

COURSE INFORMATION



· · · · · ·	Faculty of Built Environment and Surveying Bachelor of Geomatics Engineering with Honours								
Course code:	SBEU3313	Academic Session/Semester:	2023-2024/1						
Course name:	Cadastre Survey	Pre/co requisite (course name and code, if applicable):	Null						
Credit hours:	3								

Course synopsis	Introduction to the course of cadastral survey. Cadastral Survey Regulations. Role of the Survey Department, Land Office and Land Surveyors Board for Peninsular Malaysia. Coordinate systems and azimuth observations. Use and calibration of equipment. Cadastral classification. Survey datum. Measurement and booking for bearing and distance. Traverse survey and techniques to extend the line. Short lines measurement. Border demarcation. Types of boundary marks. Calculation for the reservation. Traverse bearing adjustment (c and m). Preparation of final calculation sheet. Certified plan drawings. Updating for standard sheet or cadastral map. Refixation. Working procedures at Survey Department and CALS System								
Course coordinator (if applicable)		Null							
	Name	Office	Contact no.	E-mail					
Course lasting of the	Sr Dr Tan Liat Choon	C03-312-A	016-4975551	tlchoon@utm.my tanliatchoon@gmail.com					
Course lecturer(s)	Sr Dr. Muhammad Hafiz Bin Mohd Yatim		014-6167469	muhammadhafiz.my@utm.my					

Mapping of the Course Learning Outcomes (CLO) to the Programme Learning Outcomes (PLO), Teaching & Learning (T&L) methods and Assessment methods:

No.	CIO*	PLO	**Taxonomies and ***generic skills	T&L methods	****Assessment methods
CLO1	Infer the interpretation of cadastre survey.	PLO1 (C1)	C4	Lecture, active learning	Q, T
	Integrate the knowledge connected to land laws and survey regulations that being practiced by the land surveyor in Peninsular Malaysia.	PLO2 (C2)	A4	Lecture, active learning	Q, F
	Construct practical task of various type of cadastre survey project, commit and initiate the cadastre survey project.	PLO3 (C3A)	P4	Lecture, active learning, TRN	Q, Asg, PR, FW
CLO4	Lead survey work in a team to perform cadastral project.	PLO8 (C3F)	TW2	Lecture, active learning, TRN	Asg, PR, FW

This is the basic mapping required for the CI. Any added information is allowed (extra columns for weight or other elements) provided this is made consistent for all CI at program/school/faculty level.

*Up to 5 CLO
Refer **Taxonomies of Learning and ***UTM's Graduate Attributes for UG and Generic Skills for PG, where applicable for measurement of outcomes achievement
****T – Test; Q – Quiz; HW – Homework; Asg – Assignment; PR – Project; Pr – Presentation; F – Final Exam; Field Work – FW etc.

**MOF Cluster Code
C1 = Knowledge & Understanding, C2 = Cognitive Skills, C3A = Practical Skills, C3B = Interpersonal Skills, C3C = Communication Skills, C3D = Digital Skills, C3E = Numeracy Skills, C3F = Leadership, Autonomy & Responsibility, C4A = Personal Skills, C4B = Enterpreneurial Skills, C5 = Ethics & Professionalism

Details on Innovative T&L practices:

No.	Туре	Implementation
1		Conducted through in-class activities, Case study, presentation, Problem Based Learning and Debate
2	Teaching Research Nexus (TRN)	Engaging the students with research and enquiry. To develop their ability in investigating problems, making judgements on the basis of sound evidence, make decisions on a rational basis and understand the purpose (what and why) of doing things.

