

Electives Course Contents

DE 658 Advanced Typography

Course Content (*List of the topics/sub-topics to be covered in the lectures/practicals/assignments*):

- Introduction to Tools and equipments for clay modelling. Armature making for clay modelling.
- Clay application and carving. Making templates. Un-filleted model, Fillet making. Finishing the clay model.
- Clay Film application
- Modelling with Fiber reinforced plastic. Mould making. Finishing the models. Painting
- Workshop / Studio Safety
- Exercises and tasks to gain competency in model making that they can apply in future courses and projects.

Texts / References

- Yasusato YAMADA; CLAY MODELING Techniques for Giving Three dimensional Form to Idea; Osami SUZUKI San
- eiShobo Publishing Co., Ltd;. Japan; 1993
- Roberto Lucci& Paolo Or landini; Product Design Models; Van Nostrand Reinhold; New York; 1990
- Criss B. Mills; Designing with Models; John Wiley & Sons, Inc.; New Jersey; 2011
- Rob Thompson; Prototyping and Low-volume Production; Thames & Hudson; United Kingdom; 29 March 2011
- BjarkiHallgrimsson; Prototyping and Modelmaking for Product Design (Portfolio Skills), Laurence King Publishing, UK, 3 Oct.
- Rob Thompson; Manufacturing Processes for Design Professionals; Thames & Hudson; United Kingdom; 30 Oct. 2007.

DE 660 - Graphic Narratives

Course Content (*List of the topics/sub-topics to be covered in the lectures/practicals/assignments*):

- Indian – Ajanta, Mughal Paintings (Hamzanaama, etc), Patta Chitra, Phad, Kavadi, Yam pat, Groda, Chitrakathi, etc
- Use of Graphic Narrative for expressing a social or personal themes
- Elements of Graphic Narrative Design – Framing, thought bubbles, color & contrast, visual allusion, style and meaning, cultural context, text and image, etc.

Texts / References

- Eisner Will, Comics and Sequential Art: Principles and Practices from the Legendary Cartoonist (Will Eisner Instructional Books), Poorhouse Press, November 1985, ISBN-10: 0961472812, ISBN-13: 978-0961472818
- Eisner Will, Graphic Storytelling and Visual Narrative (Will Eisner Instructional Books), W. W. Norton & Company, 2008, ISBN-10: 039333127X, ISBN-13: 978-0393331271
- Eisner Will, Expressive Anatomy for Comics and Narrative: Principles and Practices from the Legendary Cartoonist (Will Eisner Instructional Books), W. W. Norton & Company, 2008, ISBN-10: 0393331288, ISBN-13: 978-0393331288
- McCarthy Helen, Otomo Katsuhiko, Tezuka Osamu, The Art of Osamu Tezuka: God of Manga, Abrams

ComicArts; 2009, ISBN-10: 0810982498, ISBN-13: 978-0810982499

- Mccloud Scott, Making Comics: Storytelling Secrets of Comics, Manga and Graphic Novels, Harper Paperbacks, 2006, ISBN-10: 0060780940, ISBN-13: 978-0060780944

DE 662 - Handmade Books and Book Structures

Course Content (*List of the topics/sub-topics to be covered in the lectures/practicals/assignments*):

- Altered books:- Altering the form of a used or discarded book from its original form to a different form using multiple methods.
- Cut and Fold:- Introduction to principles of folding and cutting to create pop-up paper construction. Exploring applications for books, brochures, sets
- Shaped and Themed Books:- Exploring relationship between content and form of books. Introduction to various means of paper folding to construct hand made books that do not require binding. Examples: Tunnel books, Accordion books, Flag book etc.
- Book Binding:- Introduction to ways of binding that include Japanese binding, Perfect binding, Coptic binding.

Texts / References

- Golden , Alisa; Unique Handmade Books, Stirling Publishing Company; 2001
- LaFerla, Jane; Gunter, Alice; The Penland Book of Handmade Books: Master classes in Bookmaking Techniques; Lark Books; 2004.

