

BSc (Hons) Geomatics (FT) – OS 301

1 Aim and Objectives

The aim of this programme is to provide an in-depth knowledge of the theory and methods in land surveying, mapping, cartography, photogrammetry, geographical information systems, and remote sensing, in order to prepare a skilled workforce in the field of Geomatics to meet regional, national, and international needs.

This BSc programme equips students with the knowledge and competencies required in order to excel in the fields of land administration and management, acquisition of spatial data, spatial data management, planning, legal matters, disaster management, and social and environmental issues. Students will also be exposed to the latest tools and technologies such as global navigation satellite systems, smart sensors, web-based GIS, and mobile technologies. This programme will also serve as a pathway for advance studies in the fields of Geomatics, Geo-Informatics, Land Surveying, Spatial Planning, Disaster Management, Hydrographic Survey, Marine Spatial Planning and Environmental Management.

This is a joint programme offered by the Department of Ocean Engineering & ICT at the Faculty of Ocean Studies and the Department of Civil Engineering, Faculty of Engineering.

2 General Entry Requirements

As per the General Entry Requirements for Admission to the University for Undergraduate Degrees.

3 Programme Requirements

Credits in 5 GCE 'O' Level subjects including Mathematics and Physics and 2 GCE 'A' Level passes including Mathematics.

4 General and Programme Requirements – Special Cases

The following may be deemed to have satisfied the General and Programme requirements for admission:

- (i) Applicants who do not satisfy any of the requirements as per Regulations 2 and 3 above but who submit satisfactory evidence of having passed examinations which are deemed by the Senate to be equivalent to any of those listed.
- (ii) Applicants who do not satisfy any of the requirements as per Regulations 2 and 3 above but who in the opinion of Senate submit satisfactory evidence of the capacity and attainments requisite to enable them to pursue the programme proposed.

5 Programme Duration

The Programme is offered on a full-time (F/T) basis. The duration of the graduate programme should normally not exceed 5 years for F/T.

	Normal	Maximum
BSc (Hons) Geomatics degree (F/T):	3 Year	5 Years

6 Credits per Semester: Minimum 3 credits subject to Regulation 5.

7	<p>Exit Points</p> <p>(i) Diploma Award The diploma is provided as a possible exit point in the programme. A students may opt for a Diploma in Geomatics, by making a written request, provided that he/she satisfies the requirements, as per University regulations.</p> <p>(ii) A student whose registration is on the point of being terminated, as a result of having her/his CPA < 40.0 for two consecutive registered years.</p>
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8	<p>Minimum Credits Required for the Award of</p> <p>Degree: 112 Diploma: 73 Certificate: 36</p> <p>Breakdown as follows:</p>
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Modules	Core Taught	Project	Electives
Degree:	103 credits	9 credits	nil

9	<p>Assessment</p> <p>Each module will carry 100 marks and will be assessed as follows (unless otherwise specified):</p> <ul style="list-style-type: none"> • Written Exams All 3-credit Modules will be assessed by a 2 hr written exam paper All 6-credit Modules will be assessed by a 3 hr written exam paper <p>Continuous assessment of 30% to 40% of total marks. Continuous assessment can be based on laboratory work, and/or assignments and <u>should include at least one (1) assignment and one (1) test per module.</u></p> <p>An overall total of 40% for combined assessment and written examination components would be required to pass the module, without minimum thresholds within the individual continuous assessment and written examination.</p> <p>All modules carry equal weighting.</p> <p>The Project carries 9 credits.</p> <p>Submission Deadlines for Dissertation:</p> <p>First Draft: End of February of Final Year Final Copy: Last working day of March of Final Year.</p>
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10 List of Modules (L= Lectures; P=Practical; T=Tutorial)				
CORE MODULES			Hrs/Wk L+P/T	Credits
OET 1001Y(1)	Geomathematics		2+2	6
OET 1002Y(1)	Waves, Optics & Remote Sensing		2+2	6
OET 1003Y(1)	Mapping, Cartography and Photogrammetry		2+2	6
OET 1004Y(1)	Surveying I		2+2	6
OET 1005Y(1)	Computing for Geomatics		2+2	6
OET 1101 (1)	Professional Communication		1+2	2
OET 1201 (1)	Information Technology		1+2	2
OET 2001Y(3)	Geographical Information Systems		2+2	6
LAW1124Y(3)	Land Law I & II		3	6
OET 2002Y(3)	Surveying II		2+2	6
OET 2003Y(3)	Land Information Systems, Land Development and Valuation		2+2	6
OET 2004Y(3)	Statistics & Numerical Methods		2+2	6
OET 2005Y(3)	Physical Planning & Planning Tools		2+2	6
OET 2000(3)	Mini-Project		-	3
OET 3001Y(5)	Entrepreneurship & Marketing		2+2	6
OET 3002Y(5)	Community Sustainability and Empowerment		1+1	3
OET 3003Y (5)	Hydrographic Survey		1+1	3
OET 3004Y(5)	Project & Real Estate Management		2+2	6
OET 3005Y(5)	Hazards & Mapping		2+2	6
OET 3006Y(5)	Spatial Info Applications		2+2	6
OET 3000Y(5)	Dissertation		-	9
11 Programme Plan – BSc Geomatics (Full Time)				
YEAR 1 – Semester 1 & 2				
Code	Module Name		Hrs/Wk L+P/T	Credits
OET 1001Y(1)	Geomathematics		2+2	6
OET 1002Y(1)	Waves, Optics & Remote Sensing		2+2	6
OET 1003Y(1)	Mapping, Cartography and Photogrammetry		2+2	6
OET 1004Y(1)	Surveying I		2+2	6
OET 1005Y(1)	Computing for Geomatics		2+2	6
OET 1101 (1)	Professional Communication		1+2	2
OET 1201 (1)	Information Technology		1+2	2
				34
YEAR 2 – Semester 1 & 2				
Code	Module Name		Hrs/Wk L+P+/T	Credits
OET 2001Y(3)	Geographical Information Systems		2 + 2	6
OET 2002Y(3)	Surveying II		2 + 2	6
OET 2003Y(3)	Land Information Systems, Land Development and Valuation		2+2	6
OET 2004Y(3)	Statistics & Numerical Methods		2 + 2	6
OET 2005Y(3)	Physical Planning & Planning Tools		2+2	6
LAW 1124Y(3)	Land Law		3	6
OET 2000(3)	Mini-Project		-	3

YEAR 3 – Semester 1 & 2			39
Code	Module Name	Hrs/Wk L+P+T	Credits
OET 3001Y(5)	Entrepreneurship & Marketing	2+2	6
OET 3002Y(5)	Community Sustainability and Empowerment	1+1	3
OET 3003Y(5)	Hydrographic Survey	1+1	3
OET 3004Y(5)	Project & Real Estate Management	2+2	6
OET 3005Y(5)	Hazards & Mapping	2+2	6
OET 3006Y(5)	Spatial Info Applications	2+2	6
OET 3000Y(5)	Dissertation	-	9
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For the BSc Award, students have to complete ALL core modules.