Yolea

Training for your teams

Training catalogue

November 2026 edition

79 courses, 9 domains. On site, remote or hybrid, in French and in English.



Yolea, Abidjan. yolea.ai

Editorial

This catalogue brings together our 79 courses in 9 domains, from artificial intelligence to the data center.

Each course starts from your cases and your data. It takes place on site, remotely or in hybrid form, in French or in English.

Prices are on quotation and dates are set with you: a person answers you and sends you a quote.

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Not sure which one to choose?

How it works

In your company: on your cases, on your premises or remotely, programme adjusted after analysing the need.

With other companies, in Abidjan.

As a pathway: spaced modules, follow-up between modules and an end-of-pathway assessment.

Prices on quotation. Dates are set with you.

Indicative duration. The volume is settled after analysing your need.

Chapter 1

Generative AI and business uses

Use AI with method in every department, and decide where it helps. 9 courses

Code	Course	Level	Duration
IA-101	Generative AI and prompt engineering	Introductory	2 days
IA-102	Mastering Claude from A to Z	Introductory	2 days
IA-103	Microsoft 365 Copilot day to day	Introductory	1 day
IA-110	Strategic AI for executives	Management	1 day
IA-120	Leading change around AI	Management	1 day
IA-201	Generative AI by function: sales, HR, finance, legal, operations	Advanced	1 day
IA-202	Generative AI for marketing and communication	Advanced	2 days
IA-203	Creating visuals and videos with AI	Introductory	1 day
IA-210	Running an AI project: from use case to measured pilot	Management	1 day

IA-101 Generative AI and prompt engineering

Level	Duration	Price	Dates
Introductory	2 days	On quotation	Set with you

Objectives

Write a structured prompt (role, context, instruction, format, criteria) and obtain a usable deliverable in three iterations or fewer.

Use an AI assistant to produce a report, a briefing note or a professional email from a document of their own department, then spot and correct factual errors.

Extract structured information (table, list, classification) from a batch of documents and check its reliability against the source.

Identify three automatable recurring tasks in their own job and formalise a reusable prompt template for each.

Apply their company's confidentiality rules by telling apart what may be passed to an AI assistant from what may not.

Audience

Staff from every department: assistants, customer account managers, sales reps, HR officers, accountants, legal staff, project managers, managers.

Prerequisites

Daily use of a computer, email and a word processor. No technical skills.
Equipment: one laptop per participant with an up-to-date browser (Chrome, Edge or Firefox); for remote delivery, a stable connection of at least 5 Mbit/s, microphone and camera; AI assistant accounts created and provided by Yolea for the duration of the session; five to ten of the participant's own real documents, anonymised where necessary, brought on day one.

Format

In person, synchronous remote or hybrid; in-company on your own cases or open enrolment; 8 to 15 participants, 12 at most in open enrolment. Duration: 14 hours, 2 consecutive days of 7 hours; remote, 4 sessions of 3 h 30 over two weeks.

Assessment

Beforehand, a placement questionnaire (current usage, expectations). During the course, a check quiz at the end of each half-day and a practical challenge (produce a deliverable on an imposed case, corrected as a group). At the end, an end-of-course evaluation and a named certificate of completion. At three weeks, a follow-up review of the action plan.

The course page online: yolea.ai/en/training/ia-101-generative-ai-and-prompt-engineering/

IA-102 Mastering Claude from A to Z

Level	Duration	Price	Dates
Introductory	2 days	On quotation	Set with you

Objectives

Set up a Claude workspace suited to their role (project, instructions, reference documents, style) and reuse it without reconfiguring.

From real files (PDF, spreadsheet, images), produce a summary, a numerical analysis or a formatted document, and check every figure against the source.

Build a reusable artifact (document, dashboard, form or mini-application) and share it with their team.

Use Claude in everyday tools (browser, spreadsheet, presentations) or, for technical profiles, complete a first development task with Claude Code and make a first API call.

Apply the security rules: data not to be shared, privacy settings, human review of every result before it is circulated.

Audience

Mixed audience: staff from every department, managers, project managers, and technical profiles (developers, data, IT) who attend the technical workshop on the second day.

Prerequisites

No prerequisites. The optional technical workshop assumes you know how to open a terminal. Equipment: one laptop per participant with an up-to-date browser; Claude access provided by Yolea for the duration of the session; for remote delivery, a stable connection of at least 5 Mbit/s, microphone and camera; the participant's own real documents, brought on day one; for the technical workshop, a code editor installed, terminal access and an API key provided by Yolea for the session.

Format

In person, synchronous remote or hybrid; in-company or open enrolment; 8 to 15 participants, 12 at most in open enrolment. Duration: 14 hours, 2 consecutive days of 7 hours; the second afternoon splits into a business workshop (automating your own job) and a technical workshop (Claude Code, API). Remote, 4 sessions of 3 h 30.

Assessment

Beforehand, a placement questionnaire. During the course, a check quiz and a practical challenge (deliver an artifact from an imposed set of documents, assessed against a grid). At the end, an end-of-course evaluation and a named certificate of completion. At three weeks, a follow-up review.

The course page online: yolea.ai/en/training/ia-102-mastering-claude-from-a-to-z/

IA-103 Microsoft 365 Copilot day to day

Level	Duration	Price	Dates
Introductory	1 day	On quotation	Set with you

Write, summarise, analyse and prepare meetings with Copilot in Word, Excel, Outlook and Teams. Participants set up their own usage and leave with three automated routines.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/ia-103-microsoft-365-copilot-day-to-day/

IA-110 Strategic AI for executives

Level	Duration	Price	Dates
Management	1 day	On quotation	Set with you

Objectives

Assess five AI use cases in their company with a cost / benefit / risk / lead-time grid, and select two.

For each selected case, define a measurable before-and-after indicator (lead time, rate, volume).

Decide on a presented AI project file between stopping, piloting and rolling out, and justify the decision in writing.

Set the minimum governance rules: permitted data, actions reserved for a human, a named owner.

Write a twelve-month AI roadmap: three workstreams, budget, milestones, owners.

Audience

Executives, executive committee members, department heads, IT directors; in open enrolment, leaders of small and mid-sized companies.

Prerequisites

Hold budgetary or decision-making responsibility in the company. No technical skills. No required equipment: a computer or tablet to view the materials; for remote delivery, a stable connection, microphone and camera. Participants bring the list of their five processes that cost the most time or money.

Format

In person preferred; in-company (executive committee) or open enrolment (business leaders); 6 to 12 participants. Duration: 7 hours, 1 day; remote, 2 sessions of 3 h 30 one week apart.

Assessment

Beforehand, a placement questionnaire (maturity, ongoing projects). During the course, a decision case study corrected as a group. At the end, the roadmap presented and assessed against a grid, an end-of-course evaluation and a named certificate of completion. At three weeks, a follow-up review.

The course page online: yolea.ai/en/training/ia-110-strategic-ai-for-executives/

IA-120 Leading change around AI

Level	Duration	Price	Dates
Management	1 day	On quotation	Set with you

Get a team to adopt an assistant or an agent: map the resistance, choose the first users, measure real usage. For managers and project leads.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/ia-120-leading-change-around-ai/

IA-201 Generative AI by function: sales, HR, finance, legal, operations

Level	Duration	Price	Dates
Advanced	1 day	On quotation	Set with you

Objectives

Build, for their function, a library of ten prompt templates tested on their own documents, with quality criteria and documented failure cases.

Carry out end to end, with an AI assistant, three recurring tasks of their function (for example, in sales: quotes, follow-ups, prospect sheets; in HR: candidate screening, replies to candidates, onboarding path) and measure the time saved.

Check an AI-produced deliverable using the rule of their function: a figure against the accounting document, a clause against the contract text, a candidate reply against the job grid.

Define which data of their function never leaves for an AI assistant, and the anonymisation procedure for the rest.

Write a one-page procedure that can be handed to a colleague for each automated task.

Audience

One function per session: sales and customer service teams; HR and recruitment; finance, accounting and management control; legal and compliance; operations, purchasing, logistics. Groups are homogeneous by function.

Prerequisites

Have attended IA-101 or IA-102, or show regular use of an AI assistant, checked through the placement questionnaire. Equipment: one laptop per participant with an up-to-date browser; AI assistant access provided by Yolea for the duration of the session; for remote delivery, a stable connection of at least 5 Mbit/s, microphone and camera; a set of ten to twenty real documents from the function, anonymised where necessary, brought in the morning.

Format

In person, synchronous remote or hybrid; in-company only, on the function's own cases; 6 to 12 participants. Duration: 7 hours, 1 day per function; several functions run on consecutive days or one week apart. Remote, 2 sessions of 3 h 30.

Assessment

Beforehand, a placement questionnaire and a check of the prerequisite. During the course, a practical challenge (handle an imposed case file of the function, deliverable assessed against a grid). At the end, an end-of-course evaluation and a named certificate of completion. At three weeks, a follow-up review of the automated tasks and the time saved.

The course page online: yolea.ai/en/training/ia-201-generative-ai-by-function-sales-hr-finance-legal-operations/

IA-202 Generative AI for marketing and communication

Level	Duration	Price	Dates
Advanced	2 days	On quotation	Set with you

Content plan, campaigns, replies to customers, competitor analysis: produce more without losing the brand's voice. On your own materials and channels.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/ia-202-generative-ai-for-marketing-and-communication/

IA-203 Creating visuals and videos with AI

Level	Duration	Price	Dates
Introductory	1 day	On quotation	Set with you

Generate and retouch visuals, edit a short video, respect a brand charter and image rights. Each participant leaves with a library of visual prompts.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/ia-203-creating-visuals-and-videos-with-ai/

IA-210 Running an AI project: from use case to measured pilot

Level	Duration	Price	Dates
Management	1 day	On quotation	Set with you

Objectives

Write a scoping note for an AI project: use case, cost and benefit estimate, outcome indicator, risks.

Write the scope of an agent or automation: what it does, what it does not do, what is escalated to a human, and which irreversible actions require approval.

Design a before-and-after measurement protocol on a limited scope, with a volunteer team and a fixed duration.

Write an end-of-pilot report concluding with stopping or rolling out, backed by data.

Draw up the acceptance checklist for a deployment: source code, documentation, transferred access, trained teams, a costed maintenance contract.

Audience

Project managers, business owners carrying an AI or automation project, IT directors and IT managers, quality or transformation managers.

Prerequisites

Lead or have led a project in a company, in any field. IA-110 is recommended for executives but not required. Equipment: one laptop per participant; for remote delivery, a stable connection, microphone and camera; a real AI or automation project, under way or planned, described on one page and brought in the morning.

Format

In person, synchronous remote or hybrid; in-company or open enrolment; 6 to 12 participants. Duration: 7 hours, 1 day; remote, 2 sessions of 3 h 30 one week apart, the scoping note being written in between.

Assessment

Beforehand, a placement questionnaire. During the course, a check quiz and a case study (decide on an imposed pilot report). At the end, the scoping note assessed against a grid, an end-of-course evaluation and a named certificate of completion. At three weeks, a follow-up review of project progress.

The course page online: yolea.ai/en/training/ia-210-running-an-ai-project-from-use-case-to-measured-pilot/

Chapter 2

AI agents and automation

Automate a process, then design and supervise agents. 7 courses

Code	Course	Level	Duration
AGT-101	Automate a process with n8n and AI	Introductory	2 days
AGT-102	No-code automation with Make and Zapier	Introductory	1 day
AGT-201	Build, supervise and improve an AI agent on WhatsApp	Advanced	2 days
AGT-202	Build a WhatsApp Business chatbot without code	Advanced	2 days
AGT-203	Advanced n8n: complex workflows, AI and production deployment	Advanced	2 days
AGT-301	Designing AI agents — bootcamp	Expert	5 days
AGT-302	Enterprise document search (RAG) in production	Expert	3 days

AGT-101 Automate a process with n8n and AI

Level	Duration	Price	Dates
Introductory	2 days	On quotation	Set with you

Data entry, reconciliations, reminders, transfers between software that do not talk to each other: in two days, each participant builds an automated workflow on a real process from their own department, with a human kept at the decision points. No code to write.

Objectives

Map a process from their own department and identify three automatable steps using explicit criteria (volume, stable rule, low ambiguity)

Build in n8n a workflow of at least five nodes, including a trigger, an AI processing step (classification, extraction or drafting) and an action in a third-party tool (email, spreadsheet, CRM, WhatsApp)

Insert a human validation step before any irreversible action and log every run

Test a workflow on real cases, diagnose an error and fix it

Document the workflow (diagram, parameters, error cases) so that a colleague can take it over

Audience

Managers and staff in operations, administration, customer service, purchasing and logistics; general IT staff; anyone who performs a repetitive task between two software tools every week.

