SUBBALAKSHMI LAKSHMIPATHY COLLEGE OF SCIENCE

An Autonomous Institution

T.V.R. NAGAR, ARUPPUKOTTAI ROAD, MADURAI-22

Program Outcomes, Program Specific Outcomes & Course Outcomes

B.Sc Networking

BATCH : 2017 -2020

Department of Networking

Programme Code :   NW1009

B.Sc Networking

Programme Code   :   NW1009

ACADEMIC YEAR   2017-2018

(BATCH 2017 -2020)

Program Outcomes

The Programme Outcomes of the B.Sc Networking degree are:

Programme Outcomes

1. Equip and prepare highly qualified graduates in the field of computer network technology through employing educational curriculum and teaching methods of modern international standards.

2. Rely on interaction, integration and specialization in building and preparing qualified and capable professionals in the fields of networking and information technology.

3. Encourage and support specialized scientific research and practical studies in the field of networking technologies for academic personnel and students.

4. Creatively bond theoretical knowledge to practical application and training through the utilization of equipped modern networking labs and provide training incubators to polish the knowledge and enhance the skills of students.

Programme Specific Outcomes

The Programme Specific Outcomes of the B.Sc Networking degree are:

Programme Specific Outcomes

1. Competent Network Engineer rendering expertise to the industrial and societal needs in an effective manner

2. Sustained learner by adapting to societal change for improved career opportunities in industries, academics and entrepreneurial endeavors

3. Team leader ethically committed to the profession in a multi-disciplinary environment with positive attitude towards the individual, industry and society

4. Utilize and develop the methods and means of electronic learning, regard education technology resources, and use the latest references and equipment.

SEMESTER - I

B.Sc NETWORKING

Semester	**: I**	**Batch**	**: 2017-2020**
Course code	**: 17BN103**	**Course Name**	**: Principles of Networks**
Internal Marks	**: 25**	**External Marks**	**: 75**
Part	**: III[Core]**	**Credits**	**: 4**

Course Outcomes:

This course will enable the students to

- Understand Networking devices
- Describe of TCP and IP protocols
- Elaborate flow control within an internetwork

B.Sc NETWORKING

Semester	**: I**	**Batch**	**: 2017-2020**
Course code	**: 17BN104**	**Course Name**	**: Digital Principles and Computer Organisation**
Internal Marks	**: 25**	**External Marks**	**: 75**
Part	**: III[Core]**	**Credits**	**: 4**

Course Outcomes:

This course will enable the students to

- Understand logic gates and number systems
- To develop the knowledge on logical circuits and combinational circuits.
- To learn the various aspects of basic architecture of the computer and organization of functional units of a computer

B.Sc NETWORKING

Semester	**: I**	**Batch**	**: 2017-2020**
Course code	**: 17BN106**	**Course Name**	**: PC Troubleshooting & Maintenance**
Internal Marks	**: 25**	**External Marks**	**: 75**
Part	**: III[Core]**	**Credits**	**: 4**

Course Outcomes:

This Course will enable the students to

- Understand PC working principles
- Learn the basic of PC and their components
- Provide knowledge of Selecting, installing and troubleshooting computer peripherals

B.Sc NETWORKING

Semester	**: I**	**Batch**	**: 2017-2020**
Course code	**: 17BN107**	**Course Name**	**: PC Troubleshooting & Maintenance Lab**
Internal Marks	**: 25**	**External Marks**	**: 75**
Part	**: III**	**Credits**	**: 3**
	[Core Practical]		

Course Outcomes:

This Course will enable the students to

- Perform tasks such as installation, configuration of system software
- diagnosing, preventive maintenance of PC
- Learn basics of networking.

B.Sc Networking

Semester	: I	**Batch**	: 2017-2020
Course code	: 17VE107	**Course Name**	: Value Education
Internal Marks	: 50	**External Marks**	: 50
Part	: IV	**Credits**	: 2

<u>**Course Outcomes:**</u>

This course will enable the students to

- Know the social values, ethics which have to be reflected in one's behavior
- Get the opportunities for the continuous development of their knowledge, skills and attitudes related to certain values.

B.Sc Networking

Semester	: I	**Batch**	: 2017-2020
Course code	: 17PE108	**Course Name**	: Physical Education
Internal Marks	: 100 (Theory : 60 Practical : 40)		
Part	: V [Extension Activity]	**Credit**	: 1

<u>**Course Outcomes:**</u>

This course will enable the students to

- Know the importance of physical fitness through the exercises.
- Develop the organic systems of the body.
- Incorporate a healthy eating lifestyle and physical activity into daily life.

SEMESTER - II

B.Sc NETWORKING

Semester	: II	**Batch**	: 2017-2020
Course code	: 17BN203	**Course Name**	: Operating System
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core]	**Credits**	: 4

Course Outcomes:

This Course will enable the students to

- Understand in general the structure of modern computers and purpose,
- Learn basic knowledge about the structure, functions and key aspects of an operating system by example.
- Understand and analyze theory and implementation of processes, resource control, physical and virtual memory, scheduling, I/O and files.

