COURSE OUTLINE

Course Code: CSE 310

Course Title: Compiler Sessional

Level/Term: 3/1   **Section: A & B**

Academic Session: 2019-2020

Course Teacher(s):

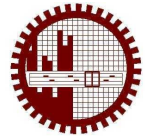| Name:	Office/Room:	E-mail and Telephone: (optional)
Dr. Muhammad Masroor Ali	219	mmasroorali AT cse DOT buet DOT ac DOT bd
Khaled Mahmud Shahriar	217	khaledshahriar@cse.buet.ac.bd
Syed Md. Mukit Rashid		mukit@teacher.cse.buet.ac.bd

Course Outline: (To be filled from the course handbook)

Laboratory works based on Introduction to compiling; Basic issues; Lexical analysis; Syntax analysis; Syntax-directed translation; Semantic analysis: type-checking; Run-time environments; Intermediate code generation; Code generation; Code optimization and project works using some lexical analyzer and parser designing tools.

Learning Outcomes/Objectives:

After undergoing this course, students should be able to:

   i. Understand the basic components of a compiler and interaction among them.

   ii. Use tools like flex to generate scanners.

   iii. Use tools like Bison to generate parsers with aim to perform syntax analysis, semantics analysis.

   iv. Construct a simple compiler.

   v. Develop CFG to recognize a language and Regular Expression to recognize a pattern.
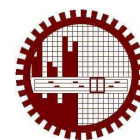
Assessment

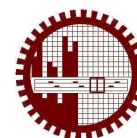Offline and Online: 60-70%

Attendance: 5 %

Quiz: 25-35%

Text and Reference books:

a. Compilers - Principles, Techniques, and Tools, Aho, Sethi, Ullman

b. Flex & Bison, John R. Levine

c. A Compact Guide to Lex & YACC, Thomas Niemann

Weekly schedule:

Week	Date	Topics	Teacher's Initial
Week 1		No class	
Week 2	Sat, March 06, 9:30 AM	Class on Introduction to compiler, Basic issues, Symbol Table Offline-I declaration (Symbol Table)	SMMR
Week3	Regular class time	Evaluation of Offline-I: Subsection A1, B1	All Course Teachers
Week 4	Sat, March 20, 9:30 AM	*Offline-II declaration (Lexical Analysis)*	SMMR
	Regular class time	Evaluation of Offline-I: Subsection B2	All Course Teachers
Week 5	Regular class time	Evaluation of Offline-I: Subsection A2	All Course Teachers
Week 6		*Offline-III declaration (Syntax & Semantic Analysis)*	MMA
	Regular class time	Evaluation of Offline-II: Subsection A1, B1	All Course Teachers
Week 7	Regular class time	Evaluation of Offline-II: Subsection A2, B2	All Course Teachers
		Mid-Term break of one week	
Week 8	Regular class time	Evaluation of Offline-III: Subsection A1, B1	All Course Teachers
Week 9	Regular class time	Evaluation of Offline-III: Subsection A2, B2	All Course Teachers
		Offline-IV declaration (Intermediate Code Generation, Optimization)	KMS
		Eid-ul-fitr break of two weeks	
Week 10	Regular class time	Progress Monitoring of Offline-IV: Subsection A1, B1	All Course Teachers
Week 11	Regular class time	Progress Monitoring of Offline-IV: Subsection A2, B2	All Course Teachers
Week 12		No class	
Week 13	Regular class time	Evaluation of Offline-IV: Subsection A1, B1	All Course Teachers

Week 14	Regular class time	Evaluation of Offline-IV: Subsection A2, B2	All Course Teachers
Week 15		**Quiz**	All Course Teachers

Prepared by :
Name: Concerned course teachers
Signature:
Date: