

Guru Nanak Dev Engineering College, Ludhiana
Department of Computer Applications
Date sheet online 2nd MSE

MCA 4th Semester

S. No	Date	Time	Subject Name	Subject Code	Whether Compulsory/ Elective
1	28/05/2020	3:30- 4:30 PM	Programming Languages	MCA-15401	Compulsory
2	29/05/2020	3:30- 4:30 PM	Data Warehousing & Mining	DEMCA-15407	Elective-II
3	30/05/2020	3:30- 4:30 PM	E-Commerce & Web Application Development	MCA-15402	Compulsory
4	01/06/2020	3:30- 4:30 PM	Advanced Operating Systems	MCA-15403	Compulsory

Coordinator Examination

HoD

Guru Nanak Dev Engineering College, Ludhiana
Department of Computer Applications
Syllabus for 2nd MSE

Programming languages MCA-15401

1.	<p>Sequence Control: Implicit and explicit sequence control, sequence control within expression, sequence control between statements, subprogram sequence control, recursive subprogram, exceptions and exception handlers, Co-routines, scheduled subprograms, tasks and concurrent execution, data structures and sequence control.</p> <p>Data Control: names and referencing environments, static and dynamic scope, block structure, local data and local referencing environments, shared data, task and shared data. Evolution of .NET, Comparison of Java and .NET, Architecture of .NET framework, Common Language Runtime, CTS, CLS, Just-in-Time compilation, Class Libraries, Metadata, Assemblies, Garbage Collection, Application Domains, Introduction to Windows Presentation Foundation (WPF) and Windows Communication Foundation (WCF) , Silver light, Creating applications using .NET programming languages, Data base connectivity</p>
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E-Commerce & Web Application Development MCA-15402

2.	<p>WWW concepts, Client/Server Computing, Web Servers and Clients, Web Browsers, Protocols and Ports, IP Address, Domains & DNS, URL, A Systematic approach to Website creation, Creating interactive and dynamic web pages, Factors in E-Commerce Website design, Web and Database integration, Website Optimization strategies E-Commerce security, threats, managing security issues through internet security protocols and standards, and Firewall. Review of HTML, HTML tags; text formatting; text styles; lists: ordered, unordered and definition lists; layouts; adding graphics; tables; linking documents; images as hyperlinks; frames and layers; data collection using forms. CSS: Introduction, consistent web designing using CSS</p> <p>Java Script: Introduction, DOM, documents, forms, statements, functions, objects, client side interactive web page design, input validation, event handling</p> <p>PHP: Introduction, server side dynamic programming, MYSQL database access</p>
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Data Warehousing and Data Mining DEMCA-15407

3.	<p>Introduction to Data Mining functionalities, Mining different kind of data, Pattern/Context based Data Mining, Bayesian Classification: Bayes theorem, Bayesian belief networks Naive Bayesian classification, Introduction to classification by Back propagation and its algorithm, Other classification methods: k-Nearest Neighbor, case based reasoning, Genetic algorithms, rough set approach, Fuzzy set approach</p> <p>Introduction to prediction: linear and multiple regression, Clustering: types of data in cluster analysis: interval scaled variables, Binary variables, Nominal, ordinal, and Ratio-scaled variables; Major Clustering Methods: Partitioning Methods: K-Mean and K-Medoids, Hierarchical methods: Agglomerative, Density based methods: DBSCAN</p>
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Advanced Operating Systems MCA-15403

4.	<p>Cluster and Grid Computing: Introduction to Cluster Computing and MOSIX OS, Introduction to the Grid, Grid Architecture, Computing Platforms: Operating Systems and Network Interfaces, Grid Monitoring and Scheduling, Performance Analysis, Case Studies Cloud Computing: Introduction to Cloud, Cloud Building Blocks, Cloud as IaaS, PaaS and SaaS, Hardware & Software Virtualization, Virtualization of OS – Hypervisor KVM, SAN & NAS backend concepts.</p> <p>Mobile Computing: Introduction, Design Principles, Structure, Platform and Features of Mobile Operating Systems (Android, IOS, Windows Mobile OS)</p>
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