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**JMIETI, Radaur**

**Lesson Planof** Compiler Design **Deptt**CSE **Semester** Even

Name of Teacher : Tajinder Kumar

Designation : Assistant Professor

Subject with code : Compiler Design

**Objective of Course:**

1. To understand different phases in compiler construction and their functions
2. To understand the role of top down and bottom up parsing technique
3. To study various data structures used for symbol table and also learn the role of symbol table in compiler construction
4. To understand and apply error detection and correction method.
5. Understand the working of LEX Compiler for implementing and debugging of programs.
6. Code generation, machine independent code optimization and instruction scheduling.

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| **Week & Month** | **Topic / Chapter Covered** | **Academic Activity** | **Test/Assignment** |
| **JANUARY** | Introduction to Compiler | **LECTURE** |  |
| **JANUARY** | Analysis of the source program | **LECTURE** |  |
| **JANUARY** | Phases of a compiler | **LECTURE** |  |
| **JANUARY** | Cousins of the Compiler | **LECTURE** |  |
| **JANUARY** | Grouping of Phases | **LECTURE** |  |
| **JANUARY** | Compiler construction tools | **LECTURE** | **Assignment 1** |
| **JANUARY** | Lexical Analysis –Regular Expression | **LECTURE** |  |
| **JANUARY** | Introduction to Finite Automata and Regular expression | **LECTURE** |  |
| **JANUARY** | Conversion of Regular Expression to NFA | **LECTURE** |  |
| **JANUARY** | Role of Lexical Analyzer | **LECTURE** |  |
| **JANUARY** | Input Buffering, Specification of Tokens | **LECTURE** |  |
| **JANUARY** | Syntax Analysis ,Role of parser | **LECTURE** |  |
| **FEBRUARY** | Writing Grammars | **LECTURE** |  |
| **FEBRUARY** | Symbol Table | **LECTURE** |  |
| **FEBRUARY** | Context-Free Grammars | **LECTURE** |  |
| **FEBRUARY** | Top Down Parsing with or without backtracking | **LECTURE** | **Assignment 2** |
| **FEBRUARY** | Recursive Descent Parsing | **LECTURE** | **1st sessional** |
| **FEBRUARY** | SLR Parser | **LECTURE** |  |
| **FEBRUARY** | Canonical LR Parser | **LECTURE** | **Assignment 3** |
| **FEBRUARY** | LALR Parser | **LECTURE** |  |
| **FEBRUARY** | Intermediate Code Generation  Intermediate language,declarations | **LECTURE** | **Class Test 1** |
| **MARCH** | Assignment statement,Boolean expressions. | **LECTURE** |  |
| **MARCH** | Case Statements | **LECTURE** |  |
| **MARCH** | DAG representation of Basic Blocks | **LECTURE** |  |
| **MARCH** | A simple Code generator from DAG | **LECTURE** |  |
| **MARCH** | Issues in the design of code generator | **LECTURE** |  |
| **MARCH** | The target machine | **LECTURE** | **Class Test 2** |
| **MARCH** | Run time Storage management | **LECTURE** |  |
| **MARCH** | Error Handling- Type checking | **LECTURE** |  |
| **MARCH** | Code Optimization  Principal sources of optimization | **LECTURE** | **2nd sessional** |
| **MARCH** | optimization of basic blocks | **LECTURE** |  |
| **MARCH** | Peephole Optimization | **LECTURE** |  |
| **APRIL** | Source Language issues | **LECTURE** |  |
| **APRIL** | Run Time Environment | **LECTURE** | **Assignment 4** |
| **APRIL** | Storage Organization | **LECTURE** |  |
| **APRIL** | Static Storage Management | **LECTURE** |  |
| **APRIL** | Heap Storage management | **LECTURE** | **3rd sessional** |
| **APRIL** | Access to non-Local Names | **LECTURE** |  |
| **APRIL** | Parameter Passing | **LECTURE** |  |

**Outcome of Course:**

1) To understand, design and implement a lexical analyzer.

2) To understand, design and implement a parser.