Prerequisites

Comfortable with a spreadsheet (sorting, filtering, a basic formula). No programming. Equipment: one laptop per participant with an up-to-date browser; a training n8n instance and test accounts (email, spreadsheet, demo CRM) provided by Yolea for the duration of the session; access to a language model provided by Yolea; for remote attendance, a stable connection of at least 5 Mbit/s, microphone and camera; a real process of the participant's, described in ten lines, with five examples of documents or emails handled, brought on the first day.

Programme

Process mapping

Designing automation workflows

Integrating AI processing into a workflow

Human oversight and traceability

Testing, diagnosis and documentation

Format

2 days, 14 hours. In-company on your own processes or inter-company; on site, live remote or hybrid; 8 to 12 participants. 2 consecutive days of 7 hours; remote, 4 sessions of 3 h 30 over two weeks. 25% input, 75% workshops: each participant works on their own process from the first workshop to the last.

Assessment

Beforehand, a placement questionnaire and a check of the spreadsheet prerequisite. During the course, check quizzes and a practical challenge (build a workflow on an assigned process, assessed on a grid: trigger, AI processing, human validation, logging). At the end, the participant presents their workflow, followed by an end-of-course evaluation and a personal certificate of attendance. At three weeks, a follow-up check-in on the workflow's go-live.

The course page online: yolea.ai/en/training/agt-101-automate-a-process-with-n8n-and-ai/

AGT-102 No-code automation with Make and Zapier

Level	Duration	Price	Dates
Introductory	1 day	On quotation	Set with you

Connect email, spreadsheets, CRM and forms without writing a line of code. Three automations built during the session, with human validation and a log of runs. The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/agt-102-no-code-automation-with-make-and-zapier/

AGT-201 Build, supervise and improve an AI agent on WhatsApp

Level	Duration	Price	Dates
Advanced	2 days	On quotation	Set with you

An agent that answers around the clock is only useful if someone on your side can read what it does, correct what it says and decide what it is allowed to do on its own. In two days, the team taking over the agent becomes its owner, not its spectator.

Objectives

Read an agent's conversations over a given period and classify failures by type: wrong answer, missed handover, out of scope, outdated data

Update the agent's knowledge base (offers, prices, documents, standard answers) and check on a set of test questions that the correction is taken into account before publication

Adjust the agent's instructions (tone, rules for handover to a human, permitted actions) without widening its written scope

Track three indicators every week (out-of-hours response rate, handover-to-human rate, qualified leads or resolved tickets) and decide on a corrective action

Handle an escalation: take over a conversation, close the case, document the incident

Audience

Managers and supervisors in customer service, after-sales, sales and marketing; product managers; anyone appointed as the owner of a custom-built AI agent.

Prerequisites

Use WhatsApp Business or a customer relationship tool daily. No technical skills. Equipment: one laptop per participant with an up-to-date browser; access to a training agent deployed by Yolea on a test WhatsApp number, with its supervision console; for remote attendance, a stable connection of at least 5 Mbit/s, microphone and camera; participants bring their catalogue, their price list and twenty real customer questions.

Programme

Supervising a conversational agent

Maintaining a knowledge base

Controlled configuration of instructions

Steering by indicators

Managing handovers and incidents

Format

2 days, 14 hours. In-company, on your own agent or on a training agent; on site, live remote or hybrid; 6 to 12 participants. 2 consecutive days of 7 hours; remote, 4 sessions of 3 h 30 over two weeks. Workshops on a real agent fed with the participants' own documents.

Assessment

Beforehand, a placement questionnaire. During the course, check quizzes and a practical challenge (diagnose and correct ten assigned faulty conversations, with the result measured on the test set). At the end, an end-of-course evaluation and a personal certificate of attendance. At three weeks, a follow-up check-in on the agent's indicators.

The course page online: yolea.ai/en/training/agt-201-build-supervise-and-improve-an-ai-agent-on-whatsapp/

AGT-202 Build a WhatsApp Business chatbot without code

Level	Duration	Price	Dates
Advanced	2 days	On quotation	Set with you

An assistant on your existing WhatsApp number: menus, answers to frequent questions, appointment booking, handover to a human. Live by the end of the second day.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/agt-202-build-a-whatsapp-business-chatbot-without-code/

AGT-203 Advanced n8n: complex workflows, AI and production deployment

Level	Duration	Price	Dates
Advanced	2 days	On quotation	Set with you

After AGT-101: sub-workflows, error handling, queues, model calls, hosting and supervision of an n8n instance in production.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/agt-203-advanced-n8n-complex-workflows-ai-and-production-deployment/

AGT-301 Designing AI agents – bootcamp

Level	Duration	Price	Dates
Expert	5 days	On quotation	Set with you

From the API call to the production agent, in five days. Each participant delivers a working agent on a real corpus: document search, tools, orchestration, evaluation, deployment and connection to a channel. What leaves the room runs.

Objectives

Call a language model through its API with structured outputs, error handling and control of the cost per request

Build a document search pipeline (ingestion, chunking, embedding, retrieval, source citation) on a supplied corpus and measure its quality on a set of test questions

Equip the agent with tools (functions, REST APIs, an MCP server) and stateful orchestration, with human validation before any irreversible action

Evaluate the agent with a test set, execution traces and written criteria, then fix regressions

Deploy the agent in a container behind an API, connect it to a channel (WhatsApp Business API or web) and log every action

Audience

Developers, data engineers, software engineers, architects; technical teams who will take over an agent in production.

Prerequisites

Programming in Python (functions, classes, virtual environments, packages), consuming a JSON REST API, using Git. Verified by an online placement test before enrolment. Equipment: one laptop per participant, 16 GB of memory recommended, with Python 3, Docker, Git and a code editor installed before the first day (procedure provided with the joining instructions); a training cloud environment, model API keys and a test WhatsApp number provided by Yolea, credits included; a training Git repository; for remote attendance, a stable connection of at least 10 Mbit/s, microphone and camera; a training corpus is provided, and the participant's own corpus is accepted if anonymised.

Programme

Integrating model APIs

Designing document search systems

Agent orchestration and tool use

Evaluation and observability

Containerised deployment and connection to a messaging channel

Tools for this edition: LangGraph or Pydantic AI for orchestration, LlamaIndex or LangChain for document search, MCP for tools, LangSmith for traces, FastAPI and Docker for deployment, Claude, GPT, Gemini or an open model via Ollama depending on the client's constraints

Format

5 days, 35 hours. In-company or inter-company; on site recommended, hybrid possible; 8 to 12 participants. 5 consecutive days of 7 hours, or 3 + 2 days one week apart with coaching between the modules. 20% input, 80% guided building, each participant developing their own agent end to end; daily code reviews.

Assessment

Beforehand, an online placement test. During the course, a daily check quiz and code review. At the end, a demonstration of the agent to a Yolea jury, assessed on a grid (operation, search quality, safety of actions, logging, deployment), followed by an end-of-course evaluation and a personal certificate of attendance. At three weeks, a follow-up check-in on the move to production.

The course page online: yolea.ai/en/training/agt-301-designing-ai-agents-bootcamp/

AGT-302 Enterprise document search (RAG) in production

Level	Duration	Price	Dates
Expert	3 days	On quotation	Set with you

Ingestion of real documents, chunking, embedding, hybrid search, source citation, evaluation on a test set and secure deployment. For developers and data professionals.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/agt-302-enterprise-document-search-rag-in-production/

Chapter 3

Data science and MLOps

Analyse, model, then put a model into production. 12 courses

Code	Course	Level	Duration
DATA-101	SQL and data analysis for business roles	Introductory	2 days
DATA-102	Power BI: dashboards and reporting	Introductory	2 days
DATA-103	Python for data analysis	Introductory	3 days
DATA-104	Advanced Excel and automation with AI	Introductory	2 days
DATA-201	Applied machine learning	Advanced	3 days
DATA-202	Anomaly detection and forecasting on operational data	Advanced	2 days
DATA-203	Applied statistical modelling	Advanced	2 days
DATA-204	Big data with Spark	Advanced	3 days
DATA-205	Preparation for Microsoft Azure AI Fundamentals (AI-900) Prepares for Microsoft Azure AI Fundamentals (AI-900)	Introductory	1 day
DATA-206	Preparation for AWS Certified AI Practitioner Prepares for AWS Certified AI Practitioner	Advanced	2 days

Code	Course	Level	Duration
DATA-301	Deep learning: CNN, RNN/LSTM, transfer learning	Expert	2 days
DATA-302	MLOps and production deployment	Expert	3 days

DATA-101 SQL and data analysis for business roles

Level	Duration	Price	Dates
Introductory	2 days	On quotation	Set with you

Your data sits in a database, an ERP or twenty spreadsheets, and Monday's question is waiting for an answer in figures. In two days, the participant queries a database in SQL, cleans and aggregates with Python, and delivers a dashboard that refreshes itself. It is also the groundwork before machine learning.

Objectives

Write an SQL query with filters, joins and aggregations that answers a given business question, and check its result against a known case.

Load, clean and aggregate a dataset with pandas (missing values, duplicates, date formats, merging sources).

Check the quality of a dataset and document the anomalies found in a one-page report.

Compute and interpret descriptive statistics (mean, median, standard deviation, correlation) while avoiding the usual pitfalls.

Build a three-indicator dashboard in Power BI, connected to the source, and share it with their department.

Audience

Business analysts, management controllers, research officers, reporting managers, accountants and managers who want to move beyond the spreadsheet; future participants of DATA-201.

Prerequisites

Comfortable with a spreadsheet up to pivot tables and lookup formulas. No programming. One laptop per participant; a training database and an online notebook environment provided by Yolea, with nothing to install; Power BI Desktop installed before the first day (a Windows machine is required for this workshop, an online alternative is offered otherwise); for remote delivery, a stable connection of at least 5 Mbit/s, microphone and camera. A real export from the participant is accepted if it is anonymised.

Programme

Querying a database

Data preparation in Python

Quality control

Descriptive statistics

Building dashboards

Format

In-company or open enrolment. 14 hours, 2 consecutive days of 7 hours; remotely, 4 sessions of 3 hours 30 minutes over two weeks. On site, live remote or hybrid; 8 to 12 participants. 30% input, 70% guided workshops, built around one running dataset (multi-site sales with stock discrepancies) followed from the raw query to the dashboard.

Assessment

Beforehand, a placement questionnaire. During the course, check quizzes and a practical challenge (answer five business questions on an imposed dataset; queries and dashboard assessed against a grid). At the end, a same-day feedback survey and a named certificate of course completion. Three weeks later, a follow-up check-in.

The course page online: yolea.ai/en/training/data-101-sql-and-data-analysis-for-business-roles/

DATA-102 Power BI: dashboards and reporting

Level	Duration	Price	Dates
Introductory	2 days	On quotation	Set with you

Connect your sources, model, calculate indicators, publish and share a dashboard that refreshes itself. On a real export from your company.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/data-102-power-bi-dashboards-and-reporting/

DATA-103 Python for data analysis

Level	Duration	Price	Dates
Introductory	3 days	On quotation	Set with you

The basics of the language, then pandas: load, clean, aggregate, visualise. The groundwork before machine learning, for analysts and engineers who have never programmed.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/data-103-python-for-data-analysis/

DATA-104 Advanced Excel and automation with AI

Level	Duration	Price	Dates
Introductory	2 days	On quotation	Set with you

Pivot tables, Power Query, advanced formulas, then automating repetitive tasks with an AI assistant. To get out of the weekly copy-and-paste.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/data-104-advanced-excel-and-automation-with-ai/

DATA-201 Applied machine learning

Level	Duration	Price	Dates
Advanced	3 days	On quotation	Set with you

Three days to go from a table of data to a model that predicts, honestly evaluated and explained to a decision-maker. On datasets close to your own: credit files, stock, consumption, applications.

Objectives

Prepare a dataset for learning (cleaning, encoding, feature creation) and document every choice.

Train and compare at least three supervised regression or classification models, using cross-validation and metrics suited to the problem.

Apply an unsupervised method (segmentation) and interpret the resulting groups for a business use.

Diagnose and correct overfitting, data leakage or class imbalance.

Explain a model's predictions (feature importance, SHAP values) and write a one-page model card for a non-specialist.

Audience

Engineers, experienced data analysts, actuaries, technically minded management controllers, and developers who want to move into data science.

Prerequisites

Able to program in Python with pandas (reading, filtering, aggregating) and comfortable with descriptive statistics (mean, standard deviation, correlation); DATA-101 covers these prerequisites. Checked by a placement test. One laptop per participant, 8 GB of memory minimum; an online computing environment (notebooks, with scikit-learn, XGBoost and pandas preinstalled) provided by Yolea for the length of the session, with no local installation; for remote delivery, a stable connection of at least 5 Mbit/s, microphone and camera. Training datasets provided; the participant's own dataset is accepted if it is anonymised.

Programme

Data preparation

Supervised and unsupervised modelling

Rigorous evaluation

Diagnosing classic errors

Model explainability and documentation

Format

In-company or open enrolment. 21 hours, 3 consecutive days of 7 hours, or 2 + 1 days one week apart, with the project moving forward in between. On site, live remote or hybrid; 8 to 12 participants. 30% input, 70% notebook workshops; one running project per participant, from the raw dataset to the model card; the principle is a simple baseline first, the complex model second.

