Programming & Data Structure: CS11001

Spring Semester: 2010 - 2011

Instructors: G. Biswas, P. Dasgupta & I. Sengupta

Department: **Computer Science and Engineering**

Marks Distribution

- *Class Test I*(c_1) - 2^{nd} Feb. 2011 - **10** marks
- *Mid-Sem. Exam.*(m) - 18^{th}-25^{th} Feb.2011 - **30** marks
- *Class Test II*(c_2) - 30^{th} March 2011 - **10** marks
- *End-Sem. Exam.*(e) - 22^{nd}-29^{th} Apr.2011 - **50** marks
- *Attendance* - $a = \frac{Classes\ Attended}{Total\ No.\ of\ Classes}$
- *Final Marks:* $a \times (c_1 + c_2) + m + e$.

Sections 6 & 7 Class Timings

Instructor: G. Biswas

Class Room: F142 (*Raman*)

Day	*Time*
Wednesday	11:30 am to 12:25 pm
Thursday	10:30 to 11:25 am
Friday	08:30 to 09:25 am

Special Tutorial

There will be a special tutorial for students who are not comfortable with C programming. Students from any section may join, but no more than 60 can be accommodated due to the class room size.

Day & Time: Monday, 8pm - 9:30pm

Venue: Room No. 107, Dept. of CSE

Syllabus - PDS (CS11001)

Introduction to digital computers; introduction to programming variables, assignments; expressions; input/output; conditionals and branching; iteration; functions; recursion; arrays; introduction to pointers; character strings; time and space requirements; searching and sorting; structures; introduction to data-procedure encapsulation; dynamic allocation; linked structures; introduction to data structures stacks and queues.

Coverage Schedule

- Class test I: built-in data type, control and loop, introduction to function.
- Mid-semester: + recursive function, 1D array.
- Class test II: + pointer, array parameter, representation int and float, string, 2D array, structure and self-referencing structure.
- End-semester: + user defined data type, introduction to data structures, file etc.

Instructor

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Goutam Biswas	281910	goutam@cse.iitkgp.ernet.in

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  Room No. 207.
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Teaching Assistant (TA)

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Sumanta Pyne	9433746069	sumantapyne@···
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Feedback

Number of students

- **who have written some computer program:**
- **who have written program in C, C++, Java, or Pascal:**
- **who have worked under Linux/Unix OS:**

Note

It is your responsibility to see that you do not learn something wrong from a book, or from a person (including the instructor) or from the Internet.

Text Books

1. **Programming with C, by** Gottfried, B. S., **TMH**
2. **Programming in C, by** P. Dey & M. Ghosh, **OUP**
3. **Data Structures, by** S. Lipschutz, **TMH**
4. **The C Programming Language, by** Kernighan, B. W. & Ritchie, D. M., **PHI**
5. **A Book on C** (*4th ed.*), **by** Kelley Al & Pohl Ira, **PEA**
6. **Data Structures Using C, by** Tenenbaum, A. M. **et al, PHI**
7. **Data Structures and Program Design, by** Kruse,

R. L, **PHI**

8. **Fundamentals of Data Structures, by** Horowitz, E. & Sahni, S, **??**
9. **Introduction to Algorithms, by** Cormen, T. H. **et al, PHI**
10. **The UNIX Programming Environment, by** Kernighan B. W. & Pike R., **PHI**
11. **UNIX Concepts and Applications, by** Das S., **TMH**
12. **Any reasonable book on C programming and data structures is acceptable.**