3) To understand, design code generation schemes

4) To understand optimization of codes and runtime environment

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**JMIETI, Radaur**

**Lesson Planning of Essentials of Information Technology Deptt. CSE Semester 6th**

Name of Teacher : Ms. Upasana Sood

Designation : Assistant Professor & Head

Subject with code : CSE-304N

Objective of Course :

1. To learn the problem solving techniques

2. To develop the skills of design and test programs to implement object oriented concepts using Java.

3. To understand artifacts using common quality standards.

4. To study the relational database and design database using SQL.

5. To understand the use case diagrams.

6. To study normalization concept.

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| **Week & Month** | **Topic / Chapter Covered** | **Academic Activity** | **Test/Assignment** |
| **Jan** | Introduction to problem solving, | **Lecture** |  |
| **Jan** | Computational problem and its classification - Logic and its types, | **Lecture** |  |
| **Jan** | Introduction to algorithms and flowchart, | **Lecture** |  |
| **Jan** | Searching algorithms: linear search, | **Lecture** |  |
| **Jan** | binary search and sorting algorithms: insertion, | **Lecture** |  |
| **Jan** | quick, merge and selection sort, | **Lecture** | **Test** |
| **Jan** | Introduction and classification to Data Structures, | **Lecture** |  |
| **Jan** | Basic Data Structures: array, stack, and queue. | **Lecture** |  |
| **Feb** | **Programming Basics**: Identifiers, variables, data types, operators, control structures, type | **Lecture** | **Assignment** |
| **Feb** | reference variables, parameter passing techniques, constructors, this reference, static, and command line arguments | **Lecture** |  |
| **Feb** | **Introduction to UML**: Use case diagrams–Class diagrams | **Lecture** | **Assignment** |
| **Feb** | **Relationships**:aggregation, association, | **Lecture** |  |
| **Feb** | Inheritance, types of inheritance, Static Polymorphism: method overloading, | **Lecture** |  |
| **Feb** | constructor overloading, abstract, | **Lecture** | **Test** |
| **Feb** | Dynamic polymorphism: method overriding, | **Lecture** |  |
| **Feb** | interface, introduction to packages | **Lecture** |  |
| **March** | Industry Coding Standards and Best Practices, | **Lecture** |  |
| **March** | code tuning & optimization, | **Lecture** |  |
| **March** | clean code & refactoring | **Lecture** | **Assignment** |
| **March** | RDBMS- data processing, | **Lecture** |  |
| **March** | the database technology, | **Lecture** |  |
| **March** | data models, | **Lecture** |  |
| **March** | ER modelling concept, notations, | **Lecture** |  |
| **March** | converting ER diagram into relational schema, | **Lecture** |  |
| **April** | Logical database design, normalization (1NF, 2NF and 3NF) | **Lecture** | **Test** |
| **April** | SQL: DDL statements, DML statements, | **Lecture** |  |
| **April** | DCL statements, | **Lecture** |  |
| **April** | Joins, Sub queries, Views, | **Lecture** | **Assignment** |
| **April** | Database design Issues, | **Lecture** |  |
| **April** | SQL fine-tuning | **Lecture** |  |

Outcome of Course: 1.

2.

3.

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**JMIETI, Radaur**

Lesson Planning of Mobile Communication Deptt CSE Semester 6th

Name of Teacher : Dr R S Chauhan

Designation :Director & Professor

Subject with code :MOBILE COMPUTING (CSE-306N)

Objective of Course :

**1** Include major techniques involved and system issues for the design and implementation of

mobile computing.

**2** CO2 To study and learn various components of cellular architecture.

**3** Learn an analyze Ad-Hoc Network routing protocols and their applications.

**4** To analyze various data delivery models for mobile system.

**5** UNDERSTAND THE need and the trend toward mobility; the concepts portability and

mobility.

