Course Outline

Arch 5153: Survey Technique

Part A

1	Course No./Course Code	**Arch 5153**
2	Course Title	**Survey Technique**
3	Course Type (GEd/Core Course/Electives)	**Core Course**
4	Year/Semester and Section	**5th/Odd**
5	Academic Session	
6	Course Instructor	**Md Mahmud Hasan, Nazia Afrin Trina**
7	Prerequisite (If any)	**-**
8	Credit Value	**2.00**
9	Contact Hours	**2.00**
10	Total Marks	**100**
11	Rationale of the Course	This course provides an introduction to the principles and techniques of surveying as applied to the field of architecture. It covers the basic concepts of engineering survey methods. The course also includes a study of various tools of data collection for both qualitative and quantitative research for socio-economic, cultural evaluation. The aim of the course is to

		equip students with the necessary skills to carry out reliable surveys in case of demography, land-use, transportation, housing, physical infrastructure, services, community facilities for architectural design, planning, and construction.
12	Course Objectives	1. To familiarize students with the principles and techniques of physical and socio-economic surveying as applied to architectural practice. 2. To provide a brief overview of engineering survey methods. 3. To enable students to apply analytical methods in the context of architectural surveying, emphasizing their practical utility. 4. To equip students with fundamental quantitative techniques applicable to various aspects of architecture, including demography, land-use, transportation, housing, physical infrastructure, services, and community facilities.
13	Course Learning Outcomes (CLOs)	After completing this course students will be able to 1. Understand the basic principles and techniques of physical and socio-economic surveying, and their relevance to architectural design and planning. 2. Develop awareness of engineering survey methods and their role in architectural projects. 3. Apply analytical methods to analyze survey data effectively and make informed architectural decisions. 4. Demonstrate proficiency in using quantitative techniques to collect and analyze data related to demography, land-use, transportation, housing, physical infrastructure, services, and community facilities.

Mapping/Alignment of CLO with Program Learning Outcomes (PLOs)

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12
	Knowledge	Critical awareness and analysis	Design synthesis and building integration	Technical aptitude	Presentation and communication	Advance technological skill	Society, environment and sustainability	Ethical principles and regulatory context	Higher education and scholarly qualities	Individual and team work	Management and project economics	Lifelong learning
CLO1	✓											
CLO2		✓										
CLO3		✓								✓		
CLO4		✓		✓	✓	✓						✓

Part B

14. Course Plan specifying content, CLOs, co-curricular activities (if any), teaching learning and assessment strategy mapped with CLOs.

Introduction; Principles and techniques of physical and socio-economic survey. Brief description of engineering survey methods. Analytical methods and their application; Fundamental quantitative techniques in demography, land-use, transportation, housing, physical infrastructure, services and community facilities.

WEEK	TOPIC	TEACHING LEARNING STRATEGY (ID, VP, LDM, PD, WB)[1]	ASSESSMENT STRATEGY (Test/ Assignment/ Quizzes)	CORRESPONDING CLOs
1	Introduction	ID, LDM	-	CLO 1, CLO 2, CLO 3, CLO 4

[1] Interactive discussion=ID, Video presentation=VP, Lecture discussion with multimedia=LDM, Panel discussion=PD, white board illustration=WB

WEEK	TOPIC	TEACHING LEARNING STRATEGY (ID, VP, LDM, PD, WB)[1]	ASSESSMENT STRATEGY (Test/ Assignment/ Quizzes)	CORRESPONDING CLOs
2	Chain Surveying	-do-	-	CLO 1, CLO 2, CLO 3
3	Compass Traversing	-do-	Class test 01	CLO 1, CLO 2, CLO 3
4	Plane Table Surveying	-do-	Class test 02	CLO 1, CLO 2, CLO 3
5	Levelling and Contouring	-do-	Assignment 01	CLO 1, CLO 2, CLO 3
6	Computation of Area and Volume	-do-		CLO 1, CLO 3, CLO 4
7	Broad aspects of survey	-do-	Class test 03	CLO 1, CLO 3, CLO 4
8	Practice of social research, Sampling	-do-	-	CLO 1, CLO 3, CLO 4
9	Modes of observation in research	-do-	Assignment 02	CLO 1, CLO 3, CLO 4
10	Questionnaire	-do-	-	CLO 1, CLO 3, CLO 4
11	Survey research: Interview	-do-	Class test 04	CLO 1, CLO 3, CLO 4
12	Field research, Qualitative research	-do-	-	CLO 1, CLO 3, CLO 4
13	Review class	-do-	-	CLO 1, CLO 3, CLO 4

Part C

15	ASSESSMENT AND EVALUATION	ASSESSMENT STRATEGY CLASS TEST: A total of 4 class tests will be taken during the semester, 2 for each part (part A and part B). The marks of these class tests will be counted in 20. At the end of the semester, the average mark of 3 of these class tests will count for the final grade. Marks from the class test with the highest marks for each student will be counted. STUDENT PRESENTATION Students will be required to study a topic and present it to the entire class at various points during the semester. These presentations can be done in groups or individually, depending on the requirement of the assigned topic. The presentation may make use of audio-visual learning tools. Course teachers will accommodate the marks to be counted besides class test marks. ASSIGNMENT Apart from class tests and presentations, course teachers may assign additional assignments to benefit the students during the semester. Course teachers will accommodate the marks to be counted besides class test marks. SEMESTER FINAL At the end of the semester, a semester final exam will take place. The total mark of this exam is 60 for both parts, meaning each part (part A and part B) will hold 30 marks.
		MARKS DISTRIBUTION The mark from class attendance, Class tests/ presentation/ assignment/ and semester final will be added to calculate the entire course marks for each student. The details of the strategy can be found in the following table of CIE - Continuous Internal Evaluation provided to each student.

		Final Marks (100) = Class Participation and Attendance (10) + Class Test (20) + Assignment/ Project/ Viva-voce/ Presentation/others (10) + Semester Final Examination (60)
		MAKE-UP PROCEDURES Assignment

CIE- CONTINUOUS INTERNAL EVALUATION (40 MARKS)

BLOOM'S CATEGORY	CLASS TEST (20 MARKS)	ASSIGNMENT/ PROJECT/VIVA-VOCE/ PRESENTATION/ OTHERS (10 MARKS)	CLASS PARTICIPATION AND ATTENDANCE (10 MARKS)
Remember	2		10
Understand	2		
Apply	5		
Analyze	4	3	
Evaluate	4	2	
Create	3	5	

SMEE-SEMESTER/YEAR MID & END EXAMINATION (60 MARKS)

BLOOM'S CATEGORY	TEST MARK
Remember	
Understand	
Apply	
Analyze	

Evaluate	
Create	

Part D

16	LEARNING MATERIALS	RECOMMENDED READINGS 1. Analyzing social settings by John Lofland and Lyn H. Lofland 2. Qualitative Research: from Start to Finish by Robert K. Yin 3.
		SUPPLEMENTARY READINGS 1. Qualitative Inquiry & Research Design by John W. Creswell and Cheryl N. Poth 2.
		OTHERS N/A