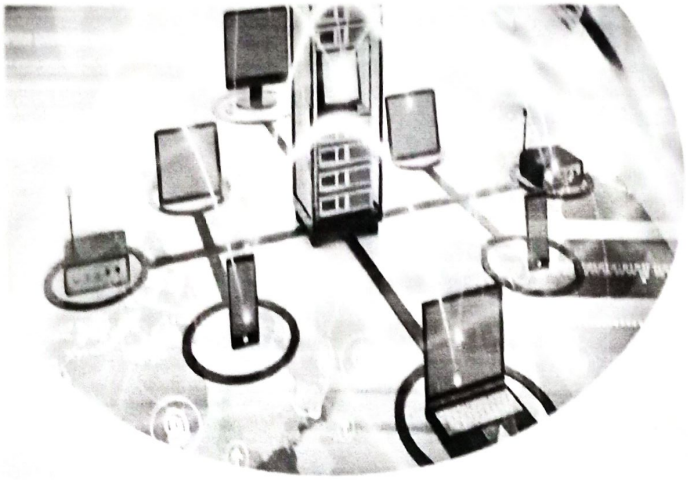

Other Course Offered

- Introduction to Network
- Routing and Switching Essential
- Oracle Certification

Arise, awake and do not stop until the goal is reached.

Swami Vivekananda

Instructors Details

BCA

Sri.S.Somasundaram

Assistant Professor
Department of Computer Applications
SRMV CAS, Coimbatore - 641020

Information Technology

Sri.G.Dinesh

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Computer Science

Sri.K.Soundarraj

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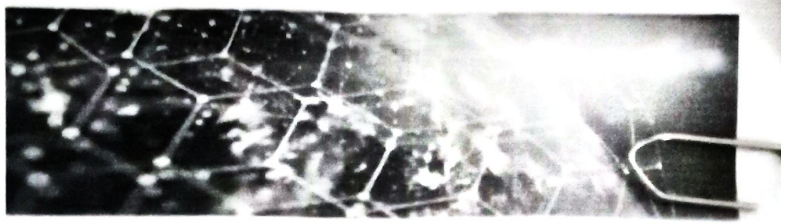


Sri Ramakrishna Mission Vidyalaya

College of Arts and Science

(An Autonomous Institution Affiliated to Bharathiar University,
Re-accredited by NAAC with 'A' Grade)
SRKV Post, Periyanaickenpalayam,
Coimbatore - 641020
E-mail: srmvcascbe@gmail.com, Website: www.srmvcas.org

Department of Computer Studies
B.Sc(CS), BCA and B.Sc(IT)

Organizes

Certificate course on

IT Essential

Venue : MCA Lab

Date : 01 August 2018

For Further Details
Co-ordinator

Dr.R.Sridhar, HoD of MCA
Sri.C.R.Sakthivel, HoD of Comp.Sci.,
Sri.M.Jaikumar, HoD of BCA
Sri.N,Kamaraj, HoD of Info.Tech.,

ABOUT US

Ramakrishna Mission Vidyalaya, Coimbatore, is a vast complex of 18 service wings, commenced its educational activities in the year 1930 with the blessing of Bhagavan Sri Ramakrishna. The father of our Nation, Mahatma Gandhi laid the foundation stone of the first wing, a school.

Ayya Sri T.S. Avinashilingam, the Founder-Director, nurtured the institution with his visionary and devoted service. As envisaged by the great Swami Vivekananda, the Vidyalaya strives hard to impart man-making and character-building education to youth, that are necessary to develop leadership, responsibility and love for the country.

ABOUT OUR COLLEGE

Our college was started in the year 1964. Affiliated to the Bharathiar University, it was conferred with autonomous status in the year 1981-82. The college offers 13 UG and 6 PG programmes in both aided and unaided streams, besides offering 9 MPhil and PhD programmes. It was Re-accredited by NAAC with 'A' grade.

ABOUT THE DEPARTMENT

The School of Computer Studies constitute of B.Sc(CS), BCA, MCA and B.Sc(IT).

The team of faculties comprises of skilled and motivated persons, having meritorious academic track record with excellent interpersonal and intrapersonal skills.

