

Lesson Plan

Name of the Faculty : **Mr. Siddharth Arora**

Discipline : **Computer Sc. & Engineering**

Semester : **8th**

Subject : **MANAGEMENT INFORMATION SYSTEM–
ME 432 E**

Lesson plan : **15 Weeks(From January, 2018 to
April, 2018)**

Lecture per Week (in Hours) : **Lectures-04**

WEEK	THEORY	
	Lecture Day	Topic
1 st	1	Unit 1: Introduction to Compiling Analysis of the source program
	2	Phases of a compiler,
	3	Assignment No 1: Cousins of the Compiler
2 nd	4	Grouping of Phases
	5	Compiler construction tools, Lexical Analysis- regular Expression
	6	Test 1: Lexical Analysis –Regular Expression
3 rd	7	Introduction to Finite Automata and Regular Expression
	8	Conversion of Regular Expression to NFA
	9	Assignment No 2: Role of Lexical Analyzer
4 th	10	Input Buffering
	11	Specification of Tokens
	12	Test 2: Input Buffering
5 th	13	Unit 2: Syntax Analysis, Role of the Parser , Writing Grammars
	14	Symbol Table
	15	Assignment No 3: Context-Free Grammars
6 th	16	Top Down Parsing with or without Backtracking
	17	Recursive Descent Parsing, Non-Recursive Descent Parsing
	18	Test 3: Recursive Descent Parsing
	19	SLR Parser

7th	20	Canonical LR Parser
	21	Assignment No 4: LALR Parser
8th	22	Unit 3: Intermediate Code Generation and Code, Intermediate languages
	23	Declarations, Assignment Statements
	24	Test 4: Assignment Statements
9th	25	Boolean Expressions
	26	Case Statements
	27	Assignment No 5: Case Statements
10th	28	DAG representation of Basic Blocks
	29	A simple Code generator from DAG
	30	Test 5: A simple Code generator from DAG
11th	31	Issues in the design of code generator
	32	The target machine, Runtime Storage management
	33	Assignment No 6: Error Handling- Type checking
12th	34	Unit 4: Code Optimization and Run Time Environments: Principal Sources of Optimization
	35	Optimization of Basic Blocks
	36	Test 6: Optimization of Basic Blocks
13th	37	Peephole Optimization
	38	Introduction to Global Data Flow Analysis
	39	Assignment No 7: Source Language issues
14th	40	Storage Organization
	41	Static Storage Management, Heap Storage management
	42	Test 7: Heap Storage management
15th	43	Access to non-Local Names
	44	Parameter Passing
	45	Assignment No 8: Parameter Passing

Lesson Plan

Name of the Faculty : **Ms. Gurpreet Kaur**

Discipline : **Computer Sc. & Engineering**

Semester : **6th**

Subject : **Essentials of Information**

Technology

Lesson plan : **15 Weeks(From January, 2018 to April, 2018)**

Lecture per Week (in Hours) : **Lectures-03**

Week	Theory	
	Lecture Day	Topic(including assignment/test)
1 st	1.	Unit 1: Introduction to problem solving
	2.	Computational problem and its classification - Logic and its types
	3.	Introduction to algorithms Assignment No.1: flowchart
2 nd	4.	Searching algorithms: linear search, binary search
	5.	sorting algorithms: insertion, quick, merge, selection sort
	6.	Test 1: Searching
3 rd	7.	Introduction and classification to Data Structures
	8.	Basic Data Structures: array
	9.	stack, and queue, Assignment No 2: Identifiers, variables, data types
4 th	10.	Unit 2: Operators, control structures, type conversion, Casting, arrays,
	11.	Strings, Object Oriented Concepts fundamentals: class & object
	12.	Test 2: Class and Objects Concept.
5 th	13.	Instance variables & methods
	14.	Access specifiers, reference variables
	15.	Parameter passing techniques: Assignment No 3: Constructors, this reference
6 th	16.	Static, and command line arguments
	17.	Introduction to UML: Use case diagrams – Class diagrams
	18.	Unit 3: Relationships: aggregation
7 th	19.	Association
	20.	Inheritance, types of inheritance
	21.	Test 3: Inheritance and its Program
8 th	22.	Static Polymorphism: method overloading
	23.	Constructor overloading
	24.	Dynamic polymorphism: method overriding Assignment No 4:Destructor

