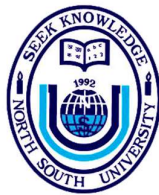


**CSE 331L**  
**Microprocessor**  
**Interfacing &**  
**Embedded System**  
**Lab**



**CSE 331L Microprocessor Interfacing & Embedded  
System Lab  
Lab Course Outline  
North South University**

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**Topics to be covered:**

- Assembly language programming using Intel 8086 instruction set.
- Run programs on EMU 8086.
- Simulate a Microprocessor using Logisim.

**The Basic Class Plan:**

**Part 1:**

- Class 1:** Introduce the Registers, Show the invalid and valid way of writing the assembly code.
- Class 2:** Introduce Basic MOV functions and the basic arithmetic, logical functions and interrupt
- Class 3:** String operations, Variable declarations, Arrays concept, LEA, OFFSET.
- Class 4:** Interrupt codes and using them for printing and getting input. Examples of the scrolling screen, clear screen and etc.
- Class 5:** Do various problems using assembly code in emu8086, assign project.

**Part 2:**

- Class 6:** Microarchitecture
- Class 7:** ALU design, CU design, Register write/read, Memory write/read, Program Counter
- Class 8:** Introduce the Implemented Microprocessor and its workflow and assign a project.

**Marks Distribution:**

Content	Marks
Attendance	10
Class Work	10
Project	15
Final	15
<b>Total</b>	<b>50</b>

- **Attendance**
  - Regular attendance is recommended.
- **Class Work**
  - There will be several announced/ unannounced classes works which will hold marks. You may assume these are quizzes. Problems will be stated to students and have to be solved on the computer.
- **Project**
  - There will be one project regarding computer architecture and design. Students will design a working computer using simulation software.
- **Final**
  - The final will assess your understanding of assembly language programming. No topics regarding hardware design will be assessed.