosenfeld Media
17. *UX Research: Practical Techniques for Designing Better Products* by Brad Nunnally & David Farkas. Shroff/O'Reilly
18. *Information Architecture: For the Web and Beyond*, by Louis Rosenfeld (Author), Peter Morville (Author), Jorge Arango. Shroff/O'Reilly *Change by Design*, Revised and Updated by Tim Brown. HarperCollins Publishers India
19. *Designing and Prototyping Interfaces with Figma: Learn essential UX/UI design principles by creating interactive prototypes for mobile, tablet, and desktop* by Fabio Staiano. Packt Publishing Limited

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Paper: **Design for Social Responsibility**

Paper Code: **BMAGD 702, 792**

Total Contacts Hours / Week: Credits: **5 (3L) + (2P)**

Aim of the Course

The aim of the course is to enable students to create engaging interactive user experience design.

Course Objective

Introduce students to diverse social, cultural and physical environments in which design must contextually function to create impact. Sensitize toward the interrelationship between environments, their people and other constituents.

Sl. No.	Course Outcomes	Mapped to Modules
CO1	To understand how diverse socio-ecological aspects function independently and in interaction with each other.	M1
CO2	To observe, infer and articulate the relationships and dependencies of the various physical components within any given environment.	M1, M2
CO3	To record and share their varied experiences enabling them to build narratives around their learning's.	M3
CO4	To collect, analyse, present and articulate all levels of their learning's using various media.	M5
CO5	Developing a design intervention for social impact	M6

Learning Outcome/ Skills

Module Number	Content	Total Hours	% of Questions	Blooms Level (Applicable)	Remarks, if any
THEORY					
M1	Introduction to Design for Social Responsibility	15	35%	1, 2, 3, 4	NA
M2	Design, responsibility and sustainable development goal	15	35%	2, 3, 4, 5	NA
M3	Process of Observation Mapping and Documenting	15	30%	3, 4, 5	NA
TOTAL (THEORY)		45			
PRACTICAL					
M4	Field study and problem mapping	20	NA	2, 3, 4, 5, 6	NA
M5	Product development & Multiplatform design application	20	NA	1, 2, 3, 4	NA
M6	Project Design: Design solution implementation	20	NA	3, 4, 5, 6	NA
TOTAL (PRACTICAL)		60			
GRAND TOTAL		105			

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DETAILED SYLLABUS

PAPER CODE: BMAGD 702			CREDIT: 03	TOTAL HOURS: 45
SL. NO.	MODULE NO	MODULE TITLE	DETAILS	TOTAL HOURS
1	Module-1	Introduction to Design for Social Responsibility	Introduction to Design for Social Impact. Principles of Design for Social Responsibility	10
2	Module-2	Design, responsibility and sustainable development goal	The Multiple Components and Implications of Sustainability	15
3	Module-3	Process of Observation Mapping and Documenting	Introduction to fieldwork and relevant methodological tools. Observation and study of People: Ethnicity, Communities, Livelihood Place: Socio-economic, Geo-political, aspects Mapping and Documenting: Interactions and communication of understanding through mind maps, sketches, photo-documents, video and audio recordings etc Case studies	20
PAPER CODE: BMAGD 792			CREDIT: 02	TOTAL HOURS: 60
4	Module- 4	Field study and problem mapping	Conduct field study Visual journal	20
5	Module- 5	Product development & Multiplatform design application	Building narratives through collectibles to create an impactful design intervention.	20
6	Module-6	Project Design: Design solution implementation	Design project implementation	20

References

1. *Design for Global Challenges & goals* edited by Emmanuel Tsekleves, Rachel Cooper and Jak Spencer. Routledge New York
2. *Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation* by Tim Brown. Harper Business
3. *Design Social Change: Take Action, Work toward Equity, and Challenge the Status Quo* by Lesley-Ann Noel Ten Speed Press
4. *Design for the Real World: Human Ecology and Social Change* by Victor Papanek Academy Chicago Publishers
5. *Applied Design Research: The Societal Impact* by Koen van Turnhout, Peter Joore, Remko van der Lugt, Troy Nachtigall, Liliya Terzieva. CRC Press
6. *Design for Sustainability: A Practical Approach (Design for Social Responsibility)* by Tracy Bhamra, Vicky Lofthouse
7. *Design for Impact: Your Guide to Designing Effective Product Experiments* by Erin Weigel. Two Waves Books
8. *Design for a Better World: Meaningful, Sustainable, Humanity Centered* by Don Norman. The MIT Press

