

CIV2103 Engineering Surveying I

Hours per Semester				Weighted Total Mark	Weighted Exam Mark	Weighted Continuous Assessment Mark	Credit Units
LH	PH	TH	CH	WTM	WEM	WCM	CU
30	60	0	60	100	60	40	4

Course Description

This course develops fundamental skills in the theoretical and practical aspects of surveying for civil engineering field data collection, through the use and care of modern instruments and the associated computations. Topics include the classification of errors incurred in observed field data and necessary correction applications, the use and care of surveying equipment, traversing, differential leveling, tacheometry and mapping, and electronic data transfer. Computer applications are used where appropriate.

Objectives

- To obtain a full understanding of the methods of measurement, errors to be expected, and their control.
- To gain knowledge of referencing systems, horizontal and vertical control.
- To recognize field data relevant to different Civil Engineering project types.
- To be able to use survey instruments with efficiency.
- To learn of the methods of data recording, display, and storage.
- To carry out topographic mapping in an engineering context.
- To able to calculate and carry out computations from field data to obtain the results required.