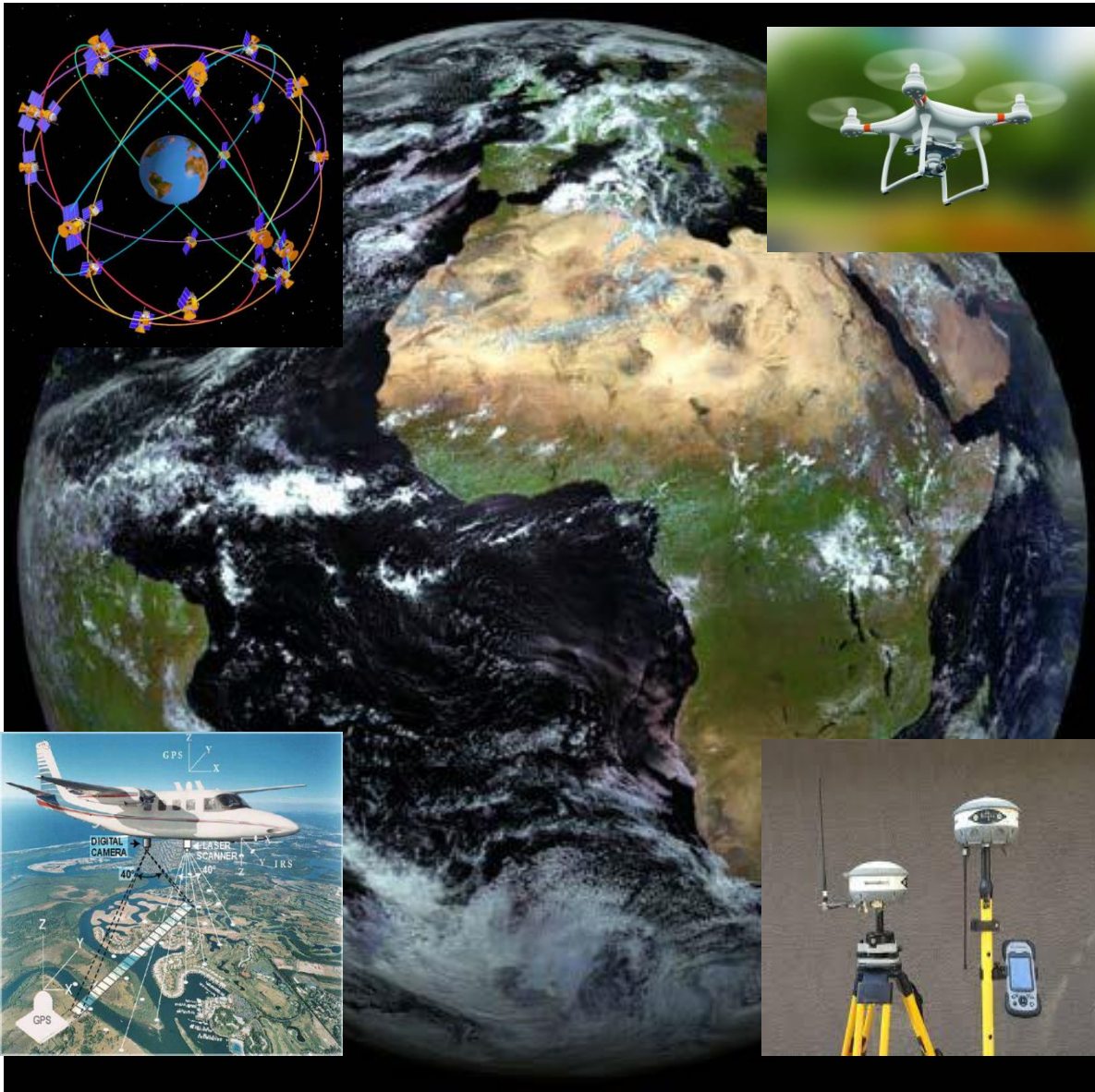




UNIVERSITY OF NAIROBI

FACULTY OF ENGINEERING

DEPARTMENT OF GEOSPATIAL AND SPACE TECHNOLOGY



Information Brochure

A World Class University Committed To Scholarly Excellence!
ISO 9001:2008 CERTIFIED

About Geospatial Engineering

Geospatial Engineering is a professional discipline concerned with the measurement, analysis and graphic representation of dimensional geo-spatial relationships, as well as with design, construction, maintenance and the use of geospatial databases. It has roots in surveying and mapping and encompasses the following specializations; Geodesy, Land Surveying, Photogrammetry and Remote Sensing, Geo-information Systems, Cartography, Engineering and Hydrographic Surveying.

Historical Background

The Department of Geospatial and Space Technology began way back in early 1960's when it was called Department of Land Surveying. The focus then was very narrow but meeting the needs of this country in terms of producing graduates basically equipped to surveying land for purposes of issuing documents for land ownership. This was the period shortly after Kenya gained independence. The focus started changing and in the 1970's technological developments enriched surveying methods and in particular air photography. The Department then changed its name to capture this new trend and it became known as Department of Surveying and Photogrammetry. By the turn of the century, there was so much development in information technology and space based surveying methods which wildly widened the applications of geospatial products.

