

# BUSINESS AND DATA ANALYTICS: INTEGRATED WITH AI



## COURSE CURRICULUM

# ABOUT TRANSFOTECH ACADEMY

Transfotech Academy is a nationally recognized leader in IT education, headquartered in Queens, New York. As a top-tier, industry-driven technology training provider, we specialize in delivering academically structured, industry-focused training programs—both in-person at our New York locations and globally via our advanced virtual learning platform. Our Business and Data Analytics course is part of a robust, AI-integrated curriculum developed to meet the ever-evolving demands of today's data-driven world. At Transfotech Academy, all programs are designed by industry experts and taught using real-world tools and intelligent automation platforms, giving students a competitive edge in the modern job market. We are proud to be an E-Verified institution recognized by USCIS, affirming our commitment to quality education and compliance. This distinction opens doors for eligible international professionals pursuing a career in the U.S. With our unique six-step training methodology and strategic partnership with Queens College (CUNY), we combine academic rigor, job-market alignment, and individualized mentorship. Every course—from Business and Data Analytics to QA Engineering, Ethical Hacking, and Cybersecurity—is now powered by Artificial Intelligence, preparing students to think, build, and lead with future-ready skills. We've helped over 3,000 students successfully transition into the tech industry, with many now employed at top-tier companies across the U.S. Transfotech Academy is backed by Transfotech Inc., a licensed employment agency in New York. Our employer network includes over 100 staffing agencies and Fortune 500 companies such as JP Morgan Chase, Capital One, IBM, Dell, HP, Nationwide, TCS, and Bank of America. In addition to world-class training, we provide comprehensive job placement support, resume optimization, interview preparation, and strategic career coaching to ensure our graduates are industry-ready from day one. At Transfotech Academy, we don't just teach technology—we empower futures through elite, AI-enhanced education that unlocks global opportunities.

# OUR UNIQUE SIX-STEPS PROCESS

We have earned our rank and reputation through our academic approach, comprehensive course curricula, unique six-step process, internship opportunities at the end of training, and strong job placement record. Recently, we partnered with one of the most prestigious university systems, the City University of New York (CUNY) – Queens College, to offer joint courses. Allow us to introduce our six-step process, the key to why our students achieve the highest success rate!

**#1**

## CAREER COUNSELING AND GOAL SETTING

Students meet with one of our experienced career advisors, who evaluates their current situation and discusses goals and roadmaps. The meeting's intent and purpose are to provide personalized attention and plan a realistic and achievable roadmap. Even after the class starts, career advisors remain available on an on-demand basis.

**#2**

## ENROLLMENT

As part of onboarding, students are introduced to their dedicated career advisor for an initial goal-setting consultation to evaluate their current situation, discuss their career goals, and map out a realistic and achievable plan. Advisors provide personalized guidance and remain available on-demand even after classes begin, helping students stay aligned with their professional aspirations.

**#3**

## LECTURES AND LABS

All our courses are instructor-led and follow a set class schedule. The classes often blend pre-class content sharing with live lectures. Each session lasts 2 to 3 hours and is typically held twice a week.

**#4**

**INTERNSHIP**

After completing the training, we arrange a two to four week internship where students collaborate with a full software development team on a complete project. We currently work closely with 12-15 mid sized software development firms that hire our students for these semi-internship projects .

**#5**

**RESUME  
BUILDING AND  
INTERVIEW PREP  
SESSION**

Resume is key to securing an interview. 40% to 60% of highly qualified candidates don't make it to the interview stage due to AI-based resume scanning tools and processes used by employers. Our resume coaches have in-depth industry knowledge and know how to highlight the skills and achievements employers are looking for. During interview preparation sessions, students meet with our interview coaches, who conduct technical screenings to assess each individual's strengths. They analyze technical skills, communication abilities, and confidence levels. Based on that analysis, they provide the necessary guidelines. Students also receive instructions about the current job market, interview etiquette, and the differences between client and vendor interactions.

