BANASTHALI VIDYAPITH

Master of Design

Curriculum Structure

First Semester Examination, December, 2019
Second Semester Examination, April/May, 2020
Third Semester Examination, December, 2020
Fourth Semester Examination, April/May, 2021

BANASTHALI VIDYAPITH
P.O. BANASTHALI VIDYAPITH
(Rajasthan)-304022

July, 2019

114

No. F. 9-6/81-U.3

Government of India
Ministry of Education and Culture
(Department of Education)

New Delhi, the 25th October, 1983

N O T I F I C A T I O N

In exercise of the powers conferred by Section 3 of the University Grants Commission Act, 1956 (3 of 1956) the Central Government, on the advice of the Commission, hereby declare that Banasthali Vidyapith, P. O. Banasthali Vidyapith, (Rajasthan) shall be deemed to be a University for the purpose of the aforesaid Act.

Sd/-
(M. R. Kolhatkar)
Joint Secretary of the Government of India

N O T I C E

Changes in Bye-laws/Syllabi and Books may from time to time be made by amendment or remaking, and a Candidate shall, except in so far as the Vidyapith determines otherwise, comply with any change that applies to years she has not completed at the time of change.

Programme Educational Objectives

The M.Des programme is supported by UGC under Innovative Programme from 2013. It offers courses that endeavor to develop student's Knowledge and skills in a wide range of interdisciplinary studies such as **Communication Design, Fashion and Lifestyle Design and Interior Design**.

The curriculum has identified essential competencies in the respective areas for which holistic education will be provided to the students.

The main objectives of the Master of Design Programme are:

- To create Designers so that they can work in a wide range of Multi-disciplinary areas and with diverse team members to achieve holistic and sustainable goals.
- This Programme is Project-oriented (10-month Industry Training), Human-centered and Interactive in approach. It culminates in Industry based projects with a view to connect students with Industry and develop their skills and confidence to work towards real-time objectives.
- An Interdisciplinary Programme which aims to impart knowledge and develop capacities of the students from different streams/departments through employment oriented higher education.

Programme Outcomes

PO1: Interdisciplinary approach: Possess interdisciplinary approach in their thinking and find creative solutions

PO2: Advanced Level: Achieve/Go to next levels in their own design field for the purpose of either education, research or branching into specialized field.

PO3: Multi-discipline: To be able to contribute in a multi-discipline or cross-discipline projects.

PO4: Research Orientation: To be able to do Research, analyse problems, find suitable solutions by Research/Design Process & be able to articulate them.

PO5: Awareness of global issues: To be aware of the global issues related to Sustainability, socially relevant & human centric factors.

PO6: Design Ethics: Apply ethical principles in professional, personal and social contexts.

PO7 Professional Identity: Understand, analyze and communicate the value of their professional roles in society

PO8: Communication: Communicate effectively with the Design Community and with society at large, such as, being able to comprehend and write effective, make effective presentations and documentation, and give and receive clear instructions.

PO9: Environment and sustainability: Understand the impact of the professional Design solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for human-centric sustainable development.

PO10: Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

PO11: Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

Curriculum Structure

Master of Design

Semester - I

Course	Code	Course Name	L	T	P	C *
DES	502	Contemporary Global Issues	4	0	0	4
DES	504	Materials and Techniques	2	0	0	2
DES	504L	Materials and Techniques Lab	0	0	4	2
DES	512	Study of Innovation, Visualization and conceptualization	2	0	0	2
DES	512L	Study of Innovation, Visualization and conceptualization Lab	0	0	4	2
		Discipline Elective - I	0	0	6	3
		Discipline Elective - II	0	0	6	3
		Discipline Elective - III	0	0	6	3
		Semester Total :	**8**	**0**	**26**	**21**

Semester - II

Course	Code	Course Name	L	T	P	C *
DES	503	Marketing and Entrepreneurship	4	0	0	4
DES	511	Research and Documentation	4	0	0	4
DES	501L	Advanced Representation Techniques Lab	0	0	6	3
		Discipline Elective - IV	0	0	6	3
		Discipline Elective - V	0	0	6	3
		Discipline Elective - VI	0	0	6	3
		Open Elective	0	0	6	3
		Semester Total :	**8**	**0**	**30**	**23**

Semester - III

Course	Code	Course Name	L	T	P	C *
DES	605P/ DES 603D	UIL Project-I/ Dissertation-I	0	0	48	24
		Reading Elective-I	0	0	0	2
		Semester Total :	**0**	**0**	**48**	**26**

Semester - IV

Course	Code	Course Name	L	T	P	C *
DES	606P/ 604D	UIL Project-II/Dissertation-II	0	0	48	24
		Reading Elective-II	0	0	0	2
		Semester Total :	**0**	**0**	**48**	**26**

