



<b>Program : Computer Science and Design</b>	
<b>Third Year : Semester - V</b>	
<b>Course Code: CSC501</b> <b>Course Name: Theoretical Computer Science</b>	
CSC501.1	Understand concepts of Theoretical Computer Science, difference and equivalence of DFA and NFA, languages described by finite automata and regular expressions.
CSC501.2	Design Context free grammar, pushdown automata to recognize the language.
CSC501.3	Develop an understanding of computation through Turing Machine.
CSC501.4	Acquire fundamental understanding of decidability and undecidability.
<b>Course Code: CSC502</b> <b>Course Name: Software Engineering</b>	
CSC502.1	Identify requirements & assess the process models.
CSC502.2	Plan, schedule and track the progress of the projects.
CSC502.3	Design the software projects.
CSC502.4	Do testing of software project.
CSC502.5	Identify risks, manage the change to assure quality in software projects.
<b>Course Code: CSC503</b> <b>Course Name: Computer Network</b>	
CSC503.1	Demonstrate the concepts of data communication at physical layer and compare ISO – OSI model with TCP/IP model.
CSC503.2	Explore different design issues at data link layer.
CSC503.3	Design the network using IP addressing and sub netting / supernetting schemes.
CSC503.4	Analyze transport layer protocols and congestion control algorithms.
CSC503.5	Explore protocols at application layer.
<b>Course Code: CSC504</b> <b>Course Name: Data Warehousing and Mining</b>	
CSC504.1	Understand data warehouse fundamentals and design data warehouse with dimensional modelling and apply OLAP operations.
CSC504.2	Understand data mining principles and perform Data preprocessing and Visualization.
CSC504.3	Identify appropriate data mining algorithms to solve real world problems.
CSC504.4	Compare and evaluate different data mining techniques like classification, prediction, clustering and association rule mining.
CSC504.5	Describe complex information and social networks with respect to web mining.



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<b>Course Code: CSDLO5012</b>	
<b>Course Name: Internet Programming</b>	
CSDLO5012.1	Implement interactive web page(s) using HTML and CSS.
CSDLO5012.2	Design a responsive web site using JavaScript.
CSDLO5012.3	Demonstrate database connectivity using JDBC.
CSDLO5012.4	Demonstrate Rich Internet Application using Ajax.
CSDLO5012.5	Demonstrate and differentiate various Web Extensions.
CSDLO5012.6	Demonstrate web application using Reactive Js.
<b>Course Code: CSL501</b>	
<b>Course Name: Software Engineering Lab</b>	
CSL501.1	Identify requirements and apply software process model to selected case study.
CSL501.2	Develop architectural models for the selected case study.
CSL501.3	Use computer-aided software engineering (CASE) tools.
<b>Course Code: CSL502</b>	
<b>Course Name: Computer Network Lab</b>	
CSL502.1	Design and setup networking environment in Linux.
CSL502.2	Use Network tools and simulators such as NS2, Wireshark etc. to explore networking algorithms and protocols.
CSL502.3	Implement programs using core programming APIs for understanding networking concepts.
<b>Course Code: CSL503</b>	
<b>Course Name: Data Warehousing and Mining Lab</b>	
CSL503.1	Design data warehouse and perform various OLAP operations.
CSL503.2	Implement data mining algorithms like classification.
CSL503.3	Implement clustering algorithms on a given set of data sample.
CSL503.4	Implement Association rule mining & web mining algorithm



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<b>Course Code: CSL504</b>	
<b>Course Name: Professional Communication &amp; Ethics II</b>	
CSL504.1	Plan and prepare effective business/ technical documents which will in turn provide solid foundation for their future managerial roles.
CSL504.2	Strategize their personal and professional skills to build a professional image and meet the demands of the industry.
CSL504.3	Emerge successful in group discussions, meetings and result-oriented agreeable solutions in group communication situations.
CSL504.4	Deliver persuasive and professional presentations.
CSL504.5	Develop creative thinking and interpersonal skills required for effective professional communication.
CSL504.6	Apply codes of ethical conduct, personal integrity and norms of organizational behavior.
<b>Course Code: CSM501</b>	
<b>Course Name: Mini Project 2A</b>	
CSM501.1	Identify societal/research/innovation/entrepreneurship problems through appropriate literature surveys.
CSM501.2	Identify Methodology for solving above problem and apply engineering knowledge and skills to solve it.
CSM501.3	Validate, Verify the results using test cases/benchmark data/theoretical/inferences/experiments/simulations.
CSM501.4	Analyze and evaluate the impact of solution/product/research/innovation/entrepreneurship towards societal/ environmental/sustainable development.
CSM501.5	Use standard norms of engineering practices and project management principles during project work.
CSM501.6	Communicate through technical report writing and oral presentation. <ul style="list-style-type: none"><li>• The work may result in research/white paper/ article/blog writing and publication.</li><li>• The work may result in business plan for entrepreneurship product created.</li><li>• The work may result in patent filing.</li></ul>
CSM501.7	Gain technical competency towards participation in Competitions, Hackathons, etc.
CSM501.8	Demonstrate capabilities of self-learning, leading to lifelong learning.
CSM501.9	Develop interpersonal skills to work as a member of a group or as leader.