

(An Autonomous Institution, Affiliated to Bharathiar University, Coimbatore)
(Approved by Government of Tamil Nadu & Accredited by NAAC with A++ Grade (3rd Cycle - 3.64 CGPA)
Dr. N.G.P. – Kalapatti Road, Coimbatore – 641 048, Tamil Nadu, India
Web: www.drngpasc.ac.in | Email: info@drngpasc.ac.in | Phone: +91-422-2369100

BoS

14th

MINUTES OF THE FOURTEENTH BOARD OF STUDIES MEETING

Faculty: Computer Science

Board: Information Technology

The Meeting of Board of Studies (BoS) was held as given below:

Name of the Body	Board of Studies (BoS)
Department	Information Technology
Meeting No.	14
Date and Time	06.12.2022 @ 11.00 a.m.
Venue	IQAC Board Room
Members Attended	The details are given in the ANNEXURE -I

	AGENDA
01	Discussion on syllabi for Part III – Core Courses for Second semester UG 2022-23 Batch and onwards
02	Discussion on syllabus for Part III – Inter Disciplinary Course (IDC) offered by other departments
03	Discussion on syllabus for Part III- Inter disciplinary Course (IDC) offered to other departments
04	Discussion on Part I (Tamil/Hindi/French/Malayalam) offered by Language department for 2022-23 Batch and onwards
05	Discussion on Part II (English) offered by English department for 2022-23 Batch and onwards
06	Discussion on Part IV (AECC) Basic Tamil / Advanced Tamil / Human Rights and Women's Rights for 2022-23 Batch and onwards
07	Discussion on credits for Part V Extension Activity for 2022-23 Batch and onwards
08	Discussion on Value Added Certificate Courses (VACC) for 2021-22 Batch and onwards
09	Any other matters



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Faculty: Computer Science

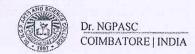
Board: Information Technology

The Chairman of BoS welcomed all the Panel members for the meeting. The items listed in the agenda were taken for discussion.

The following are the minutes of the meeting:

Item-01	Discussion on syllabi for Part III – Core Courses for Second semester UG -2022-		
	23 Batch and onwards		
	224CA1A2CA: Data Structures		
	• The unified syllabus approved by Board of Studies in Computer Applications		
D'	was placed for endorsement.		
Discussion	• The unified syllabus approved by Board of Studies in Computer Science was		
	placed for endorsement.		
	224IT1A2CP: Data Structures and C++ (New Course)		
	The Syllabus approved by the Board Members.		
Resolution	The Board approved the syllabus.		
Item -02	Discussion on syllabus for Part III - Inter Disciplinary Course (IDC) offered by Department of Mathematics		
Discussion	222MT1A2IC - Discrete Mathematics		
	• The unified syllabus approved by the Board of Studies in Mathematics was placed for endorsement.		
Resolution	The Board approved the syllabus.		
Item-03	Discussion on syllabus for Part III - Inter Disciplinary Course (IDC) offer		
	Department of Clinical Laboratory Technology		
	224IT1A2IP - Computer Applications in Clinical Laboratory (New Course)		
Discussion	 Dr. Vadivel suggested to change titles MS Word, MS Excel and MS PowerPoint to generic terms such as Word processing, Spreadsheet and Presentation software. 		
Resolution	The Board unanimously approved the syllabus.		
Item -04	Discussion on Part I (Tamil/Hindi/French/Malayalam) offered by Language		
	department for 2022-23 Batch and onwards		
	221TL1A2TA - Part I:Tamil-II: Ara Illakiyam / 221TL1A2HA - Hindi-II: Modern Literature / 221TL1A2MA - Malayalam - II : Modern Literature/ 221TL1A2FA -		
Discussion	French-II: Grammar, Translation and Civilization respectively		
	• The unified syllabus approved by the Board of Studies in Languages were		
D 1 //	placed for endorsement		
Resolution	The Board approved the syllabus.		