Assessment

Beforehand, a placement test. During the course, check quizzes and a practical challenge (model an imposed dataset; the result is assessed on the metric and on the quality of the approach). At the end, a presentation of the running project's model card, a same-day feedback survey and a named certificate of course completion. Three weeks later, a follow-up check-in.

The course page online: yolea.ai/en/training/data-201-applied-machine-learning/

DATA-202 Anomaly detection and forecasting on operational data

Level	Duration	Price	Dates
Advanced	2 days	On quotation	Set with you

A breakdown, a fraud or a stock-out leaves traces in the data before it becomes costly. In two days, the engineer builds a load or consumption forecast, a calibrated anomaly detector, and the alert board that goes with them. The indicator is set on the first morning: anomalies detected before an incident, and forecast error.

Objectives

Prepare an operational time series (resampling, missing values, seasonality, exceptional events) and document the choices.

Produce a forecast at a given horizon with a baseline model and then an advanced one, and measure the forecast error with the appropriate metric.

Detect anomalies with at least two methods (statistical and machine learning) and calibrate the threshold to a false-alarm rate the business accepts.

Build a logged alert board, with the severity level and the person notified.

Define the tracking indicator with the business, and the human validation protocol that applies before any action triggered by an alert.

Audience

Engineers and data analysts in the energy and utilities, industry, logistics, banking and microfinance, and telecoms sectors; technically minded operations managers.

Prerequisites

Having completed DATA-201, or being at ease with Python, pandas and the basics of scikit-learn (training, validation, metrics). Checked by a placement test. One laptop per participant, 8 GB of memory minimum; a notebook environment with preinstalled libraries provided by Yolea; for remote delivery, a stable connection of at least 5 Mbit/s, microphone and camera. Training datasets provided (consumption, network load, transactions); the participant's own history is accepted if it is anonymised, covering at least twelve months.

Programme

Time-series processing

Forecasting and measuring error

Anomaly detection and calibration

Designing an alerting system

Framing indicators with the business

Format

In-company or open enrolment. 14 hours, 2 consecutive days of 7 hours; remotely, 4 sessions of 3 hours 30 minutes over two weeks. On site, live remote or hybrid; in-company on your own histories, or open enrolment; 8 to 12 participants. 25% input, 75% notebook workshops; one running project per participant, from the raw series to the alert board; a systematic comparison of a simple baseline against an advanced model. The tracking indicator is set on the first morning: anomalies detected before an incident, and forecast error.

Assessment

Beforehand, a placement test. During the course, check quizzes and a practical challenge (detect the anomalies injected into an imposed series; the result is measured in detections and false alarms). At the end, a presentation of the running project's alert board, a same-day feedback survey and a named certificate of course completion. Three weeks later, a follow-up check-in.

The course page online: yolea.ai/en/training/data-202-anomaly-detection-and-forecasting-on-operational-data/

DATA-203 Applied statistical modelling

Level	Duration	Price	Dates
Advanced	2 days	On quotation	Set with you

Regressions, tests, confidence intervals and critical reading of results, on company data. To avoid the false conclusions that prove costly.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/data-203-applied-statistical-modelling/

DATA-204 Big data with Spark

Level	Duration	Price	Dates
Advanced	3 days	On quotation	Set with you

Process volumes that no longer fit in memory: DataFrames, distributed jobs, optimisation and integration into the company's data pipeline.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/data-204-big-data-with-spark/

DATA-205 Preparation for Microsoft Azure AI Fundamentals (AI-900)

Level	Duration	Price	Dates
Introductory	1 day	On quotation	Set with you

Microsoft Azure AI Fundamentals (AI-900). Preparation for the certification. The exam is taken with the certifying body.

The AI concepts and Azure services on the exam syllabus, with practice questions.
The exam is taken separately, with the certifying body.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/data-205-preparation-for-microsoft-azure-ai-fundamentals-ai-900/

DATA-206 Preparation for AWS Certified AI Practitioner

Level	Duration	Price	Dates
Advanced	2 days	On quotation	Set with you

AWS Certified AI Practitioner. Preparation for the certification. The exam is taken with the certifying body.

AWS generative AI and machine learning services, good practice and security, on the exam syllabus. The exam is taken separately, with AWS.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/data-206-preparation-for-aws-certified-ai-practitioner/

DATA-301 Deep learning: CNN, RNN/LSTM, transfer learning

Level	Duration	Price	Dates
Expert	2 days	On quotation	Set with you

Reading scanned documents, classifying quality-control images, modelling long sequences: where classical models reach their ceiling, neural networks take over. In two days, the engineer trains three architectures on GPU, reuses a pre-trained model, and can tell when deep learning adds nothing.

Objectives

Train a dense neural network on tabular data and compare it with a gradient-boosting model, in order to decide, with figures to back it up, which one to keep.

Build and train a convolutional network to classify images or scanned documents, with data augmentation and monitoring of the learning curves.

Model a sequence (text or time series) with a recurrent or LSTM network and compare it with a classical model.

Apply transfer learning from a pre-trained model to reach a target performance with a small dataset.

Document a training run so that it can be reproduced: data, preprocessing, hyperparameters, curves, results, limits.

Audience

Engineers and data scientists who have completed DATA-201 or already practise machine learning; R&D engineers; technical teams in charge of image or document processing.

Prerequisites

Having completed DATA-201, or being able to train and evaluate a supervised model in Python with scikit-learn. Checked by a placement test. One laptop per participant; an online GPU environment with PyTorch and TensorFlow preinstalled, provided by Yolea, credits included, with no local installation; for remote delivery, a stable connection of at least 10 Mbit/s, microphone and camera. Training datasets provided (scanned documents, images of parts, operational series); the participant's own dataset is accepted if it is anonymised.

Programme

Designing and training neural networks

Computer vision applied to documents

Sequence modelling

Reusing pre-trained models

Reproducibility and documentation

Format

In-company or open enrolment. 14 hours, 2 consecutive days of 7 hours; remotely, 4 sessions of 3 hours 30 minutes over two weeks. Can follow DATA-201 directly. On site, live remote or hybrid; 8 to 12 participants. 30% input, 70% notebook workshops on GPU: three architectures trained in session, one per half-day, then transfer learning on the last afternoon; a mandatory comparison with a classical model is the rule.

Assessment

Beforehand, a placement test. During the course, check quizzes and a practical challenge (reach a target performance on an imposed image set, with a training report assessed against a grid). At the end, a same-day feedback survey and a named certificate of course completion. Three weeks later, a follow-up check-in.

The course page online: yolea.ai/en/training/data-301-deep-learning-cnn-rnn-lstm-transfer-learning/

DATA-302 MLOps and production deployment

Level	Duration	Price	Dates
Expert	3 days	On quotation	Set with you

A model that stays in a notebook has produced nothing. In three days, the team versions, packages, deploys and monitors a real model, with a pipeline that retrains when the data drifts. On the platform you already use, not the one we prefer.

Objectives

Version data, code and models, and retrieve any version of a model together with its parameters and metrics.

Package a model into a containerised API, test it and document it.

Automate training, testing and deployment in a continuous-integration pipeline triggered by a change of code or data.

Deploy the model on a managed platform (SageMaker, Azure ML or Google AI Platform, depending on the organisation's constraint) or on a Kubernetes cluster.

Set up monitoring of data drift and performance, with alert thresholds and a written retraining procedure.

Audience

Data and machine learning engineers, software and DevOps engineers responsible for models, and IT teams who take over a model in production.

Prerequisites

Having completed DATA-201, or having a model trained in Python, and using Git. Some knowledge of Docker is useful but not required. Checked by a placement test. One laptop per participant, 8 GB of memory minimum, with Python 3, Docker, Git and a code editor installed before the first day; training cloud accounts, credits and a training Git repository provided by Yolea; for remote delivery, a stable connection of at least 10 Mbit/s, microphone and camera. A training model is provided; the participant's own model is accepted if it is ready to deploy.

Programme

Model version management

Exposing a model as an API

Continuous integration and deployment

Cloud or Kubernetes deployment

Monitoring and maintaining a model in production

Format

In-company or open enrolment. 21 hours, 3 consecutive days of 7 hours, or 2 + 1 days one week apart with coaching between the modules. On site recommended, hybrid possible; in-company on your own platform, or open enrolment; 8 to 12 participants. 25% input, 75% supervised building; one running model followed from the Git repository to the monitoring dashboard. Tools used: MLflow for tracking, FastAPI and Docker for serving, GitHub Actions for the pipeline, Kubernetes or your own managed platform for deployment.

Assessment

Beforehand, a placement test. During the course, check quizzes and a pipeline review. At the end, a practical challenge (deploy an imposed model from end to end; assessed against a grid: versioning, tests, deployment, monitoring), a same-day feedback survey and a named certificate of course completion. Three weeks later, a follow-up check-in.

The course page online: yolea.ai/en/training/data-302-mlops-and-production-deployment/

Chapter 4

Development, cloud and DevSecOps

Write, ship and secure applications. 18 courses

Code	Course	Level	Duration
DEV-101	Cloud, DevOps & DevSecOps — fundamentals	Introductory	3 days
DEV-102	Git and collaborative work	Introductory	1 day
DEV-103	Web development with React and Next.js	Advanced	3 days
DEV-104	REST APIs with FastAPI and Django	Advanced	3 days
DEV-105	Spring Boot and Angular	Advanced	5 days
DEV-106	Mobile applications with React Native	Advanced	3 days
DEV-107	Web development with Vue.js and Nuxt	Advanced	3 days
DEV-108	Web development with Angular	Advanced	3 days
DEV-109	Full stack JavaScript development	Advanced	5 days
DEV-110	Full stack Python development	Advanced	5 days
DEV-201	AI-assisted full stack development	Advanced	5 days
DEV-202	DevSecOps: securing the development chain with AI agents	Advanced	3 days

Code	Course	Level	Duration
DEV-203	Software testing: ISTQB Foundation preparation Prepares for ISTQB Foundation	Advanced	3 days
DEV-204	Advanced DevSecOps: containers, Kubernetes and the software supply chain	Expert	2 days
DEV-301	Industrialising: Kubernetes, Terraform, monitoring and cost control	Expert	3 days
DEV-303	AWS Certified Cloud Practitioner preparation Prepares for AWS Certified Cloud Practitioner	Introductory	2 days
DEV-304	Microsoft Azure Fundamentals (AZ-900) preparation Prepares for Microsoft Azure Fundamentals (AZ-900)	Introductory	1 day
DEV-305	Kubernetes CKA preparation Prepares for Certified Kubernetes Administrator (CKA)	Expert	3 days

DEV-101 Cloud, DevOps & DevSecOps – fundamentals

Level	Duration	Price	Dates
Introductory	3 days	On quotation	Set with you

Host, deploy, monitor and secure an application without depending on a provider for every update. In three days, the IT team containerises an application, deploys it through an automated pipeline, monitors it, and knows what it pays each month.

Objectives

Design the cloud architecture of a given application (network, compute, storage, database, backups) and estimate its monthly cost

Containerise an application and deploy it to a cloud environment

Build a continuous integration and deployment pipeline that includes automated tests, dependency analysis and secret detection before any release to production

Set up monitoring (logs, metrics, alerts) and a backup whose restoration has been tested

Apply the basic DevSecOps rules: least-privilege identities and access, secrets kept out of the code, logging of administration actions

Audience

System administrators, developers, IT managers, IT teams taking over an application or an infrastructure built by a provider.

Prerequisites

Be able to administer a Linux server from the command line and know the basics of networking (IP address, DNS, ports). Checked by a placement test.

Technical prerequisites

One laptop per participant with Docker, Git and a code editor installed before the first day (procedure supplied with the invitation).

Training cloud accounts and credits supplied by Yolea.

Training Git repository.

For remote attendance, a stable connection of at least 10 Mbit/s, microphone and camera.

Training application supplied; the participant's own application accepted if its code is available.

Skills covered

Cloud architecture and cost control

Containerisation

Secure continuous integration and deployment

Monitoring and backup

Access and secrets security

Programme

30% input, 70% hands-on workshops.

One application used throughout the course, taken from the local machine to monitored production.

Tools of the current edition: Docker, GitHub Actions, Terraform as an introduction, monitoring through logs and metrics, cloud provider chosen to suit the client's constraint.

Practical cases inspired by company situations (putting an agent into production, mixed hosting with sensitive data kept at the client's site, recovery after an incident).

Materials supplied: reference repository, pipeline templates, DevSecOps checklist, cost estimation grid, glossary.

Personal action plan.

Follow-up session after three weeks.

Format

21 hours, 3 consecutive days of 7 hours, or 2 + 1 days a week apart. In person recommended, hybrid possible; in-company or open enrolment; 8 to 12 participants.

