**National University of Computer & Emerging Sciences, Karachi  
FALL 2021, FAST School of Computing  
CL 2006 – Operating Systems Lab**Fast

**Course Outline:**

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| **Weeks** | **List of Topics** |
| Lab-01 | Introduction to Linux & Basic Linux Commands |
| Lab-02 | Basic Linux Commands |
| Lab-03 | Shell Programming/Scripting |
| Lab-04 | Shell Programming/Scripting |
| Lab-05 | System Call related to Process  Management |
| Lab-06 | Inter- Process Communication |
| Lab-07 | Kernel Configuration |
| Lab-08 | **Midterm Exam** |
| Lab-09 | Multithread Programming in Pthreads |
| Lab-10 | Creating a module in Kernel |
| Lab-11 | Multithread Programming in OpenMP (shared memory) |
| Lab-12 | Semaphores in Linux |
| Lab-13 | Signals in Linux |
| Lab-14 | **Revisions** |
| Lab-15 | **Project Evaluations** |
| Lab-16 | **Lab Final Exam** |

**Course Coordinator:**

### Dr. Ghufran Ahmed

**Lab Instructor:**

Ali Fatmi (ali.fatmi@nu.edu.pk)

**Marks Distribution**

Lab Activities 25%

Assignment 05%

Lab Mid exam 20%

Lab Final Exam 50%

**Total 100**

**Deadline and Penalty**

* After the deadline for each lab activities, there will be a penalty of 25%. If the lab activities submitted after first 48 hours, for each 48 hours it reduced to 25% hence there will be no marks after 8 days.
* Marks are only given if the submission passed plagiarism check and manual check.
* Plagiarism cases will lead to straight **F grade** as per university policy.