

BSc (Hons) Applied Computing – E319

1. Objectives

As Information Technology (IT) continues to be the enabler of development and increasing integration into all aspects of the global economy, there is high need for skilled IT professionals who can easily use and adopt the latest trends and technologies.

The programme of study aims at producing graduates with practical knowledge and skills to develop, enhance and maintain computing applications by applying classic and leading edge computing concepts and technologies. The programme provides students with a solid grounding in areas such as programming, database systems and Internet technologies, and it affords sufficient scope for gaining practical hands-on experience in these areas.

The programme follows international recommendations of computing curricula and is designed with ICT Industry collaboration.

2. General Entry Requirements

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

3. Programme Requirements

At Least 2 GCE ‘A’ level Passes, including either (i) Mathematics **OR** (ii) Computing

4. Minimum Requirements for Awards

(i) Degree Award

For the degree award in BSc (Hons) Applied Computing, the student must obtain at least 105 credits including:

Modules	Credits
Minimum Credits for Core Modules (Departmental)	66
Minimum Credits for Electives (Departmental)	24
Minimum Credits for Core Modules (Non Departmental)	6
Final Year Project	9
TOTAL	105

(ii) Diploma Award

The diploma is provided as a possible exit point in the programme. A student may opt for a Diploma in Applied Computing, by making a written request, provided he/she satisfies the requirements, as per University regulations.

5. Programme Duration

	Normal (Years)	Maximum (Years)
Degree:	3	5

6. Credits per Year

Maximum 48 credits, Minimum 6 credits, subject to section 5.

Yearly modules to be registered for only once at the start of the module, normally at the beginning of the academic year as specified by the Faculty. Semester modules to be registered for on a semester basis.

7. Assessment

7.1 Continuous and written assessment of modules

Each module will be assessed over 100 marks (expressed as %).

Assessment will be based on written examination and continuous assessment. The written examination will be of 3 hour duration for yearly modules carrying 6 credits and of 2 hour duration for semester modules carrying 3 credits. The continuous assessment will count for a range 30 - 40% of overall percentage mark of the module.

Continuous assessment may be based on laboratory work, seminars and/or assignments and should include at least one class test per semester.

For a student to pass a module, an overall minimum of 40% should be attained in that module, as per University regulations.

Written examinations for the yearly modules will be carried out at the end of the academic year. Semester module is examined at the end of the semester in which the module is run.

7.2 Final Year Project

The assessment of final year project CSE 3000(5) will be based on project report, presentation and software/system demo.

7.3 Diploma Project

For a student exiting at Diploma Level, the assessment of Diploma project CSE 2000(3) will be based on project report, presentation and software/system demo.

8. Specific Regulations

If Cumulative Point Average (CPA) of a student is less than 40%, s/he will have to repeat the entire academic year, and retake the modules as and when offered. However, s/he will not be required, if s/he wishes, to retake modules for which Grade C or above has been obtained. Students are allowed to repeat (a year) **only once** over the entire duration of the Programme of Studies.

Registration of a student will be terminated if:

- i) the CPA is less than **40** at the end of an academic year **and** the student has already repeated one year of study; or
- ii) the maximum duration allowed for completion of the Programme of Studies has been exceeded.

9. List of Modules – BSc (Hons) Applied Computing

CORE MODULES

Departmental		Hrs/Week	Credits
		L+P	
CSE 1035Y(1)	Principles of Programming and Data Structures	2+2	6
CSE 1031Y(1)	Database Systems and Administration	2+2	6
CSE 1032Y(1)	Web Design and Development	2+2	6
CSE 1033Y(1)	Business Computing	3+0	6
CSE 1034Y(1)	Mathematics for Computing	3+0	6
CSE 1016Y(1)	Communication and Business Skills for IT	3+0	6
CSE 2029Y(3)	Multimedia Authoring and Development	2+2	6
CSE 2030Y(3)	Networking Principles	2+2	6
CSE 2034Y(3)	Internet Technologies and Web Services	2+2	6
CSE 2035Y(3)	Software Modelling and Design	2+2	6
CSE 2036Y(3)	Principles of Software Development	3+0	6
CSE 3000(5)	Final Year Project	-	9
Non-Departmental		Hrs/Week	Credits
		L+P	
MGT 1102(1)	Fundamentals of Entrepreneurship *	3+0	3
MGT 1203 (1)	Marketing Fundamentals **	3+0	3

ELECTIVE MODULES

Students choose **any 4** of the listed electives.