List of Discipline Elective

Course	Code	Course Name	L	T	P	C*
DES	513L	3D Application Design	0	0	6	3
DES	514L	Advanced Draping Techniques	0	0	6	3
DES	515L	Advanced Pattern Making	0	0	6	3
DES	516L	Advertising Campaign (Planning and Design)	0	0	6	3
DES	517L	Animation Design	0	0	6	3
DES	518L	Architectural Drafting	0	0	6	3
DES	519L	Audio Visual Media Design	0	0	6	3
DES	520L	Brand Identify Design	0	0	6	3
DES	521L	Design Anthropology	0	0	6	3
DES	522L	Fabric Weaving and Quality Assurance	0	0	6	3
DES	351L	Furniture Design	0	0	6	3
DES	524L	Garment Construction and Quality Assurance	0	0	6	3
DES	525L	Graphic Design	0	0	6	3
DES	526L	Interaction Design and Management	0	0	6	3
DES	527L	Interior Structures	0	0	6	3
DES	528L	Lightning Design	0	0	6	3
DES	529L	Textile Processing	0	0	6	3
DES	530L	Textile Testing	0	0	6	3
DES	531L	User Experience Design	0	0	6	3
DES	532L	User Interfaces Design (Web and Mobile)	0	0	6	3
DES	533L	VFX	0	0	6	3

List of Reading Elective

Course	Code	Course Name	L	T	P	C*
DES	432R	Introduction to Behavioral Science	0	0	0	2
DES	433R	Introduction to Intellectual property Rights (IPR)	0	0	0	2
DES	523R	Fundamental of Retail Management	0	0	0	2
DES	434R	Management Information System	0	0	0	2

*** L - Lecture hrs/week; T - Tutorial hrs/week; P-Project/Practical/Lab/All other non-classroom academic activities, etc. hrs/week; C - Credit Points of the Course**

Student can opt open (Generic) elective from any discipline of the Vidyapith with prior permission of respective heads and time table permitting.

Every Student shall also opt for:
Five Fold Education: Physical Education I, Physical Education II, Five Fold Education: Aesthetic Education I, Aesthetic Education II, Five Fold Education: Practical Education I, Practical Education II one each semester

Five Fold Activities

Fine Arts		Physical Education and Sports	
BVFF 101	Classical Dance (Bharatnatyam)	BVFF 201	Aerobics
BVFF 102	Classical Dance (Kathak)	BVFF 202	Archery
BVFF 103	Classical Dance (Manipuri)	BVFF 203	Athletics
BVFF 104	Creative Art	BVFF 204	Badminton
BVFF 105	Folk Dance	BVFF 205	Basketball
BVFF 106	Music-Instrumental (Guitar)	BVFF 206	Cricket
BVFF 107	Music-Instrumental (Orchestra)	BVFF 207	Equestrian
BVFF 108	Music-Instrumental (Sarod)	BVFF 208	Flying - Flight Radio Telephone Operator's Licence (Restricted)
BVFF 109	Music-Instrumental (Sitar)	BVFF 209	Flying - Student Pilot's Licence
BVFF 110	Music-Instrumental (Tabla)	BVFF 229	Aeromodelling
BVFF 111	Music-Instrumental (Violin)	BVFF 210	Football
BVFF 112	Music-Vocal	BVFF 211	Gymnastics
BVFF 113	Theatre	BVFF 212	Handball
		BVFF 213	Hockey
Social Service and Extension Activities		BVFF 214	Judo
BVFF 301	Banasthali Sewa Dal	BVFF 215	Kabaddi
BVFF 302	Extension Programs for Women Empowerment	BVFF 216	Karate – Do
BVFF 303	FM Radio	BVFF 217	Kho-Kho
BVFF 304	Informal Education	BVFF 218	Net Ball
BVFF 305	National Service Scheme	BVFF 219	Rope Mallakhamb
BVFF 306	National Cadet Corps	BVFF 220	Shooting
		BVFF 221	Soft Ball
		BVFF 222	Swimming
		BVFF 223	Table Tennis
		BVFF 224	Tennis
		BVFF 225	Throwball
		BVFF 226	Volleyball
		BVFF 227	Weight Training
		BVFF 228	Yoga

Evaluation Scheme and Grading System

Continuous Assessment (CA) (Max. Marks)					End-Semester Assessment (ESA) (Max. Marks)	Grand Total (Max. Marks)
Assignment		Periodical Test		Total (CA)		
I	II	I	II			
10	10	10	10	40	60	100

In all theory, laboratory and other non classroom activities (project, dissertation, seminar, etc.), the Continuous and End-semester assessment will be of 40 and 60 marks respectively. However, for Reading Elective, only End semester exam of 100 marks will be held. Wherever desired, the detailed breakup of continuous assessment marks (40), for project, practical, dissertation, seminar, etc shall be announced by respective departments in respective student handouts.

Based on the cumulative performance in the continuous and end-semester assessments, the grade obtained by the student in each course shall be awarded. The classification of grades is as under:

Letter Grade	Grade Point	Narration
O	10	Outstanding
A+	9	Excellent
A	8	Very Good
B+	7	Good
B	6	Above Average
C+	5	Average
C	4	Below Average
D	3	Marginal
E	2	Exposed
NC	0	Not Cleared

Based on the obtained grades, the Semester Grade Point Average shall be computed as under:

$$SGPA = \frac{CC_1 * GP_1 + CC_2 * GP_2 + CC_3 * GP_3 + ---- + CC_n * GP_n}{CC_1 + CC_2 + CC_3 + ---- + CC_n} = \frac{\sum_{i=1}^{n} CC_i * GP_i}{\sum_{i=1}^{n} CC_i}$$

Where n is the number of courses (with letter grading) registered in the semester, CC_i are the course credits attached to the i^{th} course with letter grading and GP_i is the letter grade point obtained in the i^{th} course. The courses which are given Non-Letter Grades are not considered in the calculation of SGPA.

