

SYLLABUS FOR
GMT & FMM
BRIDGE PROGRAM

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BRIDGE PROGRAM (GMT &FMM)

Contact Hours: 36

Course Code	Course Title	Load Allocation			Marks Distribution		Total Marks	Credits
		L	T	P	Internal	External		
BP MSc -101	Computer Integrated Manufacturing			3	100		100	2
BP MSc -102	Apparel Retail Management & Technology			3	100		100	2
BP MSc -103	Graphic Design & Application			3	100		100	2
BP MSc -104	International Marketing			3	100		100	2
BP NIIFT-105	Intellectual Property Rights			3	100		100	2
BP NIIFT-106	Personality Development and Communication Skills	3				100	100	2
BP NIIFT-107	Entrepreneurship Development Program			3	100		100	2
BP NIIFT-108	Environmental Science	3				100	100	2
BP NIIFT-109	Research Project			12	200		200	8
	Total						1000	24



LIST OF SUBJECTS

Bridge Program- for Post Graduate Diploma in GMT & FMM

1. BP MSc 101 Computer Integrated Manufacturing
2. BP MSc 102 Apparel Retail Management & Technology
3. BP MSc 103 Graphic Design & Application
4. BP MSc 104 International Marketing
5. BP NIIFT 105 Intellectual Property Rights
6. BP NIIFT 106 Personality Development and Communication Skills
7. BP NIIFT 107 Entrepreneurship Development Program
8. BP NIIFT 108 Environmental Science
9. BP NIIFT 109 Research Methodology

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SUBJECT-1**BP M. Sc. 101****COMPUTER INTEGRATED MANUFACTURING****Marks- 100****Objectives:**

Understanding of integration of activities in an enterprise is very important to optimally utilize the resources. This subject will enable the students to understand the integration aspects so these can be applied in the manufacturing situations

DETAILED CONTENTS**Unit 1. Introduction**

1.1. Types of manufacturing systems and their characteristics

Unit 2. Group Technology and Cellular Manufacturing

2.1. Parts classification and part coding - approaches and systems

2.2. Benefits of group technology

2.3.. Cellular manufacturing-basics, layout considerations

2.4. Cell formation approaches and evaluation of cell designs 2.5. Planning and control in cellular manufacturing

Unit 3. Materials Handling and Storage

3.1. Automated Material handling systems-AGVs, -types design features, guidance and control systems.

3.2. Automated storage and retrieval system (ASRS)-components, design features and applications.

Unit 4. Flexible Manufacturing Systems

4.1. FMS and its Components

4.2. Layout considerations in FMS

4.3. Benefits of FMS

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Unit 5. Just In Time (JIT)

- 5.1 Introduction and its comparison with MRP
- 5.2 Pull and push system
- 5.3 Kanban- Types and benefits

Unit 6. Enterprise Resource Planning

- 6.1 Main features
- 6.2 Generic Model
- 6.3 Selection of ERP system
- 6.4 Problems in ERP implementation

Unit 7. Industrial Robotics

- 4.4. Classification and basic motions
- 4.5. Components, joints
- 4.6. Robot Motion analysis-forward and backward kinematic transformations
- 4.7. Programming of Robots 4.8. Robot Applications
- 4.9. Robot selection and economic justification

Unit 8. Artificial Intelligence

- 4.10. Application areas
- 4.11. Knowledge representation methods
- 4.12. Search methods and matching techniques
- 4.11. Knowledge representation methods
- 4.12. Search methods and matching techniques

Books:

1. Groover, MP & Zimmers, E.W., "Computer Aided Design and Manufacturing", Prentice-Hall of India Pvt. Ltd.
2. Groover, MP., "Automation, Production Systems and Computer Aided Manufacturing", Prentice-Hall of India Pvt. Ltd.
3. Singh, Nanua, "Systems Approach to Computer Aided Design and Manufacturing", John Wiley and Sons.
4. Narsimhan, S.L. McLeavey, D.W. & Billigton. P.J., "Production Planning and

