



Yogoda Satsanga Palpara Mahavidyalaya

NAAC Accredited ('B' Grade) and NCTE Recognized (B.Ed. and M.Ed Courses)
affiliated to

Vidyasagar University, Midnapore and WBUTTEPA, Kolkata, (Govt. of West Bengal)

At + P.O : Palpara, Dist : Purba Medinipur, PIN Code – 721458, West Bengal, India

B.Sc. (HONOURS) MAJOR in Computer Science Programme Specific Outcome (PSO)

The student will be capable of the following after completing the UG in Computer Science programme:

- **Discipline knowledge:** Acquiring knowledge on basics of Computer Science and ability to apply to design principles in the development of solutions for problems of varying complexity
- **Problem Solving:** Improved reasoning with strong mathematical ability to Identify, formulate and analyze problems related to computer science and exhibiting a sound knowledge on data structures and algorithms.
- **Design and Development of Solutions:** Ability to design and development of algorithmic solutions to real world problems and acquiring a minimum knowledge on statistics and optimization problems. Establishing excellent skills in applying various design strategies for solving complex problems.
- **Programming a computer:** Exhibiting strong skills required to program a computer for various issues and problems of day-to-day applications with thorough knowledge on programming languages of various levels.
- **Application Systems Knowledge:** Possessing a sound knowledge on computer application software and ability to design and develop app for applicative problems.
- **Modern Tool Usage:** Identify, select and use a modern scientific and IT tool or technique for modeling, prediction, data analysis and solving problems in the area of Computer Science and making them mobile based application software.
- **Communication:** Must have a reasonably good communication knowledge both in oral and writing.
- **Project Management:** Practicing of existing projects and becoming independent to launch own project by identifying a gap in solutions.
- **Ethics on Profession, Environment and Society:** Exhibiting professional ethics to maintain the integrity in a working environment and also have concern on societal impacts due to computer-based solutions for problems.
- **Lifelong Learning:** Should become an independent learner. So, learn to learn ability. **Motivation to take up Higher Studies:** Inspiration to continue education towards advanced studies on Computer Science.



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Course Outcome (CO)

Semester – I

- **COSHMJ-101T: PROGRAMMING IN C(THEORY)**

Outcomes:

Upon finishing the course, students will:

- Enhance their ability to solve problems using top-down design principles.
- Master the creation of basic algorithms and flowcharts.
- Translate these algorithms into straightforward c programs.
- Grasp the concepts of code organization and hierarchical decomposition.
- Gain proficiency in crafting c programs to tackle real-world challenges.

- **COSHMJ-101P: PROGRAMMING IN C LAB**

Outcomes:

After completing this course, you will be able to:

- Develop a c program
- Control the sequence of the program and give logical outputs
- Implement strings in your c program
- Store different data types in the same memory
- Manage i/o operations in your c program
- Repeat the sequence of instructions and points for a memory location
- Apply code reusability with functions and pointers

- **COSSEC-01P: OFFICE AUTOMATION**

Outcomes:

By learning the course, the students will be able

- To perform documentation
- To perform accounting operations
- To perform presentation skills



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• **COSMI – 01T: COMPUTER FUNDAMENTAL**

Outcomes:

On successful completion of this course, a student will be able to:

1. Handle a computer system for day to day use.
2. Enumerate different types of input/ output devices and types of memory.
3. Perform basic arithmetic operations using different number systems including binary arithmetic.
4. Differentiate between system and application software.
5. Prepare documents / spreadsheets.

• **MDC-01T: BASICS OF INFORMATION TECHNOLOGY (IT)**

Outcomes:

On successful completion of this course, a student will be able to:

1. To aware them about basic of computer and its evolution.
2. Provide knowledge of different units of computer like processing unit, io unit, and storage unit.
3. How to operate windows os and its features.
4. Dos os and its internal and external commands.

• **COSPMJ-101T: INTRODUCTION TO COMPUTERS**

Outcomes:

Upon completing requirements for this course, the student will be able to:

1. Identify the basic elements required in a computer system.
2. Produce electronic documents using various software applications.
3. Illustrate the role of the computer for personal and professional uses.



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Semester – II

● **COSHMJ-102T: DIGITAL LOGIC DESIGN**

Outcomes:

At the end of the course students will be able to:

1. Use number systems and complements
2. Identify the importance of canonical forms in the minimization or other optimization of boolean formulas in general and digital circuits.
3. Minimize functions using any type of minimizing algorithms (boolean algebra, karnaugh map or tabulation method).
4. Analyze the design procedures of combinational and sequential circuits.

● **COSHMJ-102P: DIGITAL LOGIC DESIGN LAB**

Outcomes:

At the end of the course students will be able to:

1. Use number systems and complements
2. Identify the importance of canonical forms in the minimization or other optimization of boolean formulas in general and digital circuits.
3. Minimize functions using any type of minimizing algorithms (boolean algebra, karnaugh map or tabulation method).
4. Analyze the design procedures of combinational and sequential circuits.
5. Design the finite state machine using algorithmic state machine charts and perform simple projects with a few flip-flops.

● **COSSEC-02P: WEB APPLICATION**

Outcomes:

At the end of the course students will be able to:

1. To introduce the fundamentals of internet, and the principles of web design.
2. To construct basic websites using html and cascading style sheets.
3. To build dynamic web pages with validation using java script objects and by applying different event handling mechanisms.
4. To develop modern interactive web applications using php, xml and mysql



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- **COSMI-02T: INTRODUCTION TO PROGRAMMING**

Outcomes:

After the course the students are expected to be able to :

1. Identify situations where computational methods and computers would be useful.
2. Given a computational problem, identify and abstract the programming task involved.
3. Approach the programming tasks using techniques learned and write pseudo-code.
4. Choose the right data representation formats based on the requirements of the problem.
5. Use the comparisons and limitations of the various programming constructs and choose the right one for the task in hand.
6. Write the program on a computer, edit, compile, debug, correct, recompile and run it.
7. Identify tasks in which the numerical techniques learned are applicable and apply them to write programs, and hence use computers effectively to solve the task.

- **COSMI-02P: PROGRAMMING IN C LAB**

Outcomes:

After competing this course, you will be able to:

1. Develop a c program
2. Control the sequence of the program and give logical outputs
3. Implement strings in your c program
4. Store different data types in the same memory
5. Manage i/o operations in your c program
6. Repeat the sequence of instructions and points for a memory location
7. apply code reusability with functions and pointers



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- **MDC-02T: DIGITAL TECHNOLOGIES**

Outcomes:

After competing this course, you will be able to:

1. Knowledge about digital paradigm.
2. Realization of importance of digital technology, digital financial tools, e-commerce.
3. Know-how of communication and networks.
4. Familiarity with the e-governance and digital india initiatives
5. An understanding of use & applications of digital technology.
6. Basic knowledge of all machine learning and big data