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9. *Co-design and Social Innovation: Connections, Tensions and Opportunities* by Garth Britton. Routledge Studies in Social Enterprise & Social Innovation
10. *Design for Health (Design for Social Responsibility)* by Emmanuel Tsekleves. Routledge USA
11. *Design for Wellbeing: An Applied Approach (Design for Social Responsibility)* by Ann Petermans. Routledge

Films/Videos:

Title	Director	Year
Latcho Dorm	Tony Gatlif	1993
The Song of Sparrows	Majid Majidi	2008
Manthan	Shyam Benegal	1976
Swades	Ashutosh Gowariker	2004
Dhanak	Nagesh Kukunoor	2015

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Paper: **Design project 1**

Paper Code: **BMAGD 781**

Total Contacts Hours / Week: **60hrs** Credits: **4**

Course Objective

Students get to do a comprehensive project undertaken with industry or self-initiated, to understand the methods and systematic processes and planning followed to develop a robust project.

Sl. No.	Course Outcomes	Mapped to Modules
CO1	To expose the students to real time environment (viz. various materials, processes, products and their applications) which cannot be simulated in the classroom	M1
CO2	To provide possible opportunities to learn and sharpen the real time technical and design decision making skills required for professional development	M1, M2
CO3	To get acquainted with the systematic planning and management for strategic project development	
CO4	To provide portfolio enhancement and professional understanding and development	

Learning Outcomes/Skills

Learning Outcome	Mapped To COs
LO1 Students understand the methods of function of industry, time management and professional approach to work and ethics of the industry.	CO1
LO2 Understanding client brief and subsequent working on the same with constant interaction & feedback.	CO2
LO3 Multi-tasking, people skills & personal learning & Learning to work in a professional environment & time management.	CO3, CO4
LO4 Students are able to methodical putting all information in a summarised document, same approach will groom them for the industry/hypothetical Graduation project.	CO5, CO6

Course Content:

1. Students are to document the project/projects undertaken during Industry connect.
2. Students need to abide by the Design process before concluding the final design/Concept/Proposal.
3. Students need to submit a summarised Documents and make a presentation of their learnings at industry keeping the NDA policy's consideration as well.

Evaluation: -

1. By the reporting manager in the industry (50% weightage)
2. By the jury panel (50% weightage)

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Semester-VIII

Paper: **Design project 2**

Paper Code: **BMAGD 881**

Total Contacts Hours / Week: **75 Hrs Credits: 5**

Course Objective

To provide the tools of design research, to allow designers "to claim and direct the power of their profession." Introduce students to the many research tools that can be used to inform design as well as to ideas about how and when to deploy them effectively. Help design results and demonstrates the transformation of theory into a richly satisfying and more reliably successful practice

Sl. No.	Course Outcomes	Mapped to Modules
CO1	Understand the various processes, tools & techniques of design research.	M1
CO2	Help students make informed Design decision for effective creative ideation.	M2
CO3	Gain fluency, develop proficiency to generate, transformation	M3

Learning Outcome/ Skills

Module Number	Content	Total Hours	% of Questions	Blooms Level (Applicable)	Remarks, if any
Module 1	Introduction to Design Research	20	-	1, 2, 3	
Module 2	Introduction to design method tools and techniques	20	-	1, 2, 3,4	
Module 3	Real live Project driven integration of methods.	35	-	3, 4, 5, 6	
		75			

DETAILED SYLLABUS

PAPER CODE: DRS 881			CREDIT: 04	HOURS: 120
SL. NO	MODULE NO	MODULE TITLE	DETAILS	TOTAL HOURS
1	M1	Introduction to Design Research	Introduction to the evolving role of Design Research in guiding design innovation.	20
2	M2	Introduction to design method tools and techniques	Introduction to the various design methods for different stages of design implementation. Case studies. Visual journaling	20
3	M3	Real live Project driven integration of methods.	Step by step application of the appropriate tools and methods for sensing the intent of the design, then knowing the context and the user, to frame insights. The Explore concepts to frame design solutions for realizing the value offerings for real life project.	35
	TOTAL HOURS			60 (60 non-contact)

