Program	BACHELOR OF VOCATION (B.Voc.)	**Semester - 3**
Type of Course	-	
Prerequisite		
Rationale	-	
Effective From A.Y.	2024-25	

Teaching Scheme (Contact Hours)				Examination Scheme				
				Theory Marks		Practical Marks		
Lecture	Tutorial	Lab	Credit	SEE T	IAT	SEE P	CCE	Total Marks
-	-	16	6	-	-	100	100	200

***SEE** - Semester End Examination, **IAT** - Internal Assessment Test, **CCE** - Continues & Comprehensive Evaluation*

Course Content

T - Teaching Hours | **W** - Weightage

Sr.	Topics	T	W
1	**Define the user experience design process and standards** **PC1:** Implement core design principles throughout the user experience design process (relevant to current time) **PC2:** Develop research methods that enable the collection of user requirements and user behavior patterns **PC3:** Drive the empathy mapping process to understand users' needs, goals, expectations, behavior, and habits **PC4:** Develop frameworks for brainstorming, imagining, and reflecting on possible solution outcomes **PC5:** Drive the prototyping process by facilitating sketching, visualization, and beta version development processes **PC6:** Drive processes for user behavior research, user persona development, user journeys, and user flows	10	
2	**Design and define style guide/ design system and specifications for developers** **PC1:** Define typography systems, i.e., titles, subtitles, headings (H1, H2, H3), body text, and captions used in design **PC2:** Provide specifications and examples for spacing, padding, and placement of design elements **PC3:** Address interface layouts across screen sizes define colour palette, specifications, combinations, and provide relevant examples **PC4:** Specify the sizes, styles, colors, placement, spacing, and typographic elements of various buttons to be used in the solution based on context **PC5:** Provide guidelines for the different UI components that may be needed, including Iconography, Tooltips and popovers, Modals, Form elements, Data Tables, Navigation menus, Charts and data visualizations, Tabs, On-off switches, Dialogs, Content grid lists, Vertical lists, Toolbars, Date and time pickers, Loading indicators, Checkboxes, Alerts, Dropdown menus, Sliders, Steppers and Pagination etc **PC6:** Document the design rationale used in the design system	10	
3	**Understand the business goals and define use cases as per the user needs** **PC1:** Identify business problems/opportunities that can serve as prospective business cases **PC2:** Evaluate organizational capability to deliver identified business cases **PC3:** Effectively communicate the findings and recommendations of identified business cases to all relevant stakeholders within the organization **PC4:** Gather stakeholder support to develop solutions for identified business cases **PC5:** Develop new use cases for identified business cases **PC6:** Help define business goals and technical specifications of the solution as per requirements **PC7:** Establish relationships with key relevant stakeholders such as design teams, business managers, product managers, etc **PC8:** Drive processes for user behavior research, user persona development, user journeys and user flows	20	
4	**Conduct a competitive analysis on strength and weakness of competitors products**	20	

