BanarsidasChandiwalaInstituteofInformationTechnology,NewDelhi

Academic Session:2023-2024[EvenSemester]

LessonPlan

CourseName:BCA Semester:IV PaperCode:BCA-204SubjectTitle:Software Engineering

Dateofcommencementofclasses:**29th January2024**
Dateofcessationofclasses:**30thMay 2024[Tentative]**
Noofhoursprescribed aspersyllabus:**45**
Noofhoursprescribed aspersyllabus:**45T**
Noofhoursallottedperweekaspertimetable:**5T+2P**
NoofHours possible duringthesemester: **68.2T+ 28.8P**

WeekNo	Module/TopicDetails withsubandsub-subtopic	NoofHours Planned		Textbook/ Reference
		Theory	Practical	
February2024				
2(29-2)	• **Introduction of software engineering:** Software Crisis, Software life cycle models, Waterfall, Prototype, Spiral Models, Agile model.	4		[1], [2]
3(5-9)	• **Software Requirements analysis & specifications:** Requirement engineering, requirement elicitation techniques like FAST, QFD, Requirement analysis using (DFD use-case, sequence and class diagram (with case studies), ER Diagrams, Requirements documentation: SRS, Characteristics & organization of SRS	4		[1], [2]
4(12-16)	• **Software Project Planning:** Software Metrics-Definition and Need, Types of Metrics-Product, Process and Project Metrics, Size Estimation like lines of Code & Function Count	4		[1], [2]
5(19-23)	• Halstead Software Science measure, Cost Estimation: Need, Models COCOMO: Basic model, Intermediate model	4		[1], [2]
March20244				
6(26-1)	• **Risk Management:** Software Risks, Types of risk, risk management activities: risk assessment, risk control.	4		[1], [2]
7(4-8)	• **Software Design:** Cohesion & Coupling, Classification of Cohesiveness & Coupling,	4		[1], [2]
8(11-15)	• **Quality management:** Quality concept, software quality assurance, Total Quality Management (TQM), software review, software inspection	4		[1], [2]

9(18-22)	• **Software Implementation:** Structured coding techniques, coding style, Standards and guidelines, documentation guidelines.	4		[1], [2]
10(25-29)*	• Reverse Engineering, Software Re-engineering, Configuration Management. • **Software Testing:** Testing Process, Levels of Testing: Unit testing, Integration testing and system testing. Methods of Testing- , Black box, White box and Grey Box Testing.	4		[1], [2]
April2024				
11(1-5)	**INTERNAL EXAMS**			
12(8-12)*	• Types of Testing: Manual testing, Automation Testing. • Methods of Testing- , Black box, White box and Grey Box Testing.	4		[1], [2]
13(15-19)*	• Validation, Verification, Alpha-Beta testing, Acceptance testing, Functional Testing and its types	4		[1], [2]
14(22-26)	• Structural Testing Difference between: Testing and Debugging	4		[1], [2]
May2024				
15(29-3)	• Revision of concepts	2		[1], [2]
16(6-10)	• Revision of concepts	2		[1], [2]
17(13-17)	• Revision of Concepts	2		[1], [2]

18(20-24)*	• Revision of concepts	2		[1], [2]
19(27-30)	• Revision of Concepts	2		[1], [2]
	Total	**58**		

***Weekonwhichholidayarefalling**

TEXTBOOKS:

[1] TB1. K. K. Aggarwal & Yogesh Singh, "Software Engineering", 2nd Ed., New Age International, 2005.
[2] TB2. I. Sommerville, "Software Engineering", 9th Edition, Pearson Edu.

REFERENCEBOOKS:

[1] RB1. Jibitesh Mishra and Ashok Mohanty, "Software Engineering", Pearson
[2] RB2. R. S. Pressman, "Software Engineering – A practitioner's approach", 5th Ed., McGraw Hill Int. Ed., 200

SubjectFaculty:

Name:
Ms. Mansi Vats

(Signature)

Banarsidas Chandiwala Institute of Information Technology, New Delhi

Academic Session: 2023-2024 [Even Semester]

Lesson Plan

Course Name: **BCA**	Semester: II	Paper Code: BCA **104**	Subject Title: **Web Based Programming (WBP)**

Date of commencement of classes: **29th January 2024**
Date of cessation of classes: **30th May 2024 [Tentative]**