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Item -05	Discussion on Part II (English) offered by department of English for 2022-23 Batch and onwards		
Discussion	 221EL1A2EA: Part II: Professional English II The unified syllabus approved by the Board of Studies in English was placed for endorsement 		
Resolution	The Board unanimously approved the syllabus.		
Item -06	Discussion on Part IV (AECC:II) Basic Tamil/Advanced Tamil/Human Rights and Women's Rights for 2022-23 Batch and onwards		
Discussion	 221TL1A2AA-Basic Tamil The unified syllabus approved by the Board of Studies in Language was placed for endorsement 221TL1A2AB-Advanced Tamil The unified syllabus approved by the Board of Studies in Language was placed for endorsement 225CR1A2AA- Human Rights and Women's Rights The unified syllabus approved by the Board of Studies in Commerce with Corporate Secretaryship was placed for endorsement. 		
Resolution	The Board approved the same.		
Item -07	Discussion on credits for Part V Extension Activity for 2022-23 Batch and onwards		
Discussion	One credit to be awarded for participation in YRC/RRC/NSS/NCC/RRC/Yoga/Sports/Clubs		
Resolution	The Board members accepted the same.		
Item-08	Discussion on Value Added Certificate Courses (VACC) for 2021-22 Batch and onwards		
Discussion	• The course titled "Mobile Application Development" to be offered for 2021-22 batch was discussed.		
Resolution	The Board approved the same.		
Item-09	Any other matters		
Discussion	The board members discussed and recommended the Panel of Examiners		
Resolution	The Board approved the same.		

The Chairman of Board of Studies (BoS) thanked all the members for their active participation and providing their valuable suggestions.

Date: 06.12.2022

Chairman/HOD

Colmbatore - 641 048

Department of Information Technology Dr. N.G.P. Arts And Science College

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Syllabus Revision

Faculty: Computer Science

Board: Information Technology

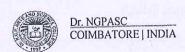
Course Code / Name: 224CA1A2CA / Data Structures Semester: II

Unit	Course Content
I	Introduction to Data Structures and Arrays Introduction: Basic Terminology -Classification of Data Structures -Operations on Data Structures-Abstract Data Type-Algorithms-Time and Space Complexity -Big O Notation-Omega Notation (Ω) -Theta Notation (Φ). Arrays: Declaration of Arrays-Accessing the elements of an array-Storing values in Arrays-Operations on Arrays. Applications of Arrays: Sparse Matrices
II	Stacks and Queues Stacks: Array Representation of Stacks- Operations on a Stack-Linked Representation of Stacks. Applications of Stacks: Evaluation of Arithmetic Expressions –Recursion. Queues: Array Representation of Queues - Operations on Queues - Linked Representation of Queues - Circular Queues. Applications of Queues: JOB Scheduling
III	Linked Lists Singly Linked Lists: Inserting a node in a Linked List- Deleting a node from a Linked List. Circular Linked Lists: Inserting a node in a Circular Linked List - Deleting a node from a Circular Linked List. Doubly Linked Lists: Inserting a node in a Doubly Linked List - Deleting a node from a Doubly Linked List. Applications of Linked Lists: Polynomial Addition.
IV	Trees and Graphs Trees: Binary Trees – Representation of Binary Trees - Creating a Binary Tree - Traversing a Binary Tree- Binary Search Trees and its Operations - Threaded Binary Trees. Applications of Trees: Expression Trees. Graphs: Graph Terminology - Representation of Graphs - Graph Traversal Algorithms. Applications of Graphs: Shortest Path Algorithm: Dijkstra's Algorithm. Minimum Spanning Trees: Prim's Algorithm.
V	Searching, Sorting and Hashing Searching: Linear search —Binary Search. Sorting: Bubble Sort - Insertion Sort - Selection Sort — Quick Sort-Merge Sort -Heap Sort. Hashing and Collision: Hash Tables - Hash Functions - Collision. Applications of Hashing: Keyword Table in a Compiler.

PERCENTAGE OF SYLLABUS REVISED :36 %

COURSE FOCUSES ON:

✓	Skill Development	Entrepreneurial Development
\checkmark	Employability	Innovations
	Intellectual Property Rights	Gender Sensitization
	Social Awareness/ Environment	Constitutional Rights/ Human Values/ Ethics





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Syllabus Revision - New Course

Faculty: Computer Science

Board: Information Technology

Semester: II

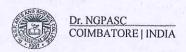
Course Code / Name: 224CS1A2CA/ Object Oriented Programming with C++

