VALUE ADDED COURSE

Swarrnim School of Computing & IT

Year: 2020-2021

Subject: Digital Marketing

Program:	BCA/B.SC.-IT	**Branch:**	All

Hours:- **30 hrs.**

Objective:-

- To introduce students to the core concepts of digital marketing and its growing importance in the modern business environment.
- To develop practical skills for planning and implementing digital marketing strategies across various platforms.
- To enable students to utilize digital marketing tools effectively for branding, engagement, and sales generation.

Detail Syllabus:-

Sr. No.	Module & Content	Total Hrs
1	**Module-1: Introduction to Digital Marketing** - Overview of Digital Marketing: Definition, Objectives, and Importance. - Comparison between Traditional and Digital Marketing. - Digital Marketing Channels and their roles: Search Engines, Social Media, Email, and Content Marketing. - Digital Marketing Trends and Future Scope.	**06**
2	**Module-2: Search Engine Optimization (SEO)** - Introduction to SEO: Importance, Types (On-page and Off-page). - Keyword Research and Analysis: Understanding Search Intent, Tools for Keyword Research. - On-Page Optimization Techniques: Meta Tags, Content Optimization, URL Structuring. - Off-Page Optimization: Backlinks, Link Building Strategies, Guest Posting. - Introduction to Analytics for SEO.	**06**
3	**Module-3: Social Media Marketing (SMM)** - Social Media Overview: Types of Platforms (Facebook, Instagram, LinkedIn, Twitter, etc.). - Creating a Social Media Strategy: Content Creation, Posting Strategies, and Engaging with Audience. - Social Media Advertising: Creating Ads, Target Audience, and Budgeting. - Measuring Social Media ROI and Insights: Analytics Tools and Performance Metrics.	**06**
4	**Module-4: Pay-Per-Click Advertising (PPC) and Google Ads** - Introduction to PPC: Definition and Platforms (Google Ads, Facebook Ads). - Setting Up Google Ads Campaign: Search vs Display Networks. - Understanding Ad Auctions, Bidding Strategies, and Quality Score. - Creating Effective Ad Copies, and Keywords for PPC Campaigns. - Monitoring and Optimizing PPC Campaigns.	**06**
5	**Module-5: Content Marketing and Email Marketing** - Importance of Content in Digital Marketing: Types of Content (Blogs, Videos, Infographics). - Developing a Content Strategy: Audience Research, Content Creation, and Promotion. - Basics of Email Marketing: Building an Email List, Creating Campaigns.	**06**

	- Email Marketing Tools and Best Practices: Personalization, A/B Testing, and Tracking Performance.	

Reference Books

1. Chaffey, Dave, and Ellis-Chadwick, Fiona. *Digital Marketing: Strategy, Implementation, and Practice*, 7th Edition, Pearson, 2019.

2. Kotler, Philip, and Armstrong, Gary. *Principles of Marketing*, 17th Edition, Pearson, 2017.

3. Ryan, Damian. *Understanding Digital Marketing: Marketing Strategies for Engaging the Digital Generation*, 4th Edition, Kogan Page, 2020.

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Vikas Sharma

HoD-SSCIT

VALUE ADDED COURSE

Swarrnim School of Computing & IT

Year: 2020-2021

Subject: Time Management

Program:	BCA/B.SC.-IT	**Branch:**	All

Hours:- 36 hrs.

Objective:- The current study sought to ascertain the relationship between students' time management abilities and academic achievement. Time management is critical, and it can have an impact on an individual's overall performance and achievements.
All of these, however, are linked by how people manage their time to fit their daily lives or to make it flow steadily with their routines. Aside from having good lectures given by their teachers, conducive settings and environments will undoubtedly promote positive outcomes for the students.
Nonetheless, students' time management is one of the factors that can influence a student to be a good student. For students to shine, good time management is essential.

Detail Syllabus:-

Sr.	Content	Total Hrs
1	**Module-1:** Planning & Goal Setting, Managing Yourself, Dealing with other people, Your time, Getting Results	09
2	**Module-2:-** Analysis of goals and objectives, Systemization of processes, Pre-analysis of performance, Focus is on time and resources	09
3	**Module-3:-** Busy vs. Productive, Indecision & Dulay, Overwork, Urgency v's importance, Prioritization	09
4.	**Module-4:-** Functional, Portable, Intelligible	09

Reference Book:

- Time Management: A Holistic Approach to Productivity, Stress Reduction, and Effectiveness By Michael Jibrael
- Time Management for Students: How to Get More Done in Less Time By Dale Hartman
- A College Students Guide to Time Management – A Book by and for College Students By Edward Rippen
- Time Management: Guide to Time Management Skills, Productivity, Procrastination and Getting Things Done By Charles Harvey

❖ Procrastination: Why You Do It, and What to Do About It Now By Jane B. Burka

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Swarrnim School of Computing & IT

Year: 2020-2021

Subject: Cloud Computing

Program:	BCA/B.SC.-IT	**Branch:**	All

Hours:- 30 hrs.

Objective:-

- To introduce students to the fundamental concepts and architecture of cloud computing.
- To provide hands-on exposure to various cloud services and their applications in real-world scenarios.
- To equip students with the knowledge of deploying and managing applications on cloud platforms.
- To familiarize students with security and privacy concerns in cloud computing.