Week No	Module/Topic Details with sub and sub-subtopic	No of Hours Planned		Textbook/ Reference
		Theory		
February 2024				
2(29-2)	Introduction to web applications, static and dynamic pages, Web Servers: Local vs Remote. Introduction to LAMP, WAMP, XAMP etc. Introduction to php, advantages and comparison with other languages, Conditional statements in php and programs	5		TB1
3(5-9)	Loops in php, Super Global variables in php, Arrays: Creation, declaration and displaying elements in php	5		TB1
4(12-16)	Types of Arrays in php: indexed and associative arrays, Operations on arrays and using built-in methods	5		TB1
5(19-23)	Include, die and exit methods, Revision of concepts studied so far	5		TB1
March 2024				
6(26-1)	• User defined functions: Defining and calling, Pass by value & pass by reference – difference and examples, Working with Strings in php and operations,	5		TB1,RB1
7(4-8)	• Mail function and php errors & exceptions, Get and Post methods, Using php script with HTML form – Event handling	5		TB1,RB1
8(11-15)	Introduction to State management – Cookies, Introduction to State management – Sessions, Introduction to State management – Query String & Hidden Fields	5		TB1,RB1
9(18-22)	Form validation , Programs using query strings ,Revision and Doubt Session	5		TB1,RB1
10(25-29)*	Working with Files – Opening and reading, Writing and appending to files, File uploading and downloading, Directory operations in php	5		TB1,RB1

April 2024				
11(1-5)	**INTERNAL EXAMS**			
12(8-12)*	• Introduction to Object oriented concepts in php, Creating and working with classes and objects, Using Constructors & Destructors	5		TB1,RB2
13(15-19)*	• Access Modifiers, Introduction to reusability & Inheritance, Different types of inheritance and its usages,Programs using different access modifiers	5		TB1,RB2
14(22-26)	• Revision in Unit IV and class test	5		
May 2024				
15(29-3)	• Introduction to MySQL and other relational databases,Examples for accessing DB	5		TB1,RB3
16(6-10)	• Connecting with MySQL in php using MySQLi & PDO, PHP Data objects	5		TB1,RB3
17(13-17)	Creating and destroying MySQL database and tables, Inserting & Deleting data in MySQL table, Updating data in MySQL table	5		TB1,RB4
18(20-24)*	• Explaining sample programs and exercises to be given to students to understand MYSQL	5		TB1,RB4
19(27-30)	• Revision and class test in UNIT IV	5		TB1,RB4
	Total			

***Week on which holiday are falling**

TEXT BOOKS:

[1] TB1. Programming PHP: Creating Dynamic Web Pages, Kevin Tatroe. Peter Macintyre, Rasmus Lerdorf, O'Reilly, Third Edition

REFERENCE BOOKS:

[1] **RB1.** Professional PHP Programming,Jesus Castagnetto,Harish Rawat, Sascha Schumann, Chris Scollo, Deepak Veliath - Wrox Publications

[2] **RB2.** PHP 5 Advanced, Larry Ullman, Peachpit Press

[3] **RB3.** Core PHP Programming. Leon Atkinson (Prentice Hall, ISBN 0130463469).

[4] **RB4.** Beginning PHP5 and MySQL: From Novice to Professional, W. Jason Gilmore, 2004, Apress, ISBN: 1-893115-51-8

Subject Faculty: Gomathy M

Name: Gomathy M.

(Signature)

Banarsidas Chandiwala Institute of Information Technology, New Delhi

Academic Session: 2023-2024 [Even Semester]

Lesson Plan

Course Name: MCA **Semester**: 2nd **Paper Code**: MCA-128 **Subject Title:** Digital Marketing

Date of commencement of classes: **22nd January 2024**
Date of cessation of classes: **30th May 2024**
No of hours prescribed as per syllabus: **40hrs**
No of hours allotted per week as per timetable: **3hr:20 min**
No of Hours possible during the semester: **60 hr**

