

## **Bachelor of Computer and Information Sciences**

### **The Independent Institute of Education (The IIE)**

Contact: Full-time

This IIE degree is divided into two focus areas based on the interest of the students; 1. The Business Systems focus area, and 2. The Application Development and Networks focus area. The IIE Bachelor of Computer and Information Sciences will provide candidates with a thorough theoretical grounding and knowledge base in the key principles of Computer and Information Systems. These are the key disciplines that inform the professional practice of Information Technology (IT). Graduates will be equipped with the practical skills to apply the theory obtained in the degree in enterprises. The design for this degree has been informed by a demand identified in industry for Information Technology specialists and to graduate solution-focused, logical and creative thinkers geared for both South African and international markets. This degree will also develop graduates' abilities to design, implement, and manage innovative, integrated IT solutions, and will nurture an understanding of the role IT plays in the information systems and applications in a business environment. Graduates will be able to engage appropriately with management executives and stakeholders in planning and designing corporate solutions.

IT professionals are found across organisations and enterprises with the current move to online business, connected offices, cloud computing and global trends in the economy. Only when IT professionals understand the relevant technologies and how they fit together can they design, upgrade or implement effective corporate solutions. The success of organisations is dependent on information and communications technology meeting the needs of the business in ways that align with corporate strategy.

Studies range from non-technical areas, such as organisational needs, to hardware, software, network and multimedia technologies. Students also learn the development and management skills needed to create and implement computer-based systems. Further skills include advanced programming, system analysis and design, project management software engineering and information and networks depending on the focus area of interest.

#### **What is this Degree's accreditation status?**

The IIE Bachelor of Computer and Information Sciences degree is accredited by the Council on Higher Education (CHE) and is registered by the South African Qualifications Authority (SAQA) on the National Qualifications Framework (NQF) as a 360-credit qualification on level 7 (SAQA ID: 88605).

#### **Who is the Bachelor's degree aimed at?**

The IIE Bachelor of Computer and Information Sciences degree is aimed at students who are interested in working in various IT related roles in the private and public sectors. The aim is to

produce competent IT professionals who, by understanding emerging technologies and trends will contribute to the success and growth of the enterprise

### What entry requirements will I need to study this Bachelor's degree?

To be registered you must have satisfied the admission requirements as set out below:

		English	Maths	Math Lit	Notes
<b>Minimum Admission Requirements</b>	NSC: Bachelor pass with	30%	40% or	60%	
	NC (V): Bachelor pass with	50%	50% or	60%	
	SC: Endorsement with	33.3%	40% or	50%	
	SC(a): Bachelor pass with		40% or	50%	A minimum of 30% in LOLT in NSC/ SC(a) OR with a min. of 33.3% in SC
	<b>International</b>	An USAf Exemption Certificate to degree studies and meeting the relevant Maths and English requirements or requisite English test e.g. TOEFL, IELTS			
	A cognate Higher Certificate OR cognate 240 credit Diploma OR an Advanced Certificate OR 360 credit Diploma may satisfy the minimum admission requirements to degree studies.				If discipline not cognate at least 20% of credits must be academic literacy or numeracy related.
	<b>Senate Discretionary Admissions</b>				
<b>Mature Age Exemption</b>	Candidates having attained the age of 23 before or during the first year of registration with a Senior Certificate with a minimum of 40% in at least four higher or standard grade subjects, at least three of which shall have been passed simultaneously and one of which shall be a recognised higher grade subject; OR Candidates must have attained the age of 45 before or during the first year of registration.  An USAf exemption Certificate is required.				
<b>Senate</b>	Candidates 23 years and older at point of registration, with an				

