GUJARAT TECHNOLOGICAL UNIVERSITY
Bachelor of Vocation (B.Voc)
Semester: III
Branch: Software Development
Subject Name: User Experience Designer
OJT Elective
Subject Code: 21130207

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks
				Theory		Practical		
L	T	P	C	ESE (E)	PA(M)	ESE (V)	PA (I)	
-	-	15	15	-	-	100	100	200

L- Lectures; T- Tutorial/Teacher Guided Student Activity; P- Practical; C- Credit; ESE- End Semester Examination; PA- Progressive Assessment

OJT Hands on Exercise/Training:

Sr. No.	Training / Hands on Exercise	Hrs.
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, 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	20
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 PC5specify the sizes, styles, colors, placement, spacing and typographic elements of various buttons to be used in the solution based on context PC6. 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. PC7. document the design rationale used in the design system	20
3	**Understand the business goals and define use cases as per the user needs** PC1. identify business problems/opportunities which can serve as prospective business cases PC2. evaluate organizational capability to deliver identified business cases	20

	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	
4	**Conduct a competitive analysis on strength and weakness of competitors Products** 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 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 overall strengths and weakness of various solutions	20
5	**Create user personas to encapsulate and communicate user behavior patterns** PC1. determine 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 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 who could represent the group PC11. create a name for the identity and 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 have a need to use the solution PC15. utilize personas to optimize function design throughout the entire development	20
6	**Develop sitemap and information architecture for the solution planned for the customer**	10

	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 are able to 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 user 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	
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 touch points 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** 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 on a regular basis PC4. evaluate the goals of the customer and what they wanted 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 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 user journey	10

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 user experience based on the various modes of interaction PC5. design for smallest screens by prioritizing 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 consistent experience over various device groups PC9. provide seamless experience as users move across various device groups PC10. perform usability tests for solution with real users across various device groups PC11. uncover UX issues to resolve prior to 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 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 limitedfunctionality 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 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 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 solve them PC15. list all positive findings and ensure development is on the right track	10

12	**Develop your knowledge, skills and competence** 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 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	10
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 needs of 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 evidences 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 PC8. respond to requests in a timely and accurate manner PC9. take feedbacks from stakeholders regularly PC10. continuously improve work deliverables/service based on stakeholder feedback PC11. plan deliverables based on stakeholder needs	10
	Total	**200**

Course Outcomes:

Sr. No.	CO Statements	Marks Weightage %
1	Understand the concepts of the User Experience Design process with different UI/UX / graphics designing software.	15
2	Apply Design and style guide/ design system and specifications for UI/UX / graphics design.	15
3	Apply the concepts of business goals as per user needs for designing.	15
4	Conduct the analysis on strength and weakness of products.	15
5	Identify the data and classification as per user behavior patterns.	10
6	Apply the concepts of sitemap, planning, flow, interface elements, visual design.	10
7	Apply and Design the assets such as imagery, graphics and animations.	10
8	Apply different test criteria, knowledge, skills, competence, maintain relationship, collaboration with the user.	10

Reference:

https://nqr.gov.in/sites/default/files/ITITeS_Q8404_W%26M_User%20Experience%20Designer_MC_V2.pdf