ALALAMIA
PROFESSIONAL DEVELOPMENT
العالمية للتطوير المهني

EXECUTIVE EDUCATION · ALALAMIA

Chief Technology Officer Program

Transforming growth through AI and technology

12 weeks | Every Saturday | 66 contact hours | In person in Damascus | English & Arabic

12	66	4	1
Weeks, one Saturday each	Contact hours	Modules	Capstone project

Damascus, Mazzeh Western Villas, Syria

alalamia-sy.com · info@alalamia-sy.com · +963 991 099 555

PROGRAM OVERVIEW

Chief Technology Officer Program

A 12-week executive program for leaders who shape how their organization uses technology. You will cover technology strategy and roadmaps, AI and data, cloud and architecture, teams and delivery, security and resilience, and the finance and board communication the CTO role demands, finishing with a transformation plan you pitch to an executive panel.

WHO SHOULD ATTEND

- Leaders of technology departments and major technology projects
- Current and aspiring CTOs, CIOs and digital leaders
- Senior engineers and architects moving into executive roles
- Founders, consultants and executives who need to lead technology-driven growth

WHAT MAKES IT DIFFERENT

Strategy first

Technology decisions are framed by business value, risk and growth.

AI throughout

AI, data and automation run through the whole program, not just one session.

Real cases

Each week analyses how a real company handled a major technology decision.

Your transformation plan

Weekly deliverables assemble into a technology and AI plan for your organization.

12	66	90+	20–30
Saturdays, one a week	Contact hours in class	Total learning hours	Participants per cohort

LEARNING OUTCOMES

By the end of the program, you will be able to

01 Define a technology strategy that serves business growth.

02 Build roadmaps and manage a portfolio of technology initiatives.

03 Lead the adoption of AI, data platforms and cloud architecture.

04 Build engineering teams and a culture of innovation and delivery.

05 Manage cybersecurity, risk and resilience at executive level.

06 Lead digital transformation across the organization.

07 Build business cases and manage technology budgets and vendors.

08 Communicate technology value and risk to boards and executive teams.

FORMAT AND METHODOLOGY

Twelve Saturdays, built to apply

Twelve Saturdays of 5.5 contact hours give 66 classroom hours, plus about 2 hours of weekly pre-reading and applied work (90+ total learning hours).

ITEM	DETAIL
Duration	12 weeks, every Saturday
Contact hours	5.5 hours per Saturday, 66 hours in total
Delivery	In person in Damascus, with an online learning hub for materials and submissions
Cohort	20 to 30 participants, working in 5 learning teams
Language	English & Arabic

PROGRAM ARCHITECTURE

4 modules, 12 sessions, 1 capstone

The sessions move from understanding the business, to setting strategy, to proving results, to leading the future. Every session produces a deliverable, and together they form the capstone.

MODULE 1 · WEEKS 1–3 Technology Leadership and Strategy	MODULE 2 · WEEKS 4–6 AI, Data and Architecture	MODULE 3 · WEEKS 7–9 Teams, Delivery and Resilience	MODULE 4 · WEEKS 10–12 Transformation and Executive Influence
WEEK 1 The Modern CTO	WEEK 4 AI, Machine Learning and Generative AI	WEEK 7 Engineering Teams and Innovation Culture	WEEK 10 Digital Transformation and Change
WEEK 2 Technology Strategy for Business Growth	WEEK 5 Cloud, Platforms and Architecture	WEEK 8 Product Management and Delivery	WEEK 11 Technology Finance and Vendors
WEEK 3 Roadmaps and Technology Portfolios	WEEK 6 Data Strategy and Platforms	WEEK 9 Cybersecurity, Risk and Resilience	WEEK 12 Leading with the Board and Executive Team

> Every Saturday starts from a real business problem and ends with a deliverable you can use at work on Monday.

Capstone project

Your Technology and AI Transformation Plan: built week by week and presented to an executive panel in Week 12.

DETAILED CURRICULUM

Weeks 1 to 3

WEEK 1 The Modern CTO

The CTO keeps the organization ahead of the technology curve and turns change into advantage.

KEY TOPICS

- The CTO's role across industries and company sizes
- CTO, CIO and CDO: how the roles fit together
- Technology as a driver of growth
- Your technology leadership agenda

> **Case study:** Netflix's move from DVDs to streaming, and then to the public cloud (2008–2016).

Deliverable: A one-page technology leadership agenda linked to business priorities.

WEEK 2 Technology Strategy for Business Growth

Technology strategy is business strategy expressed in architecture and investment.

KEY TOPICS

- Aligning technology with business strategy
- Platforms and ecosystems
- Build, buy or partner
- Technology as a product, not a cost centre

> **Case study:** Amazon's internal API discipline and the birth of Amazon Web Services.

Deliverable: Your technology strategy on a page.

WEEK 3 Roadmaps and Technology Portfolios

Roadmaps turn a technology vision into choices, timing and investment.

KEY TOPICS

- Technology roadmapping methods
- Managing a portfolio of initiatives
- Technical debt as a business risk
- Prioritization and trade-offs

> **Case study:** Intel's 'tick-tock' roadmap and what happened when the schedule slipped.

Deliverable: A three-year technology roadmap with portfolio priorities.

WEEK 4 AI, Machine Learning and Generative AI

Technology leaders must separate real AI capability from hype.

KEY TOPICS

- How machine learning and generative AI work
- AI agents and automation
- Where AI creates value in products and operations
- Measuring productivity gains

> **Case study:** GitHub Copilot and the measured impact of AI assistants on developer productivity.

Deliverable: An AI opportunity map for your products and operations.

WEEK 5 Cloud, Platforms and Architecture

Architecture decisions shape cost, speed and resilience for years.

KEY TOPICS

- Cloud strategy: public, private and hybrid
- Enterprise and solution architecture
- Integration, APIs and modern platforms
- Cloud economics and FinOps

> **Case study:** Capital One's move from its own data centres to the public cloud (completed in 2020).

Deliverable: A target architecture with the main decisions and their rationale.

WEEK 6 Data Strategy and Platforms

Data is the raw material of analytics and AI; strategy decides its value.

KEY TOPICS

- Data strategy and governance
- Data platforms: warehouses, lakes and lakehouses
- Data quality and ownership
- Building analytics and machine-learning capability

> **Case study:** Uber's in-house machine-learning platform and how it scaled AI across the company.

Deliverable: A data strategy outline with governance roles.

WEEK 7 Engineering Teams and Innovation Culture

Great technology comes from teams that are safe to experiment and accountable for results.

KEY TOPICS

- Structuring engineering organizations
- Hiring, growing and keeping technical talent
- Psychological safety and team performance
- Innovation processes that ship

> **Case study:** Google's Project Aristotle and what it found about effective teams.

Deliverable: A team and talent plan for your technology organization.

WEEK 8 Product Management and Delivery

Speed and quality come from product thinking and modern delivery practices.

KEY TOPICS

- Product management and discovery
- Agile and DevOps at scale
- Engineering metrics that matter
- Release, quality and reliability

> **Case study:** Etsy's move to continuous deployment, releasing to production many times a day.

Deliverable: A delivery improvement plan with target metrics.

WEEK 9 Cybersecurity, Risk and Resilience

Security and resilience are board-level responsibilities of the CTO.

KEY TOPICS

- Threat landscape and security strategy
- Zero trust and identity
- Business continuity and disaster recovery
- Third-party and supply-chain risk

> **Case study:** Maersk and the 2017 NotPetya attack: rebuilding a global business's IT in days.

Deliverable: A security and resilience risk register with the top mitigations.

WEEK 10 Digital Transformation and Change

Transformation is a change in how the whole organization works, not a technology project.

KEY TOPICS

- Transformation strategy and governance
- Changing processes, skills and culture
- Working with business leaders
- Sustaining momentum

> **Case study:** DBS Bank's transformation into a digital-first bank.

Deliverable: A transformation roadmap with change and stakeholder plans.

WEEK 11 Technology Finance and Vendors

CTOs must speak the language of cost, value and risk.

KEY TOPICS

- Technology budgets and business cases
- Total cost of ownership and ROI
- Vendor selection and contracts
- Outsourcing and partnerships

> **Case study:** Dropbox moving most of its storage from the public cloud to its own infrastructure.

Deliverable: A business case for a major technology investment.

WEEK 12 Leading with the Board and Executive Team

The CTO's influence depends on clear communication of risk, value and options.

KEY TOPICS

- Presenting technology to boards and executives
- Technology governance and reporting
- Your leadership brand
- Capstone pitch to an executive panel

> **Case study:** The July 2024 global IT outage caused by a faulty security update, and the questions boards asked afterwards.

Deliverable: Final capstone pitch.

CAPSTONE PROJECT

Your Technology and AI Transformation Plan

a practical plan for a real challenge in your own organization, built from the weekly deliverables and pitched to an executive panel in Week 12.

REQUIRED COMPONENTS

01 Technology strategy on a page
02 Three-year roadmap and portfolio
03 AI, data and architecture decisions
04 Team, delivery and security plan
05 Business case and transformation roadmap

ASSESSMENT

How participants are assessed

COMPONENT	WEIGHT	WHAT IS ASSESSED
Capstone and presentation	**40%**	Business relevance, strategic clarity, feasibility, executive delivery
Weekly deliverables	**30%**	Quality and on-time submission of the 11 weekly deliverables
Case study participation	**20%**	Preparation, analysis and contribution in class
Peer and learning team contribution	**10%**	Peer evaluation of collaboration and coaching

Certificate of Completion

Certificate of Completion (66 contact hours) for participants with at least 80% attendance and an overall score of 70% or higher; 90% or higher earns a Distinction.

SAMPLE SATURDAY

A day built for practice

Each Saturday runs from 9:00 to 15:45, with 5.5 contact hours, two breaks and lunch.

TIME	BLOCK	FORMAT
9:00 – 9:30	Recap, reflections and links to last week's deliverable	Plenary
9:30 – 11:00	Core concepts and frameworks	Faculty input and discussion
11:00 – 11:15	Break	
11:15 – 12:45	Case study analysis	Learning teams, then plenary debrief
12:45 – 13:30	Lunch and networking	
13:30 – 15:00	Applied workshop on participants' own organizations	Workshop
15:00 – 15:15	Break	
15:15 – 15:45	Peer coaching, key takeaways and next week's assignment	Learning teams

In Weeks 2, 5, 8 and 11, a 45-minute executive guest speaker session replaces the first half of the applied workshop.

Reserve your seat

Places are limited to 30 participants per cohort. Talk to us about dates, fees and sponsoring a team from your organization.

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alalamia-sy.com

EMAIL
info@alalamia-sy.com

CALL OR WHATSAPP
+963 991 099 555

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