9 th	25.	Abstract
	26.	Interface
	27.	Test 4:Constructor
10 th	28.	Introduction to packages Industry Coding Standards and Best Practices
	29.	code tuning & optimization
	30.	clean code & refactoring Assignment No 5: Data Models
11 th	31.	Unit 4:RDBMS- data processing
	32.	the database technology
	33.	Test 5: RDBMS
12 th	34.	Data models
	35.	ER modelling concept, Notations
	36.	Converting ER diagram into relational schema Assignment No 6: ER Diagram Examples
13 th	37.	Logical database design, DDL statements
	38.	normalization (1NF, 2NF and 3NF)
	39.	Test 6: SQL: DDL statements
14 th	40.	DCL statements
	41.	Joins, Sub queries
	42.	Assignment No 7:SQL Queries
15 th	43.	Views, Database design Issues
	44.	SQL fine-tuning
	45.	Test 7: Logical Data base Design

Books on Java

1. **Java™: The Complete Reference.**, Seventh Edition. Herbert Schildt
2. **Programming with Java 3e A Primer** by E **Balagurusamy**
3. **Introduction to Java Programming** by K. Somasundaram , Jaico Publishing House; 1 edition

Books on RDBMS, Oracle, MYSQL

1. **Fundamentals of Database Systems, with E-book (3rd Edition)** by Shamkant B. Navathe, Ramez Elmasri, Published January 15th 2002 by Addison Wesley Longman
2. **MySQL** by Paul DuBoisNew Riders Publishing
3. **Murach's MySQL Paperback – 2012**, by Joel Murach , Publisher: Shroff/Murach (2012)
4. **SQL: The Complete Reference** by James R. Groff, Paul N. Weinberg, Published March 1999 by McGraw-Hill Companies
5. **Schaum's Outline of Fundamentals of Relational Databases** by Ramon Mata-Toledo, Published November 15th 2000 by McGraw-Hill

Lesson Plan

Name of the Faculty : **Ms. Shikha Garg**

Discipline : **Computer Sc. & Engineering**

Semester : **6th**

Subject : **MOBILE COMPUTING(CSE-306n)**

Lesson plan : **15 Weeks(From January, 2018 to April, 2018)**

Lecture per Week (in Hours) : **Lectures-03**

Week	Theory	
	Lecture Day	Topic(including assignment/test)
1 st	1.	Unit 1: Introduction
	2.	Issues in mobile computing
	3.	Overview of wireless telephony: Cellular concept Assignment 1: Explain the cell working.
2 nd	4.	Mobile computing Architecture
	5.	Design considerations for mobile computing
	6.	Test 1: Architecture of Mobile computing
3 rd	7.	Mobile Computing through Internet Making existing applications mobile enabled
	8.	GSM: air-interface, channel structure
	9.	location management: HLR-VLR Hierarchical, Assignment 2: How GSM works.
4 th	10.	Handoffs
	11.	WCDMA, GPRS 3G, 4G.
	12.	Test 2: Handoff, Location Management
5 th	13.	Unit 2: Wireless LAN Overview:
	14.	MAC issues
	15.	IEEE 802.11 Assignment 3: Explain wireless communication.
6 th	16.	Blue Tooth, Wireless
	17.	Multiple access protocols, TCP over wireless
	18.	Test 3: Multiple Access Protocol
7 th	19.	Wireless applications, Networking data broadcasting
	20.	Mobile IP
	21.	WAP : Architecture, Traditional TCP, Classical TCP Assignment 4: Explain TCP.
8 th	22.	Improvements in WAP, WAP applications.
	23.	Unit 3: Data management issues,
	24.	Test 4: Mobile IP, WAP Architecture
9 th	25.	Data replication for mobile computers, adaptive clustering for mobile wireless networks