The Cumulative Grade Point Average (CGPA) at the end of each semester shall be computed as under:

$$CGPA = \frac{CC_1 * GP_1 + CC_2 * GP_2 + CC_3 * GP_3 + ----+ CC_n * GP_n}{CC_1 + CC_2 + CC_3 + ----+ CC_n} = \frac{\sum_{i=1}^{n} CC_i * GP_i}{\sum_{i=1}^{n} CC_i}$$

Where n is the number of all the courses (with letter grading) that a student has taken up to the previous semester.

Student shall be required to maintain a minimum of 4.00 CGPA at the end of each semester. If a student's CGPA remains below 4.00 in two consecutive semesters, then the student will be placed under probation and the case will be referred to Academic Performance Review Committee (APRC) which will decide the course load of the student for successive semester till the student comes out of the probationary clause.

To clear a course of a degree program, a student should obtain letter grade C and above. However, D/E grade in two/one of the courses throughout the UG/PG degree program respectively shall be deemed to have cleared the respective course(s). The excess of two/one D/E course(s) in UG/PG degree program shall become the backlog course(s) and the student will be required to repeat and clear them in successive semester(s) by obtaining grade C or above.

After successfully clearing all the courses of the degree program, the student shall be awarded division as per following table.

Division	CGPA
Distinction	7.50 and above
First Division	6.00 to 7.49
Second Division	5.00 to 5.99
Pass	4.00 to 4.99

CGPA to % Conversion Formula: % of Marks Obtained = CGPA * 10

First Semester

DES 502 Contemporary Global Issues

Max. Marks : 100	**L**	**T**	**P**	**C**
(CA: 40 + ESA: 60)	**4**	**0**	**0**	**4**

Theory:

Section A

a. Natural resources and their conservation.
   - Renewable and non-renewable.
   - Use and exploitation of natural resources.
   - Water and solid waste management.

b. Biodiversity and its conservation.
   - Definition, types, importance and conservation.
   - Introduction to environment science and ecosystem.
   - Endangered and endemic species in India and world.
   - Threats and remedies to protect the biodiversity globally.

c. Environmental pollution.
   - Definition, causes and types of pollution.
   - Control and preventive measures of different types of pollution.
   - Global problems and remedies to tackle pollution types.

d. Human population and social issues.
   - Causes and remedy to population growth and control measures.
   - Social causes sex ratio, female infanticide, education of women affecting society.
   - Public health and awareness.
   - Role of information technology in environment and human sustenance.

Section B

Theoretical approaches to contemporary global management issues.

a. Energy security, food scarcity, global demographics, international aid relief, conflict resolution, global business, climate change, microfinance, globalization, regional blocs, environment management, development, regeneration program, and reform of the United Nations and other international organizations.

b. Triple concept of flows: flows of people (from international work migrants and asylum seekers to tourists and backpackers), flows of goods and capital (e.g. international trade, both in its legal and illegal dimension) and flow of information (with focus on digitalized information because of the major role of the internet). The study of flows will have perspective of sociology, human geography and international political economy and subsequent counter – flows, notably in terms of reactions, barriers, barriers and impacts.

c. International development including, economic development policy, regional development and policy, demographics and development, human geography of global change, microfinance, health and environmental management, community responses; public health and international development; institutional governance; poverty and inequality and the concerns and aspirations of the UN (Millennium Development Goals).

Section C.

a. Contemporary design scenario.

b. Role of design and designer in society.

Learning Outcomes:

Upon completion of the course, students will be able to:

- Appreciate Environmental issues and its impact on the world.
- Understand the role of International agencies like United Nations, IMF, World bank in addressing the Global issues and finding the solution.
- Understand the role of contemporary design in addressing the contemporary global issue

Recommended Books:

1. Rana, S. V. S. (2004). *Environmental Studies*, Rastogi Publication, Meerut.

2. Bharucha, E. (2005) *Environmental Studies*. University Press. Hyderabad.

DES 504 Materials and Techniques

Max. Marks : 100	**L**	**T**	**P**	**C**
(CA: 40 + ESA: 60)	**2**	**0**	**0**	**2**

Theory

Section A

a. Categorize and identify linear, flat, semi-solid and solid materials and their properties.

b. Exploration of materials.

c. Identify various types of materials, their properties and uses.

d. Understand the concept of perception, conception and transformation of 2D to 3D forms or vice versa.

Section B

a. Processing techniques.

b. Identify techniques that fuse, bind, change or mix materials to create new products.

c. Learn theoretical and practical aspects of technologies used to create products.

d. Learn operational problems and limitations of various techniques.