Unit	Course Content
I	Introduction to Object Oriented Programming Introduction - Programming Paradigms - Key concepts of Object-Oriented Programming - Applications of Object-Oriented Programming - Variable, Value and Constant - Components of a C++ Program - Data Types - Expressions - Type Conversion - Order of Evaluation - Formatting Data: Manipulators in Input/Output- Branching and Looping.
II 🎉	Classes and Arrays User-Defined Types: Classes-Class Definition-Member function- Access Modifiers- Inline function- Constructors and Destructors- Instance Members: Instance Data Members-Instance Member Functions -Static Members - Arrays: One-Dimensional Arrays - Multidimensional Arrays. Case Study: Wave Array
Ш	Pointers, Strings and Inheritance References - Pointers - Pointer Types and Pointer variables - Constant Modifiers - Pointer to Pointer- Arrays and Pointers - Strings: C ++ String Class -C++ String Library - Inheritance: Private, Public and Protected Inheritance - Association - Dependency
IV	Polymorphism and Exception Handling Polymorphism- Binding- Abstract Class: Pure Virtual Functions - Multiple Inheritance - Overloading Principles - Overloading as Member- Nonmember: Friend function-Exception Handling: Approach- Exceptions in Classes - Standard Exception Classes - Templates: Function Template - Class Template.
V	File Handling and Standard Template Library Input and Output stream – Stream Classes - Console Streams - Console Objects - Stream State - File Streams - File I/O - Opening Modes - Sequential Vs Random Access - String Streams - Formatting Data: Direct use of Flags, Fields and Variables - Predefined Manipulators-Standard Template Library: Iterators, Sequence Containers, Container Adapters.

PERCENTAGE OF SYLLABUS REVISED: 100 %

COURSE FOCUSES ON:

✓	Skill Development	Entrepreneurial Development
✓	Employability	Innovations
	Intellectual Property Rights	Gender Sensitization
	Social Awareness/ Environment	Constitutional Rights/ Human Values/ Ethics





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Syllabus Revision - New Course

Faculty: Computer Science		Board: Information Technolog	
Course Code / Name: 224IT1A2CP /Data Structures and	C++	Semester: II	

S.No	List of Programs		
1	Program to implement the following using an array a) Stack ADT b) Queue ADT		
2	Program to perform normal queue using array method in C++		
3	Program to implement list ADT to perform following operations a) Insert an element into a list. b) Delete an element from list c) Search for a key element in list d) Count number of nodes in list		
4	Program to demonstrate Circular queue using array		
5	Program to use functions and perform the following a) Create a doubly linked list of elements. b) Delete a given element from the above doubly linked list. c) Display the contents of the above list after deletion.		
6	Program to Use recursive functions and Tree Traversal for the following a) Preorder b) Inorder c) Postorder		
7	Program to perform the following a) Create a binary search tree of characters. b) Traverse the above Binary search tree recursively in Preorder, Inorder and Postorder.		
8	Program to perform Insertion and Deletion from an AVL-tree.		
9	Program to perform the following a) Search for a key element in a list of elements using linear search. b) Search for a key element in a list of sorted elements using binary search.		
10	Program to implement the following a) Create a binary search tree of integers. b) Traverse the above Binary search tree non recursively in Inorder		
11	Program to implement Sorting algorithms a) Bubble sort b) Selection sort c) Quick sort d) Insertion sort		
12	Program to implement all the functions of a dictionary (ADT) using hashing.		

PERCENTAGE OF SYLLABUS REVISED: 100 %

COURSE FO	CUSES ON:	
✓ Ski	ll Development	Entrepreneurial Development
✓ Em	ployability	Innovations
	ellectual Property Rights	Gender Sensitization
Soc	cial Awareness/ Environment	Constitutional Rights/ Human Values/ Ethics



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Syllabus Revision

Faculty: Computer Science Board: Information Technology

Course Code/ Name: 222MT1A2IC / Discrete Mathematics (IDC) Semester: II

Unit	Course Content Set Theory Introduction - set and its elements - set description - types - Venn-Euler Diagrams - set operations and laws of set theory - fundamental products - index and indexed sets - partitions of sets - minsets - countable and uncountable sets - Algebra of sets and duality - computer representation - the inclusion and exclusion principle- Fuzzy sets.		
I			
II	Relations and Functions Relations: Introduction - cartesian product of sets - binary relations - set operations on relations - types- partial order relations - equivalence relation and classes-Functions: Introduction - types - invertible functions - composition of functions.		
III	Mathematical Logic Introduction - propositional calculus – basic logical operations - statements generated by a set - conditional statements - converse, inverse and contrapositive statements - biconditional - tautologies - contradiction - contingency - argument - methods of proof - equivalence and implication - predicate calculus-quantifiers.		
IV	Graph Theory and Trees Introduction - paths, cycles and connectivity - subgraphs - types - isomorphic and homeomorphic graphs - representation of graphs in computer memory- Eulerian and Hamiltonian graphs-cartesian product- shortest path. Trees: Introduction - binary trees - complete binary tree - tree of an Algebraic expression - traversing binary trees.		
V	Language, Grammar and Automata Introduction - language: the set theory of strings - languages – regular expressions and regular languages – grammar – finite state machine – finite state automata.		