DE 664 - Information Graphics

Course Content (*List of the topics/sub-topics to be covered in the lectures/practicals/assignments*):

- Study of visual display of quantitative information, syntactic and semantic aspects of information graphics.
- Practical problem solving by conversion of abstract, Quantitative concepts into visual images.
- Study of charts maps, diagrams, reconstruction graphics. Information graphics for new media and dynamic data.
- Exposure to information theory and its applications.
- Symbolization of concepts for information purposes.
- Application of information graphics in different contexts: Statistical information, procedural diagrams, reconstruction of events, timeline etc.

Texts / References

- 302225 Bertin, Jacques: Graphic information processing, Walter Degruyter.302225 Herdeg, Walter: Graphic diagrams, The graphic press, Tufte, Switzerland.
- Tufte, Edward R; Visual display of quantitative information. Graphic Press, USA. 1993.302225 Tufte, Edward R; Envisioning Information. Graphis Press
- Tufte, Edward R; Visual Explanations-images and quantities, evidence and narrative.
- Japan Creators Association, Diagraphics- The most complete collection of creative diagrams ever assembled.
- Holmes, Nigel; Designing pictorial symbols. Watson-Guptill Publications.
- Holmes, Nigel; Pictorial maps. Watson-Guptill Publications
- Holmes, Nigel; Best in diagrammatic graphics. Rotovision
- Chase, William G (ed); Visual information processing. Academic Press
- Norman, Donald A; Memory and attention : an introduction to human information processing. John Wiley and Sons.

- Norman, Donald A; Design of everyday things. MIT Press.
- Norman, Donald A; Emotional design : why we love (or Hate) everyday things. Basic Books.

DE 666 - Craft Creativity and Post Modernism

Course Content *(List of the topics/sub-topics to be covered in the lectures/practicals/assignments):*

- Creative process in Craft. Craft as a means to explore material, process and Form. Study of Form in Bamboo and Other Craft. Cultural roots in Craft.
- Craft as an expression of Indian Tradition,
- Significance of craft as a creative base for current Design practices. Post modern interpretation of craft.
- Creative exploration in Craft. Design to suit urban and export markets

Texts / References

- John Thackara (Ed), Design After Modernism (Beyond the Object), 1989
- Victor Margolin (Ed), Design Discourse (History, Theory, Criticism), The University of Chicago Press, 1989
- Powell, Jim; Postmodernism for beginners, Orient Longman, India,1998
- Jencks, Charles; Post-Modernism: A New Classicism in Art and Architecture, Academy Editions, London, 1987
- McKim, Robert; Experiences in Visual Thinking, Publisher: Brooks/Cole Publishing Company, 1980

DE 668 - Instructional Design

Course Content *(List of the topics/sub-topics to be covered in the lectures/practicals/assignments):*

- Elements of learning, learning theories and behaviourism, cognitivism and constructivism, Piaget development theory
- Elaboration theory, Posner and Strike method, Blooms taxonomy, Merrills content classification, Gagnes categories, conditions and events of learning, Shanks theory of instructional design
- Instructional design development process
- Computers as teaching and learning tools
- Apply evidence-based learning science to online course development through instructional design systems such as ADDIE, outcomes-based backwards course design, and more contemporary models, such as SAM (Successive Approximation Model).
- Apply learning analytics and how they can be deployed in various contexts in the online instructional design and technology field.