<b>Discretionary Mature Age Admission for students with a Senior Certificate with endorsement</b>	<p>endorsed Senior Certificate can be accepted on a senate discretionary mature age admission if they do not meet the additional admission requirements. Their academic progress will be tracked and reported at Senate. An USAf Exemption Certificate is not required.</p>
<b>Recognition of Prior Learning (RPL)</b>	<p>Where candidates do not satisfy the formal admission requirements for this qualification, The IIE may consider an admission application in terms of the Credit Accumulation and Transfer, Recognition of Prior Learning and Qualification Completion Policy (IIE010).</p>
<b>USAf approved cognate foundation programme</b>	<p>Candidates who have completed an USAf approved cognate foundation programme from a registered and accredited provider may be admitted. The additional Maths/Math Lit criteria falls away. An USAf Exemption Certificate is required - the Office of the Registrar will facilitate, on behalf of the student, an application for degree admission to USAf, once the student has provided proof of payment to USAf.</p>
<b>Transfer students</b>	<p>Candidates who have successfully completed at least 120 credits on the first year of a cognate degree may be admitted. The additional Maths/Math Lit criteria falls away. However, if a student completed less than 120 credits, the admission criteria on the NSC or equivalent apply.</p>
<b>OQSF qualifications</b>	<p>Candidates with an OQSF Level 5 cognate qualification may be admitted, provided the OQSF qualification has at least 120 credits at NQF Level 5. An USAf Exemption Certificate is required - the Office of the Registrar will facilitate, on behalf of the student, an application for degree admission to USAf, once the student has provided proof of payment to USAf.</p>
<b>General Education Development (GED) - An USA qualification developed by the American Council on Education (ACE)</b>	<p>Candidates with a GED qualification may be admitted if they have an USAf Foreign Conditional Exemption Certificate as well as NBT: AQL results and have obtained a score of at least 51 for Academic Literacy (AL) and a score of at least 40 for Quantitative Literacy (QL).</p>

Students who do not meet the admission requirements may be eligible for admission via alternate means such as RPL. Please enquire at the campus for assistance.

Please note, requirements for entry to this qualification are correct at the time of printing, however, these may change.

### How is this Bachelor's degree structured?

The IIE Bachelor of Information and Computer Sciences degree is a three-year degree. The modules are delivered on a full-time basis with lectures and tutorials being scheduled during the day from Monday to Friday.

**Please note** that in line with academic practice, The IIE's curriculum is reviewed annually therefore changes may occur in module structure and sequence in order to ensure that the qualification remains relevant. The exit level outcomes of the programme do not change. Registered students receive an updated programme curriculum on an annual basis.

### What will I study in this Degree?

#### CURRICULUM – FOR STUDENTS STARTING IN 2021

A common first year is offered for all IIE BCIS students irrespective of the focus area selected. From the second-year students can select one of two focus areas to complete their degree. The two focus areas are:

- Business Systems
- Application Development and Networks

#### First Year Modules

First Semester
Programming 1A (Java)
Programming Logic and Design
Network Engineering 1A
Mathematical Principles for Computer Science
Second Semester
Programming 1B (Java)
Network Engineering 1B
IT Professional Practice
Principles of Security

The students will then select one focus area to complete the degree.

#### Second- And Third-Year Modules

BUSINESS SYSTEMS FOCUS AREA
Second Year First Semester
Business Analysis 2A
Databases

Business Information Systems and Processes
Systems Analysis and Design
<b>Second Year Second Semester</b>
Business Analysis 2B
Advanced Databases
Software Engineering
IT Risk Management
<b>Third year First Semester</b>
Business Analysis 3A
IT Project Management
Introduction to Research
WIL 3A - Industrial Experience Project 1
<b>Third Year Second Semester</b>
Business Analysis 3B
IT Strategy and Governance
Business Decision Modelling
WIL 3B - Industrial Experience Project 2

OR

<b>APPLICATION DEVELOPMENT AND NETWORKS FOCUS AREA</b>
<b>Second Year First Semester</b>
Programming 2A (C#)
Databases
Web Development (Intro)
Systems Analysis and Design
<b>Second Year Second Semester</b>
Programming 2B (C#)
Advanced Databases
Software Engineering
Web Development (Intermediate) (PHP)
<b>Third year First Semester</b>
Usability
IT Project Management
Introduction to Research
WIL 3A - Industrial Experience Project 1
<b>Third Year Second Semester</b>
Application Development Security
IT Strategy and Governance

### **What about timetables?**

The IIE full-time programmes are aimed at students wishing to dedicate themselves to full-time face-to-face studies for the duration of their qualification. This means that students are expected to be available throughout the day for class in the academic year depending on how the timetable is structured. Students may also be required to write assessments or submit coursework or assignments outside of normal class-time.