Section C

a. Develop a sense of form and structure.

b. Finishing techniques.

c. Testing and quality assurance of materials.

d. Product development.

Learning Outcomes:

Upon completion of the course, students will be able to:

- Think on new concepts its perception and transformed it in to the product.

Recommended Books:

1. Vijaya, M. S. (2003). *Materials Science*. TMH
2. Coutts, Howard (2001). *The art of ceramics: European ceramic design* 1500-1830. Yale University Press
3. Van Vlack, Lawrence H. (1989) *Elements of materials science and engineering*. Pearson
4. Raghavan, V. (2006). *Materials Science and engineering: a first course*. PHI

5. Woodhouse, T. *Hand book of leather and leather products technology*
6. Board, EIRI *Hand book of leather and leather products technology*

DES 504L Materials and Techniques Lab

Max. Marks : 100	**L**	**T**	**P**	**C**
(CA: 40 + ESA: 60)	**0**	**0**	**4**	**2**

Practical:

- Testing of properties of selected materials and further material exploration and manipulation.
- To understand the process of changing properties of materials.

Learning Outcomes:

Upon completion of the course, students will be able to:

- Developed ability to select different types of materials according to their types, categories and properties.
- Developed ability to hands on handling of different types of materials.

DES 512 Study of Innovation, Visualization and Conceptualization

Max. Marks : 100	**L**	**T**	**P**	**C**
(CA: 40 + ESA: 60)	**2**	**0**	**0**	**2**

Theory:

Section A

a. Relationship between innovation, visualization and conceptualization.

b. Introduction to creativity as a competitive resource.
   - Explaining creativity.
   - Creativity and psychology.
   - Creativity process.
   - Thought process and types of thinking.

c. What is design? Design process.

d. Visualization of design concept, sources and inspiration.

e. Transformation of 2D to 3D visualization and its characteristics.

Section B

a. Elements of design/principles of design.

b. Definition and necessity of design in daily life.

c. Form and function, texture.

d. To understand human psychology of color, gender preference and marketing techniques.

Section C

a. Conceptualize design based on clients' needs and utility.

b. Understand market trends, products, demand and retail, and viability of design commercially.

c. To develop lateral thinking and generate innovative ideas.

d. Analyze and generate innovative solutions to solve design problems.

e. Introduction to strategic design brand management.

f. History of modern design – chronological identification of major events, discoveries, products, techniques and materials related to the global scenario.

Learning Outcomes:

Upon completion of the course, students will be able to:

- Understand how visualization can facilitate concept design.
- Understand designers' use of a specific cognitive process, visualization, can influence the development of design concepts.
- Develop conceptual framework that links the type of visualization (memory v/s imagination) and the content of visualization (incorporation of the end user) to the nature of the design process and to the nature of the design outcome, i.e. its originality, usefulness, and customer appeal.

Recommended Books:

- De Bono, Edward (1985). *Six Thinking Hats: An Essential Approach to Business Management*. New York. NY: Little, Brown, & Company.
- *Norman, Donald (1988). "Preface to the 2002 Edition". The Design of Everyday Things. New York. NY: Basic Books*

Supporting study material from Web.

- Visual Ergonomics and Human Perception
- Human Machine Interface (HMI)

E-Learning: (contests and awards)

- https://www.red-dot.org/
- https://design-55.myshopify.com

DES 512L Study of Innovation, Visualization and Conceptualization Lab

Max. Marks : 100	**L**	**T**	**P**	**C**
(CA: 40 + ESA: 60)	**0**	**0**	**4**	**2**

Practical:

- Gathering the necessary information and facts for Primary and Secondary Research.
- Devising the initial Design Concept to Final Concept
- Developing detailed plan, sketching and drawing.

Learning Outcome

Upon completion of the course, students will be able to:

- Create products based on Customer Demand.
- Conceptualize structure and implement creative ideas into design centric products.

Discipline Elective - I

Practical:

Project outline:

- To finalize a domain of interest.
- To gather all necessary information about the selected domain. Industry, market, existing product/service categories.

Learning Outcomes:

Upon completion of the course, students will be able to:

- Select market and product knowledge to the student related to the interest area
- Finalize the next 4 tentative minor projects

Discipline Elective - II

Practical:

Project outline:

- To finalize a design brief based on the information gathered during Minor Project-I
- To develop ideas/ Innovations possible in existing product line
- To conceptualize the ideas on paper/computer and a prototype if possible

Learning Outcomes:

Upon completion of the course, students will be able to:

- Conceptualize the ideas in form of at-least 40 sketches (both hand & on soft-wares)

Discipline Elective - III

Practical:

Project outline:

- To develop a final concept based on the chosen design brief.
- To develop a product range of at-least 5 products/prototype based on the finalized concept.

Learning Outcomes:

Upon completion of the course, students will be able to:

- Develop the final concept (soft-copy) based on the chosen design brief.
- Develop a product range/prototype based on the finalized concept.

