

## Lesson Plan

<b>Name of the Faculty:</b>			<b>Dr. Monika/ Er. Navneet/ Er. Shilpa</b>
<b>Discipline:</b>			<b>B.Tech CSE</b>
<b>Semester:</b>			<b>7<sup>th</sup></b>
<b>Subject:</b>			<b>Software Verification and validation Technique (PE-CS-D403A)</b>
<b>Work Load (Lecture/Practical) Per week (in hours):</b>			<b>Lecture - 3</b>
<b>Sr No.</b>	<b>Lecture No.</b>	<b>Theory</b>	<b>Pedagogy ( PPT &amp; Chalk-Board and Board/Video Recording /Activity/Case Study)</b>
		<b>Topic(Including Assignment/Test/Quiz)</b>	
1	L1	<b>Unit 1</b> - Introduction to software testing	Chalk-Board
2	L2	Introduction : Overview of software evolution	Chalk-Board
3	L3	SDLC, Testing Process, Terminologies in testing	PPT
4	L4	Error , Fault , Failure , verification	PPT
5	L5	What is software testing, why it is so hard?	PPT & Chalk-Board
6	L6	Validation , difference between verification and validation	PPT & Chalk-Board
7	L7	Test cases , Test Oracles, testing process	PPT & Chalk-Board
8	L8	Limitations of testing	PPT
9		<b>Class Test – Unit-1</b>	Offline
10	L9	<b>Unit 2</b> – Functional testing	PPT & Chalk-Board
11	L10	Boundary value analysis	PPT & Chalk-Board
12	L11	Equivalence class testing	PPT & Chalk-Board
13	L12	Decision table based testing	PPT & Chalk-Board
14	L13	Cause effect graphing technique	PPT & Chalk-Board
15	L14	Structural testing : path testing	PPT & Chalk-Board
16	L15	DD-paths ,	PPT & Chalk-Board
17	L16	cyclomatic complexity	PPT & Chalk-Board
18	L17	Graph metrics,	PPT & Chalk-Board
19	L18	data flow testing	PPT & Chalk-Board
20	L19	Mutation testing	PPT & Chalk-Board
21		<b>Query Session Unit-2</b>	Offline
22		<b>Assignment -1</b>	Offline

23	L20	<b>Unit 3</b> – Reducing the number of test cases.	PPT
24	L21	Prioritization guidelines	PPT & Chalk-Board
25	L22	Priority category ,	PPT & Chalk-Board
26	L23	Risk analysis ,	PPT & Chalk-Board
27	L24	regression testing	Case Study
28	L25	And slice based testing	PPT
29	L26	Testing activities : Unit testing , levels of testing	PPT & Chalk-Board/Example
30	L27	Integration testing	PPT
31	L28	System testing	PPT/Case Study
32	L29	domain testing	PPT
33		<b>Query Session Unit-3</b>	Offline
34		<b>Class Test Unit 3</b>	Offline
35	L30	<b>Unit 4</b> – Overview of SQM	PPT/Case Study
36	L31	Concepts of Software Quality,	PPT
37	L32	Quality Attribute	PPT & Chalk-Board
38	L33	Software Quality Models: McCall	PPT & Chalk-Board
39	L34	Boehm, ISO-9000, CMM	PPT
40	L35	Stress Testing, Ad hoc testing:	PPT
41	L36	Buddy testing, Exploratory testing,	PPT
42	L37	Agile and extreme testing	PPT
43	L38	<b>Query Session Unit-4</b>	Offline
44	L39	<b>Assignments -2</b>	Offline

## Lesson Plan

<b>Name of the Faculty:</b>	<b>Er. Ikshita/ Er. Shilpa</b>
<b>Discipline:</b>	<b>CSE</b>
<b>Semester:</b>	<b>7th</b>
<b>Subject:</b>	<b>Object Oriented Software Engineering:(PE-CS-D413A)</b>
<b>Work Load (Lecture/Practical) Per week (in hours):</b>	<b>15 weeks / Lectures-03</b>

Sr No.	Lecture No.	Theory	Pedagogy ( PPT& Chalk-Board and Board/Video Recording /Activity/Case Study)
		Topic(Including Assignment/Test/Quiz)	
1	L1	Design Objects	Chalk-Board
2	L2	Class Hierarchy, Inheritance	Chalk-Board
3	L3	Aggregations and Object Containment	PPT
4	L4	Object Persistence	PPT
5	L5	Meta classes	PPT & Chalk-Board
6	L6	Object oriented systems development life cycle	PPT & Chalk-Board
7	L7	Software development process	PPT
8	L8	Object oriented systems development: a use case driven approach	PPT
9		<b>Class Test – Unit-1</b>	Offline
10	L9	Object modeling techniques as software as software engineering methodology	PPT
11	L10	Rumbaugh methodology	PPT
12	L11	Jacobson methodology	PPT
13	L12	Booch methodology	PPT
14	L13	Patterns	PPT
15	L14	Frameworks	PPT
16	L15	Unified Modeling language	PPT & Chalk-Board
17	L16	Analysis Process	PPT & Chalk-Board
18	L17	Use-Case Driven Object Oriented Analysis	PPT & Chalk-Board
19	L18	Use-Case Model	PPT & Chalk-Board
20		<b>Query Session Unit-2</b>	Offline
21		<b>Assignment -1</b>	Offline
22	L19	Object Classification Theory	PPT & Chalk-Board
23	L20	Different Approaches for identifying classes	PPT & Chalk-Board

