

LAND SURVEYOR

MODULE 1

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

OPERATE SURVEY INSTRUMENTS

MAY-JULY 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 30 m by 20 m.
- ii. Establish a Temporary Benchmark (TBM) near the site and assign it an assumed reduced level of 100.00 m above mean sea level. Clearly mark the TBM for reference throughout the survey.
- iii. Set out square grids at 10 m interval to cover the rectangular plot.
- iv. Using a leveling instrument, take height measurements at each grid intersection. Record the readings in your field book.
- v. Reduce the levels by the height of collimation 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 20 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. Calculate the join between the two points A and B;
- iv. Set up the total station at point A and orient it to B;
- v. Make and record observations to at least 10 points within the site forming point, linear and polygon features.