B.Sc NETWORKING

Semester	: II	**Batch**	: 2017-2020
Course code	: 17BN204	**Course Name**	: Computer Networks
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core]	**Credits**	: 4

Course Outcomes:

This Course will enable the students to

- Understand of the fundamental concepts of TCP/IP
- Learn the OSI layer mode of the computer networking

B.Sc NETWORKING

Semester	: II	**Batch**	: 2017-2020
Course code	: 17BN205	**Course Name**	: Programming in C
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core]	**Credits**	: 4

Course Outcomes:

ᶫ This Course will enable the students to
- Understand the basics Concepts of Programming.
- Elaborate programming constructs of C language.

B.Sc NETWORKING

Semester	: II	**Batch**	: 2017-2020
Course code	: 17BN206	**Course Name**	: Operating System Lab
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core Practical]	**Credits**	: 3

Course Outcomes:

ᶫ This Course will enable the students to
- To learn and practice of different OS installation methods, upgrading Windows OS
- Migrate user profiles and configuring windows updates

B.Sc NETWORKING

Semester	: II	**Batch**	: 2017-2020
Course code	: 17BN207	**Course Name**	: Programming in C Lab
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core Practical]	**Credits**	: 4

Course Outcomes:

This Course will enable the students to

- Create simple programs using basic constructs
- Understand Branching, Conditional and Looping Statements mechanism
- Develop programs using structures, unions, functions and files

SEMESTER - III

B.Sc NETWORKING

Semester	: III	**Batch**	: 2017-2020
Course code	: 17BN301	**Course Name**	: Internetworking with TCP/IP
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core]	**Credits**	: 4

Course Outcomes:

ι This Course will enable the students to

- Understand how to use ping, trace route and other tools to diagnose faults on a network
- Plan how to set IP addresses and subnets
- Critically analyze and check IP and TCP packets using an analyzer
- Trouble shoot problems in TCP/IP

B.Sc NETWORKING

Semester	: III	**Batch**	: 2017-2020
Course code	: 17BN302	**Course Name**	: Wireless Networks
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core]	**Credits**	: 4

Course Outcomes:

ι This Course will enable the students to

- Learn major concepts involved in wide-area networks (WANs), local area networks (LANs), Wireless LANs (WLANs)
- To provide a WLAN performance evaluation experience.
- To expose students to emerging technologies and their potential impact.

B.Sc NETWORKING

Semester	: III	**Batch**	: 2017-2020
Course code	: 17BN303	**Course Name**	: Information Security
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core]	**Credits**	: 4

Course Outcomes:

This Course will enable the students to
- To know the various encryption techniques.
- To understand the standard algorithms used to provide confidentiality, integrity and authenticity.

B.Sc NETWORKING

Semester	: III	**Batch**	: 2017-2020
Course code	: 17BN304	**Course Name**	: Relational Database Management System
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core]	**Credits**	: 4

Course Outcomes:

This Course will enable the students to
- Understand the fundamental concepts involved in the design and implementation of a database system.
- Elaborate Database architecture and data modeling
- Learn transaction management and database security

B.Sc NETWORKING

Semester	: III	**Batch**	: 2017-2020
Course code	: 17BN305	**Course Name**	: Open Source Lab- I
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core Practical]	**Credits**	: 4

Course Outcomes:

ᴸ This Course will enable the students to

- Acquire knowledge in Installation, Configuration and Administration in the Linux operating system.
- Enable the student to work with file and directory commands and shell scripting
- Configure network management using IP Addresses

B.Sc NETWORKING

Semester	: III	**Batch**	: 2017-2020
Course code	: 17BN306	**Course Name**	: Networking Lab
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core Practical]	**Credits**	: 3

Course Outcomes:

ᴸ This Course will enable the students to

- Troubleshoot Router and other switching devices.

- Learn to take Backup and restore the IOS and configuration files.

- Practice security settings in the Local Area Network

- Configure Network Bandwidth

B.Sc NETWORKING

Semester	: III	**Batch**	: 2017-2020
Course code	: 17BN308	**Course Name**	: PC Assembling & Troubleshooting
Internal Marks	: 25	**External Marks**	: 75
Part	: IV[NME]	**Credits**	: 2

Course Outcomes:

This Course will enable the students to

- Perform tasks such as installation of system software

- Configuration and diagnosing of PC

- Basics of networking.

SEMESTER - IV

B.Sc NETWORKING

Semester	: IV	**Batch**	: 2017-2020
Course code	: 17BN401	**Course Name**	: Virtualization
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core]	**Credits**	: 4

Course Outcomes:

⌐ This Course will enable the students to

- Implement Hyper-V Virtualization
- Configure Hyper-V on a Windows Server 2008 Server
- Install SCVMM and configure Security Roles
- Troubleshoot SCVMM

B.Sc NETWORKING

Semester	: IV	**Batch**	: 2017-2020
Course code	: 17BN402	**Course Name**	: Network Administration
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core]	**Credits**	: 4

Course Outcomes:

⌐ This Course will enable the students to

- Learn network Security design
- Create strategies for planning, implementing, and maintenance.
- Understand Standards, Policies and its implementations.