**6** Study of cloud architecture

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| **Week & Month** | **Topic / Chapter Covered** | **Academic Activity** | **Test/Assignment** |
| **Jan** |  |  |  |
|  | Introduction, issues in mobile computing, | **LECTURE** |  |
|  | overview of wireless telephony: cellular concept, Mobile computing Architecture, Design  considerations for mobile computing, | **LECTURE** |  |
|  | Mobile Computing through Internet, Making existing applications mobile enabled | **LECTURE** |  |
|  | GSM: air-interface, channel structure | **LECTURE** |  |
|  | location management: HLR-VLR, hierarchical, handoffs, | **LECTURE** | **Test** |
|  | channel allocation in Cellular systems | **LECTURE** |  |
|  | WCDMA, GPRS 3G, 4G | **LECTURE** |  |
| **February** |  |  |  |
|  | Wireless Networking, Wireless LAN Overview: MAC ISSUES | **LECTURE** |  |
|  | IEEE 802.11, Blue Tooth, | **LECTURE** | **Assignment** |
|  | Wireless multiple access protocols, TCP over wireless, | **LECTURE** |  |
|  | Wireless applications,data broadcasting | **LECTURE** |  |
|  | Mobile IP, WAP : Architecture, | **LECTURE** | **Test** |
|  | Traditional TCP, Classical TCP, | **LECTURE** |  |
|  | issues improvements in WAP, WAP applications | **LECTURE** |  |
| **March** |  |  |  |
|  | Data management issues, data replication for mobile computers, | **LECTURE** |  |
|  | adaptive clustering for mobile wireless networks, File system, Disconnected operations | **LECTURE** |  |
|  | Mobile Agents computing, security and fault tolerance, transaction processing in mobile  computing environment. | **LECTURE** | **Assignment** |
|  | Cloud Architecture model, Types of Clouds: Public Private & Hybrid Clouds, Resource  management and scheduling, | **LECTURE** |  |
|  | Clustering, Data Processing in Cloud: Introduction to Map Reduce for Simplified data  processing on Large clusters. | **LECTURE** |  |
| **April** |  |  |  |
|  | Ad hoc networks, localization, MAC issues,  Routing  protocols, global state routing (GSR), | **LECTURE** |  |
|  | **LECTURE** | **Assignment** |
|  | Destination sequenced distance vector routing (DSDV), | **LECTURE** |  |
|  | Dynamic source routing (DSR), | **LECTURE** | **Test** |
|  | Ad Hoc on demand distance vector routing (AODV), Temporary ordered routing  algorithm (TORA) | **LECTURE** |  |
|  | QoS in Ad Hoc Networks, applications. | **LECTURE** |  |

**JMIETI, Radaur**

Lesson Planning of Web engineering Deptt.CSE Semester 6th

Name of Teacher : Er.Priyanka Kamboj

Designation :Assistant Professor

Subject with code :CSE-308N

Objective of Course:

1. To study the elementary concepts of information and web architecture.
2. To develop skills that enable to design and build high level web enabled applications.
3. To learn JavaScript and its applications in current software industries.
4. To understand Style sheets and their implementations in web pages.
5. To introduce python, its design and functions.
6. Develop an ability to design and implement static and dynamic website.

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| **Week & Month** | **Topic / Chapter Covered** | **Academic Activity** | **Test/Assignment** |
| **JANUARY** | The role of Information Architect, Collaboration and communication | **LECTURE** |  |
| **JANUARY** | Organizing information, organizational challenges, Organizing web sites and Intranets | **LECTURE** |  |
| **JANUARY** | Creating cohesive organization systems, | **LECTURE** |  |
| **JANUARY** | designing navigation systems, types of navigation systems, Integrated navigation | **LECTURE** | **Assignment-1** |
| **JANUARY** | elements, designing elegant navigation systems, | **LECTURE** |  |
| **JANUARY** | Searching systems, Searching your web site, designing the search interface | **LECTURE** |  |
| **JANUARY** | Indexing the right stuff, To search or not to search grouping content,. | **LECTURE** |  |
| **JANUARY** | conceptual design, High level Architecture Blueprint. Architectural Page Mockups, | **LECTURE** | **Test** |
| **JANUARY** | Design Sketches | **LECTURE** |  |
| **FEBRUARY** | **Introduction to XHTML and HTML5**: Origins and Evolution of HTML and XHTML, | **LECTURE** |  |
| **FEBRUARY** | and XHTML. | **LECTURE** |  |
| **FEBRUARY** | Basic Syntax, Standard XHTML Document Structure, Basic Text Markup, | **LECTURE** | **Assignment-2** |
| **FEBRUARY** | Images, Hypertext Links, Lists, | **LECTURE** |  |
| **FEBRUARY** | Tables, Forms, HTML5, | **LECTURE** |  |
| **FEBRUARY** | Syntactic Differences between HTML | **LECTURE** |  |
| **FEBRUARY** | **Cascading Style Sheets**: Introduction, Levels of Style Sheets, Style, | **LECTURE** | **Test** |
| **MARCH** | Specification Formats, Selector Forms, Property Value Forms, Font Properties, List | **LECTURE** |  |
| **MARCH** | Properties | **LECTURE** |  |
| **MARCH** | Color, Alignment of Text, Box Model, Background Images, Conflict Resolution | **LECTURE** |  |
| **MARCH** | **Java Script**: Overview of JavaScript, Object Orientation and JavaScript, | **LECTURE** | **Assignment-3** |
| **MARCH** | General Syntactic Characteristics, Primitives, | **LECTURE** |  |
| **MARCH** | Operations, and Expressions, Screen Output and Keyboard Input, Control Statements, | **LECTURE** |  |
| **APRIL** | Pattern Matching Using Regular Expressions, Errors in Scripts | **LECTURE** |  |
| **APRIL** | **Python**: Introduction to Python, | **LECTURE** |  |
| **APRIL** | Data Types and Expressions, Control Statements, | **LECTURE** | **Test** |
| **APRIL** | Strings and Text Files, Lists and Dictionaries, | **LECTURE** |  |
| **APRIL** | Design with Functions, Design with Classes | **LECTURE** |  |