	26.	File system
	27.	Disconnected operations Mobile Agents computing, security and fault tolerance Assignment 5: What is clustering.Explain with help of an example.
10 th	28.	Transaction processing in mobile computing environment.
	29.	Cloud Architecture model,
	30.	Types of Clouds: Public Private & Hybrid Clouds Assignment 6: Explain Cloud computing.
11 th	31.	Resource management and scheduling, Clustering
	32.	Data Processing in Cloud: Introduction to Map Reduce for Simplified data
	33.	Test 5: Cloud Architecture.
12 th	34.	Processing on Large clusters.
	35.	Unit-4:Ad hoc networks, ,
	36.	Localization Assignment 7:Structure of Adhoc network.
13 th	37.	MAC issues
	38.	Routing protocols, Global state routing (GSR)
	39.	Test 6:Routing Protocol(GSR)
14 th	40.	Destination sequenced distance vector routing (DSDV)
	41.	Dynamic source routing (DSR)
	42.	Ad Hoc on demand distance vector routing (AODV) Assignment 8:Explain Routing with help of an example.
15 th	43.	Temporary ordered routing algorithm (TORA)
	44.	QoS in Ad Hoc Networks, Applications.
	45.	Test 7:DSR,AODV

Text Books:

1. Rajkamal, Mobile Computing, 2/E Oxford University Press,2011.
2. J. Schiller, Mobile Communications, Addison Wesley
3. Yi Bing Lin, Wireless and Mobile Networks Architecture , John Wiley.

Reference Books

1. A. Mehrotra , GSM System Engineering.
2. M. V. D. Heijden, M. Taylor, Understanding WAP, Artech House.
3. Charles Perkins, Mobile IP, Addison Wesley.
4. Charles Perkins, Ad hoc Networks, Addison Wesley.
5. Judith Hurwitz, Robin Bllor, Marcia Kaufmann, Fern Halper, Cloud Computing forDummies, 2009.

Lesson Plan

Name of Faculty : Prabhjeet Singh
 Department : Computer Science and Engineering
 Semester : 6th Semester
 Subject Name : Web Technology(CSE-308N)
 Lesson Plan Duration :15 weeks(January 2018 to April 2018)
 Work Load(Lecture) per week(in hours): Lectures-03

Week	Lecture Day	Topics to be covered (including assignment/test)
1 st	1	The role of information architect, collaboration and communication
	2	Organizing information, Organizational challenges.
	3	Organizing web site and intranets. Assignment- about information architect and organizing information
2 nd	4	Creative Cohesive organization system
	5	Designing Navigation system, type of navigation system
	6	Test- Navigation System and its type
3 rd	7	Integrated navigation elements, designing elegant navigation systems
	8	Searching systems, searching your web site
	9	Designing the search interface, indexing the right stuff Assignment- about searching system
4 th	10	To search or not to search grouping content, conceptual design
	11	High level Architecture blueprint, Architecture page mockups, Design Sketches
	12	Test- indexing the right stuff,search grouping content

5 th	13	Origin and evolution of html and xhtml
	14	Basic syntax, standard xhtml
	15	Document structure Assignment- standard html
6 th	16	Basic text markup, images, hypertext link
	17	List, tables, forms
	18	Test -text markup and images
7 th	19	Html 5,syntactic
	20	Difference between HTML and XHTML
	21	Introduction about CSS Assignment: Difference between html and XHTML
8 th	22	Levels of style sheets, style specification format
	23	Selector forms, property value forms
	24	Test:- about CSS
9 th	25	Font properties, List properties
	26	Color ,alignment of text, box model
	27	Background images,conflict resolution Assignment: about forms
10 th	28	Overview of java script, object orientation and java script
	29	General syntactic characteristics
	30	Primitives, Operations and Expressions, Assignment: object orientation and java script
11 th	31	Screen Output and Keyboard Input,
	32	Control Statements, Object Creation and Modification
	33	TEST: Screen Output and Keyboard Input,
12 th	34	Arrays, Functions
	35	Constructors
	36	Assignment: Arrays, Functions
13 th	37	Pattern Matching Using Regular Expressions
	38	Errors in Scripts
	39	Test: Pattern Matching Using Regular Expressions

14 th	40	Introduction to Python, Data Types and Expressions
	41	Control Statements
	42	Strings and Text Files Assignment: Data types and Expressions
15 th	43	Lists and Dictionaries
	44	Design with Functions
	45	Design with Classes

Text Books

1. By Peter Morville, Louis Rosenfeld, "Information Architecture on the World Wide Web", O'Reilly Media, 2006.
2. Robert W. Sebesta, "Programming The World Wide Web", Eight Edition, Pearson India, 2015.
3. Kenneth A. Lambert, "The Fundamentals of Python: First Programs", 2011, Cengage Learning.