Assessment

Beforehand, a placement test. During the course, check quizzes and a practical challenge (deploy a set application with a pipeline, monitoring and a tested backup, assessed against a grid). At the end, an immediate feedback evaluation and a named certificate of completion. After three weeks, a follow-up session.

The last exercise is an action plan: three real tasks that you leave ready to equip with tools.

The course page online: yolea.ai/en/training/dev-101-cloud-devops-devsecops-fundamentals/

DEV-102 Git and collaborative work

Level	Duration	Price	Dates
Introductory	1 day	On quotation	Set with you

Branches, reviews, conflict resolution, basic continuous integration. The prerequisite for all our bootcamps, in one hands-on day.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/dev-102-git-and-collaborative-work/

DEV-103 Web development with React and Next.js

Level	Duration	Price	Dates
Advanced	3 days	On quotation	Set with you

Components, state, routing, server rendering, API calls and deployment. A complete application delivered on the third day.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/dev-103-web-development-with-react-and-next-js/

DEV-104 REST APIs with FastAPI and Django

Level	Duration	Price	Dates
Advanced	3 days	On quotation	Set with you

Design, document, secure and test an API with a database, authentication and containerised deployment.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/dev-104-rest-apis-with-fastapi-and-django/

DEV-105 Spring Boot and Angular

Level	Duration	Price	Dates
Advanced	5 days	On quotation	Set with you

Java backend with Spring Boot, Angular frontend, security, tests and deployment. The programme delivered for large West African corporate accounts, in catalogue form.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/dev-105-spring-boot-and-angular/

DEV-106 Mobile applications with React Native

Level	Duration	Price	Dates
Advanced	3 days	On quotation	Set with you

An Android and iOS application from a single codebase, connected to an API and published to a test account at the end of the course.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/dev-106-mobile-applications-with-react-native/

DEV-107 Web development with Vue.js and Nuxt

Level	Duration	Price	Dates
Advanced	3 days	On quotation	Set with you

Components, reactivity, routing, server rendering with Nuxt, API calls and deployment. The lightweight alternative to React, project delivered on the third day.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/dev-107-web-development-with-vue-js-and-nuxt/

DEV-108 Web development with Angular

Level	Duration	Price	Dates
Advanced	3 days	On quotation	Set with you

Module-based architecture, components, services, forms, API calls and testing. For teams standardising on Angular.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/dev-108-web-development-with-angular/

DEV-109 Full stack JavaScript development

Level	Duration	Price	Dates
Advanced	5 days	On quotation	Set with you

Node.js and Express on the server, React on the client, PostgreSQL, authentication, testing and deployment. A complete application per participant.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/dev-109-full-stack-javascript-development/

DEV-110 Full stack Python development

Level	Duration	Price	Dates
Advanced	5 days	On quotation	Set with you

FastAPI or Django on the server, React on the client, PostgreSQL, authentication, testing and deployment. A complete application per participant.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/dev-110-full-stack-python-development/

DEV-201 AI-assisted full stack development

Level	Duration	Price	Dates
Advanced	5 days	On quotation	Set with you

Code assistants are changing the developer's job: less typing, more specification, review and testing. In five days, each participant delivers a complete web application, generated with AI, reviewed and tested by the participant, and deployed through a pipeline. The code produced belongs to the participant, who can explain it.

Objectives

Write a specification and an implementation plan that can be used both by a code assistant and by a human reviewer

Produce with an assistant, review and test an API backend with a database and authentication, correcting errors and invented dependencies

Produce and adjust a web interface connected to that API, usable on a computer and on a phone

Generate, check and complete automated tests up to a set target coverage, and audit the AI-produced code for security (injections, secrets, permissions) and technical debt

Deploy the application through a containerised continuous integration pipeline and write the documentation that allows a third party to take it over

Audience

Junior to experienced developers, software engineers, IT teams that develop in-house; technical teams taking over an application built by a provider.

Prerequisites

Program in at least one language (Python or JavaScript), use Git and understand how an HTTP request works. Checked by an online placement test.

Technical prerequisites

One laptop per participant, 16 GB of memory recommended, with Git, Docker, Node.js, Python 3 and a code editor installed before the first day (procedure supplied with the invitation).

Access to code assistants (Claude Code and an assistant built into the editor, in their current-edition versions), API keys and a cloud deployment environment supplied by Yolea, credits included.

Training Git repository.

For remote attendance, a stable connection of at least 10 Mbit/s, microphone and camera.

Skills covered

Specification for assisted development

Driving a code assistant (generation, iteration, agent mode)

Critical review and testing of generated code

Basic application security

Deployment and documentation

Programme

20% input, 80% supervised building.

One project per participant, from specification to deployment, on a brief inspired by company situations (customer portal with order tracking, ticket management tool, field data collection application).

Technology stack of the current edition: FastAPI or Django, PostgreSQL, React or Next, Docker, GitHub Actions.

Cycle required for every feature: specify, generate, review, test, validate.

Daily code reviews in pairs.

Materials supplied: reference repository, library of development prompts, checklist for reviewing generated code, documentation template, glossary.

Personal action plan.

Follow-up session after three weeks.

Format

35 hours, 5 consecutive days of 7 hours, or 3 + 2 days a week apart with coaching between the modules. In person recommended, hybrid possible; in-company or open enrolment; 8 to 12 participants.

Assessment

Beforehand, an online placement test. During the course, a daily check quiz and code review. At the end, a demonstration of the application to a Yolea panel, assessed against a grid (features delivered, tests, security, deployment, ability to explain the code), an immediate feedback evaluation and a named certificate of completion. After three weeks, a follow-up session.

The last exercise is an action plan: three real tasks that you leave ready to equip with tools.

The course page online: yolea.ai/en/training/dev-201-ai-assisted-full-stack-development/

DEV-202 DevSecOps: securing the development chain with AI agents

Level	Duration	Price	Dates
Advanced	3 days	On quotation	Set with you

A secure application starts with a secure development chain: repository, pipeline, artefacts, deployment. In three days, the team builds security checks into its pipeline, hardens its access, and puts an AI agent in charge of triaging alerts, under human approval. A short format, brought down to three days.

Objectives

Map one's development chain (repository, integration, artefacts, deployment) and build its threat model, with attack points ranked by severity

Integrate into the pipeline static code analysis, dependency analysis, secret detection and container image scanning, with automatic blocking beyond a set threshold

Harden the repository and the pipeline: branch protection, mandatory reviews, least-privilege permissions, secrets stored outside the code and rotated

Deploy an AI agent that triages security alerts, proposes a fix and prepares the summary for human review, without ever merging on its own

Set up assisted monitoring of the chain (logs, alerts) and an incident response plan that is written down and tested on a scenario

Audience

Developers, DevOps engineers, application security managers, IT teams that have taken DEV-101 or already run a continuous integration pipeline.

Prerequisites

Have taken DEV-101 or run a continuous integration and deployment pipeline with Git and Docker on a daily basis. Checked by a placement test.

Technical prerequisites

One laptop per participant, 16 GB of memory recommended, with Git, Docker and a code editor installed before the first day (procedure supplied with the invitation).

Training Git repository, cloud environment and API keys for the agent supplied by Yolea, credits included.

For remote attendance, a stable connection of at least 10 Mbit/s, microphone and camera.

The participant's own pipeline accepted if it can be read.

Skills covered

Threat modelling

Automation of security checks

Hardening of access and secrets

Supervised AI assistance for security

Incident response on the development chain

Programme

25% input, 75% hands-on workshops.

A training chain that is deliberately vulnerable, cleaned up check by check.

Attack and defence exercise on the repository.

Supervised construction of the alert triage agent, with a written scope and human approval.

Practical cases inspired by company situations (securing a development chain, a compromised dependency, a secret exposed in a commit history).

Tools of the current edition: GitHub Actions, code and dependency analysers, image scanning, an agent built on LangGraph or Pydantic AI.

Materials supplied: reference repository, secure pipeline templates, threat model, incident response plan, glossary.

Personal action plan.

Follow-up session after three weeks.

Format

21 hours, 3 consecutive days of 7 hours, or 2 + 1 days a week apart with coaching between the modules. In person recommended, hybrid possible; in-company on your own chain or open enrolment; 8 to 12 participants.

Assessment

Beforehand, a placement test. During the course, check quizzes and a pipeline review. At the end, a practical challenge (secure a set chain and handle a simulated incident, assessed against a grid: active checks, hardened access, supervised agent, incident traced), an immediate feedback evaluation and a named certificate of completion. After three weeks, a follow-up session.

The last exercise is an action plan: three real tasks that you leave ready to equip with tools.

The course page online: yolea.ai/en/training/dev-202-devsecops-securing-the-development-chain-with-ai-agents/

DEV-203 Software testing: ISTQB Foundation preparation

Level	Duration	Price	Dates
Advanced	3 days	On quotation	Set with you

ISTQB Foundation. Preparation for the certification. The exam is taken with the certifying body.

The ISTQB Foundation syllabus, exercises and a mock exam. The programme delivered for large-account teams. The exam is taken separately, with the national board.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/dev-203-software-testing-istqb-foundation-preparation/

DEV-204 Advanced DevSecOps: containers, Kubernetes and the software supply chain

Level	Duration	Price	Dates
Expert	2 days	On quotation	Set with you

After DEV-202: image hardening, Kubernetes policies, artefact signing, software bill of materials and incident response on the platform.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/dev-204-advanced-devsecops-containers-kubernetes-and-the-software-supply-chain/

DEV-301 Industrialising: Kubernetes, Terraform, monitoring and cost control

Level	Duration	Price	Dates
Expert	3 days	On quotation	Set with you

When one application becomes ten, the infrastructure is described in code, deployed with one command and watched from a single dashboard. In three days, the experienced IT team moves from the administered machine to the reproducible platform, and leaves with a cost report on its own cloud bill.

Objectives

Describe a cloud infrastructure as code with Terraform, versioned, reproducible and cleanly destroyed

Deploy an application on Kubernetes (deployments, services, exposure, configuration, secrets) and make it scale automatically

Set up observability (metrics, logs, traces, alerts) and a platform dashboard

Define and test a backup, a restoration and a recovery plan on a loss scenario

Analyse a cloud bill, identify waste (oversizing, forgotten resources, no reservations) and produce a quantified reduction plan

Audience

DevOps and platform engineers, cloud administrators, architects, IT managers of multi-application or multi-site companies.

Prerequisites

Have taken DEV-101 or use Docker and a cloud provider on a daily basis, with Git. Checked by a placement test.

Technical prerequisites

One laptop per participant, 16 GB of memory recommended, with Docker, Git, Terraform and the Kubernetes command-line tool installed before the first day (procedure supplied with the invitation).

Training Kubernetes cluster, cloud accounts and credits supplied by Yolea.

For remote attendance, a stable connection of at least 10 Mbit/s, microphone and camera.

The participant's own cloud bill accepted for the cost workshop, anonymised if necessary.

Skills covered

Infrastructure as code

Container orchestration

Observability

Continuity and recovery

Financial management of the cloud

Programme

25% input, 75% hands-on workshops.

One platform used throughout the course, built from scratch in code, on which an application is deployed, monitored, broken and then restored.

Outage exercise on the third day.

Cost workshop on real bills.

Practical cases inspired by company situations (consolidated multi-site dashboard, mixed hosting with sensitive data at the client's site, monitoring of agents).

Tools of the current edition: Terraform, Kubernetes, GitHub Actions, an open-source monitoring stack.

Materials supplied: reference repository, reusable Terraform modules, manifest templates, recovery procedure, cost analysis grid, glossary.

Personal action plan.

Follow-up session after three weeks.

Format

21 hours, 3 consecutive days of 7 hours, or 2 + 1 days a week apart. In person recommended, hybrid possible; in-company or open enrolment; 8 to 12 participants.

Assessment

Beforehand, a placement test. During the course, check quizzes and an infrastructure code review. At the end, a practical challenge (rebuild a set platform from code, restore after a simulated outage, present a cost reduction plan, assessed against a grid), an immediate feedback evaluation and a named certificate of completion. After three weeks, a follow-up session.

The last exercise is an action plan: three real tasks that you leave ready to equip with tools.

The course page online: yolea.ai/en/training/dev-301-industrialising-kubernetes-terraform-monitoring-and-cost-control/

DEV-303 AWS Certified Cloud Practitioner preparation

Level	Duration	Price	Dates
Introductory	2 days	On quotation	Set with you

AWS Certified Cloud Practitioner. Preparation for the certification. The exam is taken with the certifying body.

Cloud concepts, AWS services, security and billing as covered by the exam, with practice questions. The exam is taken separately, with AWS.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/dev-303-aws-certified-cloud-practitioner-preparation/

DEV-304 Microsoft Azure Fundamentals (AZ-900) preparation

Level	Duration	Price	Dates
Introductory	1 day	On quotation	Set with you

Microsoft Azure Fundamentals (AZ-900). Preparation for the certification. The exam is taken with the certifying body.