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- Inventory Control", Prentice Hall of India, New Delhi.
5. Mahapatra P.B. "Computer Aided Production Management". Prentice Hall of India, New Delhi.
 6. Riggs. J.L. "Production Systems-Planning, Analysis and Control" John Wiley & Sons. New York.
 7. Singh, Nanua, "Systems Approach to Computer Integrated Design and Manufacturing" John Wiley & Sons, New York.
 8. Volmann T.E., Bery W.L., Whybark D.C., "Manufacturing Planning and Control Systems" Galgotia Publications Pvt. Ltd., New Delhi

The student will be evaluated on the basis of:

His / Her presentation style

- Feedback of Faculty & Students

The student is required to present the work in the form of

1. Seminar Presentation-40 Marks
2. Report Preparation-40 Marks
3. Viva-20 Marks

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SUBJECT-2**BP M. Sc. 102****APPAREL RETAIL MARKETING AND MANAGEMENT-****Marks- 100*****Objectives***

To develop knowledge of contemporary retail management issues at the strategic level. To describe and analyze the way retailing works, specifically the key activities and relationships. To provide an academic underpinning to the above through the application of retailing theory and research.

Unit 1. Description for Retail Management:

- Understand effective methods and strategies required for retail management.
- Understand how to utilize resources and techniques used in retail management.
- Understand analysis of store location, merchandising, products and pricing.

1. Marketing and merchandising –an overview.

Introduction to various fashion brands and the relationship between fashion and marketing

2. A focus on the company's brand marketing. Taking various marketing cases and strategy.

3. Product development cycle of the fashion industry and supply chain strategies. Discussion of consumer analysis to creating, sourcing and presenting fashion collections (with visual presentation)

Unit 2.

4. Retail Overview – the history and development of the retail reality, the advent of the mono-brand store, life-style shopping, fashion brand strategies in retail .Building and Sustain Relationships in Retailing ,Strategic Planning in Retailing.

5. Production-Inventory-Distribution. A focus on the 'vertically integrated business model', discussion of the case study of brands like 'Zara' and Inditex the Spanish fast fashion global empire .

Unit 3.

6. Focus on the importance of the media and the relationship between fashion and fashion magazines

7. Developing Merchandise Plans

Assignments- based on surveys, and analysis of brands.

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2. Report Preparation-40 Marks
3. Viva-20 Marks

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SUBJECT-3**BP M. Sc. 103****GRAPHIC DESIGN AND APPLICATIONS****Marks- 100****Course Description:**

This course is aimed at students and design professionals who are interested in learning how to design, print using Photoshop and Corel DRAW. To create, capture and enhance the images in accordance with the final objective. It is a bitmap and vector based graphic designing program that designers use to create professional artwork or advertisements. In this course, students will explore the advanced features available with CorelDraw and Photoshop including advanced text, color, layout, layers styles and template techniques.

Objectives:

- After completing this course, you will be able to use CorelDraw advanced text, color, layout, latter style, and template techniques etc
- Learn how to manipulate, edit, and adjust images by using, the different tools in Photoshop. Students will learn how to apply layer effects and filters to create special effects, including lighting and texture effects.
- To show advanced skills in using painting tools and blending modes to create special effects and quality artworks.
- Perform good skill in color correction and restoration of photographs and images.
- To learn how to optimize images for use on the Web, and the advantages of using image slicing techniques.
- Demonstrate basic skills in developing a time-based production

Unit 1: INTRODUCTION TO ADOBE PHOTOSHOP

1. About Photoshop
2. Navigating Photoshop
3. Menus and panels
4. Opening new files
5. Opening existing files
6. Exploring the Toolbox
7. Exploring Panels & Menus
8. Creating & Viewing a New Document
9. Setting Preferences

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Unit 2: Working with Images and Basic Selections

1. Working with Multiple Images, Rulers, Guides & Grids
2. Adjusting Color with the New Adjustments Panel
3. Cropping & Straightening an Image
4. Adjusting Canvas Size & Canvas Rotation