Texts / References

- Allen, Michael W.; Leaving Addie for Sam: An Agile Model for Developing the Best Learning Experiences; ASTD Press (2)
- Dirksen, Julie; Design For How People Learn; New Riders; 1 edition (2011)
- Forman, George E.; The Childs Construction of Knowledge: Piaget for Teaching Children; National Association for the Education of You (1983)
- Furth, Hans G.; Wachs, Harry; Thinking Goes to School: Piagets Theory in Practice; Oxford University Press (1982)
- Gagne, Robert M.; Wager, Walter W.; Golas, Katharine; Keller, John M.; Principles of Instructional Design; Wadsworth Publishing; 5th Edition (2004)
- Peters, Dorian; Interface Design for Learning: Design Strategies for Learning Experiences; New Riders; 1 edition (2013)
- Reigeluth, Charles M.; Instructional-Design Theories and Models: A New Paradigm of Instructional Theory (Instructional Design Theories & Models); Lea (1999)

DE 670 - Field Study and Design

Course Content (*List of the topics/sub-topics to be covered in the lectures/practicals/assignments*):

- Working and Living in the rural India for the duration of the course. Problem identification in the context. Developing system level understanding. Developing approached for Design Intervention. Participatory Design with users. Accessing deeper and tacit needs of the users. Co developing concepts in the field. Using local know-how and craft. Documentation.10.Texts / References (The total number

Texts / References

- Papanek, Victor.; Design for the Real World: Human Ecology and Social Change, Thames and Husdon
- Prahalad, C. K. The Fortune at the bottom of the pyramid, Wharton School Pub., [Philadelphao, PA.],Hippel E.V. (2005), Democratizing Innovation, MIT Press.

DE 672 - Design Detailing

Course Content (*List of the topics/sub-topics to be covered in the lectures/practicals/assignments*):

- Importance of good detailing in Product Design.
- Case studies in Good and Poorly Detailed Products and their respective Impacts on Consumers & Brands.
- In depth understanding of Moulding Processes for Plastics, as applied to Consumer (including Mobility Products).
- Detailing Practices/Methodology for Plastics at individual Parts level – Injection Moulding, Compression Moulding, Blow Moulding, Rotary Moulding, etc.
- In depth understanding of Manufacturing Processes for Metals, as applied to Consumer Products (including Mobility Products).
- Detailing Practices/methodology for Metal Parts, as applied to Consumer Products.
- Factory visit.
- Classroom Projects on Product Detailing.

Texts / References

- Plastic Part Design : Robert Malloy.
- Plastic Process Handbook : Myer Kutz.
- Guide To Injection Molding : Prabodh Bolur.
- Mold Design : R W Pye. GE Plastic Design Guide. Automotive Steel Design Manual : AISI & ASP. Automotive Welding Design: AWS Automotive Welding Committee. Automotive Body Manufacturing Systems Processes : Mohammed A Omar.
- Mechanics of Sheet Metal Forming : Z Marciniale, J L Duncan, S J Hu,
- The Automotive Body, Vol 1- Component Design; Lorenzo Morello, Lorenzo Rosti Rossini.
- Handbook of Die Design : Ivan Suchy

DE 674 - Introduction to World Cinema:Filmmaker Perspectives

Course Content (*List of the topics/sub-topics to be covered in the lectures/practicals/assignments*):

- An overview of Film HistorySocial Context of Filmamking :relationships of Filmmakers to their milieuAnalysis of Selected Classics of Cinema:Common themes and individuals styles, similiarities and contrasts in stylesAsian Cinema:Film directors Akira Kurosawa,Mizoguchi and Kiarostami European Cinema:Film Directors Godard,Truffaut,Bergman and FelliniRussian Cinema:film directos Anderi TarkovskyAmeriacn Cinema:Film directors Sidney Lumet and Stanely KubrickWriting of a film diary of required film viewingA long form essay on any filmmaker would be a final requirement for completion of the course

Texts / References

- Bazin, Andre, What is Cinema? Volumes 1 and 2. University of California Press, 2004
- Richie, Donald, The Films of Akira Kurosawa. Tramquebar Press, 2009
- Kurosawa, Akira. Something Like and Autobiography, Random House, 1983
- Wajda, Andzej. Double Vision. Faber 1989
- Bergman, Ingmar. The Magic Lantern. University of Chicago Press, 2008
- Lumet, Sidney, Making Movies, Random House 1996
- Fellini, Federcio. Fellini on Fellini, Da Capo Press 1996

DE 671 - Experiential Learning

Course Content *(List of the topics/sub-topics to be covered in the lectures/practicals/assignments):*

- Material aspects of the crafts such as Pottery & Weaving
- Critical discourse in craft design, Arts & Technology
- Understanding Craft communities & product innovation.

