

Introduction to the Course

Lecture 0

Department of Computer Science and Engineering, ITER
Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, Odisha, India.



Contents

- 1 Introduction
- 2 Course Information
- 3 Course Outcomes(COs)
- 4 Evaluation Scheme
- 5 Program Outcomes
- 6 Program Specific Outcomes(PSOs)
- 7 Summary

- **Course Number and Name:**

CSE 1001, Introduction to Computer Programming

- **Credits and Course Format:**

Grading Pattern = 1

Credits = 4

Course format: 5 hours/week (1 lab/week, 2hr/lab, 3 classes/week, 1hr/class)

- **Target Students:**

Programme: B.Tech. (1st Semester)

Branch: All

- **Text Book(s):**

(1) E.Balagurusamy, ***Programming with Java*** Mcgraw Hill India

- **Specific Course Information:**

- (a) **Course Description:** Fundamental of object oriented programming, java evolution, overview of java programming language, constants, variables and data types, operators and expression, decision making and looping, classes, objects and methods, arrays, strings and vectors, interfaces, inheritance, packages, multi-threaded programming, managing errors and exceptions, applet and graphics, managing input output files in java
- (b) **Prerequisites:** None

Course Outcomes(COs)

● **Course Outcomes (COs) :**

By the end of course through lectures, readings, homeworks, laboratory, assignments and exams students will be able to:

- CO 1. State and explain the basic Java programming syntax, semantics, and building blocks.
- CO 2. Design, write, debug and test the correctness of the programs.
- CO 3. Develop Java programs using programming constructs like conditional statements, looping, arrays, methods, and class.
- CO 4. Solve computational problem(s) using programming constructs.
- CO 5. Identify the problem, and identify a solution plan for the problem.
- CO 6. Analyze the problem, and improve the efficiency of the solution.

- **Evaluation scheme (under Grading Pattern-1) out of 100%:**

Attendance: 05%

Minor Assignments : 10%

Major Assignments : 10%

Mid-Term : 15%

End-Term Lab Test : 15%

End-Term Examination: 45%

Program Outcomes

- There are twelve program outcomes (1-12) and two program specific outcomes for the Computer science & Engineering B. Tech program:

Program Outcomes (POs)

- 1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

- 7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- 8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- 9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (PSOs)

PSO1: The ability to understand, analyze and develop computer programs in the areas related to business intelligence, web design and networking for efficient design of computer-based systems of varying complexities.

PSO2: The ability to apply standard practices and strategies in software development using open-ended programming environments to deliver a quality product for business success.

Thank You
Any Questions?