Analysis , Analytics and Science of Data

CERTIFIED COURSES ON COURSE (WITH CERTIFICATES)

1) Google Data Analytics Professional Certificate

What it gives you: Certificate from Google upon completion.
Focus: Data cleaning, analysis, visualization, interpretation (Excel/SQL/Stats)
Best for roles: Data Analyst Intern, Business Data Analyst, Insights Analyst (True Hats)

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2) IBM Data Analyst Professional Certificate

What it gives you: Certificate from IBM.
Focus: SQL, Python basics, data visualization, real analytics workflows
Best for roles: Data Analyst Intern, Reporting Analyst (True Hats)

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3) Microsoft Power BI Data Analyst Professional Certificate

What it gives you: Certificate plus industry-aligned Power BI skills
Focus: BI dashboards, reports, data modeling and visualization
Best for roles: Business Intelligence Analyst, BI/Data Analyst (True Hats)

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4) Tableau Business Intelligence Analyst Professional Certificate

What it gives you: Certificate from Coursera, strong Tableau portfolio
Focus: Interactive data visualization, BI storytelling
Best for roles: BI Analyst, Visualization Specialist (True Hats)

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5) Google Business Intelligence Professional Certificate

What it gives you: Certificate from Google
Focus: Business intelligence fundamentals — dashboards, dashboards, and reporting
Best for roles: BI Analyst, Business Analyst (data focus) (Analytics Insight)

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6) Business Analytics with Excel (Courses on Coursera)

What it gives you: Certificate upon completion of course + upgrade
Focus: Excel logic for analytics — models, optimization, interpretation
Best for roles: Data/Business Analyst (entry level) (Alphaa)

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7) Generative AI in User Research & Design Thinking

What it gives you: Certificate
Focus: Research data interpretation, UX research + AI thinking
Best for roles: UX Research Intern, Research Analyst (optional) (Coursera)

HOW THESE CERTIFICATIONS HELP

Each of the above gives you a **verified certificate** which you can:

Show on LinkedIn
Mention on your resume
Use to justify job applications

Completing these proves you know **real analytics, reporting, and business-relevant data skills** — not just theory. (True Hats)

SIMPLE GROUPING (for your goals)

Data Analytics (core)

- Google Data Analytics
- IBM Data Analyst

Business Intelligence / BI (insight + decision)

- Power BI Data Analyst
- Tableau BI Analyst
- Google Business Intelligence

Research & Human Analysis (optional)

- Generative AI in User Research & Design Thinking

RESULT (exact match)

You should enroll in (in priority order):

1. *Google Data Analytics Professional Certificate*
2. *IBM Data Analyst Professional Certificate*
3. *Microsoft Power BI Data Analyst Professional Certificate*
4. *Tableau Business Intelligence Analyst Professional Certificate*

Analysis , Analytics and Science of Data

These four offer the **strongest certificates** for Analytics, Data, and Business-focused roles. (True Hats)

Result (direct):
Below are the **exact techniques** you must learn for **Analytics, Analysis, and Data Science (analysis-first)**. These are the same techniques taught in Coursera / industry programs and expected in real roles.

CORE TECHNIQUES YOU MUST LEARN

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1) PATTERN RECOGNITION (FOUNDATION)

You must learn to identify:

- Trends (increase, decrease, cycles)
- Outliers (anomalies, exceptions)
- Repetition (recurring behavior)
- Segmentation (groups with similar behavior)
- Correlation vs causation

Used in roles

- Data Analyst
- Business Analyst
- Research Analyst

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2) DESCRIPTIVE ANALYTICS (WHAT IS HAPPENING)

Techniques:

- Summary statistics (mean, median, distribution)
- KPI analysis
- Frequency analysis
- Cohort analysis
- Time-series basics

Tools

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- Excel
- SQL
- Power BI / Tableau

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3) DIAGNOSTIC ANALYTICS (WHY IT IS HAPPENING)

Techniques:

- Root cause analysis
- 5 Whys
- Pareto analysis (80/20)
- Funnel analysis
- Variance analysis

Used in

- Business Analyst
- Product / Operations Analyst

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4) INFERENTIAL THINKING (REASONING FROM DATA)

Techniques:

- Hypothesis formulation
- A/B testing logic
- Confidence intervals
- Basic probability
- Sampling & bias awareness

(Light math, heavy thinking)

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5) DATA STORYTELLING & INTERPRETATION (MOST IMPORTANT)

Techniques:

- Turning insights into narratives
- Insight vs observation distinction

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- Decision framing
- Executive summaries
- Visual reasoning

This is what gets you hired.

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6) QUALITATIVE ANALYSIS (HUMAN & RESEARCH SIDE)

Techniques:

- Thematic analysis
- Coding qualitative data
- Behavioral pattern mapping
- Sentiment interpretation
- Interview synthesis

Used in

- UX Research
- Ethics
- Policy
- Research Analyst roles

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7) SYSTEMS & BUSINESS THINKING

Techniques:

- Process mapping
- Stakeholder analysis
- Impact analysis
- Trade-off evaluation
- Risk & constraint analysis

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8) BASIC PREDICTIVE THINKING (OPTIONAL, LIGHT)

(No heavy ML required)

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Techniques:

- Trend projection
- Scenario analysis
- Regression intuition (not math-heavy)
- Forecast reasoning

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9) ETHICS, BIAS & DATA GOVERNANCE

Techniques:

- Bias detection
- Fairness evaluation
- Data quality checks
- Responsible decision-making
- Privacy-aware analysis

HOW THIS MAPS TO COURSERA (CLEAR)

If a course teaches:

- **Excel / SQL / Visualization** → Descriptive analytics
- **Statistics / A/B Testing** → Inferential reasoning
- **UX Research / Qualitative Methods** → Human analysis
- **Business Analysis / Product Analytics** → Diagnostic thinking

  Data Ethics / Responsible AI → Governance & bias

Then it is **relevant**.

FINAL TRUTH (NO EXTRA)

You are not training to be a **tool operator**.
You are training to be an **analyst who understands meaning, patterns, and decisions**.

If you want, I can now:

- Map **each technique → exact Coursera course**
- Or design a **learning sequence (beginner → job-ready)**

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Result (as-is, clean mapping):

CERTIFICATION → ROLE (Analytics, Analysis & Science of Data)

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1) Google Data Analytics Professional Certificate

Roles

- Data Analyst Intern
- Junior Data Analyst
- Business Data Analyst
- Insights Analyst

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2) IBM Data Analyst Professional Certificate

Roles

- Data Analyst Intern
- Associate Data Analyst
- Reporting Analyst
- Analytics Analyst

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3) Microsoft Power BI Data Analyst (PL-300)

Roles

- Power BI Analyst
- Business Intelligence (BI) Analyst
- Business Data Analyst
- Dashboard / Reporting Analyst

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4) IIBA – ECBA (Business Analysis)

Roles

- Business Analyst Intern

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- Associate Business Analyst
- Requirements Analyst
- Functional Analyst

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5) Google UX Certificate (Research Focus)

Roles

- UX Research Intern
- Research Analyst
- User Research Assistant

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6) Responsible AI / AI Ethics (Microsoft / IBM)

Roles

- Responsible AI Intern
- Ethics & Governance Analyst (Junior)
- Trust & Safety Analyst

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7) Applied Statistics / Data Science Foundations (Coursera / edX)

Roles

- Junior Data Analyst
- Data Science Intern (analysis-focused)
- Quantitative Analyst (entry-level)

CORE TRUTH (no twist)

- **Analytics → Data Analyst / BI / Insights roles**
- **Analysis → Business / Requirements / Research Analyst roles**
- **Science of Data → Data Science Intern (junior, analysis-first)**

This is the **exact certification-to-role alignment** you were asking for.