Students must understand that timetables remain subject to change throughout the year. Unfortunately, we cannot guarantee that timetable structures will remain the same during each year of your studies with us. In addition, where students are repeating modules, these modules may be offered in the evenings or on weekends. Students are required to attend classes in order to remain up to date with the academic programme. Students who would like to pursue part-time employment opportunities outside of the academic programme must prioritise their studies and avoid committing to work schedules until after they have received their timetables and academic calendar from the institution.

### **What must I pass in order to graduate with this Bachelor's degree?**

In order to be awarded this qualification, you must have achieved a minimum final year mark of fifty percent (50%) for each module of the programme; and have met all the Work Integrated Learning requirements, where applicable.

### **How long do I have to complete this qualification?**

Students have a maximum of 6 years to complete this qualification.

### **With what qualification will I graduate?**

You will graduate with The IIE Bachelor of Computer and Information Sciences degree (SAQA ID: 88605).

### **Career opportunities: what career areas can I pursue once I have completed this Bachelor's degree?**

Depending on the focus area chosen by the student career opportunities for graduates include:

- Application Developers or Programmers
- Software Engineers
- Software developers
- Web developers
- Systems administrators

- Network engineers
- Solutions architects
- Information systems Analyst or managers
- Data Analysts
- IS Consultant
- Business systems Analysts
- ICT solution consultants
- Project Managers
- Information Systems Architects

### **Would it be possible to study further and obtain a postgraduate qualification once I have completed The IIE Bachelor of Computer and Information Sciences degree?**

The IIE Bachelor of Computer and Information Sciences degree is accredited by the Council on Higher Education (CHE) and is registered by the South African Qualifications Authority (SAQA) on the National Qualifications Framework (NQF) at level 7 - the same level as other equivalent undergraduate degrees at both private and public South African institutes of higher education. The opportunity to apply for a postgraduate certificate/diploma or Honours degree at any South African university or higher education institution exists subject to meeting their specific programme entrance criteria.

It is important to remember that your academic results remain a key factor when applying for further studies.

**Call the IIE MSA campus to discuss your career options with one of our Student Advisors.**

**Tel: +27 11 950 4009 or email [enquiries@iiems.co.za](mailto:enquiries@iiems.co.za)**

*Disclaimer: Please note that this fact sheet is accurate at the time of publication. The Independent Institute of Education (The IIE) reserves the right to alter any of the content prior to commencement of registration due to changes in regulation, policy, market requirements or any other valid reason.*



### **British Accreditation Council**

The IIE is not only accredited in South Africa but its dedication to providing quality education also led to it being accredited by the British Accreditation Council (BAC) in 2014. The British Accreditation Council is an independent authority in the United Kingdom that accredits private providers globally, including Greece, Switzerland, Singapore, India, Mauritius and the United Arab Emirates. In 2017 The IIE had its accreditation status confirmed by the BAC as an Independent Higher Education Institution confirming our confidence in the international comparability of our

standards.

“South African students need to know, when they select a private higher education institution, that the standards offered are equivalent to those of a public University. Our students get this from our extensive local accreditation and registration. The students also benefit from knowing that we meet international standards too. The IIE is accredited as an Independent Higher Education Institution by the British Accreditation Council. Locally and internationally we have demonstrated the quality of what we offer,” said Dr Coughlan, Director, The Independent Institute of Education.

IIE MSA students can be confident that their IIE learning experience meets international best practice standards.”