



PROF. S. NURUL HASAN COLLEGE, FARAKKA

P.O.- Farakka Barrage. Dist- Murshidabad. Pin-742212 (W.B)

email: prof.snhcollege@rediffmail.com.

Website: <https://psnhcollege.ac.in/>

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Date.....

Department of Computer Science UG Computer Science General Programme Outcomes (PO)

1. After completion of this programme, the students will demonstrate a strong foundational knowledge in computer science, including understanding and applying principles in areas such as computer fundamental, its architecture, database management system, operating system, data structure & algorithm.
2. Students will develop the ability to think critically and solve complex problems using computational methods, enabling them to analyze and interpret data effectively.
3. Through elective courses, students will have opportunities to specialize in various computational fields or explore interdisciplinary applications, enhancing their skills and knowledge base.
4. Graduates will be equipped with the skills to effectively communicate computational concepts and collaborate with peers on projects, important for professional success in any field.
5. After completion of this programme, the students will be prepared for further studies in computer science or related disciplines, providing a strong academic foundation for pursuing postgraduate education.
6. Students will gain proficiency in using various software and tools essential for modern day to day activities.
7. Graduates will understand the ethical implications of their work and the importance of computer in addressing social, scientific, and environmental issues.

Sibantik Banerjee
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Prof. S.N.H. College
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Course Outcomes

SEMESTER-I

Course Code	Course Title	Course Credit	Course Outcome
UG-G-CC-L-101A	Computer Fundamentals and Programming using C	4(T) & 2(P)	1. Basics of Computer Fundamentals

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			<ol style="list-style-type: none">2. Illustrate the Flow Chart & explore algorithmic approaches to problem solving.3. Ability to analyze a problem and devise an algorithm to solve it.4. Understand how to write, debug and execute simple programs in C5. Able to formulate algorithms, pseudo codes and flowcharts for arithmetic and logical problems. Ability to implement algorithms in the 'C' language.6. Able to make program using Functions, Pointer , Structures , Multi dimensional Arrays & File handling Program7. Understand how to write, debug and execute simple programs in C.
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SEMESTER-II

Course Code	Course Title	Course Credit	Course Outcome
UG-G-CC-L-201B	Computer System Architecture	6	<ol style="list-style-type: none">1. To study the basics of Logic gates, Boolean algebra, combinational circuits, circuit simplification, flip-flops and sequential circuits, decoders, multiplexers, registers, counters and memory units2. To get familiar with concepts of digital electronics, To learn number systems and their representation, To introduce the basic concepts of advanced Microcontrollers.3. Able to develop structure of Assembler and macro processor for an hypothetical simulated computer.4. Able to develop various algorithms used for management of memory, CPU scheduling, File handling and I/O operations.5. To study Basic computer Organization.6. To study Basic computer Organization

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SEMESTER -III

Course Code	Course Title	Course Credit	Course Outcome
UG-G-CC-L-301C	Database Management System	4(T) & 2(P)	<ol style="list-style-type: none">1. To study the basics of Database Management Systems: Characteristics of database approach, data models, DBMS architecture.2. To understand E-R Diagram, Normalization.3. Ability to solve real world problems using appropriate set, function, and relational models.4. Ability to design E-R Model for given requirements and convert the same into database tables.5. To understand the Role of Database Designer & Administrator and to become the same designation.6. Use database techniques such as Structured Query language [SQL] & PL/SQL.7. To create database tables, generate Queries, Design Forms and generate different types of reports.8. Finally to Design a database application and to become Database Developer.

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UG-G- SEC-P-301	Office Automation Tools	2	1. To perform documentation. 2. To perform accounting operations 3. To perform presentation skills
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UG-G-SEC-P-301	System Administration & maintenance	2	1. Distinguish between features of Linux/Unix and windows operating system. 2. install/uninstall hardware and software. 3. Configure system environment. 4. Troubleshoot network connectivity issues. 5. Examine system performance issues. 6. Examine file structure and properties.
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SEMESTER-IV

Course Code	Course Title	Course Credit	Course Outcome
UG-G-CC-L-401D	Operating System	6	1. Understand the role of operating system as System software. 2. Helps gain knowledge on how the shell relates to the keyboard, the screen, the operating system, and users' programs. 3. Enables students understand when and why command-line interfaces should be used instead of graphical interfaces.

