

SURVEY CAMP (Guidelines)

SUMMER 2019

DEPARTMENT OF CIVIL ENGINEERING
CAPITAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
ISLAMABAD

NAME : _____

REGISTRATION NO : _____

SECTION : _____

Course Learning Outcomes:

At the end of this course, the students will:

- CLO:1 To build and demonstrate survey schemes (areas, buildings, roads, hydraulic structures etc.) in the field (**P3**).
- CLO:2 To prepare and plot the lab and field works in a field book and/or manual (**C4**).
- CLO:3 To contribute experiments actively in group activities during the field work and shall be able to justify the conduct of experiments (**A3**).

PLO's \ CLO's	CLO-1	CLO-2	CLO-3
PLO-1 (Engineering Knowledge)			
PLO-2 (Problem Analysis)			
PLO-3 (Design/Development of Solutions)			
PLO-4 (Investigation)			
PLO-5 (Modern Tool Usage)			
PLO-6 (The Engineer and Society)			
PLO-7 (Environment and Sustainability)			
PLO-8 (Ethics)		√	
PLO-9 (Individual and Team work)	√	√	√
PLO-10 (Communication)			
PLO-11 (Project Management)			
PLO-12 (Lifelong Learning)			

Rules and Regulations - Survey Camp 2019

Survey Camp is pre – requisite for award of BS degree. Therefore, student is required to attend this in true spirit as per the directions of Civil Engineering Department, failing to which the student shall stand “**FAIL**” and he/she will have to re–do it, whenever offered next time. Few, not limited to, the student shall:

1. Follow and practice all the directions of instructor(s) at site.
2. Be punctual, composed and well behaving.
3. Complete his assigned tasks as required.
4. Not leave the Survey Camp area without permission on sound reason (s).
5. ***Not indulge in any unethical and unwanted practices.***
6. Be responsible for his/her safety belongings.
7. ***Not allow any guests during Survey Camp.***
8. Not exchange any of safety items to other fellow members.
9. Not be absent without permission of Survey Camp In charge.
10. Not allowed to bring their personal vehicles

Note: Any misbehave in conduct on the part of student, as declared by Civil Engineering Department shall lead to cancellation of his survey camp activity and student will be asked to leave the Survey Camp site immediately. Any expenses on such account shall be the sole responsibility of the student and no transport facility will be provided by the Institute.

Safety Precautions

- ❖ Always wear survey safety vest during work.
- ❖ Always prescribed color hat during work.
- ❖ Don't use any equipment (especially electronic) without supervision of staff.
- ❖ While doing survey work, field shoes such as joggers shall be used to avoid any slip or foot accident.
- ❖ While working at construction site, wear appropriate safety gear such as hard hats, tough work boots, high visibility vests and any additional gear that is required, such as eye and hearing protection.

"Safety First" is "Safety Always." ~Charles M. Hayes

List of Survey Groups

Group No: 01

S.No	Registration No.	Student Name
1	BCE163024	HUZAIFA GHAZI
2	BCE163074	KHAWAJA HAMZA SHOAB
3	BCE173013	HAMZA TANVIR
4	BCE173015	TABRAIZ REHMAN
5	BCE173024	KASHAN FAYYAZ
6	BCE173059	SHEHRYAR SARWAR RANA
7	BCE173061	EMMAD UD DIN CHEEMA (L)

Group No: 02

S.No	Registration No.	Student Name
1	BCE163038	HAMZA RAZA KHALID
2	BCE173004	MUHAMMAD MUNEEB WASEEM (L)
3	BCE173020	SHAHERYAR SAFDAR
4	BCE173023	MUHAMMAD AALISHAN QAZI
5	BCE173066	HUMAYUN BABAR ABBASI
6	BCE173083	MUHAMMAD IDREES
7	BCE173086	MIR WISE KHAN

