



Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India
(Autonomous Institute Affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
ITC7055	Usability Engineering	04	-	-	04	-	-	04
		Examination Scheme						
		ISE	MSE	ESE				
		10	30	100 (60% Weightage)				

Pre-requisite Course Codes	
After successful completion of the course, student will be able to:	
Course Outcomes	CO1 Create useful usable and used interface.

Module No.	Topics	Ref.	Hrs.
1	Introduction Cost Savings, Usability Now, Usability Slogans, Discount Usability Engineering, Recipe For Action, Usability and Other Considerations, Definition of Usability, Example: Measuring the Usability of Icons, Usability Trade-Offs, Categories of Users and Individual User Differences	1,2	06
2	Generations of User Interfaces Batch Systems, Line-Oriented Interfaces, Full-Screen Interfaces, Graphical User Interfaces, Next-Generation Interfaces, Long-Term Trends in Usability.	1,2	02
3	The Usability Engineering Life cycle Know the User, Competitive Analysis, Goal Setting, Parallel Design, Participatory Design, Coordinating the Total Interface, Guidelines and Heuristic Evaluation, Prototyping, Interface Evaluation, Iterative Design, Follow-Up Studies of Installed Systems, Meta-Methods, Prioritizing, usability activities.	1,2	08
4	Usability Heuristics Simple and Natural Dialogue, Speak the Users' Language, Minimize User Memory Load, Consistency, Feedback, Clearly Marked Exits, Shortcuts, Good Error Messages, Prevent Errors, Help and documentation, heuristic evaluation.	1,2	08
5	Usability Testing Test Goals and Test Plans, Getting Test Users, Choosing Experimenters, Ethical Aspects of Tests with Human, Subjects, Test Tasks, Stages of a Test, Performance Measurement, Thinking Aloud, Usability Laboratories.	1,2	08



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6	Usability Assessment Methods beyond Testing Observation, Questionnaires and Interviews, Focus Groups, Logging, Actual Use, User Feedback, Choosing Usability Methods.	1,2	
7	Interface Standards National, International and Vendor Standards, Producing Usable In-House Standards. International User Interfaces International Graphical Interfaces, International U Internationalization, Resource Separation, Multilocale Interfaces.	1,2	08
8	Future Developments Theoretical Solutions, Technological Solutions, CAUSE Tools: Computer-Aided Usability Engineering, Technology Transfer	1,2	04
	Total hours of instructions		48

References:

1. Jacob Nielson, Morgan Kaufmann ,”*Usability Engineering*” , Academic Press.
2. Deborah Hix, Rex Hartson ,”*Developing User Interfaces-Ensuring Usability through Product & Process*”, Wiley