

# CS101 Computer Programming and Utilization

Milind Sohoni  
sohoni@cse.iitb.ac.in

July 20, 2006

- 1 CS101: Basic Organization
- 2 Sections and Subsections
- 3 Duties of the JTA
- 4 CS101: Advanced Organization
- 5 Summary

# Welcome to IIT-B and CS-101

## What is CS101

CS-101 is the first year UG/MSc course in programming. Highlights:

- **C++** is the programming language. The version is as on **linux**, i.e. **g++** with a symbolic debugger **ddd**.

# Welcome to IIT-B and CS-101

## What is CS101

CS-101 is the first year UG/MSc course in programming. Highlights:

- **C++** is the programming language. The version is as on **linux**, i.e. **g++** with a symbolic debugger **ddd**.
- There are 14 weeks of lectures: 7 weeks before mid-sems and 7 after. Each week will have 2 lectures, each of 1 hour, and 2 hours of laboratory.
- I will be teaching the lectures and **you** will be running the laboratory hours.
- There are 650 students and 32 JTAs and 6 STAs.

# Welcome to IIT-B and CS-101

## What is CS101

CS-101 is the first year UG/MSc course in programming. Highlights:

- **C++** is the programming language. The version is as on **linux**, i.e. **g++** with a symbolic debugger **ddd**.
- There are 14 weeks of lectures: 7 weeks before mid-sems and 7 after. Each week will have 2 lectures, each of 1 hour, and 2 hours of laboratory.
- I will be teaching the lectures and **you** will be running the laboratory hours.
- There are 650 students and 32 JTAs and 6 STAs.

Lectures begin August 2, 2006.

# Course Material

The course texts are

- *Bronson*, A first book of C++.
- [www.cplusplus.com](http://www.cplusplus.com).
- More to be added later.

The talks/labs/tutorials/announcements etc. will be available at

[www.cse.iitb.ac.in/~cs101](http://www.cse.iitb.ac.in/~cs101). Currently at [~sohoni](http://~sohoni).

There are 14 weeks of instructions and 14 lectures and 14 sets of lab/tutorial materials.

# Evaluations

The evaluations and marks are given below:

Date	Type	Marks
Pre-Midsem	3 Assignments	18
Midsem	Midsem	20
Post-Midsem	2 assignments	12
Post-Midsem	1 Project	10
Endsem	Endsem	40

Everything other than Mid-Sem and End-Sem, will be programming.

## CS101 lecture timings

The 650 students are divided into 4 **Divisions**, viz., D1, D2, D3 and D4. D1,D2 are clubbed together and D3,D4 are clubbed together. Both D12 and D34 should have roughly 325 students.

The tentative timings for D12 and D34 are as follows:

Division	Slots	Hours
D12	3A, 3B	Tue. 8:30, Fri. 10:30
D34	2A, 2C	Mon. 9:30, Tue. 11:30

There are some other slots given to us. D12 has XA,XB and D34 has E1,E2.

# Venues and Labs

The venue for the lectures is PCSA (Lecture Theatre). This is next to MB and along the Nescafe shack. LT will house about 350 students at a time.

The venue for the lab is OSL (Old Software Lab). This is on the ground floor of Mathematics building behind the glass doors. There are about 75 PCs in this lab.

CS101 lab will run:

weekday 6:30-8:30pm  
weekday 8:30-10:30pm

This gives us 10 2-hour lab slots every week.

# Sections

Each of D12 and D34 will be divided into 5 sections. Thus there will be 10 sections, with each section having 65 students.

- The sections of D12 are 1,2,3,4,5.
- The sections of D34 are 6,7,8,9,10.

Each section will have a [prescribed labslot](#). Note that:

$$65 \times 10 = 650$$

Each day will have 2 slots and will have a Senior TA (STA) responsible for the day. The time table for the labs are:

Day	6:30-8:30pm	8:30-10:30pm	STA
Monday	1	6	Amit
Tuesday	2	7	Vibhooti
Wednesday	3	8	K. Anil
Thursday	4	9	Manish
Friday	5	10	Shrirang

# Subsections and the JTA

Each Section will be divided into 3 subsections. For example:

Section 5 5A 5B 5C

# Subsections and the JTA

Each Section will be divided into 3 subsections. For example:

Section 5   5A 5B 5C

Each subsection will have an mtech1 JTA.

Each subsection will have 20-23 students.

The Subsection JTA *must* be present for his/her labslot and is *wholly* responsible for the subsection students.

