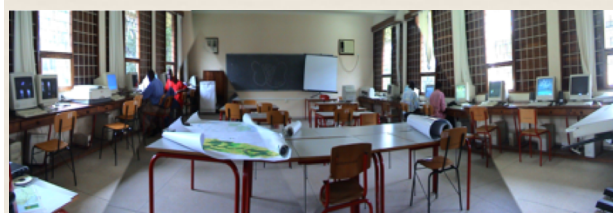
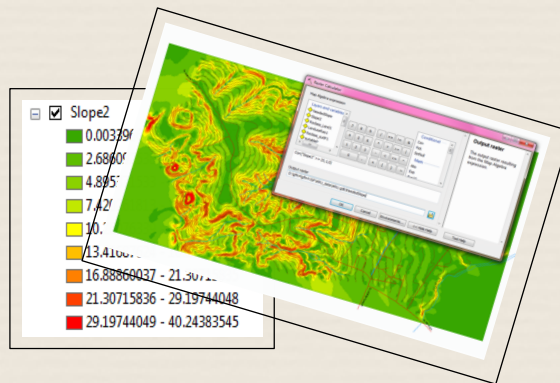
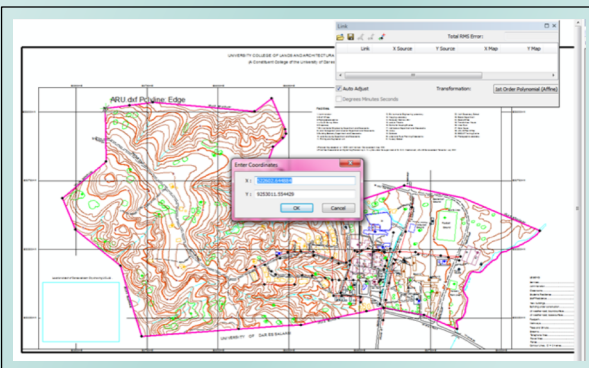




TARGET GROUP

The course is intended for personnel who will be responsible for the implementation of production tasks (at national and regional agencies, local authorities and private sectors) and for the supervisory role in the production of spatial information (both in paper and in digital form).



GFM4 Course Duration: **Nine (9) Months**

Starting Date: **Mid - October**

Contact Us

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Joint ITC – ARU Programme



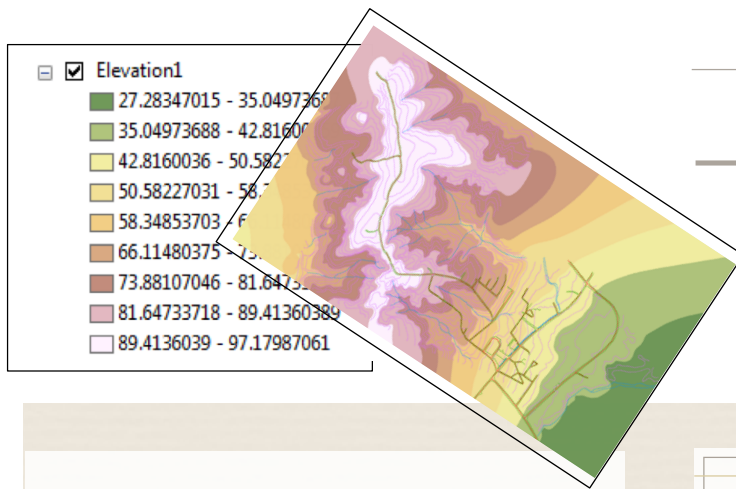
GEOINFORMATICS (GIS and Geovisualisation)

Diploma Course - GFM4



Ardhi University (ARU) is offering courses in building economics, urban and rural planning, geomatics, land management and valuation, environmental engineering and architecture. The International Institute For Geo-Information Science And Earth Observation (ITC) is a faculty of **University of Twente (UT)** in The Netherlands it runs training programs in the development and application of Geo-Information Science and Earth Observation. Based on mutual interest between ARU and ITC a joint Diploma course on Geoinformatics (GFM4) was launched in September 2004. The course is being run at ARU campus in Dar es Salaam, Tanzania. The course deals with the technology that supports the processes of acquisition, analysis and visualization of spatial data.





