



Dr. N.G.P. ARTS AND SCIENCE COLLEGE

(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. -KalapattiRoad, Coimbatore - 641 048, Tamil Nadu, India
Web : www.dnpgpasc.ac.in | Email : info@dnpgpasc.ac.in | Phone : +91-422-2369100

BoS

14th

MINUTES OF THE FOURTEENTH BOARD OF STUDIES MEETING

Faculty: Computer Science

Board: Computer Technology

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

Name of the Body	Board of Studies (BoS)
Department	Computer Technology
Meeting No.	14
Date and Time	05.12.2022 @ 10.00 a.m.
Venue	Center for Innovation
Members Attended	The details are given in the ANNEXURE -I

AGENDA

1.	Discussion on Syllabus for Part III – Core Courses for II Semester UG 2022-23 Batch and onwards
2.	Discussion on syllabus for Part III- Inter Disciplinary Course (IDC) offered by Mathematics department
3.	Discussion on Part I (Tamil/Hindi/French/Malayalam) offered by Language department for II Semester UG for 2022-23 Batch and onwards
4.	Discussion on Part II (English) offered by English Department for II Semester UG for 2022-23 Batch and onwards
5.	Discussion on Part IV (AECC) Basic Tamil/Advance Tamil/Human Rights and Women's Rights for II Semester UG for 2022-23 Batch and onwards
6.	Discussion on credits to Part V Extension Activity for II Semester UG 2022-23 Batch and onwards
7.	Discussion on Value Added Certificate Courses (VACC) for UG 2021-22 batch and onwards
8.	Any other matters





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BoS

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MINUTES OF THE FOURTEENTH BOARD OF STUDIES MEETING

Faculty: Computer Science

Board: Computer 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 Syllabus for Part III – Core Courses for II Semester UG 2022-23 Batch and onwards
Discussion	224CA1A2CA- Core: Data Structures <ul style="list-style-type: none">The unified syllabus approved by Board of Studies in Computer Applications was placed for endorsement. 224CS1A2CA- Core: Object Oriented Programming with C++ <ul style="list-style-type: none">The unified syllabus approved by Board of Studies in Computer Science was placed for endorsement. 224CT1A2CP– Core Practical: Programming in Data Structures and C++ <ul style="list-style-type: none">The board members suggested to include programs on Templates, Traversal of graph and exception handling
Resolution	The Board approved the syllabi for the above courses
Item - 02	Discussion on syllabus for Part III- Inter Disciplinary Course (IDC) offered by Mathematics department
Discussion	222MT1A2IC-IDC: Discrete Mathematics <ul style="list-style-type: none">The unified syllabus approved by Board of Studies in Mathematics was placed for endorsement.
Resolution	The Board approved the syllabus
Item -03	Discussion on Part I (Tamil/Hindi/French/Malayalam) offered by Language department for II Semester UG for 2022-23 Batch and onwards
Discussion	221TL1A2TA - Tamil-II: Ara Ilakkiyam <ul style="list-style-type: none">The unified syllabus approved by the Board of Studies in Languages was placed for endorsement. 221TL1A2HA - Hindi-II: Modern Literature <ul style="list-style-type: none">The unified syllabus approved by the Board of Studies in Languages was placed for endorsement. 221TL1A2MA - Malayalam–II: Modern Literature <ul style="list-style-type: none">The unified syllabus approved by the Board of Studies in Languages was placed for endorsement. 221TL1A2FA-French-II: Grammar, Translation and Civilization <ul style="list-style-type: none">The unified syllabus approved by the Board of Studies in Languages was placed for endorsement.
Resolution	The Board unanimously approved the syllabi

