



# SIIMT University College

**Top-notch Indian IT Institute  
Accredited By GTEC**



# DIPLOMA IN DATA ANALYTICS

With Practical Hand's  
on Training.

## Who are we ?

Welcome to SIIMT University College, where we are dedicated to shaping future professionals. With our focus on practical, hands-on training, we empower students with the skills and knowledge needed to excel in the job market. Join us in building a successful career path and unlocking your true potential.

## VISION

To create a transformative learning institute that empowers students through in-depth, practical training, making them job-ready while fostering a positive impact on the world.

## MISSION

Empower students with comprehensive, hands-on training, equipping them with the skills and knowledge needed to excel in the job market and thrive in global industries, thereby shaping a successful and impactful future

## ESTABLISHMENT

SIIMT University College is an Indian-based top-notch institute in Ghana established in 2013, which initially was situated in Labone, Accra. In 2018, it relocated to its current premises near the Nima Police Station, adjacent to the Nima-Kanda overpass, Accra. In 2019, SIIMT received accreditation from the Ghana Tertiary Education Commission (GTEC) to offer Undergraduate Programs affiliated with the University of Cape Coast. Additionally, the institute obtained accreditation from the Council for Technical and Vocational Education and Training (CTVET) to provide technical and vocational courses.



## What is Data Analysis ?

- Data analysis is the process of examining and understanding data to uncover valuable insights. It involves organizing, cleaning, and interpreting data to identify patterns, trends, and relationships. By analyzing data, businesses can make informed decisions, solve problems, and improve their overall performance.
- It helps in identifying customer preferences, understanding market trends, optimizing operations, and enhancing decision-making processes. Data analysis enables businesses to make strategic choices that can lead to increased efficiency, targeted marketing, improved customer satisfaction, and ultimately, boost overall business success.

## Why Data Analysis is in Demand?

- Data analysis is in high demand due to its ability to unlock valuable insights hidden within vast amounts of data. In today's data-driven world, businesses recognize the immense potential of data analysis in driving informed decision-making, identifying trends, optimizing operations, and gaining a competitive edge, making it an exciting and essential skill for success.

## Why Choose Data Analysis at SIIMT?

- At SIIMT University College, we offer a compelling opportunity to learn Data Analysis. Our unique approach ensures students grasp the concepts in-depth through hands-on, practical training. The course is taught by experienced Indian industry experts, guaranteeing valuable insights and real-world applications.
- By choosing us, you'll be well-prepared for the global job market, increasing your chances of securing high-paying positions. Our track record of successful alumni with lucrative job packages further highlights the exciting possibilities that await you at SIIMT University College. Join us and embark on a rewarding data analysis journey!

## REQUIREMENTS

- Basic Understanding of Computers
- Fundamentals of ICT
- Laptop with minimum configuration:
  - i5 Processor
  - 4 GB Ram
- English language

## DURATION

### Regular Batch

- 7-8 Months (2 sessions a week)

### Fast-track Batch

- 4-5 months (3 sessions a week)

## BATCHES

### Week Days Evening

- **Batch 1** - Monday and Tuesday
  - 5:30 AM to 7:30 PM
- **Batch 2** - Wednesday and Thursday
  - 5:30 AM to 7:30 PM

### Weekend Morning

- **Batch 1** Monday - Tuesday
  - 10:00 AM to 2:00 PM)

## COURSE STRUCTURE

- **Level 1** Excel and Dashboards for Data Analysis
- **Level 2** Python Programming for Data Analysis
- **Level 3** Relational Database, SQL, and Database Management System (DBMS)
- **Level 4** Microsoft Power BI Data Analyst

**Note:** Modules of each Level are explained further

## LEVEL 1 - EXCEL AND DASHBOARDS FOR DATA ANALYSIS

### Module 1: Getting Started with Data Analytics

- Introduction Data Analytics and How the Process of Data Analytics Works. ories.

- Interdisciplinary between Data Engineer, Data Analyst, Data Scientist, Business Analyst, and Business Intelligence Analyst.
- Describe the different types of data structures, file formats, sources, and repository

### **Module 2: Hands-on Excel for Data Analytics**

- Describe the fundamentals of spreadsheet applications
- Implementing formulas, navigation through spreadsheets, and data entry
- Import and clean data, techniques to maintain data quality.
- Analyse spreadsheet data using filtering, sorting, and pivot tables.

### **Module 3: Working on Visualization and Dashboards**

- Create basic charts and pivot charts in Excel
- Explain the essential role charts play in telling a data-driven story
- Construct advanced charts and visualizations.
- Build dashboards using Excel

## ***Level 2 - Python Programming for Data Analysis***

### **Module 1: Getting Started with Python**

- Explain Python Basics including Types, Expressions, and Variables.
- Describe Data Structures in Python including Lists, Tuples, Dictionaries, and Sets.
- Apply Python programming using Branching, Loops, Functions, Objects & Classes.
- Work with data in Python using Pandas and NumPy libraries.

### **Module 2: Data Analytics with Python**

- Describe Python data acquisition and analysis techniques. Analyse Python data using a dataset.
- Identify three Python libraries and describe their uses.
- Read data using Python's Pandas package.
- **Topics covered:** Importing Datasets, Cleaning the Data, Data frame manipulation, Summarizing the Data, Building machine learning Regression models, Building data pipelines, and Exploratory Data Analysis

### **Module 3: Data Visualization with Python**

- Describe the importance of data visualization.
- Relate the history of Matplotlib and its architecture.
- Apply Matplotlib to create plots using Jupyter Notebooks.
- Discover how to read CSV files into a Pandas Data-frame, process and manipulate the data in the Data-frame, and generate line plots using Matplotlib.