PERCENTAGE OF SYLLABUS REVISED: 20%

COURSE FOCUSES ON:

✓	Skill Development	Entrepreneurial Development
✓	Employability	Innovations
	Intellectual Property Rights	Gender Sensitization
	Social Awareness/ Environment	Constitutional Rights/ Human Values/ Ethics



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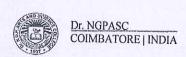
Syllabus Revision – New Course IDC – B.Sc. Clinical Laboratory Technology

Faculty: Computer Science Board: Information Technology
Course Code/Name:224IT1A2IP/COMPUTER APPLICATIONS IN CLINICAL LABORATORY Semester: II

Unit	Course Content		
I	Word Processing: Create a word document - Enter, Select and Copy text - Save the		
	Correct Flooring Liftors - Apply Styles - Insert a Diatura Dear I		
	a table - convert text to table - Print Document.		
	1. Create and Format a word documents.		
	2. Create Healthcare Organizational Chart.		
	3. Mail merge for advertising Master Health Check-up		
II	Presentation software: Create a Slide - Insert a Dicture April 77		
	Run the Slideshow - Presenter view - Choose and Use the template - Rehearse the timings		
	- Print the slideshow.		
	4. Preparation of Blood Donation Camp advertisement using PowerPoint.		
	5. Create Agenda for clinical laboratory practice.		
	6. Create professional medical presentation using transition.		
III	Spreadsheet: Entering Data in Excel - Transforming and Managing data - Sorting and		
	Filtering - Formulae and Functions: Summing and Subtracting values - Basic calculations -		
	Count function - Text functions.		
	7. Formatting an Excel Sheet for patient billing statements.		
	8. Sorting and Filtering the Blood group from Blood bank in Excel		
	9. Calculation using formulae in Excel.		
	Data Analysis: Pivot tables - Create a pivot table - Calculation and grouping - Power Pivot		
IV	and Power Query - Analysis ToolPak - Activate Analysis ToolPak add-in - Components of		
	Analysis ToolPak - Analyzing data using ToolPak.		
	10. Import medical data from webpage, text file and remove duplicates		
100	11. Analyze clinical trial dataset using ToolPak		
	12. Create a Pivot Table for COVID-19 clinical trial dataset with pivot chart		
V	Data Visualization: Charts - Insert a chart - Add or remove chart elements - Different types		
n n	of charts - Column and Bar charts - Line Charts - Pie Chart or Doughnut chart - Histogram		
49 19	chart - Area Chart - Scatter Chart and Bubble Chart.		
	13. Visualize the patient history details using chart in Excel.		
	14. Categorize the diabetes dataset and visualize it in various chart elements.		
	15. Classify any medical related dataset and prepare various chart.		
ERCEN	WTAGE OF SYLLABUS REVISED: 100%		

PERCENTAGE OF SYLLABUS REVISED: 100% COURSE FOCUSES ON:

✓	Skill Development	Entrepreneurial Development
V	Employability	Innovations
	Intellectual Property Rights	Gender Sensitization
	Social Awareness/ Environment	Constitutional Rights/ Human Values/ Ethics