Cloud concepts and Azure services as covered by the exam, with practice questions. The exam is taken separately, with Microsoft.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/dev-304-microsoft-azure-fundamentals-az-900-preparation/

DEV-305 Kubernetes CKA preparation

Level	Duration	Price	Dates
Expert	3 days	On quotation	Set with you

Certified Kubernetes Administrator (CKA). Preparation for the certification. The exam is taken with the certifying body.

The Certified Kubernetes Administrator exam syllabus in timed labs on a real cluster. The exam is taken separately, with the Linux Foundation.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/dev-305-kubernetes-cka-preparation/

Chapter 5

Cybersecurity and governance

Protect your systems and your data, and set a frame for your uses of AI. 8 courses

Code	Course	Level	Duration
SEC-101	Essential cybersecurity	Introductory	2 days
SEC-102	Personal data protection: Ivorian regulation and GDPR	Introductory	1 day
SEC-201	Data governance and responsible AI	Management	1 day
SEC-202	ISO/IEC 27001: fundamentals and implementation Prepares for ISO/IEC 27001	Advanced	2 days
SEC-203	Incident management and continuity plan	Management	1 day
SEC-301	Securing and governing an AI agent in production	Expert	2 days
SEC-302	Penetration testing: introduction to ethical hacking	Expert	3 days
SEC-303	Cloud security on AWS and Azure	Advanced	2 days

SEC-101 Essential cybersecurity

Level	Duration	Price	Dates
Introductory	2 days	On quotation	Set with you

Most incidents start with a click: a fake email, a pressing WhatsApp message, a reused password. In two days, every employee learns to recognise, refuse and report, and knows what to do in the first hour of an incident. The foundation that prevents most incidents.

Objectives

recognise, from real examples of emails, SMS and WhatsApp messages, a phishing or social-engineering attempt (fake supplier, CEO fraud, fake Mobile Money request) and follow their company's reporting procedure

create and manage strong passwords with a password manager, and enable two-factor authentication on their work accounts

apply data protection rules in daily work: file sharing, mobile devices, business WhatsApp, public networks, and what must never be passed to an AI assistant

respond to an incident following a five-step plan (isolate, do not erase, notify, document, restore), on the cases of a compromised workstation, a lost device and a fraudulent payment

identify the new AI-assisted frauds (cloned voice, fake visuals, personalised messages) and apply a rule of verification through a second channel before any action

Audience

All employees, whatever their role or technical level, including management, assistants and field teams equipped with work phones.

Prerequisites

None. Technical requirements: one computer or tablet for every two participants is enough; participants bring their work phone for the configuration workshops; for remote delivery, a stable connection of at least 5 Mbit/s, microphone and camera; the company's password manager, or a demonstration solution provided by Yolea.

Programme

40% short inputs, 60% workshops and practical scenarios

A gallery of real, anonymised fraudulent messages, sorted as a team

Phishing simulation between the first and the second day, with the written agreement of management, prior information of the participants and a collective debrief that names no individual

Configuration workshops on the participants' own devices

Timed incident role-play

Practical cases inspired by company situations and by security audits

Materials handed out: a memo of warning signs, a one-page incident procedure, an account configuration guide, a jargon-free glossary

A personal action plan of three tasks

Follow-up point at three weeks

Format

In-company or open enrolment (inter-company); in person, synchronous remote or hybrid; 14 hours, 2 days of 7 h, consecutive or one week apart; remotely, 4 sessions of 3 h 30; 8 to 15 participants, 12 at most for open enrolment.

Assessment

Beforehand, a positioning questionnaire. During the course, a check quiz and a practical challenge (sort twenty given messages and run the procedure on a given incident, the result being scored on a grid). At the end, an immediate feedback survey and a named certificate of course completion. At three weeks, a follow-up point and the result of the phishing simulation.

The last exercise is an action plan: three real tasks that you leave ready to equip with tools.

The course page online: yolea.ai/en/training/sec-101-essential-cybersecurity/

SEC-102 Personal data protection: Ivorian regulation and GDPR

Level	Duration	Price	Dates
Introductory	1 day	On quotation	Set with you

Obligations, register of processing activities, rights of individuals, processors and transfers, applied to your customer and HR files. For executives, HR, legal and IT. The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/sec-102-personal-data-protection-ivorian-regulation-and-gdpr/

SEC-201 Data governance and responsible AI

Level	Duration	Price	Dates
Management	1 day	On quotation	Set with you

Before connecting an AI assistant to your documents, three questions: where does your data live, who can query what, and what is the agent allowed to do on its own. In one day, management answers them in writing and leaves with an AI usage charter that applies from the next day.

Objectives

map the company's data by sensitivity level and hosting location, and decide for each category whether it may be processed by an external AI service, an internal one, or never

draft a ten-rule AI usage charter for employees, covering the data that may be shared, the approved tools, the checking of results and accountability

set the governance rules of an agent: actions allowed on its own, actions subject to human validation, logging, a named owner, response time in case of an incident

apply personal data protection obligations to an AI project (Ivorian regulation, GDPR for European customers): purpose, information of individuals, retention period, processors, hosting

require, from a project affecting people (recruitment, appraisal, credit granting), a bias check, an explanation of decisions and human validation, and read a bias report to reach a decision

Audience

Executives, IT directors and IT managers, HR directors, legal and compliance departments, data protection officers, quality and risk managers.

Prerequisites

Hold a responsibility over the company's data, systems or people. No technical skills. Technical requirements: a computer or tablet to consult the materials; for remote delivery, a stable connection, microphone and camera; participants bring the list of AI tools already used in the company, official or not, and an AI project under way or planned.

Programme

40% inputs, 60% decision workshops

Mapping of the company's data during the session

Drafting of the charter in small groups, then consolidation

Case studies inspired by company situations (assisted screening of applications, pre-assessment of credit files, a sales agent with access to the customer file), including the reading of a bias report and of a decision explanation

Decision game on an incident (data leaking to a public assistant)

Materials handed out: a data classification grid, a usage charter template, an agent governance scope template, a compliance checklist, a jargon-free glossary

Final deliverable: the company's charter

Follow-up point at three weeks

Format

In person preferably; in-company (extended management committee) or open enrolment (inter-company); 6 to 12 participants; 7 hours, 1 day; remotely, 2 sessions of 3 h 30 one week apart, the charter being drafted in between.

Assessment

Beforehand, a positioning questionnaire (tools in use, maturity). During the course, a decision case study corrected as a group. At the end, the charter and the governance grid are presented and scored on a grid, an immediate feedback survey and a named certificate of course completion. At three weeks, a follow-up point on the circulation of the charter.

The course page online: yolea.ai/en/training/sec-201-data-governance-and-responsible-ai/

SEC-202 ISO/IEC 27001: fundamentals and implementation

Level	Duration	Price	Dates
Advanced	2 days	On quotation	Set with you

ISO/IEC 27001. Preparation for the certification. The exam is taken with the certifying body.

The information security management system: scope, risk analysis, controls, internal audit. Prepares for the examinations of the certifying bodies, which are taken separately.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/sec-202-iso-iec-27001-fundamentals-and-implementation/

SEC-203 Incident management and continuity plan

Level	Duration	Price	Dates
Management	1 day	On quotation	Set with you

Who does what in the first hour, how to resume operations, how to communicate. A tabletop exercise on a real scenario from your company.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/sec-203-incident-management-and-continuity-plan/

SEC-301 Securing and governing an AI agent in production

Level	Duration	Price	Dates
Expert	2 days	On quotation	Set with you

An agent that reads your documents and acts in your tools is a new attack surface: instructions hidden in a file, data extraction, tool abuse. In two days, the technical team attacks a deliberately fragile agent, fixes it, logs it, and knows how to stop it with a single command.

Objectives

translate an agent's written scope (accessible data, authorised tools, forbidden actions, escalation cases) into technical controls: permissions, allow-lists, access segregation

test an agent against the attacks specific to it (direct and document-borne prompt injection, data extraction, tool hijacking) and fix the flaws found

log every action of the agent in a usable way (who, what, when, on which data, with what result), with a defined retention period

put human validation in place for irreversible actions, input and output guardrails, rate and cost limits, and an emergency stop

write the response plan for an incident involving an agent (wrong answer circulated, leak, behaviour drift) and run it during an exercise

Audience

Developers and AI engineers who have taken AGT-301 or who run an agent in production, security engineers, DevOps, technical teams taking over an agent built by a provider.

Prerequisites

Have taken AGT-301 or maintain an agent in production, and program in Python. Checked by a positioning test. Technical requirements: one laptop per participant, 16 GB of memory recommended, with Python 3, Docker, Git and a code editor installed before the first day (procedure provided with the invitation); a deliberately vulnerable training agent, a cloud environment, API keys and tracing tools provided by Yolea, credits included; for remote delivery, a stable connection of at least 10 Mbit/s, microphone and camera; the participant's own agent is accepted for the workshops if it can be deployed in the training environment.

Programme

25% inputs, 75% workshops

Alternating attack and defence on the training agent, each flaw exploited and then fixed

Building the action log and the supervision dashboard

Timed incident exercise on the second afternoon

Practical cases inspired by company situations (a WhatsApp sales agent with access to the catalogue and orders, an agent that pre-assesses files)

Tools of the current edition: LangGraph or Pydantic AI, MCP with permissions, LangSmith for traces, input and output guardrails

Materials handed out: a reference repository, a reusable battery of attack tests, a technical scope template, a log template, an incident response plan, a glossary

A personal action plan

Follow-up point at three weeks

Format

In person recommended, hybrid possible; in-company on your own agent, or open enrolment (inter-company); 8 to 12 participants; 14 hours, 2 consecutive days of 7 h; remotely, 4 sessions of 3 h 30 over two weeks.

Assessment

Beforehand, a positioning test. During the course, a check quiz and a configuration review. At the end, a practical challenge (secure a given agent against an unknown battery of attacks, log and handle a simulated incident, scored on a grid), an immediate feedback survey and a named certificate of course completion. At three weeks, a follow-up point.

The last exercise is an action plan: three real tasks that you leave ready to equip with tools.

The course page online: yolea.ai/en/training/sec-301-securing-and-governing-an-ai-agent-in-production/

SEC-302 Penetration testing: introduction to ethical hacking

Level	Duration	Price	Dates
Expert	3 days	On quotation	Set with you

Reconnaissance, supervised exploitation, test report, on a laboratory environment that is provided. To understand how attackers get in, and close the door.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/sec-302-penetration-testing-introduction-to-ethical-hacking/

SEC-303 Cloud security on AWS and Azure

Level	Duration	Price	Dates
Advanced	2 days	On quotation	Set with you

Identities and access, network, encryption, logging and detection on the two main providers, with workshops on training accounts.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/sec-303-cloud-security-on-aws-and-azure/

Chapter 6

Governance, standards and compliance

Govern information systems and meet the standards. 9 courses

Code	Course	Level	Duration
GOV-101	ITIL 4 Foundation: exam preparation Prepares for ITIL 4 Foundation	Introductory	3 days
GOV-102	COBIT 2019: governing information systems Prepares for COBIT 2019 Foundation	Advanced	3 days
GOV-203	ISO/IEC 27005 and EBIOS Risk Manager: managing risks	Advanced	3 days
GOV-204	ISO 22301: building a business continuity plan	Advanced	3 days
GOV-205	PCI DSS: securing payments, from cards to Mobile Money	Advanced	2 days
GOV-206	ISO/IEC 42001: setting up an AI management system	Advanced	2 days
GOV-207	Data protection officer: doing the job day to day	Advanced	3 days
GOV-301	ISO/IEC 27001 Lead Implementer: preparation Prepares for ISO/IEC 27001 Lead Implementer	Expert	5 days
GOV-302	ISO/IEC 27001 Lead Auditor: preparation Prepares for ISO/IEC 27001 Lead Auditor	Expert	5 days

GOV-101 ITIL 4 Foundation: exam preparation

Level	Duration	Price	Dates
Introductory	3 days	On quotation	Set with you

ITIL 4 Foundation. Preparation for the certification. The exam is taken with the certifying body.

Three days to understand how an IT department creates value, speak the common language of ITIL 4 and prepare for the Foundation exam, with practice included.

Objectives

explain the notions of service, value, product and service relationship, and illustrate them with a real service of their organisation

describe the four dimensions of service management and the seven guiding principles, and choose the one that sheds light on a given situation

place the activities of the service value chain and follow a user's request from end to end

tell apart the key practices of the syllabus (incident, problem, request and change management, service desk, service levels, continual improvement)

answer the questions of a mock exam under exam conditions and spot their weak points before the test

Audience

Support technicians, system and network administrators, service desk managers, IT project managers, business teams that buy or steer IT services.

Prerequisites

Having worked in or with an IT department. No prior knowledge of ITIL. Reading technical English helps, as the exam may be taken in French or in English depending on what the certifying body offers. Technical requirements: one laptop per participant with an up-to-date browser; for remote attendance, a stable connection, microphone and camera.

