



FIRST-YEAR OF BACHELOR OF COMPUTER SCIENCE
SKILL ENHANCEMENT COURSE REVISED SYLLABUS
ACCORDING TO CBCS NEP2020

COURSE TITLE: INTRODUCTION TO HARDWARE & PC
ASSEMBLY
SEMESTER-II, W.E.F. 2023-2024

**Recommended by the Board of Studies in Computer Science
And**

Approved by the Academic Council

Devrukh Shikshan Prasarak Mandal's

Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce, and
Vid. Dadasaheb Pitre Science College (Autonomous), Devrukh.
Tal. Sangameshwar, Dist. Ratnagiri-415804, Maharashtra,
India

Academic Council Item No: _____

Name of the Implementing Institute	:	Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce, and Vid. Dadasaheb Pitre Science College (Autonomous), Devrukh. Tal. Sangameshwar, Dist. Ratnagiri-415804,
Name of the Parent University	:	University of Mumbai
Name of the Programme	:	Bachelor of Science
Name of the Department	:	Computer Science
Name of the Class	:	First Year
Semester	:	Second
No. of Credits	:	02
Title of the Course	:	Introduction to Hardware & PC Assembly
Course Code	:	CSSE101
Name of the Vertical in adherence to NEP 2020	:	Skill Enhancement Course
Eligibility for Admission	:	Any 12 th Pass seeking Admission to Degree Programme in adherence to Rules and Regulations of the University of Mumbai and Government of Maharashtra
Passing Marks	:	40%
Mode of Assessment	:	Formative and Summative
Level	:	UG
Pattern of Marks Distribution for TE and CIA	:	60:40
Status	:	NEP-CBCS
To be implemented from Academic Year	:	2023-2024
Ordinances /Regulations (if any)	:	

Syllabus for First Year of Bachelor of Science in Computer Science

(With effect from the academic year 2023-2024)

SEMESTER-I

Paper No. - -

Course Title: Introduction to Hardware & PC Assembly

No. of Credits - 02

Type of Vertical: Skill Enhancement Course

COURSE CODE: CSSE101

Learning Outcomes Based on BLOOM's Taxonomy:

After completing the course, the learner will be able to...		
Course Learning Outcome No.	Blooms Taxonomy	Course Learning Outcome
CLO-01	Remember	Various parts of computer hardware
CLO-02	Understand	Learner should get a clear understanding of PC Assembling, hardware technologies and networking.
CLO-03	Analyse	Student will analyse the problem regarding hardware of computer

Syllabus for First Year of Bachelor of Science in Computer Science

(With effect from the academic year 2023-2024)

SEMESTER-II

Paper No – -

Course Title: Introduction to Hardware & PC Assembly

No. of Credits - 02

Type of Vertical: Skill Enhancement Course

COURSE CODE: CSSE101

COURSE CONTENT			
Module No.	Content	Credits	No. of Lectures
1	<p>PC Assembling: Gather and Inspect Components and Tools. Prepare System Case for Assembly. Checking SMPS and fit with system Case. Plan System Layout. Install Hard Disk Drive/DVD-RW Drive. Configure Motherboard. Install Processor. Install Memory Modules/Motherboard/I/O Port Connectors/PS/2 Mouse Port Connector Connect Motherboard and Case Connect Hard Disk Drive/ DVD-RW Drive to Motherboard. Install Video Card. Perform Post-Assembly Inspection. Connect External Peripherals. Perform Initial Boot/Initial BIOS Setup/Install System Tests/Additional Peripherals. Partition and Format Hard Disk. Complete Assembly. Installation of Windows (Client version). Installation and configuration of driver software. Installation of Linux (Client version), Updating Service Pack of O. S. Installation of Anti-Virus Software(Well known), Updating Anti-Virus Software</p>	1	15
	<p>Trouble shoots for Hardware Problems: Monitor display problems: No signals, Resolution problem, strange display etc. Mouse Problems: Wired mouse and wireless mouse both. Overheating issues. Troubleshooting for Desktop& Laptop Hard Drive Failure, Date and Time problem, No power etc. RAM failure.</p> <p>Trouble shoots for O.S.: Slow Operating System, Start-up Errors, Operating System will not Start, Unable to Connect to the Wireless Network (for Laptop), System restarts without warning.</p> <p>Trouble shoots for Virus affected systems:</p>	1	15

2	Suspicious computer behavior such as high CPU usage on unrecognized processes. Unable to access network resources such as shared drives. Internet Explorer home page is changed without permission. Exploring error for drives. Trouble shoots for Application software malfunctioning: 15L Issue opening or running a software program. Unable to install a software program. Trouble shoots for Network problems. Bad network card drivers or software settings. Firewall preventing computers from seeing each other. Connection related issues. Bad network hardware. Connection IP conflict problem etc. Internet Configuration Different types of internet connection and their configuration method. Broad band connection (ADSL and Cable etc.). Webcam installation. Troubleshoot while configuring internet.		
	Total	2	30

Required Previous Knowledge

Students should know basic concepts related to computer and computer handling

Access to the Course

The course is available for all the students admitted for Bachelor of Science (Computer Science).

Forms of Assessment

The assessment of the course will be of Formative and Summative type. At the beginning of the course diagnostic assessment will be carried out. The formative assessment will be used for the Continuous Internal Evaluation whereas the summative assessment will be conducted at the end of the term. The weightage for formative and summative assessment will be 60:40. The detailed pattern is as given below.

Semester End Practical Examination (100 Marks)

Question Paper Pattern

Time: 3 hours

Question No.	Unit/s	Question Pattern	Marks
Q.1	All	Certified Journal	05
Q.2	All	Any two experiments	40
Q.3	All	Viva based on experiments	05
		Total	50

Grading Scale

10 points grading scale will be used. The grading scale used is O to F. Grade O is the highest passing grade on the grading scale, and grade F is a fail. The Board of Examinations of the college reserves the right to change the grading scale.

Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce and Vid. Dadasaheb Pitre Science College, Devrukh (An Autonomous College Affiliated with University of Mumbai)

Reference book:

- Mastering PC Hardware & Network, Dr. Ajit Mittal, Dr. Ajay Rana
- How Computers Work, Ron White
- Modern TFT & LCD Monitor Introduction and Troubleshooting, BPB Publication
- Service Manual Mother Board & Laptop, GT Publication
- Fundamental of Computer, V. Rajaraman.