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ATTENDANCE OF THE FOURTEENTH BOARD OF STUDIES MEETING

Faculty: Faculty of Computer Science

Board: Information Technology

VENUE

IQAC Board Room

DATE

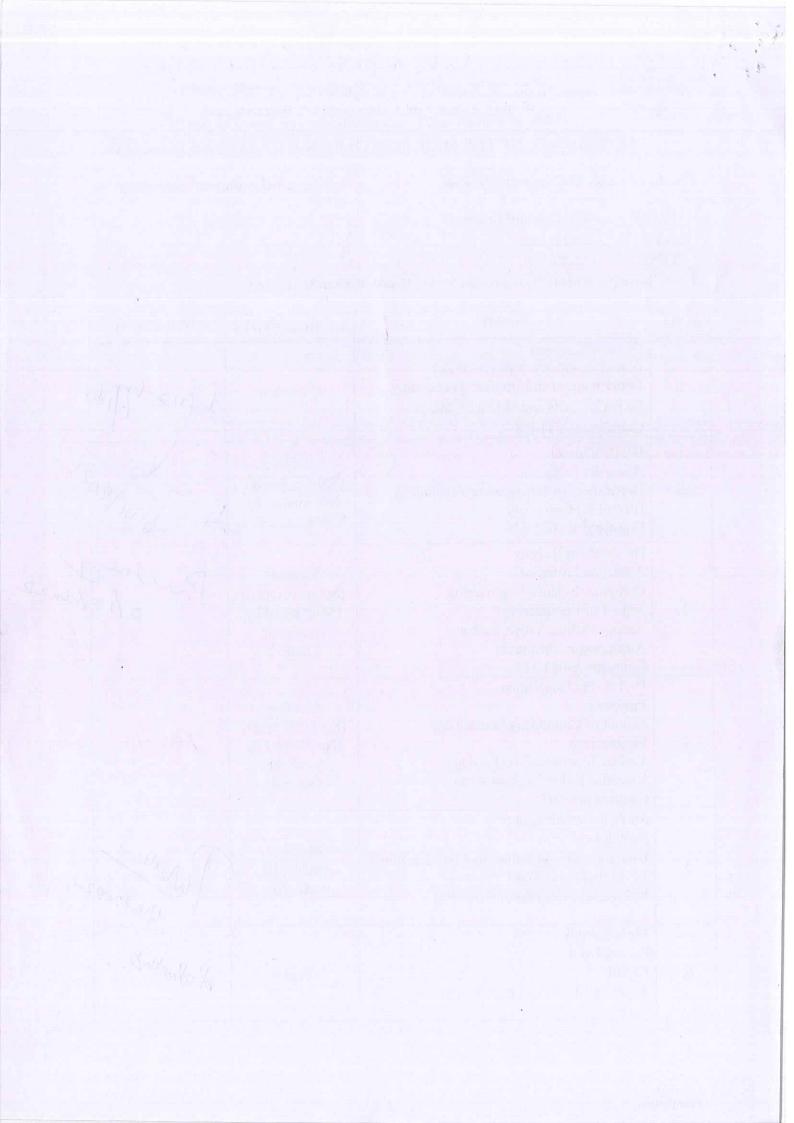
06.12.2022

TIME

11.00 AM

The following members were present for the Board of Studies Meeting

S.NO.	NAME	DESIGNATION	SIGNATURE
1.	Dr.A.Adhiselvam Associate Professor & Head (i/c) Department of Information Technology Dr.N.G.P. Arts and Science College Coimbatore-641048	Chairman	mahjir
2.	Dr. R. Vadivel Associate Professor Department of Information Technology Bharathiar University Coimbatore - 641 046.	Member (Subject Expert) (Nominated by Vice Chancellor)	ob wo
3.	Dr. Prashant R. Nair Associate Professor Computer Science Engineering School of Engineering Amrita Vishwa Vidyapeetham Amritanagar, Ettimadai Coimbatore-641 112.	Member (Subject Expert) (Nominated by Academic Council)	Pru any 6/12
4.	Dr.T.S. PradeepKumar Professor School of Computing Science and Engineering Vellore Institute of Technology Vandalur Kelambakkam Road, Chennai 600 048.	Member (Subject Expert) (Neminated by Academic Council)	ABSENT
5.	Mr.R. J. Senthil Kumar Founder Director – Sprout Solutions Private Limited 14, Light House Road R.S. Puram, Coimbatore -641 001.	Member (Industrial expert)	Julie 209
6.	Mr.K.Karthik Project Lead KGISL Saravanampatti, Coimbatore-641 035	Alumni	X. Amgra.





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S.NO.	NAME	DESIGNATION	SIGNATURE
7	Dr. N. Kuppuchamy	Co-opted Member (Tamil)	10/2/2
8	Dr. R. Vithya Prabha Professor & Head	Co-opted Member (English)	RISEPHONE
9	Dr. R. Sowrirajan Assistant Professor & Head	Co-opted Member (Mathematics)	4 Tapon
10	Ms.V.Haritha III B.Sc. IT	Student Representative	Haritha 6/12/22
11	Dr.K.Santhi Professor	Member	ABSENT
12	Dr.J.Savitha Professor	Member	July 9/12/
13	Dr.K.Thenmozhi Associate Professor	Member	B. Cof 6/2/22
14	Mrs.P.Menaka Assistant Professor(SG)	Member	g. Orblish
15	Mr.B.M.Rajesh Assistant Professor	Member	Burstanin
16	Dr.B.Sivaranjani Assistant Professor	Member	B. Sin blishot
17	Dr.S.Rekha Assistant Professor	Member	Office Prys
18	Dr.N.Vanitha Assistant Professor	Member	Saville Hist
19	Dr.R.Praba Assistant Professor	Member	R. 1806/12/22

Date: 06.12.2022



(Dr. A.Adhiselvam)

BoS Chairman/HOD
Department of Information Technology
Dr. N.G.P. Arts And Science College
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