

# **Software Systems Development - Monsoon 2021**

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

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

**Course Topics:** Linux and Shell Scripting, HTML, CSS, Javascript and related libraries, OOPS, Python, Basics of SDLC, Simple Queries and Networking.

## **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
- Workbook authored by the course instructors shall be used as and when needed

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

## **Course Instructors:**

Dr. Y. Raghu Reddy ([raghu.reddy@iiit.ac.in](mailto:raghu.reddy@iiit.ac.in))

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## **Grade Distribution (Tentative):**

<b>Deliverables</b>	<b>Weights</b>	<b>Tentative Dates (Subject to change) – Check the exact date with Instructors/TAs</b>
Assignments	20 %	Assignment 1: Aug 30 – Sep 14 Assignment 2: Sep 17 – Oct 8 Assignment 3: Oct 15 – Nov 15
Mid-term Quiz 1	10 %	Sep 6 – 8 (TBA)
Mid-term Quiz 2	10 %	Oct 28 – 30 (TBA)
Final Exam	20 %	Nov 29 – Dec 4 (TBA)
Course Project	25 %	Week 4 to Week 14 (TBA)
Lab Activities (Best 5 out of 6 that are graded)	15%	Every week (only some labs will be graded)
In-class activities	5%	Random

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 upto a week after the particular grade has been posted. After that the student may not discuss prior grades with the instructor (even if the instructors or TA's are at fault).
- There will be no make up activity/lab under any circumstances unless a 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 is necessary.

**Policy on joint work and outside help:**

Plagiarism or copying is strictly prohibited. Any one caught in copy case shall get "0" in that assignment/activity/quiz or exam as well as 2 other assignments/activities/quiz or exam. Also, its upto 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 penal. 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 on ungraded).

**Misc. Instructions:**

- Given the sessions are online, ensure you have good bandwidth and laptop with good configuration.
- Do not miss the deadlines and ask for extensions (whether it is 1 minute or 1 week).
- Make sure you submit 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.
- Since the sessions are online, its very easy to get distracted! So, please take extra care to participate in the discussions, interact with the instructor during class, interact with the TAs during the labs.
- Course will be taught by multiple instructors. However, for any major issues, please reach out to [raghu.reddy@iiit.ac.in](mailto:raghu.reddy@iiit.ac.in)