24	L21	classes, responsibilities	PPT & Chalk-Board
25	L22	identifying Object Relationships	PPT
26	L23	attributes and Methods	PPT & Chalk-Board
27	L24	super-sub class relationship	PPT & Chalk-Board
28	L25	Apart of Relationship-Aggregation	PPT & Chalk-Board
29	L26	Class Responsibilities	Case Study
30	L27	Object Responsibilities	PPT
31	L28	Object Oriented design process,	PPT & Chalk-Board/Example
32	L29	corollaries	PPT
33	L30	design axioms	PPT/Case Study
34	L31	object oriented design philosophies	PPT
35		<b>Query Session Unit-3</b>	Offline
36		<b>Class Test Unit 3</b>	Offline
37	L32	UML Object Constraint Language	PPT/Case Study
38	L33	Designing Classes: The Process, Class Visibility, Refining Attributes	PPT
39	L34	Designing Classes: The Process, Class Visibility, Refining Attributes	PPT & Chalk-Board
40	L35	design patterns	PPT & Chalk-Board
41	L36	Designing Methods and Protocols	PPT
42	L37	Designing Methods and Protocols	PPT
43	L38	collaborators	PPT
44	L39	Managing classes	PPT & Chalk-Board
45	L40	Packages	PPT & Chalk-Board
46	L41	Designing interface objects	PPT & Chalk-Board
48	L42	View layer interface design	PPT & Chalk-Board
49	L43	Macro level interface design process.	PPT & Chalk-Board
50	L44	Micro level interface design process	PPT & Chalk-Board
51		<b>Query Session Unit-4</b>	Offline
52		<b>Assignments -2</b>	Offline

## Lesson Plan

<b>Name of the Faculty:</b>		<b>Er. Alisha Gupta/ Er. Ritu Rajal/ Er. Ritu Sheoran</b>	
<b>Discipline:</b>		<b>B.Tech (CSE)</b>	
<b>Semester:</b>		<b>7<sup>th</sup></b>	
<b>Subject:</b>		<b>Cyber Law &amp; Ethics(OE-CS-401A)</b>	
<b>Work Load (Lecture/Practical) per week (In hours):</b>		<b>Lecture-3</b>	
S.No	Lecture No.	Theory	
		Topic (Including Assignment/Test/Quiz)	Pedagogy (PPT/Chalk and Board/Video Recording /Activity/Case Study)
1.	L1	<b>Unit 1:</b> Introduction to Cyber law, Evolution of computer Technology, emergence of cyber space	PPT, Chalk & Board
2.	L2	Cyber Jurisprudence, Jurisprudence and law	PPT, Chalk & Board
3.	L3	Doctrinal approach, Consensual approach, Real Approach	Chalk & Board
4.	L4	Cyber Ethics	Chalk & Board
5.	L5	Hierarchy of courts, Civil and criminal jurisdictions	Chalk & Board
6.	L6	Cyberspace- Web space, Web hosting and web Development agreement	PPT, Chalk & Board
7.	L7	Legal and Technological Significance of domain Names, Internet as a tool for global access	PPT, Chalk & Board
8.	L8	Revision	
9.		Assignment-1	On paper
10.	L9	<b>Unit-2:</b> Information Technology Act: Overview of IT Act, 2000	PPT, Chalk & Board
11.	L10	-----do-----	PPT, Chalk & Board
12.	L11	Amendments and limitations of IT Act	PPT, Chalk & Board
13.	L12	Digital Signatures	Chalk & Board
14.	L13	Cryptographic Algorithm, Public Cryptography, Private Cryptography	Chalk & Board

15.	L14	Electronic Governance, Legal Recognition of Electronic Records, Legal Recognition of Digital Signature	PPT, Chalk & Board
16.	L15	Certifying Authorities, Cyber Crime and Offences	PPT
17.	L16	Network Service Providers Liability	PPT, Chalk & Board
18.	L17	Cyber Regulations Appellate Tribunal	PPT, Chalk & Board
19.	L18	Penalties and Adjudication	PPT
20.	L19	Revision	
21.	L20	<b>Unit 3:</b> Cyber law and Related Legislation: Intellectual Property and intellectual property rights	PPT, Chalk & Board
22.	L21	Patent Law, Trademark Law, Copyrights	PPT, Chalk & Board
23.	L22	Software – Copyright or Patented	PPT, Chalk & Board
24.	L23	Domain Names and Copyright disputes	PPT, Chalk & Board
25.	L24	Electronic Data Base and its Protection	PPT, Chalk & Board
26.	L25	IT Act and Civil Procedure Code	PPT, Chalk & Board
27.	L26	IT Act and Criminal Procedural Code	PPT, Chalk & Board
28.	L27	Relevant Sections of Bankers Book Evidence Act,	PPT
29.	L28	Relevant Sections of Indian Penal Code	PPT
30.	L29	Relevant Sections of Reserve Bank of India Act , Law Relating to Employees And Internet	PPT, Chalk & Board
31.	L30	Alternative Dispute Resolution , Online Dispute Resolution (ODR)	PPT, Chalk & Board
32.	L31	Revision	
33.		Assignment	On Paper
34.	L32	<b>Unit-4:</b> Cyber Ethics: The Importance of Cyber Law, Significance of Cyber Ethics	PPT
35.	L33	Need for Cyber regulations and Ethics	PPT, Chalk & Board
36.	L34	Ethics in Information society, Introduction to Artificial Intelligence Ethics	PPT
37.	L35	Ethical Issues in AI and core Principles	PPT
38.	L36	Introduction to Block chain Ethics	PPT
39.	L37	Revision	