## ***Level 3 - Relational Database, SQL and Database Management System***

### **Module 1: Getting Started with Relational Database and DBMS**

- Explain Relational Database Basics including Attributes and Records.
- Describe how the Database management system work.
- Understanding the relationship between Database, Data Repositories, and DBMS
- Understanding the table structure in RDBMS.
- Foreign Key and Primary Key in Relational Database

### **Module 2: Relational Databases and SQL**

- Analyse data within a database using SQL and Python.
- Create a relational database and work with tables.
- Compare and contrast DDL to DML.
- Write SQL statements including SELECT, INSERT, UPDATE, and DELETE
- Writing queries with Clause and JOINS.

### **Module 3: Connecting SQL and Python for Analysis**

- Explain MySQL Connector for Python.
- How to access database with Python.
- Explain the SQL API and Handshake.
- Connection Objects and Cursor Objects
- Creating Dataframe for further Analysis.

## ***Level 4 - Microsoft Power BI Data Analyst***

### **Module 1 – Data Visualizations and Analysis**

- We'll download and install it for free Power BI Desktop. We'll start by creating our first visualizations and investigating the Power BI interface. We'll look at the various visualizations available, and go through their common properties. We'll create maps, hierarchies, KPIs, gauges, and all sorts of chart types.

### **Module 2 – Gather, Clean, and Transform Data**

- We see how data can be transformed, saving you time in analyzing the data, sorting, filtering, splitting columns, and other transform activities then merging, appending, and combining queries together. We'll Pivot and Unpivot, transform text, numbers, dates, and times, and create custom columns using the M language

### **Module 3 - Refining the Model and Power BI Service**

- We'll see how relationships can be made through multiple tables, and refine the data with custom columns and measures using the DAX language.
- We'll then publish our visualizations onto the Power BI Service (which you can sign up for free), and then from your reports create dashboards.

## JOB OPPORTUNITIES

### **Business Intelligence Analyst**

- The average salary of **80,323 USD per year**. A business intelligence analyst's primary job is to extract value from their company's data. At most companies, BI Analysts need to be comfortable analyzing data, working with SQL, and creating data visualizations and models. Like most data roles, this job also requires strong communication skills.

### **Data Analyst**

- The average salary of a data analyst is **72,443 USD per year**. A data analyst's job functions are exactly what the job title implies — analyzing company and industry data to extract value. Data analysts work in every industry, although job titles can vary. Some roles will have industry-specific names like "healthcare data analyst." "Business analyst," "intelligence analyst," and other similarly named roles often overlap with data analyst roles.

### **Data Scientist**

- The average salary of a Data Scientist is **145,145 USD per year**. Much like analysts in other roles, data scientists collect and analyze data and then communicate actionable insights. Data scientists are often a technical step above data analysts. They can understand data from a more-informed perspective to help make predictions.

### **Data Engineer**

- The average salary of Data scientists at **94,262 USD per year**. Data engineers often focus on larger datasets — it's their job to optimize the infrastructure surrounding different data analytics processes.

### **Quantitative Analyst**

- The average salary of quantitative analysts is **85,995 USD per year**. A quantitative analyst is another highly sought-after professional, especially in financial firms. Quantitative analysts use data analytics to discover potential financial investment opportunities or risk management problems.

### **Data Analytics Consultant**

- The average salary of a Data Analytics Consultant is **87,068 USD per year**. Like many of these positions, the primary role of an analytics consultant is to deliver insights to a company to help them make better decisions.

### **Operations Analyst**

- The average salary of Operations analysts is **68,080 USD per year**. Operations analysts usually work internally at large companies, but they may also work as consultants. They focus on a business's internal processes. This can include internal reporting systems, product manufacturing and distribution, and general business operations.

### **Marketing Analyst**

- The average salary of a Marketing analyst salary is **65,792 USD per year**. Digital marketing also relies upon data analytics. Marketers often use tools like Google Analytics, custom reporting tools, and other third-party sites to analyze traffic from websites and social media advertisements.

### **Project Manager**

- The average salary of a Project manager is **73,495 USD per year**. Project managers use analytics tools to track a team's progress, efficiency, and productivity. To do this, they need at least a working understanding of data analytics. These positions are typically internal at large corporations, frequently in management consulting.

### **IT Systems Analyst**

- The average salary of an IT systems analyst is **86,474 USD per year**. Systems analysts design systems to solve problems in information technology. The required level of technical expertise varies in these positions, and that creates opportunities for specialization by industry and personal interest.

## HOW TO REACH US ?

### **Headquarters**

- **Location:** Asylum Down, Nima Kanda Overpass, Accra
- **Contact:** 0302269885, 0560801631
- **Whatsapp:** 0265540199

### **Spintex Branch**

- **Location:** 18 Junction, Opposite KFC, Accra
- **Contact:** 0575444452, 0560801631

### **Mail**

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- [info@shivindia-ghana.edu.gh](mailto:info@shivindia-ghana.edu.gh)

### **Website**

- [www.shivindia-ghana.edu.gh](http://www.shivindia-ghana.edu.gh)

## GALLERY



### **Accredited By**



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