

Software System Development – Monsoon 2024

International Institute of Information Technology, Hyderabad

Objective: The aim of this course is to provide a working knowledge of tools and technologies to build software systems. At the end of the course, you are expected to be

- Comfortable enough to work with various UNIX like computing environments
- Able to write simple to complex scripts and programs
- In a position to build small to medium sized software applications using various tools and technologies to automate tasks/solve problems

Course Topics: Shell Scripting, Web Technologies – HTML, CSS, JavaScript and libraries, Python, Database Scripting SQL, NoSQL, Basics of SDLC, System Design Concepts

Reference books:

- Mastering Linux Shell Scripting: A Practical Guide to Linux Command-line, Bash Scripting and Shell Programming by Mokhtar Ebrahim, Andrew Mallett
- Learning Python: Powerful Object-Oriented Programming, by Mark Lutz
- JavaScript: The Definitive Guide by David Flanagan

Lab Work: Linux Commands, Shell Scripting, GitHub, HTML, CSS, JavaScript, XML, JSON, LAMP Stack, REST API, Python, Flask

Course Instructors:

Dr. Rahul Mishra (rahul.mishra@iiit.ac.in)

Dr. Sai Anirudh Karre (saianirudh.karre@iiit.ac.in)

Grade Distribution (Tentative):

Deliverables	Weightage	Tentative Dates*
Assignments	15%	Assignment 1: Aug-30 to Sep-15 Assignment 2: Sep-28 to Oct-15 Assignment 3: Nov-01 to Nov-15
QUIZ	10%	Oct-17 – Oct-19
MID EXAM	20%	Sept 20 – Sept 24
PROJECT	40%	Aug 30 – Nov 29
Activities (Class + Lab)	15%	Weekly (only some activities will be graded)

* Subject to change. Instructors reserve the right to modify this plan based on our progress through the semester and/or performance of the class.

Grading policy:

- Once a grade for certain course deliverable (labs, assignments, quiz, exam, etc.) is released, the students may request a re-evaluation (with appropriate reasons) of the grade up to a week after the grade has been posted. After that, the student may not discuss prior grades with the instructor (even if the instructors or TAs are at fault).
- There will be no makeup activity/lab under any circumstances unless prior permission is granted.
- Late submissions will not be entertained unless there is a genuine health reason. Appropriate medical documentation will be needed in such cases.

Policy on joint work and outside help:

Plagiarism or copying is strictly prohibited. Anyone caught in copy case shall get "0" in that assignment/activity/quiz or exam as well as two other assignments/activities/quiz or exam. Also, it's up to the discretion of the instructor to give an "F" for the entire course.

Absentee policy:

Please read and adhere to the following rules. These rules are not meant to be demeaning or penalizing. They are stated to establish a clear understanding of my expectations for student participation and demeanor in the classroom. These rules are meant to help/motivate you in achieving that success.

- There shall be no attendance policy for the lecture sessions. However, if any quiz/activity is held during the lecture session that you are absent, you will be given a '0' for the same. There will be NO make up classes/quizzes/activities.
- You are expected to attend all Lab sessions (graded or ungraded).

Misc. Instructions:

- Given the subject is based on building software systems, ensure you have a laptop with decent configuration.
- Do not miss the deadlines and ask for extensions (whether it is 1 minute or 1 week).
- Make sure you submit it on time! In most of the submissions, multiple submissions are allowed, so ensure you at least submit partial working versions rather than missing the deadlines.
- Please take extra care to participate in the discussions, interact with the instructor during class, interact with the TAs during the labs.
- The course will be taught by multiple instructors. However, for any major issues, please reach out to Dr. Rahul Mishra (rahul.mishra@iiit.ac.in)