

BVM ENGINEERING COLLEGE [AN AUTONOMOUS INSTITUTION]

114ES: IT ESSENTIALS WORKSHOP CREDITS – 1 (L_c, T_c, P_c: = 0,0,1)

Course Objective:

To provide beginners with foundational knowledge and practical skills in IT, enabling them to navigate the digital world confidently.

Teaching and Assessment Scheme:

Teaching Scheme (Hours per week)			Credits	Assessment Scheme				Total Marks
L	T	P	C	Theory		Practical		
				ESE	CE	ESE	CE	
0	0	2	1	00	00	40	60	100

Course Contents:

Sr. No.	Topics	Teaching Hours
1	Introduction to Computers: Understanding hardware and software components.	02
2	Introduction to Operating Systems: Basics of popular operating systems such as Windows and Linux.	02
3	Basic IT Troubleshooting, Email and Communication: Diagnosing and solving common hardware and software issues, Setting up and managing email accounts, understanding netiquette.	02
4	Word & Spreadsheet Basics: Introduction to word processing software like Microsoft Word/ Google Docs, Microsoft Excel/ Google Sheets	04
5	Introduction to Programming: Basics of programming logic, understanding variables and simple coding exercises.	02
6	Cyber security Awareness: Basics of online security, recognizing phishing attempts, and protecting personal information.	02
7	Basic Networking: Understanding networks, IP addresses and basic network troubleshooting.	04

Sr. No.	Topics	Teaching Hours
8	Introduction to Cloud Computing: Understanding cloud services and storage, using cloud-based applications.	02
9	Introduction to Databases: Basics of database management systems and SQL queries.	04
10	No-Code Website Design: Design simple website without code	04
Total		28

List of References:

1. Randal E. Bryant, David R. O'Hallaron, "Computer Systems: A Programmer's Perspective", Publication: Pearson, Edition: 3rd Edition
2. Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer Widom, "Database Systems: The Complete Book", Publication: Pearson, Edition: 2nd Edition
3. James F. Kurose, Keith W. Ross, "Computer Networking: A Top-Down Approach", Publication: Pearson, Edition: 8th Edition
4. Thomas Erl, Ricardo Puttini, Zaigham Mahmood, "Cloud Computing: Concepts, Technology & Architecture", Publication: Prentice Hall, Edition: 1st Edition
5. Charles J. Brooks, Christopher Grow, "Cybersecurity Essentials", Publication: Pearson IT Certification, Edition: 2nd Edition
6. Eric Matthes, "Python Crash Course", Publication: No Starch Press, Edition: 2nd Edition

Course Outcomes (COs):

At the end of this course students will be able to ...

1. Gain a basic understanding of computer hardware, software, operating systems and troubleshooting techniques.
2. Develop proficiency in word processing and spreadsheet software.
3. Acquire foundational programming skills.
4. Gain proficiency in basic networking concepts alongside understanding cloud services and storage utilization for cloud-based applications.
5. Acquire an understanding of database management systems and basic SQL query skills.
6. Create professional websites without coding, adeptly incorporating multimedia and customizing design elements