Group No: 03

S.No	Registration No.	Student Name
1	BCE173033	SYED WASI HAIDER
2	BCE173056	AHMAD SHAHEEN (L)
3	BCE173058	ALI WAHAJ
4	BCE173067	MOHSIN ALI AWAN
5	BCE173076	MUHAMMAD ARMAGHAN SOHAIL
6	BCE173081	FAHAD IQBAL
7	BCE173084	MUHAMMAD USMAN GHAZANFER

Group No: 04

S.No	Registration No.	Student Name
1	BCE173003	MUHAMMAD AUNEEB WASEEM (L)
2	BCE173021	AZIN JADOON
3	BCE173031	FAHAD QAMAR
4	BCE173045	KH MAHAD ZULFIQAR
5	BCE173046	MUHAMMAD USAMA MEHBOOB
6	BCE173050	ATHAR ZAMAN
7	BCE173077	ABDULLAH SIKANDER BAIG

Group No: 05

S.No	Registration No.	Student Name
1	BCE173012	MOHAMMAD AFAQ SHUAIB
2	BCE173062	ASIM NAUMAN
3	BCE173078	WALEED AHMAD (L)
4	BCE173079	MUHAMMAD ASSAD IJAZ
5	BCE173087	BILAL AJMAL
6	BCE173089	MUHAMMAD ALI
7	BCE173093	RANA NAVEED SHAHZAD

Group No: 06

S.No	Registration No.	Student Name
1	BCE163040	INAM ULLAH
2	BCE173009	MAMOON ZEB KHAN
3	BCE173014	AMEER TURAB
4	BCE173034	HAMZA ALI
5	BCE173054	SHAHEER AHMED JANJUA (L)
6	BCE173057	ARSALAN KHALID
7	BCE173080	UMAR RAFIQ

Group No: 07

S.No	Registration No.	Student Name
1	BCE173008	MUHAMMAD AHSAN MUSHTAQ
2	BCE173011	MUHAMMAD ARJUMAND EJAZ
3	BCE173047	RAZA AHMED SHERAZ
4	BCE173060	SYED OMER ALI DANISH
5	BCE173070	MUHAMMAD FARHAD KAMRAN
6	BCE173075	MUHAMMAD HUSNAIN DODHY (L)

Group No: 08

S.No	Registration No.	Student Name
1	BCE173018	SHER KHAN
2	BCE173064	MUHAMMAD AIZAZ
3	BCE173065	UMAIR SAJID
4	BCE173082	TOUSEEF AMIN (L)
5	BCE173090	MIRZA ZAIN SHAHZAD
6	BCE173091	BILAL AHMED MALIK

Group No: 09

S.No	Registration No.	Student Name
1	BCE163048	MOHIB AHMED
2	BCE173027	SAAD AHMED
3	BCE173032	SYED SAAD ALI
4	BCE173041	SAJAD HAIDER
5	BCE173053	MUHAMMAD ALI
6	BCE173072	MUDDASSIR SIDDIQUE (L)

Group No: 10

S.No	Registration No.	Student Name
1	BCE173006	RANA MUHAMMAD KAMRAN
2	BCE173007	MUHAMMAD NAYYAB ZAFAR
3	BCE173017	MOHAMMAD ASGHAR ZAHUR
4	BCE173036	SHAHZAIB ALI QURESHI
5	BCE173048	ADIL MAHMOOD KHAN (L)
6	BCE173071	KASHIF IQBAL

NOTES:

1. Male Students will perform survey camp 2019 at Khanspur, Ayubia. The survey site at is shown in figure 1
2. The student in the following list are required to register survey camp wide university portal, failing which, the student will not be considered as part of that group.