The Departments is equipped with spacious laboratories and sufficient time for conducting various certification courses like CCNA of CISCO, Hardware & Networking, Multimedia, Web Services, Big Data of DELL EMC and IoT of EASY Design Systems.

OBJECTIVES OF THE COURSE

The goal of this course is to introduce the student to computer hardware and software, as well as operating systems, networking concepts, mobile devices, IT security, and troubleshooting. The online course materials will assist the student in developing the skills necessary to work as a technician in the field of IT. The specific skills

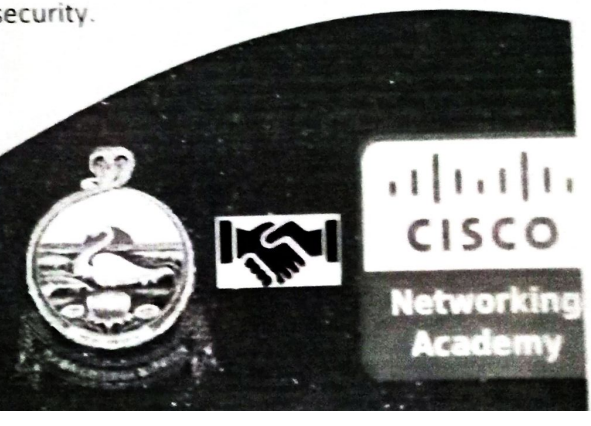
COURSE OUTLINE

This course provides a comprehensive introduction to the IT industry and in-depth exposure to personal computers, hardware, and operating systems. Students learn how various hardware and software components work and best practices in maintenance, safety, and security. Through hands-on lab activities, students learn how to assemble and configure computers, install operating systems and software, and troubleshoot hardware and software issues.

The 40-hour, includes activities using Packet Tracer, hands-on lab work, and a wide array of assessment types and tools.

By the end of the course, students will be able to:

- Select the appropriate computer components to build, repair, or upgrade personal computers.
- Explain how to correctly use tools and safely work in a lab.
- Install components to build, repair, or upgrade personal computers.
- Explain how to perform preventive maintenance and troubleshooting on personal computers.
- Install Windows operation systems.
- Perform management and maintenance of Windows operating systems.
- Configure computers to communicate on a network.
- Explain how to use, configure, and manage laptops and mobile devices.
- Install and share a printer to meet requirements.
- Implement basic host, data, and network security.



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SRKV Post, Periyanaickenpalayam, Coimbatore – 641020

Syllabus for IT Essential

Chapter /Section	Goals/Objectives
Chapter 1. Introduction to the Personal Computer	**Select the appropriate computer components to build, repair, or upgrade personal computers.**
1.1 Personal Computer Systems	Explain how personal computer system components work together.
1.2 Select Computer Components	Select the appropriate computer components.
1.3 Configurations for Specialized Computer Systems	Explain how hardware is configured for task-specific computers.
Chapter 2. Lab Procedures and Tool Use	**Introduction**
2.1 Safe Lab Procedures	Explain the purpose of safe working conditions and safe lab procedures.
2.2 Proper Use of Tools	Explain how to use tools and software with personal computer components.
Chapter 3. Computer Assembly	**Install components to build, repair, or upgrade personal computers.**
3.1 Assemble the Computer	Build a computer.
3.2 Boot the Computer	Explain how to verify BIOS and UEFI settings.
3.3 Upgrade and Configure a Computer	Explain how to upgrade components in a computer system to meet requirements.
Chapter 4. Overview of Preventive Maintenance and the Troubleshooting Process	**Explain how to perform preventive maintenance and troubleshooting on personal computers.**
4.1 Preventive Maintenance	Explain why preventive maintenance must be performed on personal computers.
4.2 Troubleshooting Process	Explain how to troubleshoot computer problems.
Chapter 5. Windows Installation	**Perform installation of Microsoft Windows operation systems.**
5.1 Modern Operating Systems	Explain operating system requirements.
5.2 Operating System Installation	Install a Microsoft Windows operating system.
Chapter 6. Windows Configuration and Management	**Perform configuration, management, maintenance, and troubleshooting of Microsoft Windows operating systems.**
6.1 Windows Desktop, Tools, and Applications	Perform routine system management tasks with common Microsoft Windows tools.
6.2 Client-Side Virtualization	Configure virtualization on a computer.
6.3 Common Preventive Maintenance Techniques for Operating Systems	Use common preventive maintenance techniques for Microsoft Windows operating systems.
6.4 Basic Troubleshooting Process for Operating Systems	Explain how to troubleshoot Microsoft Windows operating systems.

