

## **INSTITUT SUPERIEUR DE TECHNOLOGIES**

Sarl au capital de 10 000 000

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Agréé par le FAFPA (ministère de l'emploi)

Diplômes reconnus par le CAMES

Vingt (20) ans au service de la formation des  
ressources humaines

[www.istburkina.com](http://www.istburkina.com); Email : [infos@isburkina.com](mailto:infos@isburkina.com)

### **Master of Information Technology**

#### **1. TITLE OF PROGRAMME**

The programme shall be **master of information technology MScs. (IT)**

#### **2 PREAMBLE**

##### **2.1 Background**

Information technology (IT) is all around us, forming the very destiny of our lives... our world. IT advances a wide array of disciplines, such as engineering, business and medicine, and even art and archaeology.

The Master of Information Technology (MIT) provides the knowledge, understanding and skills to solve real-world problems with cutting-edge technology. You learn to create innovative IT solutions in your chosen area, in order to work in the industry at the highest levels.

As an MIT graduate, you could become a software engineer, an enterprise data architect, a mobile systems analyst, or even a chief technology officer. This program is for students interested in an interdisciplinary curriculum that covers key topics in data science, cyber security, software engineering and telecommunications among others.

##### **2.2 Justification**

Graduates of the Master of Information Technology (and with further work experience in some cases) will be able to work in business, education, government, health, industry or the community sector. Potential jobs opportunities include Business Analyst, Cyber Security Specialist, Database Administrator, Information Systems Manager, Data Analyst, Network

Manager, Security Specialist, Software Developer, Software Tester, Systems Administrator, Systems Analyst, Systems Integrator and Team Leader. Electives can be chosen to suit the student's likely career path. This course provides its graduates with the necessary knowledge and skills to explain and apply appropriate information technology (IT) methodologies to help an individual or organisation achieve its goals and objectives. You'll also learn to appreciate the scientific foundations on which IT is built, and to anticipate the changing direction of IT and evaluate and communicate the effectiveness of new technologies.

The ICT industry is one of the fastest growing industries in the world. As a result there's a huge demand for industry-ready ICT graduates who have the right mix of technological skills and business awareness.

### **2.3 Target Group**

The targeted group includes holders of:

Applicants must have completed a UTS recognized bachelor's degree, or an equivalent or higher qualification, or submitted other evidence of general and professional qualifications that demonstrates potential to pursue graduate studies. Bachelor's in IT and other related Science and Technology fields. It is a requirement that the bachelor's degree be in IT or the natural and physical sciences, with no more than 25 per cent of subjects failed

## **3. Programme Objectives**

### **3.1. General Objectives**

The course provides students with an understanding of the advanced concepts of information technology in a commercial environment so they can contribute to the development of IT solutions in their organisation.

### **3.2. Specific Objectives**

Completing one of the majors will give you specialist knowledge in that field:

- Business Analysis (new) - design and problem solving skills will allow you to critically analyse complex work environments, assess alternate information systems solutions, and evaluate outcomes.
- Business Process Management - provides you with complementary skills and knowledge to create and align information systems to effectively support business and enable business strategy.
- Computer Science - extends your understanding of computer programming beyond being a mere user of programming language to an appreciation of their design and implementation.
- Cyber Security and Networks (new) - you will develop abilities in the investigation and appraisal of complex cyber security and networking challenges.
- Data Science - provides you with the knowledge and skills to extract information from large, complex and disparate data sets, using leading edge algorithms and tools.

- Enterprise Systems - develop skills in engineering information systems, consisting of applications and associated information, to help to automate and streamline business processes.
- Executive IT (new) - develop tactical and strategic IT management skills, with units related to IT governance, information systems consulting and advanced enterprise architecture.
- Software Development (new) - provides further expertise in the design of emerging technologies and the development of mobile, web and cloud computing solutions, all of which are in high demand.

- **Duration of the Programme:**

This course is offered on a Two-year (Four semesters), full-time or online basis for students with a UTS-recognised bachelor's degree in IT or the natural and physical sciences.

### Programme Structure

<b>Courses codes</b>	<b>Courses Names</b>	<b>Credit Units</b>
	<b>Year one</b>	
	<b>Semester one</b>	
RM M01	Advanced research methods	3
OB M03	Organization Behavior	3
CS M02	Communication Skills	3
ESD M04	Entrepreneurship and Development	3
MBEC 2632	Business Ethics and Corporate Governance	3
MSM 9450	Strategic Management	3
MAE 421	Academic Essay	3
MIT110	Leadership and Learning with ICT	3
MIT111	Educational Application of Information Technology	3
	<b>Semester Two</b>	
MIT120	Financial Market	3
MIT121	Computer Networks	3
MIT122	Software Engineering	3
MIT123	Computational Mathematics	3
MIT124	Management of Information Systems	3
MIT125	Internet and Web Internet Technology	3
MIT126	Systems Analysis and Design	3
MIT127	Visual Programming	3
MIT128	Data Warehousing and Data mining	3
MIT129	Object Oriented Programming with C+	3
		<b>60</b>
	<b>Year Two</b>	

	<b>Semester One</b>	
MIT 416	Systems Development management	2
MIT 417	Software application skills	2
MIT 418	Database Management systems	2
MIT220	Object-Oriented Conception	2
MIT 421	IT Hardware	2
MIT 422	Labour Organization in ODL	2
MIT 423	High flow Networks and New Generation Networks	2
MIT 424	Taxation management and planning	2
MIT 425	Visual Programming	2
MIT 426	Legal and Ethical Aspects of computing	2
MIT 427	Web design	3
MIT 432	Systems Security	3
MIT 433	Distributed Computing	3
		60
	<b>Semester Two</b>	
MIT 429	Internship	10
MIT 430	Thesis	20
		<b>60</b>
GCU		<b>120</b>