Business Analytics Professional Program

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3-Month Comprehensive Curriculum

Month 1: Fundamentals of Business & Agile Operations

Goal: Master core business processes, requirement elicitation techniques, and Agile project frameworks.

Week 1: Business Analysis Fundamentals

- **SDLC & Business Analysis:** Understanding the Software Development Life Cycle from a BA's perspective (Waterfall vs. Agile).
- **Requirement Documentation:** Drafting comprehensive Business Requirement Documents (BRD) and Functional Requirement Documents (FRD) with precise technical specifications.
- **Stakeholder Management:** Techniques for requirement gathering (Interviews, Surveys, JAD sessions) and managing stakeholder expectations across departments.

Week 2: Agile & Scrum Methodologies

- **Agile Frameworks:** Deep dive into Scrum roles (Product Owner, Scrum Master, Development Team), Sprints, and Scrum Ceremonies.
- **Requirement Mapping:** Writing effective User Stories using the INVEST criteria, defining Acceptance Criteria, and structuring Epics.
- **Jira Mastery:** Managing Product Backlogs, reporting bugs, tracking Sprint progress, and utilizing Kanban/Scrum boards for cross-functional teams.

Week 3: Data Foundation & Advanced Excel

- **Advanced Excel Functions:** Mastering nested formulas, VLOOKUP/XLOOKUP, INDEX-MATCH, and logic statements for rapid data analysis.
- **Data Modeling:** Utilizing Power Query for data cleansing/transformation and Power Pivot for building relational data models.
- **Dynamic Dashboarding:** Creating interactive, executive-level Excel dashboards with Pivot tables, slicers, timeline controls, and conditional formatting.

Week 4: Business Process Modeling

- **Process Mapping:** Creating 'As-Is' and 'To-Be' process flowcharts to identify operational bottlenecks and propose optimized workflows.
- **BPMN Standards:** Utilizing Business Process Model and Notation (BPMN) for standardized, enterprise-grade process documentation.
- **Tooling:** Hands-on experience mapping complex business logic with tools like Microsoft Visio, Lucidchart, or Draw.io.

[Project 1: Enterprise Process Transformation]

- **Scope:** Conduct requirement gathering for a retail client's inventory problem, draft a complete BRD, and map the 'To-Be' process flow using Lucidchart.

Month 2: Data Handling, SQL & Visual Storytelling

Goal: Extract actionable insights from relational databases and create compelling visual narratives for executive decision-making.

Week 5: SQL for Business Analytics

- **Relational Databases:** Understanding RDBMS concepts, Primary/Foreign keys, schemas, and data types.
- **Core SQL Queries:** Writing robust SELECT statements, utilizing diverse JOINs (Inner, Left, Right, Full), and filtering data with WHERE/HAVING clauses.
- **Data Aggregation:** Using GROUP BY and built-in aggregate functions (SUM, AVG, COUNT, MIN, MAX) for foundational business reporting.

Week 6: Advanced SQL Techniques

- **Modular Querying:** Utilizing Common Table Expressions (CTEs) and Subqueries for readable and maintainable data extraction.
- **Window Functions:** Implementing RANK(), DENSE_RANK(), and ROW_NUMBER() for complex analytical calculations and trend analysis over time.
- **ETL Fundamentals:** Understanding Extract, Transform, Load processes and how BAs collaborate with Data Engineering teams to ensure data integrity.

Week 7: Data Visualization with Tableau/Power BI

- **BI Tool Setup:** Connecting to various data sources (SQL databases, Excel, Cloud), importing data, and establishing table relationships.
- **Core Visualizations:** Building bar charts, line graphs, scatter plots, and heat maps to represent different data distributions accurately.
- **Calculations & DAX:** Creating calculated fields, parameters, and utilizing basic Data Analysis Expressions (DAX) in Power BI for custom metrics.

Week 8: Advanced Dashboards & Storytelling

- **Executive Dashboard Design:** Designing interactive, user-friendly dashboards tailored to specific stakeholder needs (Sales, Operations, Finance).
- **Data Storytelling:** Techniques for presenting data insights clearly, highlighting key trends, and driving actionable business recommendations.
- **KPI Tracking:** Visualizing and monitoring critical Key Performance Indicators against business targets.

[Project 2: Data-Driven Performance Dashboard]

- **Scope:** Extract and clean data from a mock SQL database, and design an interactive Power BI dashboard to track regional sales KPIs and identify underperforming sectors.

Month 3: Strategy Analysis & Career Readiness

Goal: Apply strategic business frameworks, understand enterprise software ecosystems, and finalize technical career preparation.

Week 9: Strategic Frameworks & KPI Tracking

- **Business Strategy:** Conducting SWOT, PESTLE, and Porter’s Five Forces analyses to evaluate market positioning.
- **Goal Setting:** Defining and tracking OKRs (Objectives and Key Results) to align team performance with organizational goals.
- **Root Cause Analysis:** Utilizing the "5 Whys" and Fishbone diagrams for effective problem-solving in business operations.

Week 10: Introduction to Predictive Analytics

- **Forecasting Fundamentals:** Basics of trend analysis, moving averages, and time-series forecasting for budget and resource planning.
- **Business Experimentation:** Understanding the mechanics of A/B testing, statistical significance, and interpreting test results from a business perspective.
- **Data Interpretation:** Distinguishing between correlation and causation to prevent biased business decisions.

Week 11: CRM & ERP Fundamentals

- **Enterprise Systems:** Overview of enterprise architecture and the role of Customer Relationship Management (CRM) and Enterprise Resource Planning (ERP) systems.
- **Salesforce & SAP:** Understanding basic navigation, modules, and how BAs gather requirements for large-scale CRM/ERP implementations or migrations.
- **Process Automation:** Identifying opportunities for automating repetitive tasks within enterprise platforms.

Week 12: Capstone Project & Career Readiness

- **Technical CV Writing:** Crafting a resume that highlights analytical tools (SQL, Power BI), methodologies (Agile, Scrum), and project impact.
- **Interview Preparation:** Rigorous technical (SQL whiteboard) and behavioral interview simulations, focusing on Business Case Studies.
- **Presentation Skills:** Finalizing the capstone presentation, focusing on executive summary delivery and handling Q&A from stakeholders.

[Project 3: SaaS Go-To-Market Strategy (Capstone)]

- **Scope:** Develop an end-to-end business optimization strategy including deep data extraction, competitive market visualization, and strategic recommendations for a new software launch. Present the findings as a mock business case.