Detail Syllabus:-

Sr. No.	Module & Content	Total Hrs
1	**Module-1: Introduction to Cloud Computing** - Overview of Cloud Computing: Definition, Characteristics, and Importance. - History and Evolution of Cloud Computing. - Cloud Service Models: IaaS, PaaS, SaaS. - Cloud Deployment Models: Public, Private, Hybrid, and Community Cloud. - Benefits, Challenges, and Future Trends in Cloud Computing.	**06**
2	**Module-2: Cloud Computing Architecture and Virtualization** - Cloud Computing Architecture and Components: Frontend, Backend, Network. - Basics of Virtualization: Definition, Hypervisors, Virtual Machines. - Types of Virtualization: Server, Storage, Network, and Application Virtualization. - Role of Virtualization in Cloud Computing. - Case Studies of Virtualization in Real-world Cloud Services.	**06**
3	**Module-3: Cloud Services and Providers** - Introduction to Leading Cloud Service Providers: AWS, Microsoft Azure, Google Cloud Platform (GCP). - Overview of Core Cloud Services: Compute, Storage, Networking, Database, and Security Services. - Hands-on Lab: Setting up a Cloud Account and Exploring Basic Services. - Introduction to Serverless Computing and its Applications. - Pricing Models and Cost Management in Cloud Services.	**06**
4	**Module-4: Cloud Storage and Networking** - Overview of Cloud Storage: Concepts, Types (Block, Object, File Storage), and Use Cases. - Managing Data in the Cloud: Backup, Restore, and Data Lifecycle Management. - Cloud Networking Basics: Virtual Networks, Load Balancers, and Content Delivery Networks (CDNs). - Hands-on Lab: Configuring Cloud Storage and Networking Services.	**06**
5	**Module-5: Cloud Security, Privacy, and Best Practices** - Introduction to Cloud Security: Risks and Best Practices. - Identity and Access Management (IAM) in the Cloud. - Data Privacy in Cloud Computing and Regulatory Compliance.	**06**

	- Disaster Recovery and High Availability in Cloud Environments. - Hands-on Lab: Implementing Basic Security Measures and Monitoring in the Cloud.	

Reference Books

1. Buyya, Rajkumar, Vecchiola, Christian, and Selvi, Thamarai. Mastering Cloud Computing: Foundations and Applications Programming, 1st Edition, McGraw Hill Education, 2013.

2. Erl, Thomas, Mahmood, Zaigham, and Puttini, Ricardo. Cloud Computing: Concepts, Technology & Architecture, Pearson, 2013.

3. Jamsa, Kris. Cloud Computing: SaaS, PaaS, IaaS, Virtualization, Business Models, Mobile, Security, and More, 1st Edition, Jones & Bartlett Learning, 2013.

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VALUE ADDED COURSE

Swarrnim School of Computing & IT

Year: 2020-2021

Subject: Ethical Hacking

Program:	BCA/B.SC.-IT	**Branch:**	All

Hours:- 30 hrs.

Objective:-

- To provide an understanding of the basic concepts of ethical hacking and the significance of cybersecurity.
- To develop practical skills in identifying and addressing security vulnerabilities in computer systems and networks.
- To educate students on various hacking techniques, tools, and countermeasures.
- To equip students with knowledge on the ethical and legal aspects of hacking and cybersecurity.

Detailed Syllabus:

Sr. No.	Module & Content	Total Hrs
1	**Module-1: Introduction to Ethical Hacking** - Overview of Ethical Hacking: Definition, Importance, and Ethics. - Types of Hackers: Black Hat, White Hat, Grey Hat. - Phases of Ethical Hacking: Reconnaissance, Scanning, Gaining Access, Maintaining Access, and Covering Tracks. - Understanding Information Security and Cyber Laws. - Basics of Penetration Testing and Vulnerability Assessment.	**06**
2	**Module-2: Footprinting and Reconnaissance** - Understanding Footprinting: Purpose and Techniques. - Tools for Footprinting: Whois, Nslookup, Shodan, Google Dorking. - Gathering Information: DNS Enumeration, IP Mapping, Social Engineering. - Hands-on Lab: Using Reconnaissance Tools for Information Gathering.	**06**
3	**Module-3: Scanning Networks and Vulnerabilities** - Network Scanning Techniques: Port Scanning, Ping Sweeps, and Banner Grabbing. - Tools for Scanning: Nmap, Netcat, Angry IP Scanner. - Vulnerability Scanning: Identifying and Assessing Vulnerabilities in Systems and Applications. - Hands-on Lab: Performing Network and Vulnerability Scanning.	**06**
4	**Module-4: System Hacking and Exploitation Techniques** - Understanding Password Cracking Techniques: Brute Force, Dictionary Attack, Rainbow Tables. - System Hacking Phases: Gaining Access, Escalating Privileges, Executing Applications. - Keyloggers, Spyware, and Trojans: Techniques and Tools. - Hands-on Lab: Cracking Passwords and Understanding Exploitation Techniques.	**06**
5	**Module-5: Web Application Security and Countermeasures** - Introduction to Web Application Security: OWASP Top 10 Vulnerabilities. - Common Web Attacks: SQL Injection, Cross-Site Scripting (XSS), Cross-Site Request Forgery (CSRF). - Securing Web Applications: Secure Coding Practices, Web Application Firewalls (WAFs). - Introduction to Secure Sockets Layer (SSL) and Secure Hypertext Transfer	**06**

	Protocol (HTTPS). - Hands-on Lab: Simulating Web Attacks and Learning Mitigation Techniques.	

Reference Books

1. Engebretson, Patrick. The Basics of Hacking and Penetration Testing: Ethical Hacking and Penetration Testing Made Easy, 2nd Edition, Syngress, 2013.

2. Kim, David, and Solomon, Michael. Fundamentals of Information Systems Security, 3rd Edition, Jones & Bartlett Learning, 2016.

3. Raj, K., and Lal, B.K. Cyber Security: Understanding Cyber Crimes, Computer Forensics, and Legal Perspectives, Wiley India, 2018.

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