**#6**

**RESUME  
MARKETING AND  
JOB PLACEMENT**

Resume marketing and job placement are among our strengths. Over the last eight years, we have developed working relationships with 100+ staffing partners and 30+ clients, including Capital One, Chase, IBM, Capgemini, Collabera, Tech Systems, and Apex Systems. Once a student is ready to enter the job market, we assign a recruiter who provides guidance throughout the job-hunting process. To increase the chances of getting hired, we create online profiles on LinkedIn, Dice, Monster, Indeed, and other platforms.



## COURSE OVERVIEW

Course Type	: <b>Industry-Focused Training</b>
Duration	: <b>16 Weeks</b>
Prerequisite	: <b>Keen interest to break into tech</b>
Weekly Commitment	: <b>Minimum 10 Hours</b>

## COURSE SUMMARY

**16 classes summed up shortly for easier understanding:**

- ✦ 3-4 Classes of Excel with Data Analytics
- ✦ 4-5 Classes of SQL
- ✦ 2 Classes of Data Visualization with Tableau
- ✦ 6-7 Classes of Python focusing on Data Analytics, Visualization, Machine Learning, and AI

# COURSE CURRICULUM

## (DETAILED OVERVIEW)

The topics listed below provide a broad outline of what may be covered during the course. The instructor may adjust, skip, or add content based on class progress and student readiness. Not all topics are guaranteed, but our goal is always to deliver the most valuable and effective learning experience.

### **SESSION 1: INTRODUCTION TO DATA ANALYTICS WITH EXCEL**

1. Responsibilities of a Data Analyst
2. The Data Ecosystem
3. Spreadsheet Basics – Part 1
4. Spreadsheet Basics – Part 2
5. Analyzing Data Using Spreadsheets
6. Career Path in Data Analytics and Prospects with Python
7. What Employers Look for in a Data Analyst

### **SESSION 2: EXCEL FORMULAS AND DASHBOARD ESSENTIALS**

1. Learning to master Excel formulas, the secret sauce to master them all
2. Understanding the syntax of IF, IFERROR, VLOOKUP and other formulas
3. Using the formulas to do real life data analytics
4. Leveraging excel tools to create dashboards

### **SESSION 3: DATA VISUALIZATION WITH EXCEL**

1. Data Visualization and Dashboards
2. Using Visualizations to Tell a Data Story
3. Creating Basic Charts in Excel (Line, Pie, Bar)

### **SESSION 4: DATABASE, DATA ANALYTICS AND BUSINESS INTELLIGENCE**

1. Introduction to Data Analytics using SQL
2. Importance of Data-Driven Decision Making
3. Business Intelligence Tools and Techniques
4. Basic Concepts of Data Visualization

## **SESSION 5: DATABASE CONCEPTS AND SQL**

1. Database Concepts & SQL Overview
2. Concepts of Database
3. Database vs. Relational Database
4. What is DBMS?
5. Data Mapping

## **SESSION 6: SQL BASICS**

1. Overview of SQL and Its Importance in Data Science
2. Creating Databases and Tables
3. Inserting Data into Tables, Importing Data
4. SELECT Queries and Filtering Rows (WHERE, AND, OR, NOT, LIKE)
5. Querying Multiple Tables with JOINS
6. Understanding Table Relationships
7. INNER JOIN, LEFT JOIN, RIGHT JOIN
8. Using Aliases for Table Names

## **SESSION 7: ADVANCE SQL**

1. Aggregate Functions (COUNT, SUM, AVG, MAX, MIN)
2. Grouping Data with GROUP BY and HAVING
3. ROW\_NUMBER(), RANK(), DENSE\_RANK()
4. Understanding PARTITION BY and ORDER BY
5. Common Table Expressions (CTEs)
6. Bulk Operations with BULK INSERT and BULK DELETE