Schedule of Daily Activities

TEAM - 1

Day	Major Activity		Sub-activities	Reference Experiments of AES to be applied	Remarks
1	Reconnaissance Survey (Field Activity)	(i)	Group formations	Experiment No 1 and Experiment No. 2	Students will be required to take notes of instructions and draw rough (not to scale but neat) sketch of the scheme on graph paper which will be checked and marked by the group incharge.
		(ii)	Initial Lectures on conduct of SC (how to note and how to plot), safety, schedule etc.		
		(iii)	Issuance of Survey equipment for the whole SC to groups which will be the responsibility of all group members		
		(iv)	Setting hand on use of Total Station		
		(v)	Walking around sites		
		(vi)	Planning No. and position of traverse stations		
		(vii)	Noting site features necessary to be picked/plotted during SC		
		(viii)	Setting up of TBM		
		(ix)	Fixation of traverse & control points which will later be used for SC activities.		
2	Topographic Survey (Field Activity)	(i)	Hands on training to determine distances between survey stations	Experiment No 3 and Experiment No. 4	Every student shall perform and note relevant task after training.
		(ii)	Hands on training to determine coordinates of survey stations		Rough sketch of points with point Number and data (X, Y and Z) are to be noted in each group.
		(iii)	Carrying out topographic survey (picking survey points as per directions). See also Remarks.		
3	Topographic Survey (Field Activity)	(i)	Carrying out topographic survey (picking survey points as per directions). See also Remarks.	- do -	Rough sketch of points with point Number and data (X, Y and Z) are to be noted in each group.
		(ii)	Listing noted point data in MS Excel file in hostel.	-	Preparation of Excel point data file for processing in Eagle Point Surface Modeling
4	Topographic Survey	(i)	Creating contours on rough sketch prepared as per detail given in Day 3 (i)	-	Every student shall prepare his own contour sheet with line diagram to show site features.

Day	Major Activity		Sub-activities	Reference Experiments of AES to be applied	Remarks
5	Plane Table Survey (Field Activity)	(i)	Application of Plane Table Surveying methods (radiation, resection, intersection and traversing)	Experiment No. 14 of Engineering Surveying	Group sheets preparations
		(ii)	Preparation of topographic map of the project site using Plane Table and Auto Level.	Experiment No. 10 & 14 of Engineering Surveying	Group sheets preparations
6	Profiling and Cross-Sectioning	(i)	Performing, noting and drawing proposed profile survey and cross-sections.	-	Group sheets preparations
7	Finding Area of project and its verification	(i)	Determine area of traverse using total station	Experiment No. 7	-
		(ii)	Verify area by using theoretical solutions/formulae.	-	-
8	Road setting out	(i)	Setting out of simple curve by Rankine Method of Tangential Angle	Experiment No. 9	Group sheets preparations
		(ii)	Determine vertical and horizontal distances between survey stations using tangential method of tachometric surveying	Experiment No. 8	
9	Topographic Survey (Hostel Activity)	(i)	Creating contours in Eagle Point software by each group. Also to draw complete map of the surveyed site in AutoCAD.	-	Students will submit soft and hard copy of the prepared map.
10	Winding up of submissions	(i)	Left over work to be completed and submission be made.	-	-
		(ii)	Grading of students to be finalized and announcement of best surveyor.	-	-

Schedule of Daily Activities

TEAM - 2

Day	Major Activity		Sub-activities	Reference Experiments of AES to be applied	Remarks
1	Reconnaissance Survey (Field Activity)	(i)	Group formations	Experiment No 1 and Experiment No. 2	Students will be required to take notes of instructions and draw rough (not to scale but neat) sketch of the scheme on graph paper which will be checked and marked by the group incharge.
		(ii)	Initial Lectures on conduct of SC (how to note and how to plot), safety, schedule etc.		
		(iii)	Issuance of Survey equipment for the whole SC to groups which will be the responsibility of all group members		
		(iv)	Setting hand on use of Total Station		
		(v)	Walking around sites		
		(vi)	Planning No. and position of traverse stations		
		(vii)	Noting site features necessary to be picked/plotted during SC		
		(viii)	Setting up of TBM		
		(ix)	Fixation of traverse & control points which will later be used for SC activities.		
2	Plane Table Survey (Field Activity)	(i)	Application of Plane Table Surveying methods (radiation, resection, intersection and traversing)	Experiment No. 14 of Engineering Surveying	Group sheets preparations
		(ii)	Preparation of topographic map of the project site using Plane Table and Auto Level.	Experiment No. 10 & 14 of Engineering Surveying	Group sheets preparations
3	Profiling and Cross-Sectioning	(i)	Performing, noting and drawing proposed profile survey and cross-sections.	-	Group sheets preparations
4	Road setting out	(i)	Setting out of simple curve by Rankine Method of Tangential Angle	Experiment No. 9	Group sheets preparations
		(ii)	Determine vertical and horizontal distances between survey stations using tangential method of tachometric surveying	Experiment No. 8	

