

# About the Course IE 507

## Modeling and Computation Lab

July 28, 2021

Course Website: Moodle <https://moodle.iitb.ac.in>  
Class Hours: Wednesday 14:00–16:55  
Class Room: Online VC meets in MS Teams

Teaching Assistants: Aanchal Panwar, [aanchal@iitb.ac.in](mailto:aanchal@iitb.ac.in)  
Rishav Deval, [deval.r@iitb.ac.in](mailto:deval.r@iitb.ac.in)  
Abhishek Narayan Chaudhury, [abhishek\\_chaudhury@iitb.ac.in](mailto:abhishek_chaudhury@iitb.ac.in)  
Chesta Pahuja, [19i190008@iitb.ac.in](mailto:19i190008@iitb.ac.in)  
Shubham Bhasin, [shubhambhasin@iitb.ac.in](mailto:shubhambhasin@iitb.ac.in)  
Abijith P Y, [203190024@iitb.ac.in](mailto:203190024@iitb.ac.in)  
Zubeen Kishore Borkar, [203190026@iitb.ac.in](mailto:203190026@iitb.ac.in)

Instructors: Narayan Rangaraj, [narayan.rangaraj@iitb.ac.in](mailto:narayan.rangaraj@iitb.ac.in)  
P. Balamurugan, [balamurugan.palaniappan@iitb.ac.in](mailto:balamurugan.palaniappan@iitb.ac.in)

**Objectives:** The course is divided into three parts. The first part is devoted to modeling and solving optimisation problems using a modeling language. In the second part, we will learn some tools of data analysis and machine learning. The third part will focus on methods to implement algorithms and simulate random processes.

**Grading:** Every student will be graded in every lab. There will be an examination at the end of the course. It will include a lab exercise and a viva-voce (and might contain a take-home component). The break-up of marks is as follows

Description	Marks
Best $N$ out of $N + 1$ labs $\times$ 10 marks:	$10N$
End-semester examination:	100
Total:	$10N+100$

### Instructions:

1. There will be a set of questions in each lab session. You are expected to solve all of them in the lab session itself or according to the deadlines provided in the Exercise sheet.
2. There will be a lab every week, except possibly in the week of mid-semester examination.
3. It will be extremely difficult to reschedule a lab. Please do not miss any lab. In case of an exigency, inform the instructors before the lab.
4. All files required for grading need to be uploaded to Moodle.

5. Any submission made within 1 hour after deadline will be penalized 20% of the marks. **Submissions will not be accepted after one hour of the submission deadline.**
6. It is your responsibility to save your files and data.
7. Each student should work individually on the problems. You are encouraged to ask for help from TA and instructors.
8. You may also ask for help from other students. But you are not allowed to look at other students' code or writeup. Copying in any form is not allowed. Students involved in copying will be heavily penalized and would receive an FR grade in the course.
9. Typical workflow will have following steps:
  - (a) Solve the exercise problems.
  - (b) Get help from TAs/instructors if you have doubts.
  - (c) Prepare a single zip file containing all code files and a single pdf file containing your answers to the questions. The name of the zip file should be `YOURROLLNO_IE507_Lab1.zip`. Your final Python notebook file should be named `YOURROLLNO_IE507_Lab1.ipynb`. If a report is asked, your final report file should be named `YOURROLLNO_IE507_Lab1_report.pdf`. Uploads with other file names will not be accepted.
  - (d) Upload the zip file (with proper names) to Moodle well before the deadline to avoid any penalty.