Second Semester

DES 503 Marketing and Entrepreneurship

Max. Marks : 100	**L**	**T**	**P**	**C**
(CA: 40 + ESA: 60)	**4**	**0**	**0**	**4**

Theory:

Section A

Entrepreneurship: Concept, knowledge and skills requirement; characteristic of successful entrepreneurs; role of entrepreneurship in economic development; entrepreneurship process; factors impacting emergence of entrepreneurship; managerial vs. entrepreneurial approach and emergence of entrepreneurship.

Section B

Starting the venture: generating business idea – sources of new ideas, methods of generating ideas, creative problem solving, opportunity recognition; environmental scanning, competitor and industry analysis; feasibility study – market feasibility, technical/operational feasibility, financial feasibility; drawing business plan; preparing project report; presenting business plan to investors.

Section C

Functional plans: marketing plan – marketing research for the new venture, steps in preparing marketing plan, contingency planning; organizational plan – form of ownership, designing organization structure, job design, manpower planning; Financial plan – cash budget, working capital, Performa income statement Performa cash flow, perform balance sheet, break even analysis.

Sources of finance: debt or equity financing, commercial banks, venture capital; financial institutions supporting entrepreneurs; legal issues – intellectual property rights patents, trademarks, copy rights, trade secrets, licensing; franchising.

Learning Outcome:

Upon completion of the course, students will be able to:

- Identify opportunities and complete all the necessary formalities for starting a new business

Recommended Books:

1. Hisrich, Robert D. (2014) *Entrepreneurship*. Tata Mcgraw Hill
2. Barriner, Bruce R. (2006) *Entrepreneurship: successfully launching new ventures*. Pearson Education
3. Charantimath, Poornima. (2014) *Entrepreneurship development and small business enterprises*. Pearson Education

DES 511 Research and Documentation

Max. Marks : 100	**L**	**T**	**P**	**C**
(CA: 40 + ESA: 60)	**4**	**0**	**0**	**4**

Theory:

Section A

Research: Meaning, characteristics, need and purpose

Research method: Steps and method of research

Types of research: Basic and applied:

- Qualitative and quantitative, conceptual and empirical and other miscellaneous types of research.
- Formation of research problem: criteria and sources for identifying the problem
- Developing assumptions

Section B

Collection of data: Secondary and primary source of data; Concept of population and sample; various methods of sampling; Characteristics of good sample

Forming questionnaire: Conducting interviews; Writing observations

Analysis of data: Method of analysis; Use of computer

Section C

Research ethics: References; Plagiarisms and copyrights

Presenting research: In paper article; address conference, seminars, symposium and workshop

Synopsis and thesis writing: Characteristics and format

Learning Outcomes:

Upon completion of the course, students will be able to:

Knowledge Base

- Identify, classify and discuss related to the social problems, issues, needs and gaps.
- Problem Solving
- Identify and analyze a problem, including design problems, and their constituent parts.
- Synthesize information from appropriate sources to form a deeper understanding of a problem and its relation to issues in the field. Evaluate multiple perspectives.
- Draw conclusions from the analysis of data/evidence/information, then propose and justify an appropriate solution to a given problem.

Critical Inquiry

- Be able to find information and evaluate the validity of all available sources of information, including class materials, peer-reviewed literature, the Internet, library, media and data.

Communication

- Speak and listen effectively in both formal and informal and write effectively using field-specific terminology.
- Demonstrate appropriate and effective interpersonal and group communication skills for data collection.

Personal Development

- Have a broader sense of social and environmental responsibility. Develop an awareness of the diverse global community and ecology.

Recommended Books:

1. Kothari, C. R. (2004) *Research methology: methods and techniques.* New Age International
2. Seivewright, Simon. (2007) *Research and design*. AVA Pub.
3. Kumar, Ranjit. (2005) *Research methodology: step by step guide for beginners.* Pearson Education
4. Trivedi, R. N. (2010) *Research methodology: techniques and trends.* College Book Depot.
5. Khanzode, V. N. (2008) *Research methodology: techniques and trends*. A.P.H. Pub.

6. Yin, Robert K. (2009) *Case study research: design and methods.* Sage Publication
7. Brace, Ian (2004) *Questionnaire design: how to plan, structure and write survey material for effective market research.* Kogan Page
8. Jyotirmaye, Vandana. (2013) Research methodology in media studies. Kanishka pub.
9. Margaret, A. Morrison. (2012) *Using qualitative research in advertising: strategic, techniques, and application.* Sage Publication
10. Shiu, Eric. (2014) *Creativity research: an inter disciplinary and multi- disciplinary research handbook.* Routledge

DES 501L Advanced Representation Techniques Lab

Max. Marks : 100	**L**	**T**	**P**	**C**
(CA: 40 + ESA: 60)	**0**	**0**	**6**	**3**

Practical:

a) Concept (b) Drawings (c) Transformation (d) 3D object

Design based on brief and problem statement should be present with neatly compiled with documentation.

I. Freehand drawing- Basic shapes and drawings (Point, Triangle, Square, and polygonal shapes)

II. Making shapes in software- 3D Max

III. Creating objects in software

Submission of Works:

- Sketch file with rough/fair drawings.
- Shapes and forms created in 3D software.

