Lahore University of Management Sciences
CS300 – Advanced Programming
Spring 2024

Subject to Change

COURSE DESCRIPTION
This is the third course in a serious of undergraduate courses on programming. Compared to introductory programming courses, this course is concerned with systematically solving a complex problem, rather than learning to express a solution without ambiguity. Several programming languages are covered in the course so there is a lot of new syntax, however, the focus is on breaking down problems using abstraction and top-down design. Each language provides its own abstractions, and this provides additional vocabulary and shapes the thought process that is useful even in languages not taught in the course.

COURSE DISTRIBUTION	
Core	Yes
Elective	No
Open for Student Category	---
Closed for Student Category	---

COURSE PREREQUISITE(S)/CO-REQUISITE(S)
Pre-requisites: ---
Co-requisites: ---

COURSE OFFERING DETAILS				
Credit Hours	3			
Lecture(s)	Nbr of Lec(s) Per Week	2	Duration	75
Recitation/Lab (per week)	Nbr of Lec(s) Per Week	0	Duration	
Tutorial (per week)	Nbr of Lec(s) Per Week	0	Duration	

Instructor	Waqar Ahmad
Room No.	SBASSE 9-G22A
Office Hours	Mon and Wed 2:30 –3:30pm
Email	waqar.ahmad@lums.edu.pk
Telephone	---
Secretary/Coordinator/TA	---
TA Office Hours	---
Course URL (if any)	---

COURSE TEACHING METHODOLOGY
• Synchronous

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)	
PEO-01	Demonstrate excellence in profession through in-depth knowledge and skills in the field of Computing.
PEO-02	Engage in continuous professional development and exhibit quest for learning.
PEO-03	Show professional integrity and commitment to societal responsibilities.

COURSE LEARNING OUTCOMES (CLOs)

Lahore University of Management Sciences

CS300-	The students should be able to:
CLO1:	Understand and use various programming models including functional programming, even-driven programing, client-server programming distributed programming.
CLO2:	Design algorithm and implement the program code in an appropriate programming model.
CLO3:	Evaluate correctness of the proposed solution.
CLO4:	Apply relevant standard and ethical considerations to writing computing programs.

CLO	CLO Statement	Bloom's Cognitive Level	PLOs/Graduate Attributes (Seoul Accord)
CLO1	Understand and use various programming models including functional programming, even-driven programing, client-server programming distributed programming.	C2, C3	PLO2, PLO3, PLO4
CLO2	Design algorithm and implement the program code in an appropriate programming model.	C3, C4	PLO5
CLO3	Evaluate correctness of the proposed solution.	C5	PLO7, PLO8
CLO4	Apply relevant standard and ethical considerations to writing computing programs.	C6	PLO8, PLO9

Grading Breakup and Policy:

Assessment	Weight (%)	Related CLOs	ACM Recommended Disposition
Assignments: 40% (1x10+2x15)	40%	CLO2, CLO3, CLO4	D3, D4, D7, D9
Midterm Examinations (on campus): 30% (1 x 10 + 2 x 15)	40%	CLO1, CLO2, CLO3	D4, D7, D9
Final Examination (on campus): 15%	15%	CLO1, CLO2, CLO3	D4, D7, D9
Quizzes: 5%	5%		

EXAMINATION DETAIL

Midterm Exam	Yes/No: Yes Combine Separate: ---- Duration: ---- Preferred Date: ---- Exam Specifications: ----
Final Exam	Yes/No: Yes Combine Separate: ---- Duration: ---- Exam Specifications: ----