Texts / References

- Bhattela, Anubandh, Building hundred mile communities Navjivan trust, 2.
- Devi Prasad, Art: The basis of education, NBT, 2001.
- Kanagisoetsu, the unknown craftsman, Kondansha, 1998.
- Gandhi M.K; Hind Swaraj, Sarvodaya, 1909.

DE 715 - Pattern Language for Interaction Design

Course Content *(List of the topics/sub-topics to be covered in the lectures/practicals/assignments):*

- The theoretical aspects of patterns and pattern language to be covered: concept of patterns, ways of writing patterns, organising principles, distinction between a pattern collection and a pattern language, creation of pattern languages, uses of pattern languages, application of pattern languages. Critiques of the concept. Introduction to pattern languages in the domain of interaction design and interface design. Studio work will comprise several (Likely number: 3) assignments pertaining to the topics covered. One assignment would center on successful application of the chosen interaction design pattern language to a complex interactive system (software/hardware/combination)

Texts / References

- Alexander, Christopher. The Timeless Way of Building. New York: Oxford University Press, 1979.
- Alexander, Christopher, Sara Ishikawa, Murray Silverstein, Max Jacobson, Ingrid Fiksdahl-King, and Sholomo Angel. A Pattern Language. New York: Oxford University Press, 1977.
- Borchers, Jan. A Pattern Approach to Interactive Design. Chichester, West Sussex, PO19 1UD: John Wiley & Sons Ltd, 2001.
- Tidwell, Jenifer. Designing Interfaces. O`Reilly, 2005.
- Duyn, D. K., J. A. Landay, and J. I. Hong. The Design of Sites: Patterns, Principles and Processes for Crafting a Customer Centered Web Experience, Boston: Addison-Wesley, Pearson Education, 2003.

DE 717 - Service Design

Course Content *(List of the topics/sub-topics to be covered in the lectures/practicals/assignments):*

- Importance of Services in today's world, Product-services continuum, nature of services, relevance of design thinking in conceptualising and developing services, unique service design context that influence design, interaction and experience as source of value, overlaps of service design with user experience design – applicability of methodologies and methods, service experience design methods and techniques (e.g. service ecosystems maps, service blueprinting...), designing for technology based

services and self service, designing service recovery encounters, service design outcomes (touch points, service encounters, service systems...), service prototyping and testing, aspects of service experience that influence the service quality, brief overview of service system deployment, operations and management. 10.

Texts / References

- Design for services, Anna Meroni and Daniela Sangiorgi, Gower Publishing Limited 2011;
- Service Design: From Insight to Implementation, Andrew Polaine, Lavrans Lovlie, and Ben Reason, Rosenfeld Media 2013;
- Services Marketing: Integrating Customer Focus across the Firm, Valarie Zeithaml, Mary Jo Bitner, Dwayne Gremler, Ajay Pandit, McGraw Hill Education (India)
- Supplementary: Handbook of Service, Paul P. Maglio, Cheryl A. Kieliszewski, James C. Spohrer (eds.), Springer 2010

DE 719 - Computer Game Design

Course Content (*List of the topics/sub-topics to be covered in the lectures/practicals/assignments*):

- This is an elective course that gives exposure to students about game design and game art. It is an introduction to Game Design, Detailed Design Docs, Storytelling, Visual Storytelling, Critical Game Analysis. It includes
- Various Genres of Games
- Various platforms in games and their differences
- Game Art and a comparison with Art asset creation for animation
- Game Art production techniques and technologies involved
- Technology for game development (a study on various game engines)
- A detailed look at a 3D game engine
- Game design Documents and Technical Design Document
- Level Design
- Sound, UI Design
- Production pipelines in game production
- The gaming industry, Producing and Distribution
- Making a playable level 10.

