COURSE OUTLINE

Course Code: CSE 102

Course Title: Structured Programming Language Sessional

Level/Term: 1/1   **Section: A1 & A2**

Academic Session: 2018-2019

Course Teachers:

Section A1

Name	Office(Room)	Telephone/Email (Optional)
Dr. A.K.M. Ashikur Rahman (Professor)	ECE/CSE/115	ashikur @cse.buet.ac.bd
Sukarna Barua (SB) (Assistant Professor)	ECE/CSE/414	sukarna.barua@gmail.com
Md. Toufikuzzaman (Lecturer)	ECE/CSE/209	md.toufikzaman@gmail.com

Section A2

Name	Office(Room)	Telephone/Email (Optional)
Mahjabin Nahar (Lecturer)	ECE/CSE/316	mahjabinproma@gmail.com
Nafis Irtiza Tripto (Lecturer)	ECE/CSE/320	nafisit03@gmail.com
Shadman Saqib Eusuf (Lecturer)	ECE/CSE/415	s.saqibeusuf@gmail.com

Course Outline:

Laboratory works covering C, a structured programming language: Data types, operators, expressions, control structures; Functions and program structure: parameter passing conventions, scope rules and storage classes, recursion; Header files; Preprocessor; Pointers and arrays; Strings; Multidimensional array; User defined data types: structures, unions, enumerations; Input and Output: standard input and output, formatted input and output, file access; Variable length argument list; Command line parameters; Error Handling; Graphics; Linking; Library functions.

Learning Outcomes/Objectives:

After undergoing this course, students should be able to:

i Analyze real-life interesting problems and formulate logic to solve them

ii. Transform the logical constructs to structured code using C programming language

iii. Apply good programming principles to the design and implement code written in C programming language

iv. Analyze and understand code written in C programming language

v. Develop a sizable project in C in a team-work environment

Assessment

1. Participation in lab classes and practice class performance -   10 %

2. Home Assignments -   10%

2. Lab Assignments -   35%

3. Term Project -   20%

4. Final Quiz -   25%

Text and Reference books:

a. *Teach yourself C, Herbert Shildt (3rd Edition)* [Reference]

b. *The C Programming Language (2nd edition), Kernighan and Ritchie* [Reference]

Weekly Schedule:

Week	Outline	
Week 1	**Evaluation Type:** Attendance and Practice **Subtopics:** Introduction, rules and regulations overview, tools demonstration	
Week 2	**Evaluation Type:** Attendance and Practice **Subtopics:** Data types, constants and variables; operators and expressions; type conversion; printf, scanf;	
Week 3	**Evaluation Type:** Practice & Home assignment explained **Subtopics:** Branching and Loop	
Week 4	**Evaluation Type:** Lab and Home Assignment evaluation **Subtopics**: Data types, constants and variables; operators and expressions; type conversion; printf, scanf; Branching	
Week 5	**Evaluation Type:** Lab Assignment **Subtopics:** Loop and Function,	
Week 6	**Evaluation Type:** Attendance and Practice **Subtopics:** 1-D array, string **Publish Term Assignment topics**	
Week 7	**Evaluation Type:** Lab Assignment **Subtopics:** 1-D array and string	**Extra class** **Subtopics:** Graphics Library (iGraphics) : Animation, timer, pixel, mouse handler, keyboard handler **Finalize Term Assignment allocations.** **Take home assignment on iGraphics**
Mid Term Vacation		
Week 8	**Evaluation Type: :** Home Assignment **Subtopics:** iGraphics	
Week 9	**Evaluation Type:** Attendance and Practice **Subtopics:** Pointers, dynamic memory allocation, Multidimensional array	
Week 10	**Evaluation Type:** Lab Assignment **Subtopics:** Pointers, dynamic memory allocation, Multidimensional array	
Week 11	**Evaluation Type:** Attendance and Practice **Subtopics:** structures, unions, bit fields, enumerations	
Eid Ul Fitr Break (3 weeks)		
Week 12	**Evaluation Type:** Lab Assignment **Subtopics:** structures, unions, file	
Week 13	**Evaluation Type:** Attendance and Practice **Subtopics:** Bitwise operators, Recursions	**Extra class** **Quiz**
Week 14	**Term Assignment Evaluation**	