Week No	Module/Topic Details with sub-topic	No of Hours Planned	Textbook/ Reference
		Theory	
January 2024			
1(22-26)*	Introduction to Digital Marketing: Evolution of Digital Marketing from traditional to modern era, Role of Internet	3hr:20 min	TB1,RB3
February 2024			
2(29-2)	Current trends, Info-graphics, implications for business & society, Emergence of digital marketing as a tool,	3hr:20 min	TB1,RB2
3(5-9)	Drivers of the new marketing environment, Digital marketing strategy, P.O.E.M. framework,	3hr:20 min	TB1,RB2
4(12-16)	Digital landscape, Digital marketing plan, Digital marketing models	3hr:20 min	TB1,RB1
5(19-23)	Internet Marketing, opportunities and challenges, Digital marketing framework, Digital Marketing mix	3hr:20 min	TB1,RB1
March 2024			
6(26-1)	Impact of digital channels on IMC, Basics of Email Marketing, Opt-in Email Permission Marketing	3hr:20 min	TB1,RB2
7(4-8)	Online PR, Interactive Advertising, Online Partnerships, Viral Marketing, Blogs	3hr:20 min	TB2,RB1
8(11-15)	Search Advertisements, Ad Placement, Ad Ranks, Creating Ad Campaigns, Campaign Report Generation	3hr:20 min	TB1,RB2
9(18-22)	Types of Display Ads, Buying Models, Programmable Digital Marketing, Analytical Tools, YouTube marketing, Trends in digital advertising	3hr:20 min	TB1,RB2
10(25-29)*	Introduction to social media platforms, penetration & characteristics	3hr:20 min	TB2,RB3
April 2024			
11(1-5)	**INTERNAL EXAMS**		

12(8-12)*	Building a successful social media marketing strategy	3hr:20 min	TB1,RB3
13(15-19)*	Introduction to Facebook Marketing, Creating Advertising Campaigns, Adverts, Facebook Marketing Tools	3hr:20 min	TB1,RB1
14(22-26)	Introduction and Importance of Linkedin Marketing, Framing Linkedin Strategy, Lead Generation through Linkedin, Content Strategy, Analytics and Targeting	3hr:20 min	TB1,RB1
May 2024			
15(29-3)	Introduction to Twitter Marketing, how twitter Marketing is different than other forms of digital marketing, framing content strategy, Twitter Advertising Campaigns	3hr:20 min	TB1,RB2
16(6-10)	Digital Marketing Strategies through Instagram and Snapchat, Mobile Advertising, Forms of Mobile Marketing	3hr:20 min	TB1,RB2
17(13-17)	Features, Mobile Campaign Development, Mobile Advertising Analytics, Introduction and need for SEO	3hr:20 min	TB2,RB3
18(20-24)*	How to use internet & search engines, search engine and its working pattern, On-page and offpage optimization, SEO Tactics, Introduction to Search Engine Marketing (SEM)	3hr:20 min	TB1,RB2
19(27-30)	Introduction to social media metrics, Google Analytics , Google AdWords, data collection for web analytics, multichannel attribution, Universal analytics, Tracking code	3hr:20 min	TB2,RB1
	Total	60 hours	

***Week on which holiday are falling**

TEXT BOOKS:

TB1. Seema Gupta, "Digital Marketing", Mc-Graw Hill, 8th Edition, 2018.
TB2. Ian Dodson, "The Art of Digital Marketing", Wiley, 2017

REFERENCE BOOKS:

RB1. Chhafey D., Ellis-Chadwick F., Johnston K. and Mayer R, "Internet Marketing: Strategy, Implementation and Practice", Pearson Education, 2018.
RB2. Strauss, Judy and Frost, Raymond, "E-Marketing", PHI Learning Pvt. Ltd., 2013.
RB3. Puneet Singh Bhatia, "Fundamentals of Digital Marketing", Pearson, 2nd Edition, 2016.

Subject Faculty Name:

Mr Akshit Thakur

Banarsidas Chandiwala Institute of Information Technology, New Delhi

Academic Session: Odd Sem 2023-2024
Lesson Plan

Subject Title:**Cyber Security and Cyber Laws**	Semester: **III**	Paper Code: **MCA-253**

Date of commencement of classes: **16th Aug 2023**
Date of cessation of classes: **22nd Dec 2023**
No of hours prescribed as per syllabus: **40hr**
No of hours allotted per week as per timetable: **2hr : 30 min**
No of Hours possible during the semester: **45hr**

Week No		Module/Topic Details with sub and sub-sub topic	No of Hours Planned Theory	Text book/ References
Aug 2023				
1	16-19	Overview of Cyber Security, Internet Governance – Challenges and Constraints. Cyber Threats: Cyber Squatting, Cyber Warfare.	**2hr : 30 min**	**TB1**
2	21-25	Cyber terrorism, Cybercrime, Cyber Offenses Classification of Cybercrimes: Email spoofing, Spamming, Cyber defamation.	**2hr : 30 min**	**TB1**
3	28-31*	Internet Time Theft, Data Diddling, Espionage, Hacking, Online Frauds, Computer Sabotage. Email Bombing, Computer.	**100 min**	**TB1**
Sep 2023				
3	1-2	Network Intrusion, Password Sniffing, Credit Card Frauds, Identify Theft.	**50 min**	**TB1**
4	4-8*	Proliferation of Mobile and Wireless Devices, Authentication Service Security, Attacks on Mobile Phones, Security Implications for Organizations	**2hr : 30 min**	**TB1** **TB2**
5	11-16	Measures for Handling Mobile Devices Cyber Offenses Categories, Attacks, Social Engineering, Cyber stalking, Botnets, Cloud Computing.	**2hr : 30 min**	**TB1** **TB2**
6	18-22	Cyber Security Vulnerabilities and Cyber Security Safeguards: Cyber Security Vulnerabilities-Overview, vulnerabilities in software.	**2hr : 30 min**	**TB1** **TB2**
7	25-30*	Proxy Servers Anonymizers, Phishing, Password Cracking, Keyloggers and Spywares, Virus and Worms, Trojan Horse.	**2hr : 30 min**	**TB1** **TB2**

