CSE 0613111: Structured Programming Language

Part A: Course Information

1. **Course Code:** CSE 0613111
2. **Course Title:** Structured Programming Language
3. **Course Type (GED/Core Course/Electives):** Core Course
4. **Year/Level/Semester/Term:** 1st year/ 1st Semester
5. **Academic Session:** Autumn 2025
6. **Prerequisite Course (If any):** N/A
7. **Credit Value:** 3.00
8. **Contact Hours:** 3.00 hours/Week

1. **Rationale of the Course:** This course introduces computer programming and problem-solving in a structured program logic environment. Topics include language syntax, data types, program organization, problem-solving methods, algorithm design, and logic control structures. After completion students should be able to manage files with operating system commands, use top-down algorithm design, and implement algorithmic solutions in a programming language.
2. **Course Objectives:**
   - **a.** This course introduces computer programming and problem-solving in a structured program logic environment and includes language syntax, data types, program organization, problem-solving methods, algorithm design, and logic control structures
   - **b.** It also manages files with operating system commands, uses top-down algorithm design, and implements algorithmic solutions in a programming language.

9. Part B: Skill Mapping

10. Course Learning Outcome (CLOs)

No.	CLOs	BT	CP	CA	KP	AA
CLO1	**Understand** the basic terminologies of Structured Programming Language	C	1,3,4,5	-	2,3	CT, MT, FE, A
CLO2	**Explore** programming problems using the fundamentals of Structured Programming Language	C			2,3	CT, MT, FE , A
CLO3	**Apply** Structured Programming knowledge to develop solutions	C			6	CT, MT, FE, A

*****CLOs- Course Learning Outcome; BT- Bloom's Taxonomy; C- Cognitive Domain; CP- Complex Problems; CA- Complex Activities; AA- Assessment Approach; KP- Knowledge Profile; FE- Final Exam; CT- Class Test, MT- Mid Term, A- Assignment, Q- Quiz.

11. Mapping of CLOs with Program Learning Outcomes (PLOs)

Course Learning Outcomes (CLO) (3-5)	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12
CLO1	✓											
CLO2		✓										
CLO3			✓									

Part C: Teaching Learning Approach

12. Academic Engagements

Knowledge Delivery Methods	Contact hours
Interactive Learning Sessions	
Classroom Lectures	42
Hands-on Sessions / Tutorials / Workshops	-
Learner-Centered Activities	-
Self-Guided Learning	
Self-Study Modules	42
Revision	21
Test Preparation	21
Formal Assessment	
Classroom-Based Assessment (Midterm)	1
Progress Monitoring (CT/Assignment)	2
Comprehensive Final Exam	3
Total	131

13. Course plan specifying contents, CLOs, co-curricular activities (if any), teaching learning and assessment strategy mapped with CLOs.

Week	Topics	Teaching-Learning Strategy	References	Assessment Strategy	Corresponding CLOs
1	History of C, Features of C, First C program, Flow of C program, Syntax	Lecture, Group Discussion	Lecture notes	Midterm	CLO1
2	Variables, Data Types, Keyword, Identifiers, Format specifier, Escape sequences	Lecture, Group Discussion	Lecture notes	Midterm	CLO1
3	C operators and Comments, Constants, Type conversion, Operator Precedence	Lecture, Group Discussion	Lecture notes	Classtest1 Midterm	CLO1
4	If-else, switch, loops, for, while, do-while	Lecture, Group Discussion	Lecture notes	Classtest1 Midterm, Final	CLO1, CLO2
5	Nested loop, break, continue, goto statement, type casting	Lecture, Group Discussion	Lecture notes	Classtest2, Final	CLO1, CLO2
6	Function, call by value, call by references	Lecture,	Lecture	Assignment	CLO2, CLO3

		Group Discussion	notes	, Final	
7	Array, 1D array, 2D array	Lecture, Group Discussion	Lecture notes	Class Test 2, Assignment , Final	CLO2, CLO3
8	Memory address, Pointer, pointer to pointer, pointer arithmetic, Null pointer, Dereference pointer, dangling pointer	Lecture, Group Discussion	Lecture notes	Final	CLO2, CLO3
9	Dynamic memory, Strings, String functions, Math functions	Lecture, Group Discussion	Lecture notes	Final	CLO2, CLO3
10	Recursion in c, Recursion examples	Lecture, Group Discussion	Lecture notes	Final	CLO2, CLO3
11	Structure, array of structure, nested structure, union	Lecture, Group Discussion	Lecture notes	Assignment , Final	CLO2, CLO3
12	File handling, Print Function, Scan Function, Put Function, Get Function	Lecture, Group Discussion	Lecture notes	Final	CLO2, CLO3
13	C preprocessor, #include, #define	Lecture, Group Discussion	Lecture notes	Final	CLO2, CLO3
14	Revision of the syllabus	Lecture, Group Discussion	Lecture notes	Final	CLO1, CLO2, CLO3

Part D: Assessment Approach

14. Assessment and Evaluation

Assessment components		Marks Distribution	CLOs	Bloom's Taxonomy
Continuous Assessment (50%)	Class Attendance/Class Performance	10%	-	-
	Class Test/Assignment/Quiz/Surprise Test	20%	CLO1,CLO2	C
	Mid Term	20%	CLO1, CLO2	C
Comprehensive Final Exam		50%	CLO1	C
			CLO2	C
			CLO3	C
Total Marks		100%		

*CLOs-Course Learning Outcome; C- Cognitive Domain; P- Psychomotor Domain, A- Affective Domain

15. Make-up Exam Procedures

Missed Midterm Examination: Students may apply for make-up midterm examinations in a maximum of two courses during the midterm period. Make-up exams are strictly granted for valid and documented

reasons such as illness or emergencies. Students must collect and submit the Makeup Examination Application Form from the department office on the last day of the midterm or the next working day. In emergencies where the form cannot be collected on time, the student must immediately notify the respective course teacher and provide valid proof. Without the course teacher's permission, the student will not be allowed to attend the make-up exam. Students are fully responsible for tracking the make-up exam schedule and ensuring timely form submission.

Missed Final Term Examination: Students missing the final term exam must follow the university's procedure as outlined in the Examination Policy for Undergraduate Programs. No separate make-up arrangements outside the university system will be considered.

Part E: References

16. Learning Materials

1) **Recommended Readings:** Lecture notes and Necessary documents (Uploaded in Google classroom).
2) **Supplementary Readings**

Text Book:

1. Teach yourself C by herbert schildt 3rd edition
2. Programming with by Schaum's outlines (latest edition)
3. Programming in ANSI C by E. Balagurusamy

Others (Site/Blog):

1. https://www.geeksforgeeks.org/c/c-programming-language/

3) **Others**…..(as applicable for the discipline/academic program): N/A