GFM4 DIPLOMA COURSE SETUP

The GFM4 course is divided into three blocks, the blocks are organised into eleven three-week modules. * **BLOCK 1** teaches the basic principles of Remote Sensing, GIS and Cartography based on common technological concepts/processes in Geoinformatics. **BLOCK 2** offers methods, tools and techniques for spatial data management, spatial analysis, visualisation and dissemination of geospatial products in static- and interactive (web-) applications to serve our mobile and dynamic society. **BLOCK 3:** The course is concluded with an integrated group project and a final assignment with duration of four and six weeks respectively.

(* There is a possibility to accommodate students who will follow just **one BLOCK** or **one Module** during an academic year.)

COURSE OVERVIEW

The task of managing land use and the earth's resources is gaining increasing importance due to the rising world population and economic growth. To keep pace with demand, planners and resource managers make considerable use of computerised Geographical Information Systems (GIS). GIS users such as planners, resource managers and scientists depend on the availability of well-structured data. Satellite images are often used as data sources, along with conventional techniques that use aerial photographs. Technical means and systems are needed to extract and manipulate data from sources so as to produce maps and other output. To achieve this, it is essential that an organisation be staffed by capable personnel at all levels. This course is intended to train staff in rapidly changing map and geo-information production environments.

BLOCK 1 - CORE MODULES

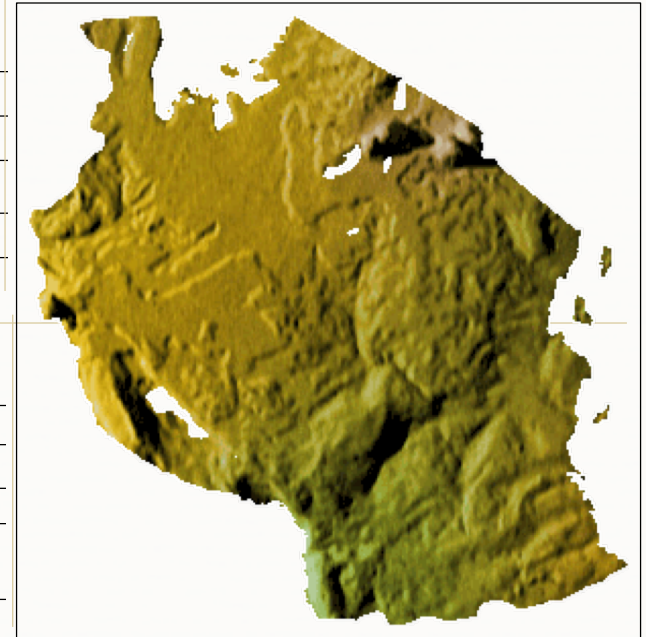
0	Registration and Introduction	(1 week)
1	Principles of Geo-data Acquisition	(3 Weeks)
2	Principles of Geographic Information Systems	(3 Weeks)
3	Principles of Geo-Visualisation	(3 Weeks)
4	Advanced GIS and Visualisation	(3 Weeks)

BLOCK 2 - COURSE MODULES

5	Spatial Databases	(3 Weeks)
6	Basic Programming Skills	(3 Weeks)
7	Spatial Analysis	(3 Weeks)
8	Web Based Geo-operations, Geo-visualisation, and Geo-dissemination	(3 Weeks)
	Study Excursion	(1 Week)

BLOCK 3 - IGP & FA MODULES

The Integrated Group Project (IGP) module is covered in **four (4) weeks**, it deals in integration of discipline knowledge. The participants, by means of integrated activities, are interacting and co-operate with partners from associated disciplines in achieving group goals. The activities are designed to motivate a broader appreciation of the total production process.



The Final Assignment (FA) module is covered in **six (6) weeks**, it involves a production-oriented individual assignment, for which course participants are encouraged to use data from their home organisations. Various stages of geoinformation production are simulated in the FA. Using the skills and techniques previously learnt, the participants work individually on a short production orientated project with emphasis on the interfaces between the different stages of the production line, data exchange and data quality.