

Department of Computer Science and Engineering National Institute of Technology Calicut

Kozhikode - 673 601, Kerala, India

Tentative Course Details - Monsoon 2015 CS2002 Foundations of Programming

(The instructor reserves the right to adjust the syllabus when required.)

Lecture:

Lecture Hours : Tue 11.15am - 12.15pm, Wed 8.00am - 9.00am, Fri 9.00am - 10.00am
Thu 2.00pm - 3.00pm

Lecture Hall : ELHC 203,401

Instructor:

Name	: Vineeth Paleri	Vinod Pathari
Office	: CSE201C CSE Building	CSE101C CSE Building
Office Hours	: By appointment	By appointment
Telephone	: 0495-2286802	0495-2286803
Email	: vpaleri@nitc.ac.in	pathari@nitc.ac.in

Course Objective:

- To learn
 1. the fundamental concepts in programming languages
 2. the techniques used to control intellectual complexity of programs - specifically procedural abstraction, data abstraction, and modular design - to build reliable programs.
- and not to learn
 1. syntax of particular programming language constructs
 2. clever algorithms for computing particular functions efficiently
 3. analysis of algorithms
- In the process, introduce the functional programming paradigm to view programming in a broader perspective.

Text Books:

- Harold Abelson, Gerald Sussman, and Julie Sussman. Structure and Interpretation of Computer Programs. Universities Press, 2009.
- Additional Reference: M. Felleisen, R. B. Findler, M. Flatt, S. Krishnamurthi. How to Design Programs - An Introduction to Programming and Computing. PHI Learning Private Limited, 2010.

Grading - Exams and Quizzes:

Mid-Term Exam I : 25%
Mid-Term Exam II : 25%
Final Exam : 50%

Course Schedule:

	Evaluation	Topic
Week 01		Programming Methodology
Week 02		Programming Methodology
Week 03		Elements of Programming
Week 04		Procedural Abstraction, Recursion
Week 05		Scope and Block Structure
Week 06	Test I	
Week 07		Abstractions with Higher-Order Procedures
Week 08		Data Abstraction
Week 09		Data Abstraction
Week 10		Hierarchical Data
Week 11		Hierarchical Data
Week 12	Test II	
Week 13		Symbolic Data
Week 14		Symbolic Data
Week 15		Modularity
Week 16		Environmental Model of Execution
Week 17		Concurrency

Grading Policy:

- Grading will be relative.
- Even though the grading will be relative, here is a tentative grade distribution: 90-100: S; 80-89: A; 70-79: B; 60-69: C; 50-59: D; 40-49: E; 30-39: R; <30: F (2013 Admission onwards).
- Absence for exams/quizzes without prior *written* permission from the instructor will be equivalent to zero marks in the corresponding exam/quiz.
- There will be no makeup exams except in case of genuine reasons. In the event of such exceptional cases, the student must discuss the matter with the instructor and must get written permission before the date of exam.
- All issues regarding valuation of exams must be resolved within one week after the marks are announced.

Standard of Conduct:

Each student is expected to adhere to high standards of ethical conduct, especially those related to cheating. Any academic dishonesty will result in zero marks in the corresponding exam or quiz and will be reported to the department council for record keeping and for permission to assign F grade in the course. The department policy on academic integrity can be found at:

<http://www.cse.nitc.ac.in/sites/default/files/Academic-Integrity.pdf>