Reference Material

1. *Design Research: Methods and Perspectives* by Brenda Laurel. The MIT Press 2003

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2. *A Designer's Research Manual*, by Jenn Visocky O'Grady, Ken Visocky O'Grady. 2nd edition, Rockport Publishers
3. *101 Design Methods: A Structured Approach for Driving Innovation in Your Organization* by Vijay Kumar. Wiley
4. *Research for Designers: A Guide to Methods and Practice* by Gjoko Muratovski. Sage Pubns Ltd

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Paper: **Portfolio Management & Presentation Skill** (Specialization based)

Paper Code: **BMAGD 882**

Total Contacts Hours / Week: **75 Hrs Credits: 5**

Course Objective

To equip students with the comprehensive organizational, financial, and communicative competencies required to transition a conceptual design into a successfully executed physical space. This course bridges the gap between design theory and real-world execution, focusing on Indian industry standards for construction management, cost estimation, and the art of persuasive client communication.

Sl. No.	Course Outcomes	Mapped to Modules
CO1	Understand the various aspects of project management	M1
CO2	Help students optimise design/research project workflow and enhance productivity through methodical planning and processes.	M2
CO3	Groom towards articulating and presenting confidence in using AI tools for professional output and industry readiness.	M3

Learning Outcome/ Skills

Module Number	Content	Total Hours	% of Questions	Blooms Level (Applicable)	Remarks, if any
Module 1	Introduction to Project management	20	-	1, 2, 3	
Module 2	Introduction to Portfolio design	20	-	1, 2, 3,4	
Module 3	Project Presentation	35	-	3, 4, 5, 6	
		75			

DETAILED SYLLABUS

PAPER CODE: DRS 791			CREDIT: 04	HOURS: 120
SL. NO	MODULE NO	MODULE TITLE	DETAILS	TOTAL HOURS
1	M1	Introduction to Project management	Fundamentals of Project planning Steps of project management	20
2	M2	Introduction to Portfolio design	Basic portfolio design Traditional and Digital Portfolio Strategic portfolio development	20
3	M3	Project Presentation	Articulation and presentation of projects	35
	TOTAL HOURS			75

Reference Material

1. *No Plastic Sleeves: The Complete Portfolio Guide for Photographers and Designers* by Larry Volk and Danielle Currier.

2. *How to Create a Portfolio and Get Hired: A Guide for Graphic Designers and Illustrators* by Fig Taylor

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Paper: **Graduation Project & Dissertation** (Specialization based)

Paper Code: **BMAGD 882**

Total Contacts Hours / Week: **Over the Semester** Credits: **12**

Course Objective

Students get to do a Comprehensive project spanning across the semester (4 months) consolidating the overall learning of the program. The project can be self-sponsored or industry sponsored, aligning to any real-life user need gap/opportunity. This helps students to professional approach design project work as per industry norms.

Course Outcome	
CO1	Do systematic relevant research, analyse and draw actionable inferences.
CO2	Plan and execute a long-term project.
CO3	Take justified design decisions on her/his/their own.
CO4	Present and defend a well-documented comprehensive project in front of an expert jury panel.

Learning Outcome/ Skills

Module Number	Content	Total Hours/days	% of Questions	Blooms Level (Applicable)	Remarks, if any
Module 1	Present 3 proposals which outline the need for a design project	2 weeks	-	3, 4,5	
Module 2	Collate the research into a well-meaning design approach.	4 weeks	-	3,4,5	
Module 3	Ideate and create appropriate design solutions for the topic chosen.	2 weeks	-	3, 4, 5, 6	
Module 4	Concept development	3weeks		3, 4, 5, 6	
Module 5	Present the final outcome as a well-documented comprehensive design project with relevant prototypes of the design intervention.	4 weeks		3, 4, 5, 6	
		15 weeks			

Evaluation: -

1. Stage review report and presentation as continuous assessment (10%x5=50% weightage)
2. External jury panel (50% weightage)