Departmental		Hrs/Week	Credits
		L+P	
CSE 3076Y(5)	Digital Image Processing Techniques	2+2	6
CSE 3077Y(5)	Graphics Design	2+2	6
CSE 3078Y(5)	Web Engineering	2+2	6
CSE 3079Y(5)	Wireless Technologies	2+2	6
CSE 3080Y(5)	Mobile and Social Computing	2+2	6
CSE 3081Y(5)	Cloud Computing	2+2	6
CSE 3082Y(5)	3D Modelling, Animation and Virtual Reality	2+2	6
CSE 3083Y(5)	Forensic Computing and Security	2+2	6
CSE 3084Y(5)	Bioinformatics Computing	2+2	6
CSE 3085Y(5)	Distributed Application Development	2+2	6
CSE 3086Y(5)	Software Testing Tools & Technologies	2+2	6
CSE 3087Y(5)	Network Protocols, Services And Applications	2+2	6

Note: The University reserves the right not to offer a given elective module if the critical number of students is not attained and/or for reasons of resource constraints.

10. Programme Plan – BSc (Hons) Applied Computing

Year 1 Semester 1 & 2			
Module Code CORE	Module Name	Hrs/Week L+P	Credits
CSE 1035Y(1)	Principles of Programming and Data Structures	2+2	6
CSE 1031Y(1)	Database Systems and Administration	2+2	6
CSE 1032Y(1)	Web Design and Development	2+2	6
CSE 1033Y(1)	Business Computing	3+0	6
CSE 1034Y(1)	Mathematics for Computing	3+0	6
CSE 1016Y(1)	Communication and Business Skills for IT	3+0	6
			Total = 36
Year 2 Semester 1 & 2			
Module Code CORE	Module Name	Hrs/Week L+P	Credits
CSE 2029Y(3)	Multimedia Authoring and Development	2+2	6
CSE 2030Y(3)	Networking Principles	3+0	6
CSE 2034Y(3)	Internet Technologies and Web Services	2+2	6
CSE 2035Y(3)	Software Modelling and Design	2+2	6
CSE 2036Y(3)	Principles of Software Development	3+0	6
MGT 1102(1)	Fundamentals of Entrepreneurship *(semester 1)	3+0	3
MGT 1203 (1)	Marketing Fundamentals ** (semester 2)	3+0	3
			Total = 36
Year 3 Semester 1 & 2			
Module Code CORE	Module Name	Hrs/Week L+P	Credits
CSE 3000(5)	Final Year Project	-	9
ELECTIVES	Choose four (4) modules from:		
CSE 3076Y(5)	Digital Image Processing Techniques	2+2	6
CSE 3077Y(5)	Graphics Design	2+2	6
CSE 3078Y(5)	Web Engineering	2+2	6
CSE 3079Y(5)	Wireless Technologies	2+2	6
CSE 3080Y(5)	Mobile and Social Computing	2+2	6
CSE 3081Y(5)	Cloud Computing	2+2	6
CSE 3082Y(5)	3D Modelling, Animation and Virtual Reality	2+2	6
CSE 3083Y(5)	Forensic Computing and Security	2+2	6
CSE 3084Y(5)	Bioinformatics Computing	2+2	6
CSE 3085Y(5)	Distributed Application Development	2+2	6
CSE 3086Y(5)	Software Testing Tools and Technologies	2+2	6
CSE 3087Y(5)	Network Protocols, Services and Applications	2+2	6