Programme

Day 1, The fundamentals: service, value, costs and risks, the role of customer and user; the four dimensions; workshop: describe a service of the organisation (email, payroll, business application) with this vocabulary.

Day 2, Value system and principles: the seven guiding principles applied to cases (a network outage at an up-country site, a mass access request at the start of the school year); the service value chain and its activities; quiz.

Day 3, Practices and exam: incidents, problems, requests, changes, service desk, service levels and continual improvement; a method for reading the questions; mock exam corrected question by question.

Format

3 days, 21 hours. In-company or inter-company; on site, live remote or hybrid; 8 to 12 participants. 3 consecutive days of 7 hours; remote, 6 sessions of 3 h 30 over two weeks. 50% input, 50% workshops: cases drawn from the running of an IT department, daily quizzes and a mock exam on the last day.

Assessment

Beforehand, a placement questionnaire. During the course, end-of-module quizzes and cases corrected as a group. At the end, a mock exam under exam conditions, corrected individually, followed by an end-of-course evaluation and a personal certificate of attendance. The certification exam is not included in the course: each participant books and sits it with the certifying body, under its own conditions. The conditions of access to the exam, including any accredited course, are set by the chosen certifying body: each participant checks them before registering.

The course page online: yolea.ai/en/training/gov-101-itil-4-foundation-exam-preparation/

GOV-102 COBIT 2019: governing information systems

Level	Duration	Price	Dates
Advanced	3 days	On quotation	Set with you

COBIT 2019 Foundation. Preparation for the certification. The exam is taken with the certifying body.

Link IT decisions to the organisation's goals, share responsibilities between management and teams, and prepare for the COBIT 2019 Foundation exam.

Objectives

- tell governance apart from management, and say who decides, who executes and who controls in their own organisation
- describe the components of a governance system and the framework's governance and management objectives
- use the design factors to tailor the framework to a given organisation (size, sector, WAEMU regulatory constraints, dependence on suppliers)
- cascade the organisation's goals into IT goals, then into priority governance objectives
- assess the capability level of a process and draw ranked improvement leads from it
- answer the questions of a mock exam under the conditions of the Foundation exam

Audience

IT directors and IT managers, internal auditors, management controllers, risk and compliance managers, governance consultants.

Prerequisites

Know how an IT department works, or have audited one. A first reading of a service management or security framework helps but is not required. Technical requirements: one laptop per participant with an up-to-date browser; for remote attendance, a stable connection, microphone and camera.

Programme

Day 1, Principles: governance and management, stakeholders, the principles of a governance system; workshop: map who decides what in a multi-site organisation (head office in Abidjan, branches up-country).

Day 2, Objectives and design: the governance and management objectives, the goals cascade, the design factors; case: a financial services company that depends on an external hosting provider and a Mobile Money partner.

Day 3, Performance and exam: capability levels, performance management, an implementation roadmap; a method for reading the questions; mock exam with corrections.

Format

3 days, 21 hours. In-company or inter-company; on site, live remote or hybrid; 8 to 12 participants. 3 consecutive days of 7 hours; remote, 6 sessions of 3 h 30 over two weeks. 50% input, 50% workshops: a case study of a fictional organisation followed over the three days, daily quizzes and a mock exam on the last day.

Assessment

Beforehand, a placement questionnaire. During the course, end-of-module quizzes and a case study corrected as a group. At the end, a mock exam under exam conditions, corrected individually, followed by an end-of-course evaluation and a personal certificate of attendance. The certification exam is not included in the course: each participant books and sits it with the certifying body, under its own conditions. The conditions of access to the exam, including any accredited course, are set by the chosen certifying body: each participant checks them before registering.

The course page online: yolea.ai/en/training/gov-102-cobit-2019-governing-information-systems/

GOV-203 ISO/IEC 27005 and EBIOS Risk Manager: managing risks

Level	Duration	Price	Dates
Advanced	3 days	On quotation	Set with you

Assess and treat information security risks with two complementary methods, ISO/IEC 27005 and EBIOS Risk Manager, on a fictional case followed over three days.

Objectives

place risk management within an information security management system and set evaluation and acceptance criteria

identify the business assets, the supporting assets, the risk sources and their objectives

build strategic and operational scenarios, for instance fraud on a Mobile Money payment flow or the loss of a site through a prolonged outage

estimate likelihood and severity, then choose a treatment (reduce, transfer, avoid, accept) and justify it

present residual risks to management and keep the risk register up to date

Audience

Information security officers, risk managers, auditors, project managers who must justify the security measures of a project.

Prerequisites

Know the basic notions of information security. Knowledge of ISO/IEC 27001 helps. Technical requirements: one laptop per participant with an up-to-date browser; for remote attendance, a stable connection, microphone and camera.

Programme

Day 1, The framework: the ISO/IEC 27005 risk management process, context, criteria; scoping workshop on a fictional WAEMU microfinance company.

Day 2, EBIOS Risk Manager, workshops 1 to 3: security baseline, risk sources, strategic scenarios and the ecosystem (suppliers, payment partners, hosting provider).

Day 3, Operational scenarios and treatment: operating modes, estimation, treatment plan, residual risks; presenting the results to a simulated management committee.

Format

3 days, 21 hours. In-company or inter-company; on site, live remote or hybrid; 8 to 12 participants. 3 consecutive days of 7 hours; remote, 6 sessions of 3 h 30 over two weeks. 35% input, 65% workshops: each team carries out the full analysis of a fictional case, from scoping to the management committee.

Assessment

Beforehand, a placement questionnaire. During the course, daily quizzes and workshop deliverables assessed on a grid. At the end, the team presents its risk register before a simulated committee, followed by an end-of-course evaluation and a personal certificate of attendance.

The course page online: yolea.ai/en/training/gov-203-iso-iec-27005-and-ebios-risk-manager-managing-risks/

GOV-204 ISO 22301: building a business continuity plan

Level	Duration	Price	Dates
Advanced	3 days	On quotation	Set with you

A lasting power cut, a lost network link, a site out of reach: in three days, build a continuity plan following ISO 22301 and test it through an exercise.

Objectives

place the requirements of ISO 22301 and define the scope of a business continuity management system

conduct a business impact analysis and set, for each activity, the maximum tolerable downtime and the acceptable data loss

choose suitable continuity strategies: backup power, backup links, fallback to another site, remote work, degraded modes on paper

write a continuity plan and a crisis management plan that the on-call team can use

prepare, run and debrief an exercise, then improve the plan

Audience

Continuity and risk managers, IT directors, operations and logistics managers, quality managers, site directors.

Prerequisites

Know the organisation and the main activities of their company. No prior knowledge of the standard. Technical requirements: one laptop per participant with an up-to-date browser; for remote attendance, a stable connection, microphone and camera.

Programme

Day 1, Understanding and scoping: requirements of the standard, context, interested parties; business impact analysis of a fictional company with a head office in Abidjan and two up-country sites.

Day 2, Choosing and writing: continuity strategies and solutions, dependencies on suppliers (power, network, hosting provider, payment partner); writing the plan and the crisis directory.

Day 3, Testing: a tabletop exercise on a prolonged outage hitting one site, crisis communication, debrief, improvement actions and follow-up by management.

Format

3 days, 21 hours. In-company or inter-company; on site, live remote or hybrid; 8 to 12 participants. 3 consecutive days of 7 hours; remote, 6 sessions of 3 h 30 over two weeks. 35% input, 65% workshops: each team builds the plan of a fictional company, then tests it in an exercise on the last day.

Assessment

Beforehand, a placement questionnaire. During the course, daily quizzes and workshop deliverables (impact analysis, strategies) assessed on a grid. At the end, a tabletop exercise assessed on a grid and the team's plan reviewed by the trainer, followed by an end-of-course evaluation and a personal certificate of attendance.

The course page online: yolea.ai/en/training/gov-204-iso-22301-building-a-business-continuity-plan/

GOV-205 PCI DSS: securing payments, from cards to Mobile Money

Level	Duration	Price	Dates
Advanced	2 days	On quotation	Set with you

Understand the PCI DSS requirements for card data, reduce their scope, and apply the same control logic to Mobile Money flows, which the standard does not cover.

Objectives

explain who PCI DSS applies to, which data it protects and how roles are shared between merchant, service provider and assessor

delimit the cardholder data environment and reduce it through segmentation, tokenisation and the use of a provider whose PCI DSS compliance is validated

link the standard's requirements to concrete measures: network, configuration, encryption, access, logging, testing

apply this control logic to a Mobile Money flow (partner API, reconciliations, service accounts, internal fraud), within the framework set by the BCEAO for the WAEMU

prepare a self-assessment or an audit and follow up its gaps

Audience

Security managers, technical teams of banks, microfinance institutions, payment companies and online merchants, card payment project managers, internal auditors.

Prerequisites

Know the basics of IT security and how an online payment works. Technical requirements: one laptop per participant with an up-to-date browser; for remote attendance, a stable connection, microphone and camera.

Programme

Day 1, The standard and the scope: actors, protected data, requirements, validation levels; workshop: map the payment flows of a fictional online merchant and reduce its scope.

Day 2, Controls in practice: technical and organisational measures, expected evidence; case of a Mobile Money flow (API, daily reconciliation, privileged accounts); preparing a self-assessment.

Format

2 days, 14 hours. In-company or inter-company; on site, live remote or hybrid; 8 to 12 participants. 2 consecutive days of 7 hours; remote, 4 sessions of 3 h 30 over two weeks. 40% input, 60% workshops: participants work on the payment flows of a fictional merchant, card and Mobile Money.

Assessment

Beforehand, a placement questionnaire. During the course, end-of-day quizzes and the flow map assessed on a grid. At the end, the team presents its self-assessment, followed by an end-of-course evaluation and a personal certificate of attendance.

The course page online: yolea.ai/en/training/gov-205-pci-dss-securing-payments-from-cards-to-mobile-money/

GOV-206 ISO/IEC 42001: setting up an AI management system

Level	Duration	Price	Dates
Advanced	2 days	On quotation	Set with you

Frame the development and use of AI in an organisation with ISO/IEC 42001: roles, risks, impact assessment, controls and continual improvement.

Objectives

explain the structure of the standard and its kinship with the other management system standards

inventory the organisation's AI systems, official or not, and define the scope of the management system

conduct a risk assessment and an impact assessment of an AI system on people, for instance a credit-decision support tool

choose the Annex A controls and write an AI policy within the framework of Law No. 2013-450

plan monitoring, internal audit and the management review

Audience

Compliance and risk managers, IT directors, data protection officers, AI project managers, internal auditors.

Prerequisites

Know how AI is used in their organisation. Knowledge of a management system standard (ISO 9001, ISO/IEC 27001) helps. Technical requirements: one laptop per participant with an up-to-date browser; for remote attendance, a stable connection, microphone and camera.

Programme

Day 1, Understanding and scoping: requirements of the standard, context, roles (provider, user, partner), inventory of AI systems; workshop: scope of a fictional financial services company.

Day 2, Risks and controls: risk assessment, impact assessment, Annex A controls, AI policy, indicators, internal audit and management review; teams present their work.

Format

2 days, 14 hours. In-company or inter-company; on site, live remote or hybrid; 8 to 12 participants. 2 consecutive days of 7 hours; remote, 4 sessions of 3 h 30 over two weeks. 40% input, 60% workshops: each team builds the inventory, the impact assessment and the AI policy of a fictional organisation.

Assessment

Beforehand, a placement questionnaire. During the course, end-of-day quizzes and workshop deliverables assessed on a grid. At the end, the team presents its AI policy and impact assessment, followed by an end-of-course evaluation and a personal certificate of attendance.

The course page online: yolea.ai/en/training/gov-206-iso-iec-42001-setting-up-an-ai-management-system/

GOV-207 Data protection officer: doing the job day to day

Level	Duration	Price	Dates
Advanced	3 days	On quotation	Set with you

Three days to do the job of data protection officer in Côte d'Ivoire: records, data subjects' rights, processors, data breaches, relations with ARTCI.

Objectives

explain the principles of Law No. 2013-450 on the protection of personal data and the role of ARTCI

keep the record of processing activities and identify those that call for a formality with ARTCI

answer a request for access, rectification or objection properly, from suitable templates

frame processors and transfers of data outside the country through clauses and checks

handle a data breach, from the internal report to the decision to inform, in connection with Law No. 2013-451 on cybercrime

build the officer's yearly programme: awareness, checks, report to management

Audience

Newly appointed data protection officers or correspondents, lawyers, compliance managers, HR managers, IT directors.

Prerequisites

No legal training required. Know the activities and the main software of their organisation. Technical requirements: one laptop per participant with an up-to-date browser; for remote attendance, a stable connection, microphone and camera.

Programme

Day 1, The framework: principles of the law, legal bases, the role of ARTCI, the officer's place in the organisation; workshop: first inventory of processing activities (payroll, CCTV, customer file, Mobile Money payments).