Reference Book

1. Thomas A Powell, "HTML The Complete Reference", Tata McGraw Hill Publications.

Lesson Plan

Name of Faculty : Varun Jasuja
 Department : Computer Science and Engineering
 Semester : 6th Semester
 Subject Name : Software Engineering(CSE-310N)
 Lesson Plan Duration : 15 weeks(January 2018 to April 2018)
 Work Load(Lecture) per week(in hours): Lectures-03

Week	Lecture Day	Topics to be covered (including assignment/test)
1 st	1	Introduction to Software engineering
	2	Characteristics of SE
	3	Software crisis Assignment -Software Engineering and its Characteristics
2 nd	4	The Evolving Role Of Software <ul style="list-style-type: none"> • Water Fall Model
	5	Software Development Life Cycle(SDLC) Models <ul style="list-style-type: none"> • Prototype Model • Spiral Model • Evolutionary Development Models
	6	<ul style="list-style-type: none"> • Test-SDLC Models
3 rd	7	Software Development Life Cycle(SDLC) Models <ul style="list-style-type: none"> • Iterative Enhancement Models • RAD • V MODEL
	8	Software Requirement Specification <ul style="list-style-type: none"> • Requirement Engineering Process • Elicitation • Analysis
	9	Documentation, Review and Management of User Needs Assignment -Requirement Engineering Process
4 th	10	Feasibility Study, Data Flow Diagrams
	11	Decision Tables, SRS Documents, IEEE Standard for SRS
	12	Test -SRS Documents

5 th	13	Software Quality: <ul style="list-style-type: none"> • Software Quality • Concept Of Software Quality Assurance(SQA)
	14	SEI-CMM Model
	15	Introduction to Software Risk Management Assignment -Phases Of SEI-CMM Model
6 th	16	Software Configuration Management
	17	Software Design: Basic Concept, Characteristics of Good Software Design, Modularization
	18	Test -Software Configuration Management
7 th	19	Design Structure Charts
	20	Pseudo Codes Flow Charts
	21	Coupling and Cohesion Assignment: Types of Coupling and Cohesion
8 th	22	Design Strategies: Function Oriented Design, Object Oriented Design
	23	Top-Down and Bottom-Up Design
	24	Test: Top-Down and Bottom-Up Design
9 th	25	Software Measurement and Metrics: Various Size Oriented Measure
	26	Halstead's Software Science
	27	Function Point(FP) Based Measures Assignment: Various Size Oriented Measure
10 th	28	COCOMO MODEL
	29	COCOMO-I MODEL
	30	Cyclomatic Complexity Measures, Control Flow Graph Assignment: COCOMO Model
11 th	31	Software Construction: Fundamentals of Software Constructions
	32	Minimizing Complexity Top-Down and Bottom-Up Programming
	33	TEST: Top-Down and Bottom-Up Programming
12 th	34	Structured Programming
	35	Structured Programming
	36	Compliance with Design and Coding Standards Assignment: Structured Programming
13 th	37	Testing: Testing Objective
	38	Unit Testing Integration Testing
	39	Test: Unit Testing Integration Testing

14 th	40	System Testing, Acceptance Testing
	41	White Box Testing Black box testing
	42	Regression Testing, Structural Testing, Functional Testing Assignment: White Box Testing Techniques
15 th	43	Maintenance characteristics, key Issues Maintainability Types Of Software Maintenance
	44	Cost of Software Maintenance
	45	Software Re-Engineering CASE Tools

Text Books:

T1. Pressman S. roger, software Engineering

T2. Jalote Pankaj, An integrated approach to software engineering

Reference Books/Websites:

R1. Software engineering , Rahul Khurana

R2. Software engineering ,Rajiv Mall

Lesson Plan

Name of faculty : Ms. Megha
Discipline : B.Tech (CSE)
Semester : 6th
Subject : Business Intelligence & Entrepreneurship
Lesson Plan during : 15 Weeks (From January 2018 to April, 2018)

			THEORY
WEEK	LECTURE DAY	TOPIC (INCLUDING ASSIGNMENT/ TEST)	
1.	1.	Entrepreneurship: Concept And Definitions	
	2.	Entrepreneurship And Economic Development	
	3.	Classification Of Entrepreneurs	
2.	4.	Types Of Entrepreneurs	
	5.	Entrepreneurial Competencies	
	6.	Factor Affecting Entrepreneurial Growth	
3.	7.	Economic, Non-Economic Factors	
	8.	Test 1	
	9.	Assignment 1	
4.	10.	EDP Programmes	
	11.	Entrepreneurial Training	
	12.	Traits/Qualities Of An Entrepreneurs	
5.	13.	Entrepreneur; Manager Vs. Entrepreneur	
	14.	Opportunity / Identification And Product Selection	
	15.	Entrepreneurial Opportunity Search & Identification	
6.	16.	Criteria To Select A Product	
	17.	Conducting Feasibility Studies	
	18.	Project Finalization	
7.	19.	Sources Of Information	
	20.	Small Enterprises And Enterprise Launching Formalities	
	21.	Definition Of Small Scale	

8.	22.	Rationale Objective & Scope Of SSI
	23.	Role Of SSI In Economic Development Of India
	24.	SSI Registration
9.	25.	NOC From Pollution Board
	26.	Machinery And Equipment Selection
	27.	Project Report Preparation
10.	28.	Specimen Of Project Report
	29.	Project Planning And Scheduling Using Networking Techniques Of PERT / CPM
	30.	Test 2
11.	31.	Assignment 2
	32.	Methods Of Project Appraisal
	33.	Role Of Support Institutions And Management Of Small Business
12.	34.	Director Of Industries
	35.	DIC; SIDO; SIDBI;
	36.	Small Industries Development Corporation (SIDC)
13.	37.	SISI; NSIC; NISBUD; State Financial Corporation; SIC
	38.	Marketing Management
	39.	Production Management
14.	40.	Finance Management
	41.	Human Resource Management
	42.	Export Marketing
15.	43.	Case Studies
	44.	Test 3
	45.	Assignment 3

Lesson Plan

Name of the Faculty : **Prabhjeet Singh**

Discipline : **Computer Sc. & Engineering**

Semester : **6th**

Subject : **Web Engineering Lab (CSE-312N)**

Lesson plan : **15 Weeks (From January, 2018 to April, 2018)**

Lecture per Week (in Hours) : **Practical -03**

Week	Practical	
	Practical Day	Topic
1 st	1.	HTML Create your own page with your favorite hobbies using HTML, JavaScript and CSS.
2 nd	2.	Frameset In HTML Create a frameset in HTML that is divided into three sections. The frameset should have three zones. <ol style="list-style-type: none">The Topmost section of the frameset should take up about just 15% of the browser window. Name this frame title.The middle section should be 75% of the browser window. Name this frame title.The lower section should be 10% of the browser window. Name this frame menu.
3 rd	3.	Frameset In HTML Create pages for each section. For the lowermost section, create page that loads the content into the middle section. The topmost section should contain a page describing the web page itself.
4 th	4.	Navigation using HTML Create a web page, which displays the map of your country Link, each city /state on the image map, such that the respective HTML page of the city/state is displayed when the user selects an area.
5 th	5.	Applet Add the tickertape applet to your page by customizing it for the following settings: <ol style="list-style-type: none">Increase the count by one.Accordingly update the message count.Change the text color to (237,192,171)Experiment with changing the scrolling speed.Customize the message text as per your page requirement.
6 th	6.	Validation In Java Script Incorporate a quest book into the Diary Food Webpage and use Java