Unit 3: GETTING STARTED WITH LAYERS AND PAINTING COMMANDS

1. Understanding the Background Layer
2. Creating, Selecting, Linking & Deleting Layers
3. Introduction to Blending Modes
4. Blending Modes, Opacity & Fill
5. Creating & Modifying Text

Unit 4: PHOTO DRAPING IN ADOBE PHOTOSHOP

1. Photo Draping Basics
2. Using a Wrap tool to Photo
3. Photo Draping a garment/dress with Blending modes
4. Photo Draping a Bed

Unit 5: PAINTING IN PHOTOSHOP

1. Using the Brush Tool
2. Working with Colors & Swatches
3. Creating & Using Gradients
4. Creating & Working with Brushes

Unit 6: PHOTO RETOUCHING AND COLOR CORRECTION

1. The Red Eye Tool
2. The Clone Stamp Tool
3. The Patch Tool & the Healing Brush Tool
4. The Spot Healing Brush Tool
5. The Color Replacement Tool
5. Adjusting Levels
6. Adjust Curves, Non-Destructively, with Adjustment Layers

Unit 7: USING QUICK MASK MODE AND THE PEN TOOL

1. Quick Mask Options
2. Painting a Selection
3. Saving & Removing a Selection from the Background
4. Understanding Paths & the Pen Tool
5. Creating Straight & Curved Paths

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6. Creating a Clipping Path

Unit 8: CREATING SPECIAL EFFECTS

1. Getting Started with Photoshop Filters
2. Smart Filters
3. Creating Text Effects
4. Applying Gradients to Text

UNIT-1: INTRODUCTION TO COREL DRAW

1. Exploring the CorelDraw Screen
2. File Management
3. Setting Up the Page
4. Moving Around and Viewing Drawings
5. Moving Around the Current Page
6. Viewing Modes
7. Inserting and Deleting Pages
8. Changing Page
9. Customizing Options
10. Using Multiple Workspaces
11. Customizing the Toolbars
12. Using Shortcuts
13. Saving Defaults
14. Setting File Backups

UNIT2: CREATION AND MANIPULATION

1. Drawing and Shaping Tools
2. Using the Freehand Tool
3. Drawing Lines and Polylines
4. Drawing Freehand Polygons
5. Drawing Perfect Shapes
6. Reshaping Lines and Polylines
7. Drawing Curves
8. Reshaping Curves
9. Drawing Rectangles
10. Drawing Circles
11. Selecting & Manipulating Objects
12. Selecting and Deselecting Objects
13. Moving Objects
14. Copying and Deleting Objects
15. Deleting Objects
16. Sizing Objects
17. Transforming Objects
18. Mirroring Objects
19. Rotating and Skewing Objects
20. Using Transform Docker

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21. Outlining & Filling Objects
22. Eyedropper and Paint bucket Tools
23. The Outline Tool
24. Choosing Outline Thickness
25. Choosing Outline Colors
26. Using Fill Tool
27. Uniform Fill, Fountain Fill, Pattern Fill
28. Interactive Mesh fill
29. Copying Attributes
30. Setting Outline and Fill Defaults
31. Arranging Objects
32. Arranging Objects
33. Grouping and Ungrouping Objects
34. Using Guidelines
35. Using Dynamic Guides
36. Using Snap To
37. Aligning Objects
38. Group and Child Objects
39. Combining and Breaking Objects
40. Welding Objects
41. Using Intersection

UNIT3: WORKING WITH SPECIAL EFFECTS AND TEXTS

1. Drawing With the Artistic Media Tool
2. Shaping an Object with an Envelope
3. Extruding an Object
4. Blending Two Objects
5. Using the Lens Effect
6. Adding Perspectives
7. Using Power Clips
8. Applying Contours
9. Applying Drop Shadows
10. Using Interactive Fills
11. Applying Distortions
12. Using Interactive Transparencies
13. Applying Mesh Fills
14. The Text Tool
15. Creating Artistic Text
16. Editing Text
17. Formatting Text
18. Setting Text Options
19. Creating Paragraph Text
20. Choosing Paragraph Options
21. Setting Indents Using the Ruler
22. Importing Text
23. Using the Spell Checker
24. Working With Paragraph

