#### CERTIFICATE IN LAND SURVEYING - CENTEXS - SECOND BATCH (2024)



### **ENGINEERING SURVEY** *Lecture 1: Briefing on Course Outline*

TS. Sr DR. KELVIN TANG KANG WEE GEOMATIC INNOVATION RESEARCH GROUP (GnG) FACULTY OF BUILT ENVIRONMENT & SURVEYING UNIVERSITI TEKNOLOGI MALAYSIA



INNOVATING SOLUTIONS

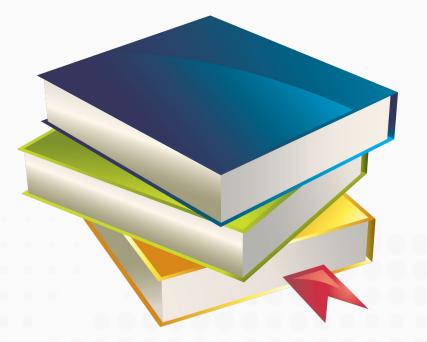
KUCHING, SARAWAK

### COURSE INFORMATION

#### COURSE SYNOPSIS

- COURSE LEARDING OUTCOME (COL)
- WEEKLY SCHEDULE

### COURSE ASSESSMENT





## myBio-BACKGROUND



#### **CONTACT INFOMATION**

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Member - Royal Institution of Surveyors Malaysia (RISM - GLS) Professional Technologist – M'sia Board of Technologist (MBOT - RB) Member – Inst. of Electrical and Electronics Engineers (IEEE - GRSS) Professional Member – Inst. of Geospatial & Remote Sensing M'sia (IGRSM) Individual Member – Int. Society for Photogrammetry & RS (ISPRS)





# **Course Information**

PROGRAMME:	LAND SURVEYING 2024 - CENTEXS - SECOND BATCH (2024)	
MODULE:	3 : ENGINEERING SURVEYING	
SUB-MODULE:	<ul> <li>i. Principle of Engineering Survey</li> <li>ii. Understand the Levelling Survey, Cut &amp; Fill earth</li> <li>iii. Understand the Horizontal and vertical curve design</li> <li>iv. Introduction to survey plan(e.g. Setting-out, cut and fill and curve design.</li> <li>v. Field Practical</li> </ul>	
COURSE DURATION:	28 MARCH -19 APRIL 2024 (WEEK 5 - 9)	
CREDIT HOURS:	4 WEEKS	



# **Course Synopsis**

This course introduces students to fundamental aspects of surveying and mapping. The basic levelling and engineering survey techniques are introduced and students will have the opportunity to conduct field work using the total station and levelling instrument.



#### **Programme Educational Objectives**

The programme is the strategic collaboration between Land and **Survey Department Sarawak** (JTS), Land Surveyors Board Sarawak (LSB), Association of **Consulting Licensed Land** Surveyors Sarawak (ACLS) and **Centre for Technology Excellence** Sarawak (CENTEXS) with Universiti Teknologi Malaysia (UTM) to train Assistant Surveyor to meet the needs of skilled manpower in Land Surveying Industry in Sarawak.

#### **Programme Learning Outcomes**



Ability to acquire knowledge of science and technology in Land Surveying.

Ability to plan and execute Land Surveying tasks systematically.

Ability to coordinate and manage Land Surveying projects professionally.

Ability to conduct levelling, setting out and process the collected data to feed the production of engineering maps.

Ability to apply and analyze information using appropriate Land Surveying techniques and tools.



# COURSE LEARNING OUTCOME (CLO)

At the end of this course, all of you will be able to:

- 1. Explain knowledge of science and technology in the field of Geomatics Engineering.
- 2. Perform basic surveying equipments and surveying works
- 3. Organize Levelling Survey and Engineering Survey tasks using available resources.
- 4. Work in a team and liaise at all levels.



# **Course Content**

Week	Торіс		
25-29 March 2024 (Week 5)	Briefing on Course Outline		
	Introduction to Engineering Survey		
1-5 April 2024 (Week 6)	<ul> <li>Principle of Engineering Survey</li> <li>Understand the Levelling Survey, Cut &amp; Fill earth</li> <li>Understand the horizontal and vertical curve design</li> </ul>		
8-12 April 2024 (Week 7)	Hari Raya Puasa Holiday		
15-19 April 2024 (Week 8)	<ul> <li>Introduction to survey plan (e.g. setting out, cut &amp; full and curve design</li> <li>Field Practical: <ol> <li>Conducting setting out and pegging for construction project</li> <li>Conducting Levelling</li> </ol> </li> </ul>		
22-26 April 2024 (Week 9)	Final Examination		



# **Course Assessment**

LIST OF ASSESSMENTS		Marks (%)
1	Test	20
2	Quiz	10
3	Project: Field Work	30
4	Attendance	10
5	Final Examination	30
	TOTAL MARKS	100





# **THANK YOU**



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