Learning Outcomes:

Upon completion of the course, students will be able to:

- Use 2D and 3D representation in their creative execution process.
- Examine how representation is used throughout the design process from problem to solution, from informing and inspiring their designs to clearly communication our processes and intentions to colleagues, client, and contractors.
- Develop their abilities to ‘see’, ‘create’, and ‘read’ representation from precise detailed drawings and models.

Recommended Books :

- Simblet, Sarah (2009). *Sketch book for the artist*, US, US: DK Publishing.
- Tiner, Ron (2001), *Figure Drawing Without a Model*. UK, UK: David & Charles.
- Male, Alan (2007), *Illustration: A Theoretical & Contextual Perspective*, SA: AVA Publishing.

Online Tutorials (suggested)

- Lynda Student Subscription:

  http://www.lynda.com/academic.

Discipline Elective - IV

Practical:

Project outline:

- To further explore the selected concept in previous semester (Minor Project-II & III) and develop variations in the product range / prototype.

Learning Outcomes:

Upon completion of the course, students will be able to:

- Aware of the market and services expected from them as Designers
- Business aspect of the Design

Discipline Elective - V

Practical:

Project outline:

- To explore all the aspects related to a business/research topic and then make a proposal to start a Small/Medium size firm on their own.

Learning Outcomes:

Upon completion of the course, students will be able to:

- Make Business plan for a start-up in India considering all the aspects related to business/Research proposal feasible for National level.

Discipline Elective - VI

Practical:

Project outline:

- To prepare the final portfolio/Design presentation for IInd year Industrial project compiling all the work done in previous 5 Minor projects.

Learning Outcomes:

Upon completion of the course, students will be able to:

- Get Internship in an organization related to the projects undertaken

Third Semester

DES 605P/DES 603D UIL Project-I / Dissertation-I

	L	T	P	C
Max. Marks : 100				
(CA: 40 + ESA: 60)	**0**	**0**	**48**	**24**

Industrial Project – I

Through this orientation students will understand the importance of industrial/research project which includes:

1. Application of knowledge learned.
2. Acquire and develop practical skills.
3. Strengthen work values.
4. Gain interpersonal skills.
5. Get an understanding of how the market functions/what can be further research possible in that field.

Moreover, this UIL Project will help to integrate the knowledge and skills acquired in their I and II Semester Minor Projects and classroom learning.

The Project will be evaluated by an external examiner, an internal examiner and a Vice-chancellor's nominee. The marks of the continuous assessment obtained from the industry will be compiled by the Head of the Department based on various interim reports of mid-term/end of term evaluation received from the host organization and timely submission of report, synopsis and dissertation.

Learning Outcomes:

Upon completion of the course, students will be able to:

- Make students aware of the possible problems faced while undertaking a project and ways to find solutions to them.
- Make students understand the application of all the skills gained (both hard & soft skills) to make the project a success.

Fourth Semester

DES 606P/DES 604D UIL Project-II / Dissertation-II

	L	T	P	C
Max. Marks : 100				
(CA: 40 + ESA: 60)	**0**	**0**	**48**	**24**

Through this orientation students will understand the importance of industrial/research project which includes :

1. Application of knowledge learned.
2. Acquire and develop practical skills.
3. Strengthen work values.
4. Gain interpersonal skills.
5. Get an understanding of how the market functions/what can be further research possible in that field.

Moreover, this UIL Project will help to integrate the knowledge and skills acquired in their I and II Semester Minor Projects and classroom learning.

The Project will be evaluated by an external examiner, an internal examiner and a Vice-chancellor's nominee. The marks of the continuous assessment obtained from the industry will be compiled by the Head of the Department based on various interim reports of mid-term/end of term evaluation received from the host organization and timely submission of report, synopsis and dissertation

Learning Outcomes:

Upon completion of this course students should be able to:

- Make students aware of the possible problems faced while undertaking a project and ways to find solutions to them.
- Make students understand the application of all the skills gained (both hard & soft skills) to make the project a success.

Reading Elective

DES 432R Introduction to Behavioral Science

Max. Marks : 100

L	T	P	C
0	0	0	2

Theory:

Introduction to Behavioral sciences; a. Methods used in behavioral sciences, II. Behavior of the Individual: a. Nature/nurture debate, b. Behaviorism and learning theories, c. Behavior Modification

Science of Relationships: a. Non-verbal communication, b. Interpersonal relationships, c. Friendship and Love

Behavior at Work: a. Adjustment to Work, b. Motivation at work, c. Group dynamics, d. Decision-making

Learning Outcomes:

Upon completion of this course students should be able to:

- Grasp basic knowledge about behavioral science
- Appreciate the value of behavioral sciences in modern life
- Acquire "how to" discussions that address everyday problems.
- Develop critical thinking with logical reasoning and approach fundamental issues of health by multi-perspectives
- Show empathy to others and concern the health and well-being of others.

Recommended Books :-

1. Weiten, W., & Lloyd, M. A. , Psychology Applied to Modern Life: Adjustment to the Turn of the Century. 8th ed., Wadsworth, 2006.
2. Aboud, F. E., Health Psychology in Global Perspective, Thousand Oaks: Sage, 1998.
3. Bond, M. H. (ed.), The Handbook of Chinese Psychology, Hong Kong; Oxford; New York: Oxford University Press, 1996.
4. Cockerham, W. C., Medical Sociology, 8th ed., Upper Saddle River, N.J.: Prentice-Hall, 2001.

