

INSTITUT NATIONAL DES SCIENCES APPLIQUÉES

DPT GENIE CIVIL ET URBANISME CIVIL ENGINEERING AND URBANISM

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Engineering methods

Surveying

AIMS

IDENTIFICATION CODE : GCU-3-S2-EC-TOP ECTS : 1.0 HOURS Lectures : 4.0 h Seminars : 11.0 h Laboratory : 0.0 h Project : 0.0 h Teacher-student contact : 15.0 h Personal work : 10.0 h

ASSESSMENT METHOD

25.0 h

Written exam 2h

TEACHING AIDS

Duplicated documents

TEACHING LANGUAGE

French

Total :

CONTACT

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This module is part of the course unit GCU-S6-OUTILS-2 and contributes to:

Competences in Engineering Science: A5- Process data

Competences in Humanities, Documentation and Physical and Sports Education: B3- Interact with others, work as a team

Competences specific to the specialty:

C24- Contribute to organize construction sites, to the compliance of safety rules and deadlines

Allows the student to work and be evaluated on the following knowledge: - Master the use of topographic devices - levels, theodolites, distance-meters - to achieve a leveling.

- Perform angular measurements and distances.
- Establish a map of a defined area.
- Allows the student to work and be evaluated on the following abilities:
- General principles of topography and estimation of errors.
- Principle of direct leveling.
- Angular and distance measurements: theodolites and distance-meters.
- Topographic calculations.

CONTENT

Aims are to propose a training in surveying :

- General introduction and error estimation,
- Principals of levelling and field work,
- Angular and distance measurements (Theodolites and distance-meters),
- Field measurements and realisation of topographic plans (by using autocad),
- Setting out a new building project.

BIBLIOGRAPHY

Brabant, M. (2000). Maîtriser la topographie : des observations au plan. Paris : Eyrolles, 552 p.

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