Transferable skills (generic skills learning in course of study which can be useful and utilised in other settings):
Skills in conducting the field work,
Critical thinking skills,
Lifelong learning and Information searching skills

Student le	arning time (SLT) / Effective Learning Time (ELT) details:	1	Leaving and Tanking Aut. (bin)										
			Learning and Teaching Activities Face-to-Face (F2F)										
Week/	Course Content Outline and Subtopics	CLO*							Non F2F Independent Lea	Non F2F Independent Learning			
Meeting					Physical					nline (Synchronous)	Online (Asynchronous)	Others	
Week 1	Introduction to Cadastre Survey	CLO1	2 2	Т	P	0	L	Т	P	0			6
	Objective of Cadastre Survey Role of Department of Survey and Mapping Malaysia, Land												
	Surveyors Board for Peninsular Malaysia and Royal Institution of Surveyors Malaysia												
	Preparation for Cadastre Survey Calibration of survey instruments												
	Survey unit (Distance & Area)												
	Coordinate System in Cadastre Survey												
	Section 396-413 National Land Code (Act 828) • Survey according to Section 396 NLC												
	Regulations regarding Cadastre survey in Peninsular Malaysia												
	Fieldwork												
Week 2	Briefing on survey instrument Implementation of Cadastre Survey	CLO1	2		4							2	8
WCCK Z	Field practice	0.01	_		7								0
	 Identification of survey location Datum determination and carrying out traverse 												
	Type of survey marks Party Wall												
	Practice and Quiz 1												
	Fieldwork												
	Chain Test & Differential Field Test												
Week 3	Methods in Cadastral Survey Cadastral Survey Methods	CLO2	2		4								6
	Practice & Quiz 2												
	Fieldwork EDM Test												
Week 4	Field Booking Procedure • Angle and bearing observation	CLO2	2		4								6
	Distance measurement (produce line, short line survey, mark on line survey)												
	Practice & Quiz 3												
	Fieldwork Create survey lot												
Week 5	Field Booking Procedure	CLO2	2	Ħ	4								6
	 Booking information in field books. Diagrams and bearing and distance adjustments 												
	Practice & Quiz 4												
	Fieldwork (Traverse)												
Week F	Adjustment of Observed Data	CLO2	2	Н	4								6
vveek o	Accuracy of field observations	CLUZ	2		*								0
	 Misclosure in cadastre survey Bearing ('m' and 'c' correction and Tikaian Lulus) 												
	Practice & Quiz 5												
	Fieldwork												
	Short line & on-line traverse												
Week 7	Adjustment of Observed Data • Methods to calculate baseline (Po and New)	CLO2	2		4								6
	Nethods to calculate baseline (Po and New) Solar observation for azimuth												
	Practice & Quiz 6												
	Fieldwork												
	Completion of survey lot												
	Mid-Semester Break Office Practice	CLO3	2		4								6
	Computation (Latit, Dipat, Tikaian Lurus) Preparation and Format for Computation Sheet Office Practice												
	Practice & Quiz 7/Assignment												
	Fieldwork Solar observation												

			_				_		SUB-TOTAL SLT :	86
Week	Final Examination									
	Revison Week			Ħ	1		T			
	Preparation of Certified Plan and report									
	Project Submission									
vveek 15	Special requirements	CLO4	2		4					ь
	Fieldwork (Refixation) – Teaching Research Nexus (TRN) Completion of survey lot & update fieldbook and Jilid Kiraan Electronic Field Book	CI O:	2							6
	Practice & Quiz 10									
	Correction of errors in certified plan									
Week 14	Preparation of Certified Plan Information in Certified Plan	CLO4	2		4					6
	Fieldwork (Refixation)									
	Project Submission									
week 13	Electronic Field Book • Special requirements	CLO4	2		4					6
	Check angle									
	Fieldwork (Refixation)									
	Practice & Quiz 9/Assignment									
Week 12	Accuracy Criteria for Refixation and Procedure for Refixation	CLO3	2		4					6
	Fieldwork Traverse & offset to old mark (short line)									
	Mid Semester Test									
Week 11	Accuracy Criteria for Refixation and Procedure for Refixation	CLO3	2		4					6
	New traverse (Datum-Solar)									
	Fieldwork									
	Practice & Quiz 8/Assignment									
	Coordinate Calculation Levelling Calculation									
	Area calculation	CLO3	2							

