**Information Sheet for the Academic Year 2023/2024**

**Department of Computer Science**

**Faculty of Natural Sciences, OUSL**

**CSU4302: System Analysis & Software Engineering**

**(Semester 2)**

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| Study Material  | Students will receive the course material of **System Analysis & Software Engineering,** on completion of the registration. |
| Nature of study  | Study material will be discussed at day schools and workshops. During the first semester, the department will conduct two written tests CAT1 and CAT2. **(CAT: Continuous Assessment Test)** Marks of these tests will be used to calculate the **Overall Continuous Assessment Marks (OCAM)**. |
| Day Schools and workshops  | All day schools and workshops will be held online. You will be provided recurrent zoom link to login online sessions in the due course. |
| CAT1 and CAT2 |  Test duration is one hour, and students are not allowed to use any kind of study material at the test. The CAT questions are set from the content covered in the day schools up to that time. Test will be held in all Regional Centers and some selected Study centers. |
| Assignments  | The details of the assignment will be notified through the **learnousl**.  |
| Practical Day Schools  | All scheduled Practical day schools will also be held online. Students are required to ready with CSU 4302 course material, notebook and other necessary things need to work online. Students will be notified of the date and time of the onsite practical day schools if they will be scheduled.  |
| Overall Continuous Assessment Mark (OCAM)  | Students need to obtain a minimum of **35%** of the OCAM to sit for the final examination. OCAM will be calculated based on your performance at the CAT1 and CAT2. The OCAM is calculated as follows: **OCAM =** $\left[\begin{array}{c}Highest mark x 60\%\\CAT1/CAT2\end{array}\right]+ \left[\begin{array}{c}Lower mark x 40\%\\CAT1/CAT2\end{array}\right]$ |
| Final Examination  | Final Exam will be held in all the Regional Centers and some selected Study centers. It will be notified, and the duration of the final exam is two hours. |
| Final Mark  | Final mark will be calculated as follows: **For each course the overall mark, “Z%” will be computed by a combination of the Overall Continuous Assessment Mark (OCAM) “X%”, and the Final Examination Mark (FEM) “Y%” as follows:****If Y ≥ 40, then Z = 0.4 X + 0.6 Y****If 30 ≤ Y < 40, then Z = 0.4 X + 0.6 Y, subject to a maximum of 40****If Y <30, then Z=Y**(For more information refer the Guidebook 2021-2022 in the faculty website.) |

Time table will be notified in the 2nd semester.

Syllabus of CSU4302

1. Introduction to Software Engineering
2. Software Processes
3. Software Requirements and Requirements Engineering Process
4. System Models
5. Critical Systems
6. Introduction to Software Design
7. Object- Oriented Design and Introducing UML
8. Use Case Diagrams
9. Class Diagrams
10. State Diagrams
11. Sequence Diagrams
12. Activity Diagrams,
13. Component Diagrams
14. Software Development
15. Rapid Application Development
16. Component-Based Software Engineering
17. Software Testing
18. Software System Implementation
19. Software Maintenance
20. Software Cost Estimation
21. Software Quality Management
22. Configuration Management
23. Project Management
24. Computer Aided Software Engineering Tools