Course Content

T - Teaching Hours | **W** - Weightage

Sr.	Topics	T	W
	PC1: Gather and analyze intelligence about products, customers, competitors, and landscapes **PC2:** Identify standard and emerging UI/UX trends, design principles, and best practices **PC3:** Stay up to date with the latest industry trends **PC4:** Track both leading and emerging solutions across the spectrum of solution providers **PC5:** Evaluate solutions based on criteria such as tone, features, user reviews, wait/load times, customer service, overall design, etc **PC6:** List the overall strengths and weaknesses of various solutions		
5	**Create user personas to encapsulate and communicate user behavior patterns** **PC1:** Determine the method(s) of research to collect user behavior data **PC2:** Recruit diverse, unbiased users to participate in research, considering both demographic and psychographic factors **PC3:** Gather user behavior data through questionnaires, online/offline/face-to-face interviews, group discussions, etc **PC4:** Evaluate user behavior data gathered in user interviews **PC5:** Tag the most important insights and problems gathered from user interviews **PC6:** Ensure that the data shows the current state of the interviewees instead of their expectation of the future **PC7:** Look for specific and repeatable metrics and patterns across users **PC8:** Classify users into various possible groups based on identified metrics and patterns **PC9:** Narrow search by minimizing and restricting the number of possible user groups **PC10:** For each user group, create a suitable identity that could represent the group **PC11:** Create a name for the identity and choose an appropriate image to represent the person **PC12:** Create a comprehensive persona for the person, including age, education, occupation, skills, attitude, likes, dislikes, habits, etc **PC13:** Ensure that personas sufficiently reflect the data and conclusions of investigations **PC14:** Evaluate scenarios in which the personas need to use the solution **PC15:** Utilize personas to optimize the function design throughout the entire development process	20	
6	**Develop sitemap and information architecture for the solution planned for the customer** **PC1:** Create a list of information elements on all the pages of the solution **PC2:** Include all information related to headings and subheadings, texts, media files (images, video, audio), documents (doc, pdf, ppt), and URL links of the pages **PC3:** Create a taxonomy to group all the different unstructured pieces of information and give them descriptions **PC4:** Design navigation such that visitors can find what they need **PC5:** Create a navigation system which consists of elements such as buttons, menus, and tables of content **PC6:** Determine which navigation style to use in the solution (e.g., hierarchical, global/sitewide, local, etc.) **PC7:** Create appropriate labelling to attract user attention and give the user a proper understanding of what to expect from clicking on a link **PC8:** Determine which site map pattern to use (such as single page model, flat structure, index pages pattern, strict hierarchy pattern, co-existing hierarchies' pattern, etc.) **PC9:** Create sitemaps to illustrate the hierarchy of content and display navigation **PC10:** Share information architecture and site maps with relevant stakeholders and developers	10	
7	**Develop user experience maps, user journeys and user flows** **PC1:** Determine the scope of the user experience map **PC2:** Ascertain the expectations that a user persona has about the interaction with the solution **PC3:** Describe the stages that the user experiences while engaging with the solution **PC4:** Clearly define how customers discover your solution, evaluate your services, pick you over competitors, purchase from you, and engage with you **PC5:** Establish the touchpoints for the customer to interact with the solution **PC6:** Sketch the journey in a format of step-by-step interaction **PC7:** Evaluate user goals and the various user flows possible to achieve a particular user goal **PC8:** Ensure that the flows effectively represent complexities such as multiple users, scenarios, touch points, mediums, etc.	10	
8	**Develop detailed wireframes to illustrate flow, interactions and interface elements**	10	

Course Content

T - Teaching Hours | **W** - Weightage

Sr.	Topics	T	W
	PC1: Develop wireframes to highlight flow, interactions, function, features, and basic design elements based on the form factor or screen size of the device **PC2:** Ensure that wireframe transitions look clear and logical **PC3:** Gather and analyze information about users regularly **PC4:** Evaluate the goals of the customer and what they want to achieve while using the solution **PC5:** Identify the intention of the user during the various customer phases **PC6:** Determine points of friction faced by the customer and evaluate the flow for a better user experience **PC7:** Develop and evaluate a wireframe prototype to evaluate user flow and interactions **PC8:** Evaluate the overall experience and feedback of the customer **PC9:** Continuously use the information from usability testing sessions and app analytics to refine the user journey		
9	**Develop a visual design/screens for the proposed wireframe** **PC1:** Analyze the most common and important tasks customers must complete using the interface **PC2:** Identify the various device groups for the product, such as mobile devices, tablets, desktops, smart TVs, smartwatches, etc **PC3:** Identify the various modes of interaction that depend on the particular device group **PC4:** Adapt the user experience based on the various modes of interaction **PC5:** Design for the smallest screens by prioritizing the most essential features and elements only **PC6:** Ensure that big screens are not developed only by scaling up small screen designs **PC7:** Pay attention to image quality as screens are scaled up **PC8:** Provide a consistent experience over various device groups **PC9:** Provide a seamless experience as users move across various device groups **PC10:** Perform usability tests for the solution with real users across various device groups **PC11:** Uncover UX issues to resolve before release	10	
10	**Design the assets such as imagery, graphics and animations for the user interface** **PC1:** Drive the UI asset development process for imagery, graphics, and animations for the user interface **PC2:** Define the final theme, specs, and guidelines required for implementation **PC3:** Prepare and share design specifications to the development team **PC4:** Engage with development teams to implement solutions	10	
11	**Conduct usability tests on the planned user experience designs at different stages** **PC1:** Develop limited functionality prototypes of the designs to test relevant design concepts **PC2:** Finalize the list of features, functionalities and tasks to be tested **PC3:** Develop appropriate KPIs/metrics to measure prototype performance **PC4:** Recruit diverse, unbiased users to participate in tests, considering both demographic and psychographic factors **PC5:** Finalize the format for the usability tests (e.g., laboratory usability testing, remote usability testing, etc.) **PC6:** Ensure test environments are kept as realistic as possible **PC7:** Shape the network bandwidth and limit bandwidth according to test needs **PC8:** Document test results using confidential test artefacts such as spreadsheets, surveys, audio recordings, screen recordings, participant recordings, etc. **PC9:** Analyze test results, evaluate trends, note possible problems, and identify potential solutions **PC10:** Evaluate quantitative information such as time on tasks, success and failure rates, number of clicks, etc. **PC11:** Evaluate qualitative information such as stress responses, subjective satisfaction, perceived effort, or difficulty **PC12:** Prepare a summary of what was tested, details of the testing team, and the goal of the session, with descriptions of all findings **PC13:** Describe the methodology used for the sessions, including the tasks or scenarios that were tested, the KPIs/metrics selected, and brief descriptions of user profiles and segments **PC14:** List all negative findings and provide potential solutions to address them **PC15:** List all positive findings and ensure development is on the right track	10	
12	**Develop your knowledge, skills and competence**	10	