5. Cowling, A. G., Stanworth, M. J. K., Bennett, R. D., Curran, I., & Lyons, P., Behavioral
6. Sciences for Managers, 2nd ed., London: Arnold, 1988.
7. Fadem, B., Behavioral Science, 2nd ed., Baltimore: Harwal Publishing, 1994.
8. Greenberg, J., & Baron, R. A., Behavior in Organization, 4th ed., Boston: Allyn & Bacon, 1993.
9. Ishaq, W. (ed.), Human Behavior in Today's World, New York: Praeger, 1991.
10. Krug, R. S., & Cass, A. R., Behavioral Sciences, 3rd ed., New York, Hong Kong: Springer-Verlag, 1992.
11. Myers, D. G., Exploring Psychology, 6th Ed., New York: Worth Publishers, 2004.
12. Nevid, J. S., Rathus, S. A., Rubenstein, H. R., Health in the New Millennium, New York: Worth Publishers, 1998
13. Sarafino, E. P., Health Psychology: Bio psycho social Interactions, 3rd ed., New York: John Wiley &Sons, Inc., 1998
14. Taylor, S. E., Peplau, L. A., & Sears, D. O., Social Psychology, 10th ed., New Jersey, Upper Saddle River: Prentice Hall, 2000.
15. Organizational Behavior: Human Behavior at Work Book by John W. Newstrom and Keith Davis

Online Course:

Students can find avail the online courses on this subject from reputed and authentic sources and can produce the authentic evidences of the same.

Following are some online advertising courses:

1) Behavioral Psychology Courses
   Link: https://www.edx.org/learn/behavioral-psychology
2) Online Courses and Classes in Behavioral Psychology
   Link: https://study.com/articles/Online_Courses_and_Classes_in_Behavioral_Psychology.html
3) Behavioural Science MOOCs and Free Online Courses
   Link: https://www.mooc-list.com/tags/behavioural-science
4) Psychology
   Link:https://www.coursera.org/browse/social-sciences/psychology

DES 433R Introduction to Intellectual property Rights (IPR)

Max. Marks : 100

L	T	P	C
0	0	0	2

Theory:

Introduction to Intellectual Property and Rights, Objectives of National Intellectual Property Rights (IPR) Policy 2016, Government Initiatives for IPR: National Intellectual Property Rights Policy 2016 (NIPR Policy), Cell for IPR Promotion and Management (CIPAM), Awareness Initiatives, Strengthening Enforcement Agencies, Sensitization of Judiciary, Modernization of IP Offices, Augmentation of Human Resources, Re-engineering of IP Processes - Patent & Trade Mark Rules Amended, IPRs for Startups, Concession for MSMEs

Importance of IPR, Benefits of IP Registration, Effects of Non-Registration, Infringement and Penalties

Types of Intellectual Property Rights: Patents & Patents Registration Process, Designs & Design Registration Process, Trademarks & Trademarks Registration Process, Copyrights & Copyright Registration Process, Geographical Indications (Gi) & Gi Registration Process, Plant Varieties, Semiconductor Integrated Circuits Layout Design

Learning Outcomes:

Upon completion of this course students should be able to:

- Define intellectual property
- Identify and State reasons and ways to protect intellectual property
- Define the types such as: patents, copyrights, trademarks, designs, etc., found in everyday experiences
- Define piracy and counterfeit
- Understand the harm caused by piracy and counterfeit
- Identify the timelines and Duration of patents, copyrights, trademarks and designs
- Use the knowledge for getting IPR as per the requirement.

Recommended Resources :-

1. Secrets of Intellectual Property: A Guide for Small and Medium-sized Exporters. (n.d.). Retrieved from https://www.wipo.int/publications/en/details.jsp?id=294&plang=EN

2. Secrets of Intellectual Property: A Guide for Small and Medium-sized Exporters. (n.d.). Retrieved from https://www.wipo.int/publications/en/details.jsp?id=294&plang=EN

3. School-Teachers-Training-Module: Understanding Intellectual Property Rights

- **DIPP:** Nodal point for all IPR policy issues

  Department for Promotion of Industry and Internal Trade | MoCI | GoI. (2017, January 08). Retrieved from https://dipp.gov.in/

- **CGPTDM office:** For filing of IP applications/ to obtain real time status of all IP applications/ checking grants/ registration of IPRs:

  Patent: Patent Filing Requirements in India. (2011, January 14). Retrieved from https://www.bananaip.com/ip-news-center/patent-filing-requirements-in-india/

- **Copyright office:** For information related to filling and status of copyright applications:

  Copyright Office. (n.d.). Retrieved from http://copyright.gov.in/

- **Startup India:** For information regarding startups:

  Startup India. (n.d.). Retrieved from https://www.startupindia.gov.in/

- **Protection of Plant Varieties and Farmers' Rights Authority:** For filing/ registration of plant variety applications