Outcome of Course:

1. Identify tools and technologies for developing web application
2. Develop user interface for web application
3. Develop web applications and web services
4. Develop dynamic webpage

(Sign. of HOD) (Sign. of Teacher Concerned with date)



JMIETI, Radaur

**Lesson Plan of Software Engineering Department CSE Semester 6th**

Name of Teacher : Tajinder Kumar

Designation : Assistant Professor

Subject with code : Software Engineering (CSE-310)

Objective of Course :

1. To study the fundamental concepts of software engineering.

2. Learn the skills to construct efficient software.

3.To study the software process models

4. To understand the basic concepts of software requirements and analysis.

5. To learn different design techniques and their uses.

6.To understand the software testing and maintenance criteria.

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| Week & Month | Topic / Chapter Covered | Academic Activity | Test/Assignment |
| January |  |  |  |
| 1st week, | Introduction to Software Engineering, Software Characteristics, | LECTURE |  |
| 1st week | Software Crisis, The Evolving role of Software, | LECTURE |  |
| 2nd week | Software Development Life Cycle (SDLC) Models: Water Fall Model | LECTURE | Class Test |
| 2nd week | Prototype Model ,Spiral Model, | LECTURE | Assinment-1 |
| 3rd week | Evolutionary Development Models | LECTURE | Class Test/Tutorial sheet |
| 4th week | Iterative Enhancement Models, RAD, V Model. | LECTURE |
| 5th week | Software Requirement Specification | LECTURE | Event task |
| February |  |  |  |
| 1st week, | Engineering Process: Elicitation, Analysis, | LECTURE | Assinment-2 |
| 1st week | Documentation, Review and Management of User Needs, Feasibility Study, | LECTURE | Event task |
| 2nd week | Data Flow Diagrams, Decision Tables, SRS Document, IEEE Standard for SRS. | LECTURE | Class Test |
| 2nd week | Software Quality: Software Quality, Concept of Software Quality Assurance (SQA), SEI-CMM Model | LECTURE | Event task |
| 3rd week | Introduction to Software Risk Management and Software Configuration Management | LECTURE | 1st Sessional |
| 4th week | Software Design: Basic Concept of Software Design, Modularization, | LECTURE | Class Test/Tutorial sheet |
| 4th week | Design Structure Charts, Pseudo Codes, Flow Charts, Coupling and Cohesion | LECTURE |
| March |  |  |  |
| 1st week, | Design Strategies: Function Oriented Design, Object Oriented Design, | LECTURE | Class Test/Tutorial sheet |
| 1st week | Software Measurement and Metrics: Various Size Oriented Measures: Halstead’s Software Science, | LECTURE |
| 2nd week | Top-Down and Bottom-Up Design | LECTURE | Assinment-3 |
| 3rd week | Function Point (FP) Based Measures, COCOMO, | LECTURE | Event task |
| 4thweek | Cyclomatic Complexity Measures: Control Flow Graphs. | LECTURE | 2nd Sessional |
| April |  |  |  |
| 1st week, | Software Construction :Software construction fundamentals minimizing complexity, Top-Down and Bottom –Up programming, | LECTURE | Class Test/Event task |
| 1st week | Structured programming, Compliance with Design and Coding Standards. | LECTURE |
| 2nd week | Testing: Testing Objectives, Unit Testing, Integration Testing, system testing,  Acceptance TESTING | LECTURE | Assinment-4 |
| 3rd week | Regression Testing, Structural Testing, Functional Testing, debugging. | LECTURE | Class Test |
| 4th week | Maintenance: key issues, Types of software Maintenance, Cost of Maintenance, Software Re-Engineering | LECTURE | Event task |