Texts / References

- The Graphic Art of Computer Games by Leo Hartas, Dave Morris
- Chris Crawford on Game Design
- Rules of Play: Game Design Fundamentals by Katie Salen and Eric Zimmerman
- The Art of the Video Game by Josh Jenisch
- Game Development Essentials: Game Level Design (2008) by Jeannie Novak and Travis Castillo
- The Ultimate Guide to Video Game Writing and Design by Flint Dille and John Zuur Platten

DE 721 - Representation Techniques for Animation

Course Content (*List of the topics/sub-topics to be covered in the lectures/practicals/assignments*):

- This course gives an opportunity for students to experiment with different representation Techniques for their project films
- Different techniques of representations for animation.
- Experiment with different methods of representation
- Exploring different skills, tools and medias to represent for animation

Texts / References

- George B. Bridgman, The Book of a Hundred Hands, Dover Publication Inc., NY, 1972

- Richard Taylor, Encyclopaedia of Animation Techniques, Book Sales, 2004
- Robert Russett, Experimental Animation: Origins of a New Art Cecile Starr (Editor), Capo, 1998
- Alan Watt, M. Advanced Animation and Rendering Techniques Watt, Addison-Wesley Professional, 1992.

723 - Design Management and Professional Practice

Course Content *(List of the topics/sub-topics to be covered in the lectures/practicals/assignments):*

- Designer attributes. Setting up a design office. Finding clients.
- Business correspondence. Brief and briefing. Letter of contract.
- Professionalism and Ethics. Costing design and fee estimation.
- Management of Design Process, Human factor in managing design / team work.
- Design as a Management Tool. Design Evaluation.
- Patent and Design Registration laws / procedure.
- Seminar on a topic related to above topics.

Texts / References

- Farr, Mihael; Design Management, Hoddar and Stoughton, London, 1966.
- Goslet Dorothy, The Professional Practice of Design, Batszford, London 1971.
- Pulos, Arthur J, Contract Selling Industrial Design Services, Office of Design, Department of Industry, Trade and Commerce, Ottawa, 1975.
- Abbott Howard, Safer by Design, Design Council, London, 1987.
- Brustein David & Frank Stasiowski, Project Management for the Design, Professional, Whitney Library of Design New York, 1982.
- Staurt W Rose, Achieving Excellence in Your Design Practice, Whitney Library of Design, New York, 1987.
- Oakley, Mark (ED.), Design Management a Handbook of Issues and Methods, Basil Blackwell Ltd. 1990.
- Case studies by Design Management Institute, USA

DE 725 - Designing Games for Children

Course Content *(List of the topics/sub-topics to be covered in the lectures/practicals/assignments):*

- Definition of games. Differences between toys, puzzles and games. Classification of games. Learning through games. Educational games with focus on fun vs/ and education. Use of luck vs development of strategic thinking and problem solving in game design. Concepts of play value and game play.
- Game design process. Iterative cycles in game design process. Player's involvement in design process. Feedback as a source of creativity in game design. Differences between game design and other design areas.
- Designing conventional game hardware and board games. Paper prototyping and testing. Play testing of games for feedback. Market for board games in India.
- The elective expects developing and play-testing an original game.

Texts / References

- Web references may be given, if really required. Complete details of Texts/References should be provided. Book: Authors (Initials & Last name), Title, Edition (Optional), Publisher, Year. Journal Articles: Authors (Initials & Last name), Title, Journal name, Volume, Page nos., Year. Web References: Authors/Organization, Title, Year (if available), URL.)
- Berlin, Eric : Amazing family game board book : include authentic game pieces, Pub : Innovative kids, 2005
- Crawford, Chris : Chris Crawford on game design, Publisher : New Riders, 2003

- Meigs, Tom : Ultimate game design : building game worlds by publisher : McG Hill, 2003
- Rouse, Richard III : Game design : theory and practice, publisher, Wordware Pub, 2005
- Rules of play : Game design fundamentals, Publisher: MIT, 2004
- Swamy, Nanu : Basic game design and creation for fun and learning, Publisher : Charles River Media, 2006
- Thompson, Jim: Game design course, Jim, Pub: John Wiley, 200711.