Chapter 7. Network Concepts	Explain the operation of networks
7.1 Principles of Networking	Explain components and types of computer networks
7.2 Networking Standards	Explain the purpose and characteristics of networking standards
7.3 Physical Components of a Network	Explain the purpose of physical components of a network
7.4 Basic Networking Concepts and Technologies	Configure network connectivity between PCs
Chapter 8. Applied Networking	**Configure devices to connect to LANs, the Internet, and Cloud services.**
8.1 Computer to Network Connection	Connect a computer to wired and wireless networks
8.2 ISP Connection Technologies	Explain the purpose and characteristics of ISP connection technologies
8.3 Internet Technologies	Explain Cloud concepts and networked-host services
8.4 Common Preventive Maintenance Techniques Used for Networks	Explain how to perform preventive maintenance on networks using common techniques
8.5 Basic Troubleshooting Process for Networks	Explain how to troubleshoot networks
Chapter 9. Laptops and Mobile Devices	**Explain how to configure, repair, upgrade, maintain and troubleshoot laptops and mobile devices.**
9.1 Laptop Components	Explain the purpose and characteristics of laptops
9.2 Laptop Configuration	Explain how to configure laptop power settings and wireless settings
9.3 Laptop Hardware and Component Installation and Configuration	Explain how to remove and install laptop components
9.4 Mobile Device Hardware Overview	Explain the purpose and characteristics of mobile devices
9.5 Common Preventive Maintenance Techniques for Laptops and Mobile Devices	Explain how to perform common preventive maintenance techniques for laptops and mobile devices
9.6 Basic Troubleshooting Process for Laptops and Mobile Devices	Explain how to troubleshoot laptops and mobile devices
Chapter 10. Mobile, Linux, and OS X Operating Systems	**Explain how to configure, secure and troubleshoot mobile, Mac, and Linux operating systems.**
10.1 Mobile Operating Systems	Explain the purpose and characteristics of mobile operating systems
10.2 Methods for Securing Mobile Devices	Explain methods for securing mobile devices
10.3 Network Connectivity and Email	Explain how to configure network connectivity and email on mobile devices
10.4 Linux and OS X Operating Systems	Explain the purpose and characteristics of Linux and OS X operating systems
10.5 Basic Troubleshooting Process for Mobile, Linux, and OS X Operating Systems	Explain how to troubleshoot Mobile, Linux, and OS X operating systems

Chapter 11. Printers	**Install a printer to meet requirements.**
11.1 Common Printer Features	Explain the purpose and characteristics of different types of printers.
11.2 Installing and Configuring Printers	Install a printer.
11.3 Sharing Printers	Configure printer sharing.
11.4 Maintaining and Troubleshooting Printers	Explain how to improve printer availability.
Chapter 12. Security	**Implement basic host, data, and network security.**
12.1 Security Threats	Explain security threats.
12.2 Security Procedures	Configure IT security.
12.3 Common Preventive Maintenance Techniques for Security	Manage IT security on an ongoing basis.
12.4 Basic Troubleshooting Process for Security	Explain how to troubleshoot basic security problems.
Chapter 13. The IT Professional	**Explain the roles and responsibilities of the IT professional.**
13.1 Communication Skills and the IT Professional	Explain why good communication skills are a critical part of IT work.
13.2 Ethical and Legal Issues in the IT Industry	Explain appropriate behavior when faced with the legal and ethical issues that arise in the IT industry.
13.3 Call Center Technicians	Explain the call center environment and technician responsibilities.
Chapter 14. Advanced Troubleshooting	**Troubleshoot advanced hardware and software problems.**
14.1 Computer Components and Peripherals	Troubleshoot computer components and peripherals.
14.2 Operating Systems	Troubleshoot operating systems.
14.3 Networks	Troubleshoot networks.
14.4 Security	Troubleshoot security.

HOD

Co-ordinator