B.Sc NETWORKING

Semester	**: IV**	**Batch**	**: 2017-2020**
Course code	**: 17BN403**	**Course Name**	**: Customer Relationship Management**
Internal Marks	**: 25**	**External Marks**	**: 75**
Part	**: III[Core]**	**Credits**	**: 4**

Course Outcomes:

ᴸ This Course will enable the students to

- Understand the components of customer relations ship management and it purpose IT industry.
- Learn the process of implementing and maintaining CRM system in the organization.

B.Sc NETWORKING

Semester	**: IV**	**Batch**	**: 2017-2020**
Course code	**: 17BN404**	**Course Name**	**: Network Security Lab**
Internal Marks	**: 25**	**External Marks**	**: 75**
Part	**: III[Core Practical]**	**Credits**	**: 3**

Course Outcomes:

ᴸ This Course will enable the students to

- Understand fundamental issues in computer and network security.
- Understand reasons for policies, settings, and configurations practically
- Develop a working knowledge of network security issues that pertain to traditional and evolving security technology architecture and security operations.
- Develop an understanding of the security architecture impact of the transition from IPv4 to IPv6

B.Sc NETWORKING

Semester	: IV	**Batch**	: 2017-2020
Course code	: 17BN405	**Course Name**	: Open Source Lab-II
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core Practical]	**Credits**	: 3

Course Outcomes:

This Course will enable the students to

- Learn practically how to manage partitioning, file systems, and Swap Partition and LVM Partition
- Understand File sharing using NFS and Samba Server Configuration
- Manage network connection using bonding

B.Sc NETWORKING

Semester	: IV	**Batch**	: 2017-2020
Course code	: 17BN406	**Course Name**	: Server Deployment Lab
Internal Marks	: 100	**External Marks**	: -
Part	: III[Skill Based]	**Credits**	: 2

Course Outcomes:

This Course will enable the students to

- Install and Configure Streaming Media Services
- Secure Streaming Media

B.Sc NETWORKING

Semester	: IV	**Batch**	: 2017-2020
Course code	: 17BN408	**Course Name**	: Basics of Network
Internal Marks	: 100	**External Marks**	: -
Part	: III[NME]	**Credits**	: 2

Course Outcomes:

This Course will enable the students to
- Learn basics of Network and its design, Common Network components
- Understand Physical Network topology and Internetworking models

SEMESTER - V

B.Sc NETWORKING

Semester	: V	**Batch**	: 2017-2020
Course code	: 17BN501	**Course Name**	: Server Administration
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core]	**Credits**	: 4

Course Outcomes:

ᴸ This Course will enable the students to
- Learn to design an Active Directory Infrastructure in Windows Server.
- Design Active Directory forests and Public Key Infrastructures.
- Implement security, high availability, disaster recovery, and migrations on server

B.Sc NETWORKING

Semester	: V	**Batch**	: 2017-2020
Course code	: 17BN502	**Course Name**	: Cloud Computing
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core]	**Credits**	: 4

Course Outcomes:

ᴸ This Course will enable the students to
- Understand infrastructure of cloud computing services like CaaS, IaaS, MaaS, PaaS, SaaS.
- Learn the Evolution of Cloud Computing and web Services
- Build Cloud Network with Security and Common standards of Cloud Computing.

B.Sc NETWORKING

Semester	: V	**Batch**	: 2017-2020
Course code	: 17BN503	**Course Name**	: Advanced Networking
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core]	**Credits**	: 4

Course Outcomes:

⌐ This Course will enable the students to

- Understand technologies used in the Data Center Industry.

- Learn designing and implementing of mission-critical network Infrastructure.

- Elaborate DC Infrastructure Management and energy efficient technologies

B.Sc NETWORKING

Semester	: V	**Batch**	: 2017-2020
Course code	: 17BN504	**Course Name**	: Networking Processing
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core]	**Credits**	: 4

Course Outcomes:

⌐ This Course will enable the students to

- Learn the concepts of installing, configuring IOS

- Understand Routing, ACL and WAN switching

B.Sc NETWORKING

Semester	: V	**Batch**	: 2017-2020
Course code	: 17BN505	**Course Name**	: Advanced Server Administration Lab
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core Practical]	**Credits**	: 3

Course Outcomes:

This Course will enable the students to

- Learn to design an Active Directory Infrastructure in Windows Server.

- Design Active Directory forests and Public Key Infrastructures.

- Configure Virtual machine with Hyper-V.

B.Sc NETWORKING

Semester	: V	**Batch**	: 2017-2020
Course code	: 17BN506	**Course Name**	: Network Processing Lab
Internal Marks	: 25	**External Marks**	: 75
Part	: III[Core Practical]	**Credits**	: 3

Course Outcomes:

This Course will enable the students to

- To Practically learn how to install, configure and operate Local Area Networks, Wide area networks and dial access services for small networks(100 nodes or fewer) using various protocols like IP , IGRP ,Serial frame relay, IP RIP, VLANs, RIP , Ethernet , Access lists.