Day	Major Activity		Sub-activities	Reference Experiments of AES to be applied	Remarks
5	Topographic Survey (Field Activity)	(i)	Hands on training to determine distances between survey stations	Experiment No 3 and Experiment No. 4	Every student shall perform and note relevant task after training.
		(ii)	Hands on training to determine coordinates of survey stations		
		(iii)	Carrying out topographic survey (picking survey points as per directions). See also Remarks.		Rough sketch of points with point Number and data (X, Y and Z) are to be noted in each group.
6	Topographic Survey (Field Activity)	(i)	Carrying out topographic survey (picking survey points as per directions). See also Remarks.	- do -	Rough sketch of points with point Number and data (X, Y and Z) are to be noted in each group.
		(ii)	Listing noted point data in MS Excel file in hostel.	-	Preparation of Excel point data file for processing in Eagle Point Surface Modeling
7	Topographic Survey	(i)	Creating contours on rough sketch prepared as per detail given in Day 3 (i)	-	Every student shall prepare his own contour sheet with line diagram to show site features.
8	Topographic Survey (Hostel Activity)	(i)	Creating contours in Eagle Point software by each group. Also to draw complete map of the surveyed site in AutoCAD.	-	Students will submit soft and hard copy of the prepared map.
9	Finding Area of project and its verification	(i)	Determine area of traverse using total station	Experiment No. 7	-
		(ii)	Verify area by using theoretical Solutions/formulae.	-	-
10	Winding up of submissions	(i)	Left over work to be completed and Submission be made.	-	-
		(ii)	Grading of students to be finalized and Announcement of best surveyor.	-	-

Schedule of Daily Timings

Survey Camp – Male Students (August 26th, 2019 to September 6th, 2019)

S. No.	Description	Time		Remarks	
		From	To		
1	Wake up	-	-	Fajr prayer as per applicable time.	
2	Breakfast	07:00	07:45	Punctuality is must	
3	Lecture / Demonstration	08:00	08:20		
4	Issuance of equipment	08:20	08:40		
5	Field Work	09:00	14:00		
6	Namaz break	14:00	14:20		
7	Lunch	14:20	15:00		
8	Home Work	15:00	16:30		
10	Tea and Rest	16:30	17:00		
11	Namaz and Fresh up	17:00	17:30		Self and Social activities
12	Sports	17:30	18:45		
13	Self-time (TV etc.)	18:45	20:00		
14	Dinner	20:00	20:45		
15	Gathering/Walk	20:45	21:45		
16	Sleeping	22:00	-	Lights will be off at 2200 hrs.	

NOTE: Namaz breaks shall be applicable at their respective timing.

NOTE:

There will be safety training on the first day i-e August 26th 2019, Monday at 09:00am sharp. It is mandatory to attend this lecture otherwise you are not allowed to attend Survey Camp.

Safety Training In charge:

Engr. Dr. Majid Ali

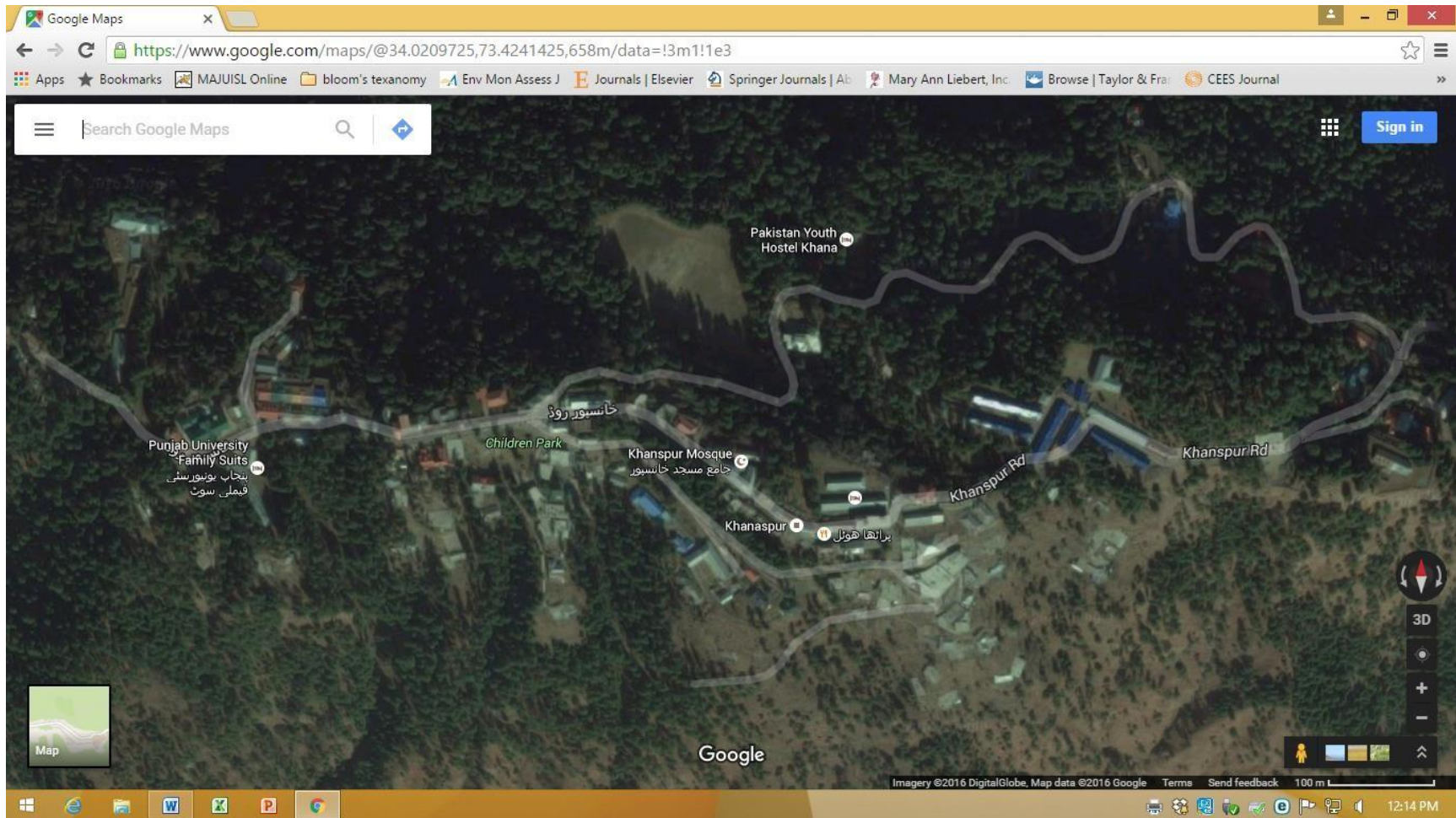


Figure 1: Khanspur Ayubia

**List of Accessories required to Perform Survey Camp
Activities**
(Students Responsibility / Arrangements)

Sr. No	Equipment	Quantity	Remarks
1.	Drawing Sheet	02 by each student	
2.	Graph Sheet	02 by each student	
3.	Laptop	02 by each group	Install Eagle Point and compatible AutoCAD software
4.	Stationary	01 by each student	Eraser, Pencils, Sharpener, Drawing Equipment's etc.
5.	Survey Field Book	01 by each student	
6.	Drawing Board	01 by each group	
7.	T – Square	01 by each group	
8.	Level Book	01 by each group	
9.	Note Pad	01 by each group	
10	Calculator	01 by each student	
Additional Items			
11	Vest	01 by each student	
12	Joggers	01 pairs by each student	
13	Hat	01 by each student	