DE 727 - Prodcut Semantics

Course Content *(List of the topics/sub-topics to be covered in the lectures/practicals/assignments):*

- The course discusses semantic and structural aspects of visual input, through series of project assignments. Using human information processing capabilities, the course looks back towards formal concepts such as visual complexity, visual interest and recall of forms. The first part covers topics such as spatio – temporal relationships in visual elements and its role in visual structure, forms of visual relationships, and its role in controlling visual complexity, interest and identity. Assignments are also based on application of Information theory to visual information. The second part discusses the role of characteristic features in object/form recognition and natural categorization process

Texts / References

- Gibson. E. J. Principles of Perceptual Learning and Development . Appleton, 1966.
- Posner M. I. & Keele S. W., On the Genesis of Abstract Idea. Journal of Experimental Psychology, 1968,77,353-363.
- Rips L. J., Schoben E. J. & Smith E.F., Semantic Distance and the Verification of Semantic Relations. Journals of Verbal Learning an Verbal Behaviour, 1975, 14, 665-681.
- Rosch, Mervis, Gray, Johnson & Boyes-Braem, Basis Objects in Natural Cotegories. Cognitive Psychology, 8, 383-435
- Posner M. I. Abstraction and the Process of Recognition, in Bower and Spence Eds, The Psychology of Learning and Motivation, New York: Academic Press, 1969, Vol.3, 44-96.

DE 729 - Rural Study - Field Work

Course Content *(List of the topics/sub-topics to be covered in the lectures/practicals/assignments):*

- Working and Living in the rural India for the duration of the course.
- Problem identification in the context. Developing system level understanding.
- Developing approached for Design Intervention.
- Participatory Design with users. Accessing deeper and tacit needs of the users.
- Co – developing concepts in the field. Using local know-how and craft.
- Documentation.

Texts / References

- Papanek, Victor.; Design for the Real World: Human Ecology and Social Change, Thames and Husdon, 2004
- Prahalad, C. K. The Fortune at the bottom of the pyramid, Wharton School Pub., [Philadelphoa, PA.], 2006
- Hippel E.V. (2005), Democratizing Innovation, MIT Press.

DE 731 - On Ways of Seeing

Course Content (*List of the topics/sub-topics to be covered in the lectures/practicals/assignments*):

- This course explores the inter-relationship between epistemology and ontology, between the things that we are aware of and how that shapes the way in which we conceive our world.
- We will look at a series of iconic objects, including paintings, sculptures, music and films, to unravel the skeins of cultural assumptions that accompany the reception of well-known objects from the moment of their creation and through the history of their lives.
- We will observe through formal analysis, examine through multiple narratives that form the discourse around such objects, especially through changing times and contexts, and analyze the themes of representation and intention that journey alongside, for a more nuanced way of looking.

Texts / References

- Barthes, Roland. *The Pleasure of the Text*. Translated by Richard Miller. New York: Hill and Wang, A division of Farrar, Strauss and Giroux, 1975 [Original in French, 1973].
- Baxandall, Michael. *Patterns of Intention: On the Historical Explanation of Pictures*. New Haven and London: Yale University Press, 1985.
- Berger, John. *Ways of Seeing*. London: Penguin Books Ltd., 1972.
- Bourdieu, Pierre. *Distinction: a social critique of the judgement of taste*. Translated by Richard Nice. Cambridge, Mass.: Harvard University Press, 1984.
- Boyd, Brian. *On the Origin of Stories: Evolution, Cognition, and Fiction*. Cambridge, MA: The Belknap Press of Harvard University Press, 2009.
- Wyman, Jennifer D., Stephen F. Gordon. *Primer of Perception*. New York: Reinhold, 1967