  NEWS / Forth Coming Activities. (n.d.). Retrieved from http://www.plantauthority.gov.in/

- **TIFAC:** For information on filing of Indian/ foreign patents, patent search facilities: www.tifac.org.in

  TIFAC - Foresight. (n.d.). Retrieved from http://www.tifac.org.in/

- **Ministry of Electronics and Information Technology:** Providing IP Facilitation Support to DeitY Societies and Grantee Institutions, Financial Support to Startups and SMEs for International Patent Filing through SIP-EIT Scheme, Creation of IPR Awareness through Financial Support to Industry Bodies and Academia, Providing IPR Related Services including Prior Art Search

  Ministry of Electronics and Information Technology ... (n.d.). Retrieved from http://meity.gov.in/

- **Semiconductor Integrated Circuits Layout Design Registry (SICLDR):** For information related to filling and status of Semiconductor Integrated Circuit Layout Designs applications

  SICLDR:Semiconductor Integrated Circuits Layout Design ... (n.d.). Retrieved from http://sicldr.gov.in/

- **Teachers' Training Module:** http://cipam.gov.in/publications/resource-material/

  Official website of Department for Promotion of Industry and Internal Trade Ministry of Commerce and Industry Government of India. (n.d.). Retrieved from http://cipam.gov.in/

- **Booklet:** http://cipam.gov.in/wp-content/uploads/2017/09/bookletIPR.pdf

  Official website of Department for Promotion of Industry and Internal Trade Ministry of Commerce and Industry Government of India. (n.d.). Retrieved from http://cipam.gov.in/

DES 523R Fundamentals of Retail Management

Max. Marks : 100

L	T	P	C
0	0	0	2

Theory:

Section A

- I Introduction : Meaning and Definition, Social and economic Significance of retailing, Opportunities in retailing, characteristics of retailing
- Historical perspective of Retail in India and current Scenario.

Section B

- Types of retailers, retail change drivers in India, evolution of retail formats Theories of Retail Development - Environmental Theory, Cyclical Theory , Conflict Theory Service Retailing
- Retail Strategy: Meaning and Definition, building sustainable competitive advantage, growth strategies, global growth strategies, retail planning process.
- Retail Value Chain.

Section C

- Financial Aspects of Retail- Retail Economics, measures of performance income statement and balance sheet, measure of performance evaluation-

- Ratio analysis. Measuring retail store and space performance, measuring employee productivity.
- Ethics in Retailing: Stakeholders expectations- customers, community and general public, employees, business partners, shareholders.

Learning Outcomes:

Upon completion of the course, the students will be able to:

- Describe retailing, the entities involved, and the impact of decisions on a retail business
- Analyze the evolution of the retail industry
- Recognize career opportunities available in the retail businesses

Recommended Books:

1. Gibson G. Vedmani: Retail Management – Functional Principles & Practices; Jaico publishing house.
2. Chetan Bajaj, Rajnish Tuli, Nidhi V. Srivastava; Retail Management, Oxford University Press.
3. Swapna Pradhan : Retail Management, Tata McGraw Hill
4. Barry Berman, Joel R Evans: Retail Management – A strategic approach; Pearson

DES 434R Management Information System

Max. Marks : 100

L	T	P	C
0	0	0	2

Section A

- Framework: Concept, Management, Information, System, MIS definitions, Nature & Scope, Characteristics, Functions, Importance & Failures, and MIS & Use of Computers.
- Management Process: Introduction to management, Approaches to management, Functions of the manager, MIS: A support to the management, Management effectiveness, Planning, Organizing, Staffing, Directing, Controlling, and MIS: A tool for management process.

Section B

- Information : Concept, Attributes , Classification (action vs. no-action, recurring vs. non-recurring information, internal vs. external, organizational, functional, knowledge, decision-support,

operational), methods of information collection, Decision-making concept, Simon's model of decision-making, MIS & decision-making.

- Information System for Decision-making: Classification of MIS (TPS, MIS, DSS, EIS, OASs, BESs).

Section C

- Computer hardware for information system: Introduction- Basics of data representation, types of computers, basic components of computer system, factors to buy a PC Computer software for information system: Introduction- programming languages, classification of software, role of software in problem solving, criteria for investment in hardware & software.
- Applications of MIS in manufacturing sector: introduction, personnel, finance, Production, materials, marketing management.

Learning Outcomes:

Upon completion of the course, the students will be able to:

- Describe the role of information technology and information systems in business
- Understand the current issues of information technology and relate those issues to the firm
- Reproduce a working knowledge of concepts and terminology related to information technology
- Analyze and apply information technology.

Recommended Books

1. Javedekar, W.S. - Management Information Systems (Tata McGraw Hill).
2. A.K.Gupta - Management Information Systems (S.Chand & Company Ltd., 2003).
3. D.P.Goyal - Management Information Systems-Managerial Perspectives (Macmillan)
4. O'Brien - Management Information System(Prentice Hall of India).
5. Murdick R.G., Ross J.E. & Clagget J.R. – Information System for modern management. (Prentice Hall of India).
6. Kanter - Management Information System (Prentice Hall of India).

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