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Item -04	Discussion on Part II (English) offered by English Department for II Semester UG for 2022-23 Batch and onwards
Discussion	221EL1A2EA: Professional English II <ul style="list-style-type: none">The unified syllabus approved by the Board of Studies in English was placed for endorsement.
Resolution	The Board approved the same.
Item -05	Discussion on Part IV (AECC) Basic Tamil/Advanced Tamil/Human Rights and Women's Rights for II Semester UG for 2022-23 Batch and onwards
Discussion	221TL1A2AA: Basic Tamil <ul style="list-style-type: none">The unified syllabus approved by the Board of Studies in Languages was placed for endorsement. 221TL1A2AB: Advanced Tamil <ul style="list-style-type: none">The unified syllabus approved by the Board of Studies in Languages was placed for endorsement. 225CR1A2AA: Human Rights and Women's Rights <ul style="list-style-type: none">The unified syllabus was approved by the Board of Studies in Commerce with Corporate Secretaryship was placed for endorsement.
Resolution	The Board approved the syllabi of above courses
Item -06	Discussion on credits to Part V Extension Activity for II Semester UG 2022-23 Batch and onwards
Discussion	One credit to be awarded for participation in Extension Activity like NSS/NCC/ YRC/RRC/ Yoga/Sports/Clubs
Resolution	The Board approved awarding one credit for extension activity.
Item-07	Discussion on Value Added Certificate Courses (VACC) for 2021-22 batch and onwards
Discussion	<ul style="list-style-type: none">The Board members suggested to offer VACC on Cloud Amazon Web Services (AWS)
Resolution	The Board approved the same
Item -08	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: 05.12.2022

(Dr. D. Maheshwari)



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COIMBATORE | INDIA

BoS Chairman/HoD
Department of Computer Technology
Dr. N. G. P. Arts and Science College
Coimbatore - 641 048

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BoS

14th

Syllabus Revision

Faculty: Computer Science

Semester: II

Board: Computer Technology

Course Code / Name: 224CA1A2CA/ Data Structures

Unit	Course Content
I	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 (Θ). Arrays: Declaration of Arrays-Accessing the elements of an array-Storing values in Arrays-Operations on Arrays. Applications of Arrays: Sparse Matrices
II	Stacks: Array Representation of Stacks- Operations on a Stack-Linked Representation of Stacks - Applications of Stacks: Evaluation of Arithmetic Expression -Recursion. Queues: Array Representation of Queues - Operations on Queues -Linked Representation of Queues - Circular Queues -Applications of Queues: JOB Scheduling
III	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: Binary Trees - Representation of Binary Trees -Creating a Binary Tree - Traversing a Binary Tree- Binary Search Tree and its Operations - Threaded Binary Trees. Applications of Tree: 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: 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
✓	Employability
	Intellectual Property Rights
	Social Awareness/ Environment

	Entrepreneurial Development
	Innovations
	Gender Sensitization
	Constitutional Rights/ Human Values/ Ethics





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BoS

14th

Syllabus Revision

Faculty: Computer Science

Board: Computer Technology

Semester: II

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

Unit	Course Content
I	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	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
III	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- 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	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 : 21 %

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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14th

Syllabus Revision

Faculty : Computer Science

Board : Computer Technology

Semester: II

Course Code / Name: 224CA1A2CA/ Programming in Data Structures and C++

Prg. No	Existing	Changes
1	Program to count the number of objects using the Static member functions.	Program to demonstrate class and member functions
2	Program to find the largest of the members in an array. Use constructor to initialize the array.	Program to demonstrate the usage of constructors, destructors and inline member functions.
3	Program to overload arithmetic operators to perform arithmetic operations on objects.	a. Program to implement friend function b. Program to implement virtual function
4	Program to find the area and perimeter of various shapes using multiple inheritances.	Programs to implement all types of inheritance
5	Program to handle Strings.	a. Program to apply string functions b. Program to implement Exception handling
6	Program to merge the contents of two files.	a. Program to implement Templates b. Program to merge two files in to single file
7	Program to convert infix to postfix.	Program to convert infix expression to postfix expression
8	Create a single linked list of integer elements. Delete a specific element and display the list.	Program to implement queue operations.
9	Create an array list of integers. Sort the elements using Bubble Sort and display.	Program to implement any one linked list data structure
10	Program to implement insert operation in Binary Search Tree.	Program that implements Sorting algorithms
11	Program to implement insert operation in Binary Search Tree.	a. Program to implement searching techniques b. Program to implement graph traversal
12	Program to solve the single source shortest path problem using Dijkstra's algorithm.	--

PERCENTAGE OF SYLLABUS REVISED: 25%

COURSE FOCUSES ON:

✓	Skill Development
✓	Employability
	Intellectual Property Rights
	Social Awareness/ Environment

	Entrepreneurial Development
	Innovations
	Gender Sensitization
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Syllabus Revision

Faculty: Computer Science

Board: Computer Technology

Semester: II

Course Code/ Name: 222MT1A2IC / Discrete Mathematics

Unit	Course Content
I	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
II	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	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	Introduction - paths, cycles and connectivity - subgraphs - types - isomorphic and homeomorphic graphs - representation of graphs in computer memory- Eulerian and Hamiltonion graphs-cartesian product-shortest path. Trees: Introduction - binary trees - complete binary tree - tree of an Algebraic expression - traversing binary trees.
V	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
✓	Employability
	Intellectual Property Rights
	Social Awareness/ Environment

