



CS 152/154: Abstractions and Paradigms for Programming

Instructor: Om Damani

[Course Objective]

- Review of the program development process
- Issues in program design
- Structured programming
- Data and control abstractions
- Programming with assertions
- Reasoning about programs and proving correctness of programs.
- Ideas behind imperative, applicative, object oriented and logic programming paradigms such as
 - typing, expressions, pure functions, recursion, higher order functions, encapsulation, inheritance, goal satisfaction, backtracking, unification.

[Communication]

- Moodle site: <http://moodle.iitb.ac.in>
 - Look for CS152
 - Includes newsgroup, mailing lists etc.

[Course Load]

- It is a 9 credit course
- I expect 9-12 hours of work every week: 3 hrs of lectures + 3-6 hrs of self-study and home-work + 3 lab hours
- Assignments every week for regular practice
 - Not all assignments will be graded
 - You will not know in advance which one will be graded :)

[Tentative Evaluation Plan]

- End Sem: 40%
- Mid Sem: 20%
- Quizzes: 20%

- Assignments: 20%
 - No deadline waivers except for emergency

- Relative Grading
 - But all can get AA or FF

[Attendance Policy]

- Deafault

[Office Hours]

- Instructor: TBD in consultation with students. In my office SIA 316

[Feedback]

- Two way feedback is critical to the success of the course:
 - Feedback to the students
 - HW, Quizzes, Exam
 - Feedback from the students
 - During the class – ask if something is not clear
 - Will help pace the lecture
 - Right after the class if a lecture was not clear at all
 - Will help decide if some concepts need to be rediscussed in the next lecture
 - While going through the lecture notes – make a list of questions that come to your mind, note down inaccuracies, unclear parts in the slide.
 - In person
 - Use email for subjective feedback, always ask technical questions in person or on newsgroup
 - Teaching evaluation forms

[Academic Integrity]

- Dishonesty implies straight FF
- Constructive discussion allowed, but if you copy from someone, you must acknowledge them explicitly
- You will not be cheating others but only yourself of your future

[Class Preparation]

- Bring blank A4 sheets to every class
- I will ask you to write lot of code in the class that will need to be submitted (though not graded)

[Textbook/References]

- To be declared later