## **SESSION 8: BUILDING SMART VISUALS FROM YOUR DATA**

- 1) Connect to real-world datasets like Excel, CSV, and databases with ease.
- 2) Understand the difference between Live and Extract connections for performance and flexibility
- 3) Build essential charts like bar, line, pie, and highlight tables using Tableau's drag-and-drop interface
- 4) Use filters, sorting, and groups to focus your visuals and uncover insights
- 5) Create calculated fields to build custom metrics like profit margin, rankings, and performance bands

## **SESSION 9: CONTROL FLOW AND LOOPING**

- 1) Interactive Dashboards & Publishing like a Pro
- 2) Build beautiful, interactive dashboards with filters, maps, and multiple charts
- 3) Use parameters to give users control and dynamically update visuals
- 4) Explore advanced charts like dual-axis, tree maps, histograms, and Gantt charts
- 5) Add storytelling elements and dashboard actions for a professional-grade experience
- 6) Publish your work to Tableau Public and create a live online portfolio

## **SESSION 10: CONTINUE WITH PYTHON**

1. Introduction to Arrays, Tuple, List, Dictionary
2. Methods, Parameters, Return Types
3. Problem Solving: Range or Prime Number
4. Introduction to Object-Oriented Programming
5. Classes and Objects
6. Constructors
7. OOP Principles
8. Creating Classes

## **SESSION 11: FILE HANDLING AND LIBRARIES**

1. File Handling in Python
2. Python Libraries Overview
3. NumPy and Pandas
4. Loading Data from CSV, Excel, SQL

## **SESSION 12: WEB SCRAPING**

1. Extracting Stock Data Using Python
2. Intro to Web Scraping with BeautifulSoup
3. Analyzing Historical Stock Data

### **SESSION 13: DATA ANALYSIS WITH PYTHON**

1. Using Libraries (Pandas, NumPy, SciPy)
2. Data Cleaning and Preparation
3. Handling Missing Values, Formatting, Normalization
4. Exploratory Data Analysis Techniques
5. Manipulating and Summarizing Data
6. Correlation Analysis and Data Pipelines

### **SESSION 14: DATA VISUALIZATION WITH PYTHON**

1. Libraries: Matplotlib, Seaborn, Folium
2. Chart Types: Line, Area, Histogram, Bar, Pie, Box, Scatter, Bubble
3. Advanced Visuals: Waffle Charts, Word Clouds, Regression Plots, Geographic Maps

### **SESSION 15: AI AND MACHINE LEARNING WITH PYTHON**

1. Introduction to Machine Learning
2. Understanding Data Distribution
3. Training vs. Test Datasets
4. Building and Training ML Models
5. Making Predictions with Models
6. Advanced ML Concepts: NLP, Deep Learning

### **SESSION 16: SUPPLEMENTARY SESSIONS: PYTHON, SQL PROJECTS & CAREER DEVELOPMENT SUPPORT**

1. Extended Learning: Python, SQL, and Career Guidance Opportunities
2. Optional Enrichment: QA, Technical Projects & Career Path Support
3. Additional Support: Python/SQL Practice & Career Mentorship
4. On-Demand Sessions: Python, SQL Projects & Career Readiness

# COURSE INSTRUCTOR



**FUAD BIN SAIF**

Fuad Bin Saif brings over **six years of expertise** in Data Analytics, Artificial Intelligence, Cybersecurity, and Business Intelligence. He has extensive proficiency in Python, R, SQL, Tableau, Power BI, and leading machine learning frameworks such as TensorFlow, PyTorch, and Hugging Face.



As an educator, Fuad has mentored more than **800 students** in Information Systems, helping them master technologies like Excel, Data Analytics, Python, HTML, CSS, and JavaScript. His industry experience includes designing data pipelines, implementing AI automation, leading fraud detection and financial analytics projects, and building AI-powered chatbots, NLP compliance tools, and SQL-based hospital database systems.

Fuad's deep industry knowledge and hands-on teaching approach equip students with the technical skills and career-ready confidence to excel in today's competitive job market.






## CONTACT US

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To Set a Meeting with the Course Moderator

**BOOK NOW** 

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