



COURSE OUTLINE

Course Code: CSE 306

Course Title: Computer Architecture Sessional

Level/Term: 3/I

Section: A & B

Academic Session: January 2021

Course Teacher(s):

Name:	Office/Room:	E-mail and Telephone: (optional)
Abu Wasif (Assistant Professor)		wasif@cse.buet.ac.bd
Dr. Rezwana Reaz (Assistant Professor)	CSE 522	rimpi@cse.buet.ac.bd , rimpi0505042@gmail.com ,
Madhusudan Basak (Assistant Professor)	CSE 419	madhusudan.buet@gmail.com
T. M. Tariq Adnan (Lecturer)	CSE 420	tmadnan10@gmail.com

Course Outline:

Sessional based on Computer Architecture theory course (CSE 305); A short project work will be included such as the following: ALU Design and Implementation, Booth Multiplier Design and Implementation, Small Microprocessor Design and Implementation.



Learning Outcomes/Objectives:

After undergoing this course, students should be able to:

- Identify the core ideas of Computer Architecture
- Design different intelligent computing modules using different simulation software
- Develop hardware modules based on the basic architectural knowledge

Assessment

Attendance:	10
Lab Assignments, Reports and Viva:	60-70%
Quiz:	20-30%

Text and Reference books:

- Computer Organization and Design (3th Edition) by D. A. Patterson and J. Hennessy.
- Digital Logic and Computer Design (3rd Edition) by M. Morris Mano
- Computer Systems A Programmer's Perspective (3rd Edition) by R. E. Bryant and D. R. O'Hallaron

Misc. Policies:

- In case of reproduction of code (copy), strict policy will be maintained.
- Concerned Lab instructors have the authority to alter the order of the assignments listed below (e.g. in case the topic has not yet been covered in Theory class etc.)
- Lab instructors can also bring major changes into the course outline, if situation demands.



Weekly schedule:

Week	Topics
1 and 2	Lecture Topic: Introductory discussion, group formation
3 and 4	Publish Assignment: ALU (Software) Implementation
5 and 6	Evaluation: ALU Software Implementation Publish Assignment: Floating Point Adder/Multiplier (Software) Implementation
7 and 8	Evaluation: Floating Point Adder/Multiplier (Software) Implementation Publish Assignment: MIPS (Software) Implementation
9 and 10	Evaluation Type: MIPS (Software) Implementation
11 and 12	Evaluation Type: ALU (Hardware) Implementation
13	Quiz
14 and 15	Evaluation Type: (Hardware) Implementation on any advanced topic/Reserve