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UNIT4: WORKING WITH PARAGRAPH

1. Importing and Sizing Paragraph Text
2. Flowing Text Between Frames
3. Formatting Paragraph Frames
4. Wrapping Paragraph Text Around Objects
5. Applying Drop Caps
6. Typing Text Into Objects
7. Special Text Effects
8. Fitting Text to a Path
9. Converting Text to Curves
10. Creating Blended Text Shadows
11. Using Symbols and Clipart
12. Inserting Text Symbols
13. Adding Clipart
14. Modifying Clipart
15. Working With Bitmaps
16. What is a Bitmap
17. Importing Bitmap Options

UNIT 5: WORKING WITH COLORS, FILLS, & OUTLINES

1. Color Palettes
2. Fills & Outlines
3. Eyedropper Tool
4. Smart Fill
5. Contour and Distortion
6. Perspective
7. Lens Effect

Note: All topics are covered in extreme detail with practical examples for all.

Examination /Evaluation scheme

- **Practical Examination:** One Practical examination of 3 hours duration will be conducted on the modules described in the curriculum. The maximum marks will be 100.

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SUBJECT-4**BP M. Sc. 104****INTERNATIONAL MARKETING****Marks- 100****Objective-**

To make students aware of various international concepts and understanding of marketing processes being followed by various industries.

Unit 1. International Marketing -Concept and scope., Objectives ,Challenges and opportunities in International Marketing.

Unit 2. Global Marketing Environment—Economic Environment, Socio cultural Environment, Legal and statutory framework, Need for Environmental analysis,

Unit 3. Foreign Market Entry strategies; their merits and demerits

Unit 4. International Pricing, Decisions and factors influencing these decisions Uniform pricing V/s Market by market pricing

Unit 5. Brief introduction to physical channels of distribution for International Markets. Difficulties in designing International Distribution channels

Unit 6 Global Advertising –Issues and challenges, Merits & demerits of standardized global advertising theme, Push V/s Pull Strategies for International Markets

Unit 7. Export Documentation: Submitting Documents to Bank for purchase / Collection / Negotiation under L/C. Export Credit Limit. Preparing Export Document Shipping and Customs Clearance of the goods.P

References-

1. International Marketing by Cateora
2. Global Marketing Management by Warren Keegan
3. Global Marketing Strategies by Jeannet
4. International Marketing Management by Subhash Jai

***The student will be evaluated on the basis of:**

His / Her presentation style

- Feedback of Faculty & Students

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2. Report Preparation-40 Marks
3. Viva-20 Marks

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SUBJECT-5**BP NIIFT 105****INTELLECTUAL PROPERTY RIGHTS-****Marks-100**

- Focus of this paper would be on the following areas:
- Philosophical Aspects of Intellectual Property Laws
- Basic Principles of Patent Law
- Patent Application procedure
- Drafting of Patent Specification
- Understanding Copyright Law
- Basic Principles of Trade Mark
- Basic Principles of Design Rights-
- International Background of Intellectual Property -
- Ownership and Enforcement of Intellectual Property Rights

Unit 1. Patents-Objectives, Rights, Assignments, Defenses in case of Infringement

Unit 2. Copyright-Objectives, Rights, Transfer of Copyright, work of employment Infringement, Defences for infringement

Unit 3. Trademarks-Objectives, Rights, Protection of goodwill, Infringement, Passing off, Defenses.

Unit 4. Designs-Objectives, Rights, Assignments, Infringements, Defenses of Design Infringement

Unit 5. Enforcement of Intellectual Property Rights - Civil Remedies, Criminal Remedies, Border Security Measures.