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			<ol style="list-style-type: none">4. Able to compare the various algorithms and comment about performance of various algorithms used for management of memory, CPU scheduling, File handling and I/O operations.5. Understand various concepts related with Deadlock to solve problems related with Resources allocation, after checking system in Safe state or not.6. To understand role of Process synchronization towards increasing throughput of system.
UG-G- SEC-P-402	1.HTML Programm ing	2	<ol style="list-style-type: none">1. Applying basic HTML for creating websites.2. Creating CSS for styling web pages.

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UG-G- SEC-P-402	XML Programming	2	<ol style="list-style-type: none">1. How to create and manipulate XML documents2. Understanding how DTDs and Schemas define XML document structures and languages3. Understanding how to use XML electronic text markup languages and XML metadata markup schemas4. Understanding how XML markup schemas and standards are currently being used in the library community.
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SEMESTER-V

Course Code	Course Title	Course Credit	Course Outcome
UG-G-DSE-L-501A	Analysis of Algorithms and Data Structures	4(T) & 2(P)	<ol style="list-style-type: none">1. Exposes students to basic data structures and algorithms.2. Introduces students to various techniques for representation of the data in the real world.3. Helps understand and compute the complexity of various algorithms, be able to design and analyze the time and space efficiency of the data structures4. Understand different methods of organizing large amount of data using data structure.5. Able to choose appropriate data structure as applied to specified problem definition.6. Able to compute the complexity of various algorithms.7. Able to understand internal structure of compiler and interpreters.

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UG-G- SEC-P-503	Programming in Visual Basic/GAMBAS	2	<ol style="list-style-type: none">1. Demonstrate knowledge of programming terminology and how applied using Visual Basic (e.g., variables, selection statements, repetition statements, etc.)2. Develop a Graphical User Interface (GUI) based on problem description3. Develop an Event Planning Chart based on problem description so as to define the processing that is to occur based on specific events4. Develop an Algorithm to verify processing is accurate5. Develop and debug applications using Visual Basic
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UG-G- SEC-P-503	Multimedia And Applications	2	<ol style="list-style-type: none">1. To Critically and analyze the key components of multimedia technologies including text, graphics, voice, video and animation and the broad principles associated with multimedia concepts used in computer graphics.2. Create vector and typographic designs and apply masking effect to images and Create an animation using the tools panel.3. Design an image using image editing tools and apply effectively. Create animated sequence with titles applying the principles of animation.4. Apply acquired knowledge in the field of multimedia for the good cause like advertisement in practice and independently continue to expand knowledge in this field.
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SEMESTER-VI

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UG-G-DSE-PRO-601B	Project Work	6	<ol style="list-style-type: none">1. The Project is the most essential part of this semester since the student is expected to apply all the potential different programming skills to develop the concerned project.2. The aim of the Project work is to acquire practical knowledge on the implementation of the programming concepts studied.3. Helps students to understand and develop the client required user interface.4. Helps develop a software project in a team.5. Student should use these techniques for their project.6. Enables students to develop real time projects and applications.7. Able to learn Program Documentation Project Documentation8. Students will able to create report for real life projects9. Understand the software development process, models and software engineering principles and develop an ability to apply them to software design of real life problems.10. Plan, analyze, design and implementation software project using different programming languages etc. Gain the confidence at working major project with their team & Get the skill exposure in the corporate environment.
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UG-G- SEC-P-604	MySQL Programming (using SQL/PL- SQL)	2	<ol style="list-style-type: none">1. Translate an information model into a relational database schema and to implement the schema using RDBMS.2. Apply advanced SQL features like views, indexes, synonyms, etc. for database management.3. Analyze PL/SQL structures like functions, procedures, cursors and triggers for database applications.4. Examine database administration concepts like GRANT, REVOKE etc. through SQL commands.5. Work in teams to design solutions for real world problems/case studies by creating efficient database schema.
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UG-G- SEC-P-604	R Programming	2	<ol style="list-style-type: none">1. Show the installation of R Programming Environment.2. Utilize and R Data types for developing programs.3. Make use of different R Data Structures.4. Develop programming logic using R Packages.5. Analyze the datasets using R programming capabilities
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