



Yashoda Shikshan Prasarak Mandal's

Yashoda Technical Campus, Satara



(Approved by AICTE, Delhi/Approved by Govt of Maharashtra DTE) Email: principalengg_ytc@yes.edu.in
Web : www.yes.edu.in NH-4, wadhe, Satara, Tele Fax-02162-271238/39/9172220775

Faculty of Engineering
Department of Computer Science and Engineering

Competitive Programming (BTCOC305)

Course Outcomes (CO): After completing the course student

COs	Description
CO1	Understand and Use the syntax and semantics of Java programming language and basic concepts of OOP.
CO2	Develop reusable programs using the concepts of inheritance, polymorphism, interfaces and packages.
CO3	Apply the concepts of Exception handling to develop efficient and error free codes.
CO4	Design web related applications using JavaScript and Java.

Experiment Learning Outcomes (ELO):

ELO 1	Learn how to implement object-oriented designs with Java.
ELO 2	Learn how to extend Java classes with inheritance and dynamic binding.
ELO 3	Learn how to use exception handling, creation of user interfaces and packages in Java applications.
ELO 4	Learn how to implement Java Script programs.

Teaching Learning Objectives (TLO):

TLO 1	To understand the basic concepts and fundamentals of platform-independent object-oriented languages such as variables, conditional and iterative execution, methods, etc.
TLO 2	To develop skills in the design fundamentals of object-oriented programming in Java, including defining classes, invoking methods, using class libraries, concepts of inheritance, polymorphism, interfaces, and packages, etc.
TLO 3	To demonstrate skills in writing programs using exception-handling techniques.
TLO 4	To improve design skills to implement web-related applications using JavaScript.

Vision of department: To lead in technical, quality education, innovation, research for development of sustainable & inclusive technology for the society.

Mission of department: 1. To create ambience of academic excellence through state of art infrastructure. 2. To create student-centric pedagogy that will lead to employability. 3. To create a software engineering professional with knowledge of multidisciplinary fields, can provide innovative products & service to society. 4. To train and motivate the students for **lifelong learning**, employability, and entrepreneurship



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PROGRAM OUTCOMES (PO)

1. **Engineering Knowledge:** Apply the knowledge of mathematics, science, and engineering fundamentals, to provide solutions to complex Computer Science and engineering problems.
2. **Problem Analysis:** Identify, formulate, and analyze complex Computer Science and engineering problems for providing substantiated conclusions.
3. **Design/Development of solutions:** Design solutions for complex Computer Science and engineering problems and design system components or processes that meet cultural, social, and environmental considerations.
4. **Conduct Investigations of Complex Problems:** Use research-based knowledge & research methods including design of experiments, analysis & interpretation of data to provide effective conclusions.
5. **Modern Tool Usage:** Create, select, and apply appropriate techniques, resources, and modern engineering for the prediction and modeling of complex engineering phenomenon with an understanding of the constraints involved.
6. **The Engineer and Society:** Apply reasoning informed by the contextual knowledge to assess social, cultural, and legal issues along with consequent responsibilities relevant to the professional engineering practice.
7. **Environment and Sustainability:** Understand the impact of Computer Science and engineering solutions on the environment and try to provide sustainable solutions.
8. **Ethics:** Depict commitment towards professional ethics, responsibilities, and norms of the Computer Science and engineering practice.
9. **Individual and Team Work:** Function effectively as a team member in a group with the capacity to be a leader or manager.
10. **Communication:** Communicate effectively in diverse global environments.
11. **Project Management and Finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply them to manage projects in multi-disciplinary environments.
12. **Lifelong Learning:** Have the ability to engage in independent & life-long learning for understanding the ever-widening sphere of knowledge.

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CO-PO mapping:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	2	–	–	–	1	–	–	2
CO2	2	2	2	2	2	–	–	–	1	–	–	2
CO3	3	3	3	3	3	–	2	–	2	–	–	3
CO4	2	2	2	2	2	–	–	–	1	–	–	2
AVG	2.25	2.25	2.25	2.25	2.25	–	2	–	1.25	–	–	2.25

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Program Educational Outcomes (PEO):

The PEOs are to facilitate graduating students to

PEO1: To provide knowledge of sound mathematical principles underlying various programming concepts.

PEO2: To develop an ability to understand complex issues in the analysis, design, implementation, and operation of information systems.

PEO3: To provide knowledge of mechanisms for building large-scale computer-based systems.

PEO4: To develop an ability to provide computer-based solutions to problems from other disciplines of science and engineering.

PEO5: To impart skills necessary for adapting to rapid changes taking place in the field of information and communication technologies.

CO-PEO mapping:

COs	PEO 1	PEO 2	PEO 3	PEO 4	PEO 5
CO1	2	1	2	1	2
CO2	2	1	2	1	2
CO3	2	1	2	1	2
CO4	2	1	2	1	2
AV G	2	1	2	1	2

Program Specific Outcomes (PSO):

The Graduates of this program with proficiency in the Computer Science and Engineering will

PSO_1: To be able to give solutions in networking, OOP, web development, cloud, IOT on real life applications using open source software.

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PSO_2: To be able to acquaint with modern trends in industry/research giving novel solutions to existing social problems.

CO-PSO mapping:

COs	PSO 1	PSO 2
CO1	2	1
CO2	2	1
CO3	2	1
CO4	2	1
AV G	2	1

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