For example: JTA for 5B will have laboratory hours Friday 6:30-8:30pm.

# Duties of the JTA

- The JTA must be present during the lab hours. She will explain the assignments and help students do them.
- The JTA will evaluate **for her subsection** the 3 pre-midsem and the 2 post-midsem assignments and the project. The marks for these are already announced.
- The JTA will maintain complete records for the subsection students. Right after midsem, she will help students decide projects.
- The JTA will help in the grading of the midsem and endsem.
- The JTA will hold **1 hour of office** per week, to help weak students.
- The JTA will assign final grades to subsection students.

# Duties of the JTA

- The JTA must be present during the lab hours. She will explain the assignments and help students do them.
- The JTA will evaluate **for her subsection** the 3 pre-midsem and the 2 post-midsem assignments and the project. The marks for these are already announced.
- The JTA will maintain complete records for the subsection students. Right after midsem, she will help students decide projects.
- The JTA will help in the grading of the midsem and endsem.
- The JTA will hold **1 hour of office** per week, to help weak students.
- The JTA will assign final grades to subsection students.

All of this will be done with the assistance of the STA and the instructor.

# Conduct of Lab

Let us take the example of Section 5, labslot Friday 6:30-8:30pm.

- The JTA will familiarize herself with the lab assignment of that week.
- Students will meet at 6:30pm in room A2 (in Ground floor, Math. Building). JTA will brief students about the assignment.
- Students move into OSL at 6:50pm and depart by 8:30pm. The JTA will be present through this labslot.
- Thus note that 3 JTAs will be working together.

# Office Hour

In addition to the laboratory, all the three JTAs of a Section will observe 1 hour of office/help/query handling session, open to students of the Section.

The venue of this session will be A2. The time table for this is as follows:

Day	7-8pm	9-10pm
Monday	4	9
Tuesday	5	10
Wednesday	1	6
Thursday	2	7
Friday	3	8

# Office Hour

In addition to the laboratory, all the three JTAs of a Section will observe 1 hour of office/help/query handling session, open to students of the Section.

The venue of this session will be A2. The time table for this is as follows:

Day	7-8pm	9-10pm
Monday	4	9
Tuesday	5	10
Wednesday	1	6
Thursday	2	7
Friday	3	8

The STA for the section must be present for this session and guide the proceedings. The STA can use this session to familiarize JTA with the next weeks laboratory. The JTA will use this session to seek help from the STA.

# CS101: Advanced Organization

A brief description of other organizational tasks are:

- **Facilities:** Ensure the smooth running of the Hardware and software in OSL and A1/A2. Maintain key permissions.
- **Courseware:** Ensure that all course-contents such as lecture notes, assignments, sample C++ code and sample inputs/outputs, demos are available on the web. Maintain CS101 website.
- **Office Work:** Ensure that student rolls for each Division, Section etc. are in order. Maintain student accounts and work with Main Building.
- **JTA and student monitoring:** Ensure that there is a smooth flow of information between instructor and STAs and then on to JTAs. Handle schedules of JTAs.
- **Lab Evaluations** Prepare the weekly lab assignments and those which are to be graded. Prepare sample inputs/outputs. Ensure that this is shared with the JTAs. Prepare norms for evaluations and share with JTA.

# STAs

The STAs will be largely responsible for the above tasks. We have 6 STAs:

STA	login[AT]cse	Mobile	Task
Shrirang Shirodkar	shrirang		
K Anil	kanil		
Alok Jadhav	alok		
Amit Pathak	amit		
Vibhooti Verma	vibhooti		
Manish Gupta	manishg		

The JTAs should feel free in contacting the STAs above, and if not that **me**.

# Is there Time for all this?

- A JTA is supposed to work for 8hrs a week.
- In a non-assignment week:
  - ▶ 2.5 hrs of Labslot.
  - ▶ 1.5 hrs of Office.
  - ▶ 0.5 hrs of record-keeping.
- **Assignment Grading**: 15min/student  $\Rightarrow$  5-6 hrs.

This comes to about **7 hrs/week**. So there is a fine balance.

# Finally...

- We together must deliver **quality** without the stress.
- **Integrity** must be maintained at all times.

# Finally...

- We together must deliver **quality** without the stress.
- **Integrity** must be maintained at all times.
- If you feel that this is compromised in any way, please come and talk to me. We must be as **transparent** and **democratic** as possible.

Best Wishes.