IIE Postgraduate Diploma in Data Analytics

School of Infomation Technology

The purpose of the IIE Postgraduate Diploma in Data Analytics is to undertake advanced reflection using systemic thinking, practices and research methods in data analytics. The programme aims to further the development of fundamental knowledge in Big Data, Data Visualisation, Artificial Intelligence (AI), Machine Learning (ML) and Statistics. Upon completion of the programme, graduates would have attained the theoretical and technical skills in Data Analytics to inform business decisions and articulate into an appropriate Master's degree.

Since the aim of the qualification is to develop a Data Analyst who is equipped with theoretical, technical and practical knowledge, it is also important that graduates attain a thorough grounding in statistical and mathematical fundamentals. Therefore, the Statistical and Mathematical Analysis module will provide students with mathematical and statistical theory, concepts and practical knowledge which are required to interpret and interrogate data.

As an IIE distance student you will receive all your support online from a dedicated team of IIE Varsity College Online tutors.

POSTGRADUATE DIPLOMA   **DISTANCE**

Career opportunities

- Data analyst
- Data scientist
- Data engineer
- Big data analyst
- Business intelligence analyst
- Quantitative analyst
- Any field that requires the analysis of data to yield strategic value

Curriculum
2 Year Structure

Year 1							
Semester 1				**Semester 2**			
Code	**Module Name**	**Credits**	**NQF**	**Code**	**Module Name**	**Credits**	**NQF**
DANA8411	Data Analytics 1	15	8	**DANA8412**	Data Analytics 2	15	8
SMAA8411	Statistical and Mathematical Analysis	15	8	**BMNG5122**	Data Science	15	8

Year 2							
Semester 1				**Semester 2**			
Code	**Module Name**	**Credits**	**NQF**	**Code**	**Module Name**	**Credits**	**NQF**
PDAN8411	Programming for Data Analytics 1	15	8	**PDAN8412**	Programming for Data Analytics 2	15	8
RPDA8411	Research Proposal	15	8	**RPDA8412**	Research Project	15	8

1 Year Structure

Year 1							
Semester 1				**Semester 2**			
Code	**Module Name**	**Credits**	**NQF**	**Code**	**Module Name**	**Credits**	**NQF**
DANA8411	Data Analytics 1	15	8	**DANA8412**	Data Analytics 2	15	8
SMAA8411	Statistical and Mathematical Analysis	15	8	**DASC8412**	Data Science	15	8
PDAN8411	Programming for Data Analytics 1	15	8	**PDAN8412**	Programming for Data Analytics 2	15	8
RPDA8411	Research Proposal	15	8	**RPDA8412**	Research Project	15	8

Disclaimer: The option to complete the qualification in one year is available for full-time students, however, due to the complexity and research demands of the qualification it is only recommended for students who are studying this qualification on a full-time basis, which implies that your studies take up the majority of your available hours. Thus, for example, students also currently in full-time employment should study over a two year duration.

Minimum Admission Requirements

An appropriate HEQSF Level 7 Bachelor's degree; **OR**
An appropriate Advanced Diploma; **OR**
An equivalent NQF Level 7 qualification

International	A SAQA Evaluation Certificate with NQF L7 equivalence in an appropriate field.
Notes	The qualification must include modules that provided the applicant with at least an introductory level background in programming, databases, and statistical or numerical methods. Alternatively, the candidate must have a minimum of 3 years' experience working in a data analytics role; or they must first complete additional modules or short courses that will provide them with an introductory level background in programming, databases, and statistical or numerical methods. Example modules would include Programming 1A, Databases, and Mathematical Principles for Computer Science; or alternatively short courses such as Python or Java programming, database theory, and statistical or numerical methods.

WHAT ARE THE BENEFITS OF AN IIE DISTANCE (ONLINE) QUALIFICATION?

The IIE's distance (online) delivery mode provides you with the agility of studying towards a tertiary qualification asynchronously, at different times from different locations. Distance students need to commit to approximately 20-25 hours a week for distance engagement (most of which is after hours) with material and assessments to succeed.
Here are some of the benefits you can expect:

- A sequenced online learning environment that allows you the ability to manage your learning experiences flexibly and autonomously.
- A learner guide designed to lead you through the module material and learning outcomes, empowering you to effectively pace your learning in preparation for assessments.
- Our Learning Management System is designed to break up your learning units into manageable sections which include various activities to support learning.
- Module expert online lecturers that facilitate module teaching and learning support through various technology enhanced mediums.
- Online Success Navigators provide administrative and operational guidance and support throughout your academic journey.
- A professionally registered Student Wellness Manager/Counsellor available for short-term, primary counselling services. Additionally, the Student Wellness Manager/Counsellor hosts various webinars and virtual talks on topics that promote a balanced lifestyle as you pursue your academic goals.

Device Specifications:

- The appropriate technology equipment and tools are essential to succeed in distance (online) study.
- A reliable internet connection (we recommend 5-10 GB of data per month), your own device with at least Windows 8 or macOS 10.15 (Microsoft Office 365 is available as a free download for IIE students), and Google Chrome, Microsoft Edge Chromium or Firefox.
- An uninterrupted power supply is also highly recommended.

IIE POSTGRADUATE DIPLOMA IN DATA ANALYTICS

EXAMINATION CENTRE OPTIONS FOR ASSESSMENTS WRITTEN ON CAMPUS

From 2024, we are planning to offer you the ability to write your exam online, which will be invigilated.

- Your device needs to fulfil the minimum requirements as above with internet connectivity, a working webcam and audio
- Recording ability, with battery life sufficient for the exam duration in case of power outage once the exam has started.
- Whilst Android devices and tablets can be used for your studies, they cannot be used for online exams.
- You are responsible for making contingency plans in case of planned power outages.
- You need to be alone in a quiet environment for writing your exams online.
- Selected final semester exams as indicated on your Programme Assessment Schedule (PAS) can be written online, at an IIE campus, or at an approved exam centre where appropriate.

WHERE ASSESSMENTS CANNOT BE WRITTEN ONLINE OR STUDENTS DO NOT HAVE ACCESS TO AN APPROPRIATE DEVICE

- For students based in South Africa, online students may select any campus of The IIE's Varsity College, Rosebank College, Vega, or IIE MSA as their Examination Centre.
- An alternative examination centre is only permissible for students studying abroad and those located in a province of South Africa where there is no IIE campus. If there is no IIE campus within reach, an alternative venue will need to be sourced by you. For non-IIE venues, there is an alternative venue levy per module.

HOW WILL THE IIE'S VARSITY COLLEGE SUPPORT YOUR ONLINE LEARNING AS A DISTANCE (ONLINE) STUDENT, AND HOW WILL IT HELP PREPARE YOU FOR THE WORKING WORLD?

Our distance teaching and learning approach is designed to allow you the freedom to self-govern your learning experiences according to your individual needs. You are at the centre of your own learning journey, and by offering curated engagement opportunities, we partner with you to:

- Engage with subject material
- Build understanding
- Develop critical thinking and problem-solving skills
- Manage your work, life and studies
- Succeed in your personal, professional and academic goals.