Outcome of Course:

1)To understand the basic concepts of Software Engineering

1. To learn about the skills that will enable to construct high quality software

3) To understand the software process models

4) To understand the fundamental concept of requirements engineering and Analysis Modeling

5) To understand the different design techniques and their implementation

6) To learn about software testing and maintenance measures.

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**JMIETI, Radaur**

Lesson Planning of Bussiness Info.Systems Deptt. CSE. Semester 6th

Name of Teacher : Ms. RitikaGarg

Designation :Assistant Professor

Subject with code : HS-303N

Objective of Course :

1. Students will be able understand who the entrepreneurs are and what competences needed to

become an Entrepreneur

1. Students will be able understand insights into the management, opportunity search, identification of a Product; market feasibility studies; project finalization etc. required for small business enterprises.
2. Students can be able to write a report and do oral presentation on the topics such as product

identification, business idea, export marketing etc.

1. Students be able to know the different financial and other assistance available for the establishing small industrial units.

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| **Week & Month** | **Topic / Chapter Covered** | **Academic Activity** | **Test/Assignment** |
| **Jan** | Entrepreneurship: Concept and Definitions; | **Lecture** |  |
| **Jan** | Entrepreneurship and Economic Development; | **Lecture** |  |
| **Jan** | Classification and Types of Entrepreneurs; | **Lecture** |  |
| **Jan** | EDP Programs | **Lecture** | **Test** |
| **Jan** | Entrepreneurial Competencies;; | **Lecture** |  |
| **Jan** | Factor Affecting Entrepreneurial Growth – Economic, Non-Economic Factors; | **Lecture** |  |
| **Jan** | Entrepreneurial Training; | **Lecture** |  |
| **Feb** | Traits/Qualities of an Entrepreneurs; | **Lecture** |  |
| **Feb** | Entrepreneur; Manager Vs. Entrepreneur. | **Lecture** | **Assignment** |
| **Feb** | Opportunity / Identification and Product Selection | **Lecture** |  |
| **Feb** | Entrepreneurial Opportunity | **Lecture** |  |
| **Feb** | Search and Identification; Criteria to Select a Product; | **Lecture** |  |
| **Feb** | Conducting Feasibility Studies; Project Finalization; Sources of Information | **Lecture** |  |
| **Feb** | Small Enterprises and Enterprise Launching Formalities | **Lecture** | **Test** |
| **March** | Definition of Small Scale; | **Lecture** |  |
| **March** | Rationale; Objective; Scope; | **Lecture** |  |
| **March** | Role of SSI in Economic Development of India; SSI; | **Lecture** |  |
| **March** | Registration; NOC from Pollution Board; Machinery and Equipment Selection; | **Lecture** |  |
| **March** | Project Report Preparation; Specimen of Project Report; Project. | **Lecture** | **Assignment** |
| **March** | Planning and Scheduling using Networking Techniques of PERT / CPM; Methods of | **Lecture** |  |
| **March** | Project Appraisal | **Lecture** |  |
| **March** | Role of Support Institutions and Management of Small Business | **Lecture** |  |
| **April** | Director of Industries; DIC; | **Lecture** |  |
| **April** | SIDO; SIDBI; Small Industries Development Corporation (SIDC); SISI; NSIC | **Lecture** |  |
| **April** | NISBUD; State Financial Corporation SIC; Marketing Management; Production | **Lecture** | **Test** |
| **April** | Management; | **Lecture** |  |
| **April** | Finance Management; Human Resource Management; Export Marketing; Case Studies- At least one in whole course. | **Lecture** |  |