	Entrepreneurial Development
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ATTENDANCE OF THE FOURTEENTH BOARD OF STUDIES MEETING

Faculty: Computer Science

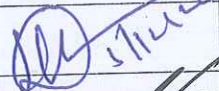
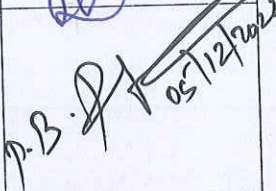
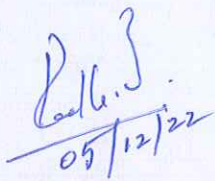

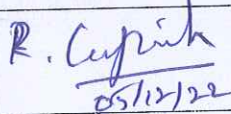

Board: Computer Technology

VENUE : Innovation Lab

DATE : 05/12/2022

TIME : 10:00 a.m.

The following members were present for the Board of Studies meeting

S.NO.	NAME	DESIGNATION	SIGNATURE
1.	Mrs. D. Maheshwari Professor and Head	Chairman	 5/12/22
2.	Dr. P. B. Pankajavalli Assistant Professor Department of Computer Science Bharathiar University, Coimbatore-46	Member (Subject Expert) (Nominated by Vice Chancellor)	 P.B. Pankajavalli 05/12/2022
3.	Dr. V. Radha Professor, Department of Computer Science School of Physical Sciences and Computational Sciences Avinashilingam Institute for Home Science and Higher Education for Women Coimbatore- 641043	Member (Subject Expert) (Nominated by Academic Council)	 V. Radha 05/12/22
4.	Dr. L. Dhanabal Associate Professor, Department of MCA Kumaraguru College of Technology Athipalayam Rd, Chinnavedampatti Coimbatore- 641049	Member (Subject Expert) (Nominated by Academic Council)	 L. Dhanabal 5/12/22
5.	Mr. R. Gopinath Software Engineer Tech Mahindra, TidelPark, Coimbatore	Member (Industrial expert)	 R. Gopinath 05/12/22
6.	Ms. M. Reshma Senior Software Testing Engineer Wipro Technologies, Tidel Park, Coimbatore.	Alumni	 M. Reshma 5/12/2022

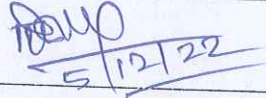
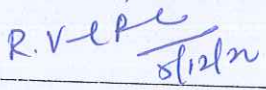
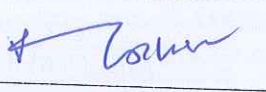
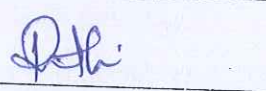
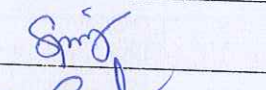
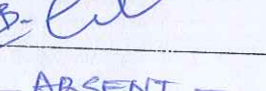
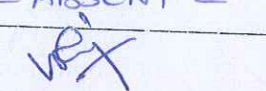
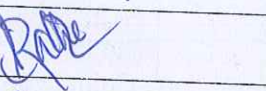
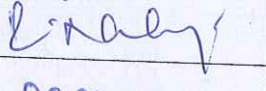

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S.NO.	NAME	DESIGNATION	SIGNATURE
8.	Dr. N. Kuppuchamy	Co-opted Member (Tamil)	
9.	Dr. R. Vidhya Prabha	Co-opted Member (English)	
10.	Dr. R. Sowrirajan	Co-opted Member (Mathematics)	
11.	Ms. P. Preethi	Student Representative	
12.	Mrs. R. S. Padmapriya Assistant Professor (SG)	Member	
13.	Mr. B. Narasimhan Assistant Professor	Member	
14.	Mr. T. R. Anand Assistant Professor	Member	- ABSENT -
15.	Mrs. V. Manimekalai Assistant Professor	Member	
16.	Dr. M. Rathi Assistant Professor (SG)	Member	
17.	Dr. R. Nithya Professor	Member	
18.	Dr. B. Leelavathi Associate Professor	Member	- ABSENT -
19.	Mrs. C. Malarvizhi Assistant Professor	Member	

Date : 05.12.2022


(Dr. D. Maheshwari)



BoS Chairman/HoD
Department of Computer Technology
Dr. N. G. P. Arts and Science College
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