

MODULE I

LAND SURVEY

LSM/OS/LM/CR/01/5/MA

OPERATE SURVEY INSTRUMENTS

SEPTEMBER-NOVEMBER 2025



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)**

PRACTICAL ASSESSMENT

INSTRUCTIONS TO THE CANDIDATE:

1. This unit of competence shall be assessed in two phases.
2. Each assessment session has the duration included in brackets.
3. The assessor will take photos and videos as you perform the tasks at critical points during the assessment.
4. Ensure all required resources for the assessment have been provided before beginning the assessment.

1. PRACTICAL SESSION 1 (5 HOURS)

Elements Covered

1. Operate linear measuring instruments
2. Operate height measuring instruments

Tasks

You are required to perform the following tasks;

- i. Identify a suitable site and set out a rectangular plot measuring 100 m by 50 m.
- ii. Range a straight line along the diagonal of the set plot using ranging rods provided.
- iii. Mark TEN points 10 metres apart along the diagonal and label them as A, B, C, D, E, F, G, H, J and K.
- iv. Establish a Temporary Benchmark within the site and assign an assumed reduced level of 500 m above mean sea level.
- v. Identify a suitable location within the site and set up the level instrument provided.
- vi. Take the staff readings to the TEN points and calculate their reduced levels using the Rise and Fall method.

2. PRACTICAL SESSION 2 (5 HOURS)

Elements Covered

1. Operate angle measuring instruments
2. Operate linear angle measuring instruments

Tasks

You are required to perform the following tasks:

- i. Identify a suitable site and mark two intervisible points A and B, 22 meters apart on the ground;
- ii. Measure and record the coordinates of the marked points A and B by use of a handheld GPS receiver;
- iii. Set up the total station at point A and orient it to B;
- iv. Make and record observations to at least 10 points within the site forming point, linear and polygon features.