

CADASTRAL SURVEY

UNIT CODE: LSM/CU/LM/CR/03/6/A

Relationship to Occupational Standards

This unit addresses the unit of competency: Conduct cadastral survey

Duration of Unit: 142 hours

Unit Description

This unit describes the competencies required by a surveyor to conduct a reconnaissance, conduct control survey, compute theoretical positions of boundaries (beacons), place beacons on the ground, prepare a cadastral plan and compile a cadastral file

Summary of Learning Outcomes

7. Conduct a reconnaissance
8. Conduct control survey
9. Compute theoretical positions of boundaries (beacons)
10. Place beacons on the ground
11. Prepare a cadastral plan
12. Compile a cadastral file

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Conduct a reconnaissance	<ul style="list-style-type: none"><input type="checkbox"/> Meaning of reconnaissance<input type="checkbox"/> Objectives of reconnaissance<input type="checkbox"/> Importance of a reconnaissance<input type="checkbox"/> Land title verification<input type="checkbox"/> Subdivision consent<input type="checkbox"/> Subdivision approval<input type="checkbox"/> Approved subdivision plan<input type="checkbox"/> Safety precautions	<ul style="list-style-type: none"><input type="checkbox"/> Observation<input type="checkbox"/> Oral questioning<input type="checkbox"/> Practicals<input type="checkbox"/> Written test
2. Conduct control survey	<ul style="list-style-type: none"><input type="checkbox"/> Meaning of control point<input type="checkbox"/> Types of control points<input type="checkbox"/> Importance of control points	<ul style="list-style-type: none"><input type="checkbox"/> Observation<input type="checkbox"/> Oral questioning<input type="checkbox"/> Written tests

	<input type="checkbox"/> Types of monuments <ul style="list-style-type: none"> ○ Wooden pegs ○ Iron pins (IP) ○ Iron pin in concrete (IPC) ○ Iron pin in concrete underground (PCU) <input type="checkbox"/> Identification of existing control points <input type="checkbox"/> Establishment of new control points <input type="checkbox"/> Establishment of horizontal controls <ul style="list-style-type: none"> ○ Traversing ○ Triangulation ○ GNSS <input type="checkbox"/> Application of control points	<input type="checkbox"/> Practical assessments
3. Compute theoretical positions of boundaries (beacons)	<input type="checkbox"/> Computation of theoretical coordinates for beacons <input type="checkbox"/> Placing data computations <ul style="list-style-type: none"> ○ Bearings ○ Distance 	<input type="checkbox"/> Observation <input type="checkbox"/> Oral questioning <input type="checkbox"/> Written tests <input type="checkbox"/> Practicals <input type="checkbox"/> Computation check
4. Place beacons on the ground	<input type="checkbox"/> Types of beacons <ul style="list-style-type: none"> ○ Iron pins (IP) ○ Iron pin in concrete (IPC) ○ Angle Iron pin in concrete <input type="checkbox"/> Transfer of theoretical coordinates to the ground <input type="checkbox"/> Accuracy assessment.	<input type="checkbox"/> Observation <input type="checkbox"/> Oral questioning <input type="checkbox"/> Written tests <input type="checkbox"/> Practicals
5. Prepare a cadastral plan	<input type="checkbox"/> Cadastral plan elements <input type="checkbox"/> Cadastral plan scale and precision <input type="checkbox"/> Map projections <input type="checkbox"/> Coordinate transformations <input type="checkbox"/> Plan plotting <input type="checkbox"/> Plan designs and layout	<input type="checkbox"/> Observation <input type="checkbox"/> Oral questioning <input type="checkbox"/> Sketches and drawing <input type="checkbox"/> Practicals

6. Compile a cadastral file	<input type="checkbox"/> Content of a cadastral file <input type="checkbox"/> Format of a cadastral file <input type="checkbox"/> Submission procedure for a cadastral file <input type="checkbox"/> Approval of a cadastral file	<input type="checkbox"/> Observation <input type="checkbox"/> Oral questioning <input type="checkbox"/> Written tests <input type="checkbox"/> Practicals
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Suggested Delivery Methods

- Teaching
- Demonstration by trainer
- Practical work by trainee
- Demonstration videos
- Projects
- Group projects
- Industrial attachement
- Internship

Recommended Resources

- Survey instruments
- Land laws and statutes
- Stationery
- Survey data
- Measuring tools
- CAD software
- Computers
- Internet
- Transportation
- Store
- Reference text books

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