Unit 6. Practical Aspects of Licensing -Benefits, Determinative factors, important clauses, licensing clauses.

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1. Seminar Presentation-40 Marks
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3. Viva-20 Marks

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SUBJECT-6**BP NIIFT 106****PERSONALITY DEVELOPMENT AND COMMUNICATION SKILLS****Marks 100**

The objective of this course is to develop good communication skills within the personality of students.

Unit 1**Personality Development**

1. Importance of personality development in tourism industry.
2. Handling Inferiority & superiority complex, doubt, fear and depressions. /Positive
3. And Negative thinking, self – confidence.
4. Self Presentation to prospective clients / colleagues / seniors/ Grooming /
5. Uniform regulations & Accessories.
6. Techniques to persuade influence and convince others.
7. Interview Techniques- Handling an interview (Appearing for an interview/Taking
8. an interview)
9. Body language in different situations

Unit 2**Communication Skills-**

1. **Essentials of Grammar-** Parts of Speech, Punctuation, Vocabulary Building, Phonetics
2. **Office Management-**
 - Types of Correspondence, Receipt and Dispatch of Mail
 - Filing Systems, Classification of Mail
 - Role & Function of Correspondence
3. **Letter & Resume Writing:**
 - Types of Letters-Formal / Informal, Importance and Function
 - Drafting the Applications
4. **Presentation Skills:**
 - Importance of Presentation Skills,
 - Guidelines to make Presentation Interesting,
 - Body Language
 - Forms of Layout
5. **Interview Preparation:**
 - Types of Interview, Preparing for the Interviews, Attending the Interview
 - Postures & Gestures
6. **Group Discussion & Presentation:**
 - Definition, Process, Guidelines,

***The students will be evaluated based upon an external examination conducted by PTU norms.**

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SUBJECT-7**BP NIIFT 107****ENTREPRENEURSHIP DEVELOPMENT PROGRAM****Marks 100**

Objectives: The main aim of the subject is on developing entrepreneurship skills in participants by preparing them for the competencies required.

The course also aims at giving insights into the Management of Small Family Business.

Unit 1

Entrepreneurship: Concept and Definitions, Entrepreneurship and Economic Development, Classification and Types of Entrepreneurs, Entrepreneurial Competencies, Factor Affecting Entrepreneurial Growth -EDP Programmers, Entrepreneurial Training, Traits/Qualities of an Entrepreneurs.

Unit 2

Small Enterprises and Enterprise Launching Formalities: Definition of Small Scale, Rationale, Objective, Scope, Role of SME in Economic Development of India, SME, Registration, NOC from Pollution Board, Machinery and Equipment Selection, Project Report Preparation, Preparing Project Report, Project Planning And Scheduling.

Unit 3

Role of Support Institutions and Management of Small Business: Director of Industries, DIC, SIDO, SIDBI, SIDC, SISI, NSIC, NISBUED, SFC, Marketing Management, Production Management, Finance Management, Human Resource Management, Export Marketing.

Suggested Readings:

1. D.F. Kuratko and R.M. Hodgetts: Entrepreneurship - Theory, Process and Practice, Thomson Press.
2. J.S. Saini: Entrepreneurship and Small Business in India, Himalaya Publishing House.
3. P. Charantimath: Entrepreneurship Development: Small Business Enterprises, Pearson Education.
4. Vasant Desai: Small-Scale Industries and Entrepreneurship, Himalaya Publishing House.
5. Otes David: A Guide to Entrepreneurship, Jaico Books Publishing House.
6. D.H. Holt: Entrepreneurship – New Venture Creation, Prentice Hall India.
7. A. Kaulgud: Entrepreneurship Management, Vikas Publishing House.
8. B. Theduri: Entrepreneurship Development – An Analytical Study, Akansha

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His / Her presentation style

- Feedback of Faculty & Students

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1. Seminar Presentation-40 Marks
2. Report Preparation-40 Marks
3. Viva-20 Marks

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SUBJECT-8**BP NIIFT 108****ENVIRONMENTAL SCIENCE****Marks 100**

Unit 1: The Multidisciplinary nature of environmental studies: Definition, scope and importance, Need for public awareness.

