

M.L. Dahanukar College of Commerce

Teaching Plan: 2020 - 2021

Department: I.T.

Class: **S.Y.B.Sc.(I.T.)**

Semester: **IV**

Subject: Core Java

Name of the Faculty: Snehal S. Borlikar

Month	Topics to be Covered	Internal Assessment	Number of Lectures
January	Unit 1: Introduction ,Data types		15
February	Unit 2:Control Flow Statements, Iterations, Classes		15
March	Unit 3: Inheritance, Packages Unit 4: Enumerations, Arrays, Exceptions		15
April	Unit 4: Multithreading, Byte streams Unit 5: Event Handling ,Abstract Window Toolkit ,layout		15



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P.T.V.A.'s
M.L.Dahanukar College of Commerce

Teaching Plan: 2020 – 2021
Department: Information Technology

Class: S.Y.B.Sc.(I.T.) – Semester IV
Subject: Introduction Embedded System
Name of the Faculty: Prof. Amit Bane

Month	Topics to be Covered	Internal Assessment	Number of Lectures
Jan	<p>Introduction: Embedded Systems and general purpose computer systems, history, classifications, applications and purpose of embedded systems</p> <p>Core of embedded systems: microprocessors and microcontrollers, RISC and CISC controllers, Big endian and Little endian processors, Application specific ICs, Programmable logic devices, COTS, sensors and actuators, communication interface, embedded firmware, other system components.</p> <p>Characteristics and quality attributes of embedded systems: Characteristics, operational and non-operational quality attributes.</p> <p>Embedded Systems – Application and Domain Specific: Application specific – washing machine, domain specific - automotive.</p>		20
Feb	<p>Embedded Hardware: Memory map, i/o map, interrupt map, processor family, external peripherals, memory – RAM , ROM, types of RAM and ROM, memory testing, CRC ,Flash memory.</p> <p>Peripherals: Control and Status Registers, Device Driver, Timer Driver - Watchdog Timers.</p> <p>The 8051 Microcontrollers: Microcontrollers and Embedded processors, Overview of 8051 family. 8051 Microcontroller hardware, Input/output pins, Ports, and Circuits, External Memory.</p> <p>8051 Programming in C:</p>		20

	Data Types and time delay in 8051 C, I/O Programming, Logic operations, Data conversion Programs.		
March	<p>Designing Embedded System with 8051 Microcontroller: Factors to be considered in selecting a controller, why 8051 Microcontroller, Designing with 8051.</p> <p>Programming embedded systems: structure of embedded program, infinite loop, compiling, linking and debugging.</p> <p>Real Time Operating System (RTOS): Operating system basics, types of operating systems, Real-Time Characteristics, Selection Process of an RTOS.</p> <p>Design and Development: Embedded system development Environment – IDE, types of file generated on cross compilation, disassembler/de-compiler, simulator, emulator and debugging, embedded product development life-cycle, trends in embedded industry.</p>		20

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Teaching Plan: 2020 - 2021

Department: I.T.

Class: S.Y.B.Sc.(I.T.)

Semester:IV

Subject: COST (Computer Oriented Statistical Techniques)

Name of the Faculty: Amit Limbasia

Month	Topics to be Covered	Internal Assessment	Number of Lectures
January	<ol style="list-style-type: none">1. The Mean, Median, Mode, and Other Measures of Central Tendency2. The Standard Deviation and Other Measures of Dispersion3. Introduction to R4. Moments, Skewness, and Kurtosis5. Elementary Probability Theory		24
February	<ol style="list-style-type: none">6. Elementary Sampling Theory7. Statistical Estimation Theory8. Statistical Decision Theory9. Small Sampling Theory10. The Chi-Square Test		24
March	<ol style="list-style-type: none">11. Curve Fitting and the Method of Least Squares – I12. Correlation Theory		12
April			

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Teaching Plan: 2020 – 2021
Department: Information Technology

Class: S.Y.B.Sc.(I.T.) – Semester IV

Subject: Software Engineering

Name of the Faculty: Prof. Supritha Bhandary

Month	Topics to be Covered	Internal Assessment	Number of Lectures
Jan	Introduction, Difference between hardware and software, SDLC, software requirements, software processes, waterfall model, prototyping model, iterative model., RUP, RAD model, Agile software development Socio-Technical System: Characteristics, legacy systems, critical systems.		23
Feb	security of software systems, Requirements engineering processes, feasibility study, systems models, context model, behavioural model, data model, object model Architectural design: modular decomposition styles, control styles, User Interface design: need of UI, Design issues, user analysis. Project Management		18
March	Quality Management: quality planning, quality control, software measurement and metrics, Verification and validation software inspections, Software Testing: system testing, project duration and staffing, Process improvement, software reuse, distributed software engineering.		19

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Teaching Plan: 2020 - 21

Department: I.T. Class: S.Y.B.Sc. (I.T.)

Semester: IV

Subject: Computer Graphics and Animation

Name of the Faculty: Sweta Chheda

Month	Topics to be Covered	Internal Assessment	Number of Lectures
January	Unit 1 - Chap 1 - Introduction to Computer Graphics Unit 1 - Chap 2 - Scan Conversion Unit 2 - Chap 3 - Two-Dimensional Transformation (half) + Practical's		22
February	Unit 2 - Chap 3 – Two-Dimensional Transformation Unit 2 - Chap 4 - Three Dimensional Transformations. Unit 5 -Chap 10 - Computer Animation Unit 5 - Chap 11 - Image Manipulation and Storage Unit 3 - Chap 7 - Color + Practical's		20
March	Unit 3 - Chap 5 - Viewing in 3D Unit 4 - Chap 8 - Visible Surface Determination Unit 4 - Chap 9 - Plane Curves and Surfaces Unit 3 - Chap 6 - Light + Practical's		18
April	Tentative if required		



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