				Face-to-Face (F2F)	NF2F Independent Learning for Ass		
	Continous Assessment	%	Physical	Online (Synchronous)	Online (Asynchronous)	Others	TOTAL SLT
	Midterm Test 1	10	1				1
	Quiz 1	2	0.5				0.5
	Quiz 2	2	0.5				0.5
	Quiz 3	2	0.5				0.5
	Quiz 4	2	0.5				0.5
	Quiz 5	2	0.5				0.5
	Quiz 6	2	0.5				0.5
	Quiz 7/Assignment	2	0.5				0.5
	Quiz 8/Assignment	2	0.5				0.5
10	Quiz 9/Assignment	2	0.5		·		0.5
11	Quiz 10	2	0.5				0.5
12	Field Work	30	25				25
					SUB-TOTAL SLT :		31

				Face-to-Face (F2F)	NF2F Independent Learning for As	sessment				
	Summative Assessment	%	Physical	Online (Synchronous)	Online (Asynchronous)	Others	TOTAL SLT			
1	Final Examination	40	3				3			
					SUB-TOTAL SLT :		3			
					SLT for Assessment:		34			
					GRAND TOTAL SLT:		120			
Α		% SLT for F2F Physical Compoi								
В		% SLT for Online & Independent Learning Component: 1.67								
С				%SLT for Online Component:		0.00				
D				% SLT for All Practical Component:	4	16.67				
D1				% SLT for F2F Physical Practical Component:	nt: 46.67					
D2			•	% SLT for F2F Online Practical Component:		0.00	•			
Pleas	e tick (/)if this course Industrial Training/ Clinical Placement/ Practicum using 50	% of Effe	ctive Learning Time	(ELT)			·			
Note										
	r ODL Programme : Courses with mandatory practical requirement imposesd by	program	nme standards or an	y related standards can be ecempted from complying to the						
minir	num 80% ODL delivery rule in the SLT.									

Identify special requirement or resources to deliver the course (e.g., software, nursery, computer lab, simulation room etc)
Lecture room with computer and LCD
Computer Lab, iTools
Surveying Lab: eTSM, UKK Lab, etc.

Surveying Software: AutoCAD, etc.

References (include required and further readings, and should be the most current)

Text book (if applicable) None

Main references:

- Malaysian Torrens System and Islamic Land Law
 Federal Constitution 1957
 National Land Code (Act 828)

- Licensed Land Surveyors Act 1958 (Act 458)
 Licensed Land Surveyors Regulations 2011
 Clicensed Land Surveyors Regulations (Amendment) 2019
 Survey and Mapping Director General Circular 5/2009
- 8. Survey and Mapping Director General Circular 6/2009

Additional references

Please refer to e-Learning and website

Online http://elearning.utm.my;

http://people.utm.my/tlchoon

Other additional information (if applicable)

Academic honesty and plagiarism: (Below is just a sample)

Assignments are individual tasks and NOT group activities (UNLESS EXPLICITLY INDICATED AS GROUP ACTIVITIES)

Copyring of work (texts, simulation results etc.) from other students/groups or from other sources is not allowed. Brief quotations are allowed and then only if indicated as such. Existing texts should be reformulated with your own words used to explain what you have read. It is not acceptable to retype existing texts and just acknowledge the source as a reference. Be warned: students who submit copied work will obtain a mark of zero for the assignment and disciplinary steps may be taken by the Faculty. It is also unacceptable to do somebody else's work, to lend your work to them or to make your work available to them to copy.

Other additional information (if applicable)

For assignment, for late submission of assignment, one mark will be deducted for each day after the due date.

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ELT = (Theory + Industrial Guidance + Assessment) x 50% Jumlah Kredit bagi LI/Praktikum = ELT/40 Notional Hours