Day 2, The tools: record of processing, impact assessments, information notices, answers to data subjects' requests, contracts with processors and the hosting provider, transfers outside the country.

Day 3, Day to day: a data breach exercise, choosing and recording decisions, team awareness, yearly programme and report to management.

Format

3 days, 21 hours. In-company or inter-company; on site, live remote or hybrid; 8 to 12 participants. 3 consecutive days of 7 hours; remote, 6 sessions of 3 h 30 over two weeks. 40% input, 60% workshops: participants work on the processing activities of their own organisation or of a fictional one and leave with their templates.

Assessment

Beforehand, a placement questionnaire. During the course, daily quizzes and workshop deliverables (record, answer to a request) assessed on a grid. At the end, a data breach exercise assessed on a grid, followed by an end-of-course evaluation and a personal certificate of attendance.

The course page online: yolea.ai/en/training/gov-207-data-protection-officer-doing-the-job-day-to-day/

GOV-301 ISO/IEC 27001 Lead Implementer: preparation

Level	Duration	Price	Dates
Expert	5 days	On quotation	Set with you

ISO/IEC 27001 Lead Implementer. Preparation for the certification. The exam is taken with the certifying body.

Five days to lead the set-up of an information security management system, from the scope to the management review, and prepare for the Lead Implementer exam.

Objectives

define the scope of an information security management system and justify it before management

conduct a risk assessment and derive the statement of applicability of the Annex A controls from it

write the policy, procedures and records the standard requires, without producing needless documents

plan awareness, incident management and continuity, taking power and network cuts into account

steer the indicators, the internal audit and the management review, then prepare the certification audit

answer the questions of a mock exam under the conditions of the Lead Implementer exam

Audience

Information security officers, compliance project managers, IT directors, consultants, quality managers who carry a certification project.

Prerequisites

Know the basics of IT security (access, backup, vulnerabilities); a first reading of ISO/IEC 27001 is advised. Two years of experience in IT, security or quality is desirable. Technical requirements: one laptop per participant with an up-to-date browser; for remote attendance, a stable connection, microphone and camera.

Programme

Day 1, Framing: structure of the standard, requirements of clauses 4 to 10, context and interested parties; workshop: scope of a fictional company with a head office in Abidjan, a warehouse in San-Pédro and external hosting.

Day 2, Assessing risks: method, assets, threats, vulnerabilities, acceptance criteria; workshop: risk register and choice of treatments; first draft of the statement of applicability.

Day 3, Implementing: the organisational, people, physical and technological controls of Annex A; useful documentation; awareness; incident management within the framework of Law No. 2013-450 and Law No. 2013-451.

Day 4, Steering: indicators, monitoring, internal audit, management review, nonconformities and corrective actions; preparing for the certification audit and dealing with the certification body.

Day 5, Synthesis and exam: review of the fictional company's file; a method for reading the questions; mock exam with corrections.

Format

5 days, 35 hours. In-company or inter-company; on site, live remote or hybrid; 8 to 12 participants. 5 consecutive days of 7 hours; remote, 10 sessions of 3 h 30 over two weeks. 40% input, 60% workshops: each team builds the file of a fictional company from the first day to the last, with a mock exam on the fifth day.

Assessment

Beforehand, a placement questionnaire. During the course, daily quizzes and workshop deliverables (scope, risk register, statement of applicability) assessed on a grid. At the end, a mock exam under exam conditions, corrected individually, followed by an end-of-course evaluation and a personal certificate of attendance. The certification exam is not included in the course: each participant books and sits it with the certifying body, under its own conditions. The conditions of access to the exam, including any accredited course, are set by the chosen certifying body: each participant checks them before registering.

The course page online: yolea.ai/en/training/gov-301-iso-iec-27001-lead-implementer-preparation/

GOV-302 ISO/IEC 27001 Lead Auditor: preparation

Level	Duration	Price	Dates
Expert	5 days	On quotation	Set with you

ISO/IEC 27001 Lead Auditor. Preparation for the certification. The exam is taken with the certifying body.

Five days to prepare, conduct and conclude an audit of an information security management system following ISO 19011, and prepare for the Lead Auditor exam.

Objectives

apply the principles of auditing and the ISO 19011 guidelines to an information security management system

draw up an audit programme and an audit plan, and prepare checklists from the requirements and the auditee's context

collect evidence through interviews, observation and document review, including remotely when a site is hard to reach

write factual findings and grade nonconformities, without mixing up a finding and a recommendation

run the opening and closing meetings, write the report and follow up corrective actions

answer the questions of a mock exam under the conditions of the Lead Auditor exam

Audience

Internal auditors, audit firm auditors, information security officers, quality managers, consultants asked to assess a supplier or a partner.

Prerequisites

Know the requirements of ISO/IEC 27001 (a Lead Implementer course or equivalent practice is advised). Two years of experience in audit, security or quality is desirable. Technical requirements: one laptop per participant with an up-to-date browser; for remote attendance, a stable connection, microphone and camera.

Programme

Day 1, Audit basics: principles, types of audit, the role of the auditor and of the certification body; rereading the standard's requirements from the auditor's point of view.

Day 2, Preparing: audit programme, document review, audit plan, checklists; workshop on a fictional distribution company with branches in Abidjan and Korhogo.

Day 3, Conducting: opening meeting, interviews, sampling, evidence; auditor and auditee role plays, including a remote interview over an unstable link.

Day 4, Concluding: writing findings, grading nonconformities, closing meeting, audit report, follow-up of corrective actions and surveillance audits.

Day 5, Synthesis and exam: review of the teams' reports; a method for reading the questions; mock exam with corrections.

Format

5 days, 35 hours. In-company or inter-company; on site, live remote or hybrid; 8 to 12 participants. 5 consecutive days of 7 hours; remote, 10 sessions of 3 h 30 over two weeks. 40% input, 60% workshops: audit role plays on a fictional company, writing findings and a mock exam on the fifth day.

Assessment

Beforehand, a placement questionnaire. During the course, daily quizzes and audit role plays assessed on a grid. At the end, a team audit report and a mock exam under exam conditions, corrected individually, followed by an end-of-course evaluation and a personal certificate of attendance. The certification exam is not included in the course: each participant books and sits it with the certifying body, under its own conditions. The conditions of access to the exam, including any accredited course, are set by the chosen certifying body: each participant checks them before registering.

The course page online: yolea.ai/en/training/gov-302-iso-iec-27001-lead-auditor-preparation/

Chapter 7

Networks, systems and IT security

Administer, monitor and harden your infrastructure. 9 courses

Code	Course	Level	Duration
NET-101	Fundamentals of TCP/IP Networks	Introductory	3 days
NET-102	Linux Administration for Operations	Introductory	3 days
NET-103	Windows Server and Active Directory: Administration	Introductory	3 days
NET-201	Network Security: Firewalls, VPN, Segmentation	Advanced	3 days
NET-202	Enterprise Network Monitoring and Operations	Advanced	2 days
NET-203	Hardening Linux and Windows Systems	Advanced	2 days
NET-204	Cisco CCNA Preparation Prepares for Cisco CCNA	Advanced	5 days
NET-205	CompTIA Security+ Preparation Prepares for CompTIA Security+	Advanced	5 days
NET-301	Incident Response and Forensic Analysis	Expert	3 days

NET-101 Fundamentals of TCP/IP Networks

Level	Duration	Price	Dates
Introductory	3 days	On quotation	Set with you

Addressing, routing, switching, DNS, DHCP, VLANs: build a complete enterprise network on a simulator and on hardware, and diagnose common faults.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/net-101-fundamentals-of-tcp-ip-networks/

NET-102 Linux Administration for Operations

Level	Duration	Price	Dates
Introductory	3 days	On quotation	Set with you

Command line, users and permissions, services, logs, networking, operations scripts. The foundation for teams that host applications and agents.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/net-102-linux-administration-for-operations/

NET-103 Windows Server and Active Directory: Administration

Level	Duration	Price	Dates
Introductory	3 days	On quotation	Set with you

Domain, users and groups, group policies, shares, backups and monitoring. On a training domain that reproduces an SME of fifty workstations.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/net-103-windows-server-and-active-directory-administration/

NET-201 Network Security: Firewalls, VPN, Segmentation

Level	Duration	Price	Dates
Advanced	3 days	On quotation	Set with you

Filtering rules, zones, site-to-site and remote-access VPN, VLAN segmentation, logging. Each participant secures a deliberately open training network.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/net-201-network-security-firewalls-vpn-segmentation/

NET-202 Enterprise Network Monitoring and Operations

Level	Duration	Price	Dates
Advanced	2 days	On quotation	Set with you

Set up monitoring (availability, load, alerts), document the network and maintain an operations plan. On an open monitoring stack, installed during the session.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/net-202-enterprise-network-monitoring-and-operations/

NET-203 Hardening Linux and Windows Systems

Level	Duration	Price	Dates
Advanced	2 days	On quotation	Set with you

Reduce the attack surface of servers and workstations: accounts, services, updates, encryption, logs, checklists applied and verified during the session.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/net-203-hardening-linux-and-windows-systems/

NET-204 Cisco CCNA Preparation

Level	Duration	Price	Dates
Advanced	5 days	On quotation	Set with you

Cisco CCNA. Preparation for the certification. The exam is taken with the certifying body.

The CCNA exam syllabus in workshops on a simulator and on hardware, with timed mock exams. The exam is taken with Cisco, separately.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/net-204-cisco-ccna-preparation/

NET-205 CompTIA Security+ Preparation

Level	Duration	Price	Dates
Advanced	5 days	On quotation	Set with you

CompTIA Security+. Preparation for the certification. The exam is taken with the certifying body.

Threats, architectures, operations and security governance from the exam syllabus, with practice questions. The exam is taken with CompTIA, separately.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/net-205-comptia-security-preparation/

NET-301 Incident Response and Forensic Analysis

Level	Duration	Price	Dates
Expert	3 days	On quotation	Set with you

Detect, contain, collect evidence, analyse a compromised workstation and server, write the report. On intrusion scenarios replayed in a lab.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/net-301-incident-response-and-forensic-analysis/

Chapter 8

Project management and agile

Lead an IT project and work in an agile team. 6 courses

Code	Course	Level	Duration
PRJ-101	Fundamentals of IT Project Management	Introductory	2 days
PRJ-102	Scrum Master: PSM I Preparation Prepares for PSM I (Scrum.org)	Introductory	2 days
PRJ-103	Product Owner	Advanced	2 days
PRJ-202	PRINCE2 Foundation: preparation Prepares for PRINCE2 Foundation	Advanced	3 days
PRJ-203	Business analysis: gathering and framing the need	Advanced	3 days
PRJ-301	PMP preparation Prepares for PMP (PMI)	Expert	5 days

PRJ-101 Fundamentals of IT Project Management

Level	Duration	Price	Dates
Introductory	2 days	On quotation	Set with you

Scope, plan, monitor and close a digital project: scope, milestones, risks, budget, committee. Applied to each participant's own real project.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/prj-101-fundamentals-of-it-project-management/

PRJ-102 Scrum Master: PSM I Preparation

Level	Duration	Price	Dates
Introductory	2 days	On quotation	Set with you

PSM I (Scrum.org). Preparation for the certification. The exam is taken with the certifying body.

The Scrum framework, roles, events and artifacts, with a sprint simulation and a mock exam. The PSM I exam is taken separately with Scrum.org.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/prj-102-scrum-master-psm-i-preparation/

PRJ-103 Product Owner

Level	Duration	Price	Dates
Advanced	2 days	On quotation	Set with you

Product vision, backlog, value-based prioritisation, acceptance criteria, indicator-driven steering. On a real product of the company.
The detailed programme comes with the quote.

The course page online: yolea.ai/en/training/prj-103-product-owner/

PRJ-202 PRINCE2 Foundation: preparation

Level	Duration	Price	Dates
Advanced	3 days	On quotation	Set with you

PRINCE2 Foundation. Preparation for the certification. The exam is taken with the certifying body.

Understand the PRINCE2 method, its principles, practices and processes, apply it to a fictional project and prepare for the Foundation exam.

Objectives

explain the principles of the method and why they apply to any project

describe the roles of the project organisation, from the project board to the team manager

apply the practices (business case, organising, plans, quality, risk, issues, progress) to a fictional project

follow the processes from start-up to closure and say which document serves at which moment

answer the questions of a mock exam under the conditions of the Foundation exam

Audience

Project managers, project team members, project office managers, sponsors and managers who steer projects.

Prerequisites

A first experience of projects, as a team member or as a lead. No prior knowledge of the method. Technical requirements: one laptop per participant with an up-to-date browser; for remote attendance, a stable connection, microphone and camera.

Programme

Day 1, Principles and roles: the method, its principles, the project organisation; workshop: form the project board of a fictional project rolling out software across branches in the country.

Day 2, Practices: business case, plans, quality, risk, issues and progress applied to the fictional project; quiz.