Course Content

T - Teaching Hours | **W** - Weightage

Sr.	Topics	T	W
	PC1: Obtain advice and guidance from appropriate people to develop your knowledge, skills, and competence **PC2:** Identify accurately the knowledge and skills you need for your job role **PC3:** Identify accurately your current level of knowledge, skills, and competence and any learning and development needs **PC4:** Agree with appropriate people on a plan of learning and development activities to address your learning needs **PC5:** Undertake learning and development activities in line with your plan **PC6:** Apply your new knowledge and skills in the workplace, under supervision **PC7:** Obtain feedback from appropriate people on your knowledge and skills and how effectively you apply them **PC8:** Review your knowledge, skills, and competence regularly and take appropriate action		
13	**Build and maintain relationships at the workplace** **PC1:** Build rapport with appropriate people at the workplace **PC2:** Develop new professional relationships ' **PC3:** Build alliances to establish mutually beneficial working arrangements **PC4:** Foster an environment where others feel respected **PC5:** Identify and engage a diverse range of influential contacts **PC6:** Obtain guidance from appropriate people, where necessary **PC7:** Attentively listen to ideas and give constructive feedback **PC8:** Promptly resolve conflicts between team members **PC9:** Work with colleagues to deliver shared goals **PC10:** Recognize the contributions made by your colleagues	10	
14	**Convince others to take appropriate action in different situations** **PC1:** Gather the needs of the concerned people **PC2:** Adapt arguments to consider diverse needs **PC3:** Use small wins as milestones to gain support for ideas **PC4:** Persuade with the help of concrete examples or evidence **PC5:** Take defined steps to reach a consensus on the course of action	10	
15	**Manage and collaborate with stakeholders for project success** **PC1:** Identify the larger business and organizational context behind the requirements of the stakeholder **PC2:** Manage fluctuating stakeholder priorities and expectations **PC3:** Consult stakeholders early in critical organization-wide decisions **PC4:** Use formal communication methods to collaborate with stakeholders (such as meetings, conference calls, emails etc.) **PC5:** Keep stakeholders updated on changes in project requirements **PC6:** Define the frequency of communication with all the stakeholders **PC7:** Use suitable tools to represent numbers and pictures to present details **PC8:** Respond to requests in a timely and accurate manner **PC9:** Take feedback from stakeholders regularly **PC10:** Continuously improve work deliverables/service based on stakeholder feedback **PC11:** Plan deliverables based on stakeholder needs	10	
	Total	**180**	

Laboratory work will be based on above syllabus with minimum required experiments/exercises to be incorporated.