The Department carried out an intensive curriculum review that reflects the modern trends and addresses the current need of the market. We also introduced a new curriculum for our masters program which is the Master of Science in Geographical Information Systems. Our traditional masters in Surveying program is now under review. The Department hosts a modern GIS lab with planned modernization of its photogrammetric and field sections underway.

Our research activities have centered on the innovative field of GIS where we have been able to offer local solutions for the immediate problems in this country like minimizing tax evasion in rental income, fighting crime, athletics training, malaria control, flood control, telecommunication industry, among others. We have also kept our strength in our traditional field of geodesy and surveying as in contributing towards a local modern geospatial reference system and its maintenance.

With this vibrancy, our students have been able to find jobs in almost all sectors of our economy and overseas.

Professional Recognition

All our programs are accredited by the Land Surveyors Board (LSB) through the Institution of Surveyors of Kenya (ISK) and our graduates can be registered under the following Chapters

- Land Surveyors
- Engineering & Hydrographic Surveyors
- Geospatial Information Management Surveyors

The Department is pursuing accreditation by the Engineers Board of Kenya (EBK). Similarly the Royal Institute of Chartered Surveyors (RICS) has also shown interest in evaluating our program for validation; once this is concluded our graduates will have the option of seeking recognition by the RICS.

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Vision

To be committed to scholarly excellence, consistently producing competitive graduates equipped with the cutting edge technology in the field of geospatial engineering

Mission

To provide quality university education, training and research in the field of geospatial and space technology so as to produce internationally competitive geospatial engineers by equipping them with the necessary skills and knowledge through lectures, research, tutorials, practicals and field visits/industrial attachments.

Programs Offered

Undergraduate

- Bachelor of Science in Geospatial Engineering

Post Graduate

- Master of Science in Geographical Information Systems
- Master of Science in Geospatial Engineering – Under Review
- PhD in the above

Admission Requirements

Bachelor of Science in Geospatial Engineering

Minimum mean grade of C+ with a minimum C+ score in all of the following:

- Mathematics
- Physics and
- Chemistry
- Any group II or III or IV or V

Geography has also been considered in the past.

Course Duration: 5 academic years

Master of Science in Geospatial Engineering

Upper Second Class Honours in Geospatial Engineering or other equivalent qualification acceptable to the University Senate. Past experience may allow holders of Lower Second Class Honors to qualify.

Course Duration: 2 academic years

Master of Science in Geographical Information System

Upper Second Class Honors in any geo-information related field or other equivalent qualification acceptable to the University Senate. Past experience may allow holders of Lower Second Class Honors to qualify.

Course Duration: 2 academic years

PhD in Geographic Information Systems

A Master of Science degree in Geospatial Engineering or any other equivalent qualification acceptable to the University Senate.

Course Duration: 3 academic years

PhD in Geospatial Engineering

A Master of Science degree in Geospatial Engineering or any other equivalent qualification acceptable to the University Senate.

Course Duration: 3 academic years

Fees structure: Self Sponsored Students

Undergraduate:

LEVEL OF STUDY	SEMESTER 1	SEMESTER 2	YEARLY TOTAL
Level One	233,750	207,250	441,000
Level Two	228,750	207,250	436,000
Level Three	229,250	207,750	437,000
Level Four	229,750	208,250	438,000
Level Five	228,750	207,250	436,000
GRAND TOTAL			2,188,000

Note:

- *The fees does not include the cost of books or accommodation*
- *Foreign students outside the East African Community pay additional 25%.*

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Research and Consultancy

The department has had an active research program in the areas of:

- Resource Mapping
- Establishment of geodetic Control
- Cadastral Surveying
- Engineering Surveying
- Cellular Mobile Mapping
- Capacity Building
- Various GIS Applications e.g.
 - Marketing Segmentation
 - Tax Assessment Mapping
 - Business Mapping
 - Fixed Assets Mapping
 - Infrastructure Mapping
 - School Mapping
 - Health Risk Mapping

Some of the Potential Employment Fields

- Cadastral Surveying & Digital Cadastre
- Engineering Surveying
- Hydrographic Surveying
- Photogrammetric Mapping
- Defense Mapping
- Asset Management and Utilization
- Environmental Management
- Educational Institutions
- Spatial Data Management
- Remote Sensing
- Planning and Urban Development
- Business Mapping
- Land Mapping
- Land Planning
- GIS and GPS Applications
- Cartography

Locally, nearly all Government Ministries, County Governments, Private Sector and most Parastatals employ one or more professionals in the above fields. Ministry of Lands Housing and Urban Development and the National Land Commission are some of the biggest employers. Internationally, our students have found admission for higher studies in other world-class



OUR CONTACT

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