Day 3, Processes and exam: from start-up to closure, division into stages, management by exception; a method for reading the questions; mock exam with corrections.

Format

3 days, 21 hours. In-company or inter-company; on site, live remote or hybrid; 8 to 12 participants. 3 consecutive days of 7 hours; remote, 6 sessions of 3 h 30 over two weeks. 50% input, 50% workshops: a fictional project followed over the three days, daily quizzes and a mock exam on the last day.

Assessment

Beforehand, a placement questionnaire. During the course, end-of-module quizzes and cases corrected as a group. At the end, a mock exam under exam conditions, corrected individually, followed by an end-of-course evaluation and a personal certificate of attendance. The certification exam is not included in the course: each participant books and sits it with the certifying body, under its own conditions. The conditions of access to the exam, including any accredited course, are set by the chosen certifying body: each participant checks them before registering.

The course page online: yolea.ai/en/training/prj-202-prince2-foundation-preparation/

PRJ-203 Business analysis: gathering and framing the need

Level	Duration	Price	Dates
Advanced	3 days	On quotation	Set with you

Gather the need from the business, put it in writing and get it approved before a line of code is written: interviews, workshops, process modelling, testable requirements.

Objectives

identify a project's stakeholders and choose the right elicitation technique for each (interview, workshop, field observation)

run an elicitation interview and workshop, and draw an approved summary from them

model a current process and a target process, for instance collecting payments by Mobile Money across a branch network

write testable requirements and user stories, with their acceptance criteria

prioritise the need with the business and manage change requests

Audience

Business analysts, project managers, product owners, business referents, developers asked to write specifications.

Prerequisites

A first experience of an IT project, on the business side or the technical side. Technical requirements: one laptop per participant with an up-to-date browser; for remote attendance, a stable connection, microphone and camera.

Programme

Day 1, Understanding the need: the analyst's role, stakeholders, elicitation techniques; interview role play with a fictional branch manager.

Day 2, Modelling: current and target processes, business rules, data; workshop on collecting payments by Mobile Money and passing takings up to head office.

Day 3, Specifying and validating: requirements, user stories, acceptance criteria, prioritisation, change management; cross-review of the teams' specifications.

Format

3 days, 21 hours. In-company or inter-company; on site, live remote or hybrid; 8 to 12 participants. 3 consecutive days of 7 hours; remote, 6 sessions of 3 h 30 over two weeks. 30% input, 70% workshops: participants carry out the elicitation and specification of a fictional project or of a project of their organisation.

Assessment

Beforehand, a placement questionnaire. During the course, role plays and workshop deliverables assessed on a grid. At the end, the team's specification reviewed by peers and by the trainer, followed by an end-of-course evaluation and a personal certificate of attendance.

The course page online: yolea.ai/en/training/prj-203-business-analysis-gathering-and-framing-the-need/

PRJ-301 PMP preparation

Level	Duration	Price	Dates
Expert	5 days	On quotation	Set with you

PMP (PMI). Preparation for the certification. The exam is taken with the certifying body.

Five days to review predictive, agile and hybrid project management as the PMP exam assesses it, and practise on situational questions.

Objectives

place the domains of the exam content outline published by PMI, in its current version

lead a team: roles, motivation, conflicts, stakeholders, teams spread between Abidjan and other cities

choose a predictive, agile or hybrid approach to suit the project, and apply its planning, tracking and risk control tools

link the project to the organisation's strategy and constraints: value, compliance, change

answer situational questions by reasoning the way the exam expects, and manage their time over a long test

Audience

Experienced project managers, programme managers, IT and works project managers, consultants aiming for the PMP certification.

Prerequisites

Real experience of leading projects. The exam eligibility conditions (experience, training hours) are set by PMI: each participant checks them with PMI before enrolling. Reading English helps. Technical requirements: one laptop per participant with an up-to-date browser; for remote attendance, a stable connection, microphone and camera.

Programme

Day 1, The framework: the exam and its content outline, life cycle, predictive, agile and hybrid approaches; diagnosis of each participant's strong and weak points.

Day 2, People: leadership, forming and running a team, conflicts, stakeholders, communication; case of a project run over several sites.

Day 3, Process, part 1: scope, schedule, costs, quality, resources; predictive and agile tools side by side.

Day 4, Process, part 2, and the environment: risks, procurement, changes, closure; value, compliance and change management.

Day 5, Practice: series of situational questions, reasoned correction, time management; mock exam with corrections and a personal revision schedule.

Format

5 days, 35 hours. In-company or inter-company; on site, live remote or hybrid; 8 to 12 participants. 5 consecutive days of 7 hours; remote, 10 sessions of 3 h 30 over two weeks. 50% input, 50% workshops: project cases, series of situational questions every day and a mock exam on the fifth day.

Assessment

Beforehand, a placement questionnaire. During the course, daily quizzes and series of questions corrected as a group. At the end, a mock exam under exam conditions, corrected individually, followed by an end-of-course evaluation and a personal certificate of attendance. The certification exam is not included in the course: each participant books and sits it with the certifying body, under its own conditions. The conditions of access to the exam, including any accredited course, are set by the chosen certifying body: each participant checks them before registering.

The course page online: yolea.ai/en/training/prj-301-pmp-preparation/

Chapter 9

Data center

Design, size, operate and audit a data center. 1 course

Code	Course	Level	Duration
DC-101	Data center: from design to operations	Introductory	5 days

DC-101 Data center: from design to operations

Level	Duration	Price	Dates
Introductory	5 days	On quotation	Set with you

Five in-person days, from zero to a complete view of a data center: choosing the site, power, cooling, network, security, then an on-site audit and a defence. About 60% hands-on work, in a simulated environment.

Objectives

- explain the role, the types and the stakes of a data center, including in the Ivorian context
- apply ANSI/BICSI 002-2024 and ANSI/TIA-942-C to determine an availability class (F0 to F4)
- assess a candidate site for a data center
- size a complete Class F3 power chain: medium-voltage supply, transformers, generator sets, UPS units, batteries, distribution
- size a cooling system suited to a tropical climate, including liquid cooling for AI
- design the network architecture, structured cabling, fire protection and physical security

lead commissioning and operations: DCIM, procedures, PUE, WUE, CUE and REF indicators

audit an existing data center and produce an actionable report

use Claude Code responsibly as an engineering assistant

defend a design before a jury, with budget and sustainability in support

Audience

Engineers and technicians in electrical engineering, cooling/HVAC, networks and telecoms; project managers, project owners and project supervisors for digital infrastructure; operations, monitoring and security teams; auditors and consultants; final-year engineering students; public officials involved in the State's digital projects.

Prerequisites

No data center prerequisite: the course starts from zero and reviews the basics in the first two days. Required: fluent French, comfort with a computer (office software, web browser, installing software), and a taste for teamwork. Desirable, not blocking: basic notions of electricity (kW, kVA, three-phase), IP networks and the Linux command line; ability to read technical English, since the standards are published in English. Equipment: a compliant laptop (64-bit, 4 cores, 8 GB of RAM at minimum and 16 GB recommended, 25 GB free on an SSD, virtualisation enabled, Windows 11 or an up-to-date Windows 10 with WSL2, or Ubuntu 24.04 LTS, administrator account, Wi-Fi, recent browser with graphics acceleration), with at least one workstation for every two learners. A Claude account with access to Claude Code, activated before D-7: at least one per team, ideally one per learner. An e-mail address. Remote preparation at D-7: installation of the free software and a check of the workstation, guided step by step.

Programme

Remote preparation (D-7): installation and check of the workstations, activation of the Claude Code accounts.

Day 1, Foundations: understand, standardise, choose the site. Kick-off with the fictional tender for a Class F3 data center (the running case, a fictional teaching case inspired by public information) and formation of the teams. The data center, heart of the digital world: placement test, types (enterprise, colocation, cloud, edge, AI), anatomy of a site, the Ivorian context, demonstration of the 3D LEGO model. The common language: ANSI/BICSI 002-2024, TIA-942-C, Uptime Institute, EN 50600, ASHRAE; availability classes F0 to F4; workshop “which class for the running case?”; critical reading of sources. Choosing the right plot (BICSI §5): risks, utilities, regulation; lab analysing the case site and its climate (QGIS, Python). Claude Code, your AI pair: getting started, rules of use, “hallucination hunt”, lab on an AI-assisted functional brief. Debrief, quiz of the day, badge award.

Day 2, Architecture and energy: from space to the power chain. Spaces, building and structure (BICSI §6 to §8): room programme, densities, loads; sizing exercise for the computer room. The complete power chain (§9): medium-voltage incomers, transformers, switchboards, generator sets, UPS units, lithium batteries, A/B distribution, earthing and lightning protection, electrical safety. Lab: electrical calculation note (Python, Marimo notebook) and single-line diagram. Lab: power grid simulation (pandapower), loss of one element and simultaneous maintenance; AI-assisted cross-review. Debrief, quiz of the day, badge award.

Day 3, Cooling, network, security and fire: cool, connect, protect. Cooling in the tropics (§10, ASHRAE): chillers, chilled water, aisle containment, liquid cooling of AI racks, water consumption. Lab: thermal behaviour and airflow. Network and cabling (§14, §15, TIA-942-C): telecom spaces, spine-leaf architecture, diversity of entrance routes. Lab: spine-leaf network (containerlab, FRRouting). Fire protection, physical security and building systems (§11 to §13). Audit methodology (ISO 19011, 197-point grid) and preparation of the audit case. Debrief, quiz of the day, badge award.

Day 4, Audit and operations: contact with reality. Safety briefing and allocation of audit roles. Team audit of an existing data center (“DC Legacy” case: full file, measurements, interview), using the mobile audit tool. Commissioning and operations (§16, §17, BICSI 009): commissioning, SOP/MOP/EOP procedures, PUE, WUE, CUE and REF indicators, sustainability. Lab: DCIM and monitoring (NetBox, Prometheus, Grafana), then the “Blackout” Game Day: incident management in real time. Debrief, quiz of the day, badge awards.

Day 5, Hero: audit, final design, defence. Lab: audit report (evidence, findings, risks, roadmap) with AI assistance. Final design sprint: running-case file, CAPEX and TCO, renewable energy balance, review by AI agents. Individual final exam (40 multiple-choice questions and a short numerical case). Defence of the teams' work before a technical jury, jury feedback and trophy award. Close: course evaluation, award of attestations, 30-day progression plan.

Claude Code every day, with safeguards: AI proposes, the engineer decides. A preconfigured workspace (project context, specialised sub-agents for electrical engineering, mechanical engineering, networking, fire safety, audit and project management) helps frame the project, write sizing scripts, produce diagrams, review designs, and draft procedures and the audit report. Every result is checked and logged in an AI journal; no confidential data from an audited site is given to the AI without written authorisation; the text of the standards is never reproduced; professional responsibility stays with people.

Reference standards used, cited by section and paraphrased: ANSI/BICSI 002-2024, BICSI 009, ANSI/TIA-942-C (2024), Uptime Institute Tier Standard, EN 50600 / ISO/IEC 22237, ASHRAE TC 9.9, ISO/IEC 30134 (PUE, WUE, CUE, REF), ISO/IEC 27001:2022, ISO 22301, ISO 19011, NFPA 75, 2001, 70E and 855, IEC 62305, NF C 15-100.

Format

5 days, 35 hours, in person, from 08:30 to 17:00, with lunch from 12:30 to 13:30 and two 15-minute breaks, preceded by remote preparation at D-7 (workstation set-up and check, activation of Claude Code accounts). About 60% hands-on work (indicative), in a simulated environment with 100% free and open-source professional tools: QGIS, Python, Marimo, pandapower, containerlab, FRRouting, NetBox, Prometheus, Grafana, GLPI, QElectroTech, draw.io, LibreOffice. Short interactive talks backed by verified figures and real cases, demonstrations on an interactive 39-step 3D LEGO model, guided labs, team workshops in groups of 3 to 4 participants on a fictional running case (a tender between design offices), a guided audit of an existing data center, a “Game Day” incident simulation and a defence before a jury. Claude Code is used every day as an engineering partner. Language: French, with English technical terms explained. Digital materials can be used with a keyboard, in day, night or high-contrast theme; any specific need reported at registration is looked into.

Assessment

Placement test on the first day and post-test on the last day, to measure individual progress. Weighting: daily quizzes 15%, team deliverables (D1 to D4) 25%, audit report (D5) 20%, individual final exam 20%, defence before a jury 20%. Pass mark of 60%; “Hero” distinction from 85%. A named attestation of success is issued by the trainer. It attests that the course was passed: it is not an official certification, and it is neither affiliated with nor endorsed by BICSI, Uptime Institute, TIA, Anthropic or Microsoft. The course is aligned with the good practices of ANSI/BICSI 002-2024, with no BICSI affiliation or certification.

The course page online: yolea.ai/en/training/dc-101-data-center-from-design-to-operations/

Not sure which one to choose?

Tell us who you want to train, and in what. The programme and the volume are settled with you, after analysing the need.

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