Unit 2: Natural Resources:

Renewable and non-renewable resources:

Natural resources and associated problems.

a) Forest resources: Use and over-exploitation, deforestation, case studies.

Timber extraction, mining, dams and their effects on forests and tribal People.

b) Water resources: Use and over-Utilization of surface and ground water, Floods, drought, conflicts and water, dams-benefits and problems.

c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.

d) Food resources: World food problems, changes caused by agriculture and Overgrazing, effects of modern agriculture, fertilizer-pesticide problems, Water logging, salinity, case studies.

e) Energy resources: Growing energy needs, renewable and non renewable energy sources, use of alternate energy sources. Case studies.

f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.

Unit 3: Ecosystems

- Concept of an ecosystem.
- Structure and function of an ecosystem.

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- Producers, consumers and decomposers.
- Energy flow in the ecosystem.
- Ecological succession.
- Food chains, food webs and ecological pyramids.
- Introduction, types, characteristic features, structure and function of the following ecosystem :-

a. Forest ecosystem. Grassland ecosystem. Desert ecosystem. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

Unit 4: Biodiversity and its conservation

- Introduction – Definition: genetic, species and ecosystem diversity.
- Biogeographically classification of India
- Value of biodiversity : consumptive use, productive use, social, ethical, aesthetic and option values
- Biodiversity at global, National and local levels.
- India as a mega-diversity nation
- Hot-spots of biodiversity.
- Threats to biodiversity : habitat loss, poaching of wildlife, man-wildlife
- Conflicts.
- Endangered and endemic species of India
- Conservation of biodiversity: In-situ conservation of biodiversity.

Unit 5: Environmental Pollution:

- Definition, Causes, effects and control measures of :-
- Air pollution
- Water pollution
- Soil pollution
- Marine pollution
- Noise pollution
- Thermal pollution
- Nuclear hazards

Unit 6: Social Issues and the Environment: From Unsustainable to Sustainable development

- Urban problems related to energy ,Water conservation, rain water harvesting, watershed management
- Resettlement and rehabilitation of people; its problems and concerns. Case

Studies.

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- Environmental ethics: Issues and possible solutions.
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies.
- Consumerism and waste products.
- Environment Protection Act.
- Air (Prevention and Control of Pollution) Act.
- Water (Prevention and control of Pollution) Act
- Wildlife Protection Act
- Forest Conservation Act
- Issues involved in enforcement of environmental legislation.
- Public awareness.

Unit 7: Human Population and the Environment

- Population growth, variation among nations.
- Population explosion – Family Welfare Programme.
- Environment and human health.
- Human Rights.
- Value Education.
- HIV / AIDS
- Women and Child Welfare.
- Role of Information Technology in Environment and human health.

Unit 8: Field work

- Visit to a local area to document environmental and river forest grassland hill
- Mountain.
- Visit to a local polluted site – Urban / Rural / Industrial / Agricultural
- Study of common plants, insects, birds.
- Study of simple ecosystems-pond, river, hill slopes, etc. (Field work Equal to 5
- lecture hours)

***The students will be evaluated based upon an external examination conducted by PTU norms.**

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SUBJECT-9**BP NIIFT 109****RESEARCH PROJECT****Marks 100**

- Each Candidate will be expected to undertake a research project/study for a period of 6 weeks during the semester, in the topic as decided by the student in consultation with a faculty guide/mentor. The student will choose an area of study and will be allocated a mentor from NIIFT, depending upon the topic chosen. The students will be required to carry a detailed study and prepare a report on research findings at the end of the programme which will be evaluated in different phases by the mentor, internal and external jury
- The marks allocation shall be

Mentor – 40 Marks

Internal Jury – 80 Marks

External Jury – 80 Marks

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