		Script to build validations into the form
7 th	7.	Cascading Style Sheet Use Cascading Style sheets (CSS) to modify the following: <ol style="list-style-type: none"> Change background. Change font type, face and color. Align Text. Remove underlines from hyperlinks.
8 th	8.	Loops In JavaScript Write the program for using JavaScript by using for – loops (through a block of code a number of times), for/in - loops (through the properties of an object), while - loops (through a block of code while a specified condition is true), do/while - loops (through a block of code while a specified condition is true).
9 th	9.	Call By Value and Call By Reference Write a program in Java Script for the following: <ol style="list-style-type: none"> Copying, passing, and comparing by value Copying, passing, and comparing by reference References themselves are passed by value
10 th	10.	Pattern Matching Write program in Java Script for pattern matching using regular expressions and errors in scripts
11 th	11.	Beginning of Python Programming Write a Python function/program that accepts the lengths of three sides of a triangle as inputs. The program output should indicate whether or not the triangle is an equilateral triangle.
12 th	12.	Searching using Python Write the Python functions for linear search, binary search, selection sort, Bubble Sort, Insertion Sort and converting Fibonacci to a linear algorithm.
13 th	13.	Control Statement in Python Write program in Python using Lists and dictionaries, Control statements and Strings and text files.

Lesson Plan

Name of the Faculty : **Ms. Gurpreet Kaur**
Discipline : **Computer Sc. & Engineering**
Semester : **6th**
Subject : **Essentials of Information**
Technology : **Lab- CSE 314N**
Lesson plan : **15 Weeks (From January, 2018 to**
April, 2018)
Lecture per Week (in Hours) : **Lectures-03**

PRACTICAL	
Practical Day	Topic
Week 1	Introduction to java programming basics
Week 2	Java variables, constants, Introduction about the basic java syntax
Week 3	Introduction about the Java-Objects & classes
Week 4	Introduction about the Java-Objects & classes. (Continued)
Week 5	Basic program in Java
Week 6	Electricity Bill Program in Java
Week 7	Write a program using JAVA to calculate the GPA of the students.
Week 8	Review and viva-voce of the students.

Week 9	Write a program in JAVA to add two matrices
Week 10	Write a java program to multiply two matrices.
Week 11	Write a java program to transpose a matrix.
Week 12	Write a java program to calculate Average of Marks
Week 13	Basic commands of SQL for creating the databases and tables.
Week 14	WAP for the implementation of JOINS.
Week 15	WAP to implement the DCL statements.

Lesson Plan

Name of the Faculty : **Varun Jasuja**

Discipline : **Computer Sc. & Engineering**

Semester : **6th**

Subject : **Software Engineering Lab(CSE-316N)**

Lesson plan : **15 Weeks(From January, 2018 to April, 2018)**

Lecture per Week (in Hours) : **Practical -03**

Week	Practical	
	Practical Day	Topic
1 st	1.	Need Of Software Engineering To identify the role of the software in today's world across a few significant domains related to day to day life.
2 nd	2.	Software Crisis To identify the problem related to software crisis for a given scenario.
3 rd	3.	Functional and Non-Functional Requirement To classify the requirement into functional and non-functional requirements.
4 th	4.	Software Metrics To implement at least four software metrics
5 th	5.	Software Requirement and Specification Preparation of requirement document for standard application problems in standard format for Library Management System
6 th	6.	Software Requirement and Specification Preparation of requirement document for standard application problems in standard format for Railway Reservation System
7 th	7.	Software Requirement and Specification Preparation of requirement document for standard application problems in standard format for Hospital Management System
8 th	8.	Software Requirement and Specification Preparation of requirement document for standard application problems in standard format for University Admission System
9 th	9.	Project Scheduling To prepare Project Schedule for standard application problems in standard format.
10 th	10.	Coding To Implement the given System in any Language
11 th	11.	Testing To implement the functional testing techniques
12 th	12.	Testing To implement the functional testing techniques

13 th	13.	Testing To implement the Structural testing techniques
14 th	14.	Testing To implement the Structural testing techniques
15 th	15.	VIVA