Course Code: IT105
Course Title: `Introduction to Programming'
Students: BTech Sem I
Structure: 3-0-3-4.5
Course Outcomes:
At the end of the course, students will
* Be able to develop logical ability to analyse and solve computational problems using C
  programming language.
* Be able to write, debug and test computer programs.
* Be able to work effectively with various computer software tools like editors, compilers, office
  automation, imaging etc.

Instructor:
Prasenjit Majumder

Course contents:
1. Introduction to programming: Programming methods, Paradigms, Problem solving
   techniques, Algorithm development, Flow charts (4 hours)
2. Linux environment (3 hours)
3. Basic concepts of ANSI C: character set, keywords, constants, variables, data types (3
   hours)
4. Operators: Arithmetic, Unary, Relational, Logical, Assignment, Conditional and expressions
   (2 hours)
5. Input-Output Operations: getchar, putchar, scanf, printf, gets and puts (2 hours)
6. Principles of Structured Programming, Control statements, Branching and loops (4 hours)
7. Static Allocation and Array : Single dimension, two dimension, multi dimension (5 hours)
8. Functions: Library functions and user-defined functions (3 hours)
9. Dynamic Allocation and Pointers (6 hours)
10. Structures & unions (2 hours)
11. File handling (3 hours)
12. Advanced features of C (3 hours)

References:
2. E. Balaguruswamy Programming in ANSI C Mcgraw Hill Publishing
4. Steve Oualline, Practical C Programming, O'reilly

Evaluation
• Quiz/presentation: 20%
• Assignments: 40%
• Semester exams: 40%

Contact hours : (Please send me an email beforehand)
Tuesday and Thursday: 16:00 - 17:00
Room no: 4209, Faculty block - 4, DA-IICT
Email: p_majumder@daiict.ac.in