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ETL Testing Full Course: Complete Syllabus

21 sections, 79 lectures: what a full ETL testing course covers, projects, time needed and who it is for.

By Asim Noaman Lodhi · [online version](#)

Learn ETL testing hands-on

ETL Testing: From Beginners to Advanced – 79 lectures on ETL and data warehouse testing, data quality, Python, Power Query and AI tools.

[See the course on Udemy →](#)

What a Full ETL Testing Course Should Include

A course only deserves the word "full" if it covers all five layers an ETL tester uses on the job:

1. **Data foundations** — databases, SQL, data warehouse concepts, facts and dimensions, and data quality rules.
2. **ETL testing concepts** — source-to-target validation, row counts, transformation checks, duplicates, NULLs and [data validation](#).
3. **Hands-on transformation** — actually building and breaking an ETL flow so you know where bugs hide.
4. **Automation** — scripting repeatable checks instead of re-running SQL by hand (see [ETL testing automation](#)).
5. **Projects and career prep** — a real scenario you can explain in interviews.

Many short courses stop after layer 2. That's enough to pass a quiz, not enough to pass an interview.

The Full Syllabus: 21 Sections, 79 Lectures

Here is the syllabus of [ETL Testing: From Beginners to Advanced](#), grouped by topic. Section numbers match the order on Udemy. Total video time is about 6.5 hours.

#	Section	Length
Foundations		
11	Introduction to Database	2 lectures · 38 min
12	Data Warehouse Basics	6 lectures · 28 min
14	Dimension Modeling	1 lecture · 8 min

#	Section	Length
15	What is Data Quality	2 lectures · 9 min
18	ETL Testing Basic Concepts	5 lectures · 34 min
Hands-on ETL		
03	ETL With Python Hands-on Transformation	17 lectures · 57 min
04	Titanic Dataset Exploratory Data Analysis	5 lectures · 18 min
05	Data Visualization after ETL Transformation	4 lectures · 15 min
08	ETL With Power Query Hands-on Transformation	8 lectures · 28 min
10	How to Perform Descriptive Data Analysis	1 lecture · 6 min
Projects & real-world practice		
06	Final Assignment ETL	1 lecture · 6 min
07	Real Time ETL Testing Scenario	1 lecture · 15 min
09	Final Hands-on ETL Assignments	1 lecture · 16 min
AI & automation		
13	ETL Testing with Claude AI	2 lectures · 22 min
16	Data Analysis with Google Gemini	7 lectures · 30 min
17	Data Analysis with Claude AI	2 lectures · 11 min
20	Introduction to Functional Automation Tools	1 lecture · 8 min
21	Introduction to n8n AI Automation	3 lectures · 12 min
Career		
01	Introduction	8 lectures · 25 min
02	How to Become an ETL Tester	2 lectures · 5 min
19	Tips & Tricks	1 lecture · 8 min

Python gets the most time (17 lectures) because it's what turns a manual tester into someone who can automate checks. If you're new to it, our [Python ETL testing workflow](#) post shows the kind of code you'll write.

Projects You Build in the Full Course

- **Python transformation project** — clean, transform and validate a dataset end to end, then compare source and target.
- **Titanic exploratory analysis** — profile a real dataset to find missing values, outliers and type problems before they reach a warehouse.
- **Power Query ETL** — the same ideas in a no-code tool many business teams already use.

- **Real-time ETL testing scenario** — walk through how testing works on an actual project, which is the story you'll tell in interviews.
- **AI-assisted testing** — use Claude and Gemini to generate test cases and analyse data faster (more in [ETL testing with Claude AI](#)).

How Long the Full Course Takes

Pace	Video + practice	Finish in
1 hour a day	Watch one or two sections, redo the exercises	About 4–5 weeks
2 hours a day	Watch, practise, and start your own project	About 2–3 weeks
Weekends only	4–5 hours each weekend	About 5–6 weeks

The 6.5 hours of video is the minimum. Practice is where the learning happens — plan on roughly three hours of hands-on work for every hour you watch.

Full Course vs Scattered Free Videos

	Free videos	Full course
Order	You decide what to watch next	Built so each section uses the last
Gaps	Easy to miss DWH or automation	Foundations to AI covered in one place
Projects	Rare	Assignments plus a real-time scenario
Cost	Free	\$19.00 with lifetime access

Free material is a great way to check if you like the field — we list the best in [free ETL testing course online](#). Once you're sure, a full course saves weeks of guessing what to learn next.

Who This Full Course Is For

- Complete beginners — start with [ETL testing for beginners](#) if you want a preview.
- Manual testers moving into data — see [manual tester to ETL tester](#).
- Students and freshers who need a project for their resume.

What it does not cover: enterprise ETL tools like Informatica or cloud warehouses like Snowflake. Add those after the course if your target jobs ask for them — see [Informatica PowerCenter training](#).

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Practise under interview conditions

ETL Testing Interview Questions & Answers – Practice Tests: 500+ questions including SQL, scenario, Python and automation.

[Start the practice tests on Udemy →](#)

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