Oct 2023				
8	2-7	Backdoors, Steganography, DoS and DDoS attacks SQL Injection, Buffer Overflow, Attack on wireless Networks, Identity Theft (ID Theft).	**2hr : 30 min**	**TB1 TB2 RB1**
9	9-13	Securing Web Application, Services: Introduction, Basic security for HTTP Applications, Email Security, Back up Issues.	**2hr : 30 min**	**TB1 TB2 RB1**
10	16-21	Identity Management and Web Services, Authorization Patterns, Firewall. Intrusion Detection and Prevention System.	**2hr : 30 min**	**TB1 TB2**
11	23-27*	Intrusion, Physical Theft, Abuse of Privileges, Access management Models (DAC, OAC, RBAC), Unauthorized Access by Outsider.	**2hr : 30 min**	**TB1 TB2**
12	30-31	Malware infection, Intrusion detection and Prevention Techniques Anti-Malware software, Network based Intrusion detection Systems.	**2hr : 30 min**	**TB1 TB2 RB1**
Nov 2023				
12	1-4	Network based Intrusion Prevention Systems, Host based Intrusion prevention Systems, Security Information Management.	**2hr : 30 min**	**TB1 TB2 RB1**
13	6-10	Network Session Analysis, System Integrity Validation, Cybercrime and Cyber Security The Legal Perspective Introduction.	**2hr : 30 min**	**TB1 TB2 RB2**
14	13-18*	Cyber Security Regulations,Legal Landscape around the World. The Indian IT Act and Amendments, Digital Signatures and the Indian IT Act.	**2hr : 30 min**	**TB1 TB2**
15	20-24	Cyber Crime and Punishment. Cyber forensics and digital Evidences. Digital Forensics Life cycle, Network Forensics.	**2hr : 30 min**	**TB1 TB2**
16	27-30*	Internal Examination		
Dec 2023				
16	1-2	Internal Examination		
17	4-8	Relevance of the OSI 7 layer model to Computer Forensics. Forensics and Social Networking Sites, Challenges in Computer Forensics, Forensics Auditing,	**2hr : 30 min**	**TB1 TB2**
18	11-16	Anti forensics Copyrights, Jurisdiction Issues and Copyright Infringement. Multimedia and Copyright issues, WIPO, Intellectual Property Rights, Understanding Patents.	**2hr : 30 min**	**TB1 TB2 RB1**
19	18-22	Understanding Trademarks, Trademarks in Internet, Trade Secrets, Trade Name, Domain name registration, Software Piracy, Legal Issues in Cyber Contracts, Authorship, Document Forgery.	**2hr : 30 min** **Total: 45hr**	**TB1 TB2 RB2**

*Week in which Events are Scheduled / holiday is falling.

Text/ Reference Books

TB1 Nina Godbole, Sunita Belapure, "Cyber Security-Understanding Cyber Crimes, Computer Forensics and Legal Perspectives", Wiley, 1st Edition, 2011.

TB1 Bhushan M, Rathore Singh R, Jamshed A, "Fundamental of Cyber Security Principles, Theory and Practices", BPB Publication, 2017.

Reference Books:

RB1. Nina Godbole, "Information Systems Security–Security Management, Metrics, Frameworks and Best Practices", Wiley, 2nd Edition, 2017.

RB2. Mark Rhodes-Ousley, "Information Security-The Complete Reference", McGraw Hill Education , 2nd Edition, 2012.

RB3 Mark Merkow, James Breithaupt, "Information Security: Principles and Practices", Pearson Education, 1st Edition, 2007.

RB4. Matt Bishop, "Computer Security Art and Science", Pearson Education, 2nd Edition, 2018.

Subject Faculty:
Mr. Akshit Thakur
(Asst.Prof.)