




# CERTIFICATE IN DIGITAL TRANSFORMATION AND ARTIFICIAL INTELLIGENCE




 **November 2023: 20, 24, 27**  
**December 2023: 1, 4, 8, 11, 15, 18**  
**January 2024: 8, 12, 15**

 **Modality: Online on Zoom | 5:30 pm till 8:30 pm**

 **Total number of hours: 36 hours**

 **Certificate fees: 900\$**

 **Language: English**

- Are you ready to lead your organization into the future of digital transformation and Artificial Intelligence?**
- Do you want to make data-driven decisions and boost your department's efficiency?**
- Are you eager to master the latest AI technologies and transform your career?**
- Are you ready to infuse AI into your startup's growth strategy?**
- Are you a student or educator interested in the future of AI and digital transformation?**



**Early Bird (before  
November 13, 2023):  
765\$**

 **Registration: [click here](#)**

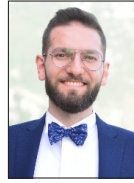
**IF YES, THEN OUR CERTIFICATE IS FOR YOU!**



### **Rudy Shoushany**

Rudy Shoushany is an experienced leader in the field of information technology, with over 22 years of experience in the financial sector. He specializes as a consultant in financial technologies, governance, compliance, strategies, and cybersecurity in digital transformation. Rudy is an award-winning digital leader, the founder of CryptoTalks & DxTalks, and the owner and general manager of BCCManagement Technology Consultancy firm. He is a member of the Forbes Technology Council and is a keynote speaker, mentor, and advisor on digital transformation strategies, fintech, cybersecurity, governance, and blockchain.

Rudy is an expert trainer at the Professional Training Center of USJ.



### **Christophe Zoghbi**

Christophe is an accomplished software engineer with extensive experience spanning over 12 years in various areas of Data Science and Artificial Intelligence. In addition to his technical expertise, he is also a seasoned entrepreneur with a track record of launching and scaling successful ventures.

As the visionary Founder & CEO of Zaka, an Artificial Intelligence education and consulting company, Christophe is passionate about promoting the growth of the AI sector, with a particular focus on the MENA region. His dedication to advancing AI is further demonstrated through his role as the Founder & President of Beirut AI, an esteemed NGO.

Christophe is an expert trainer at the Professional Training Center of USJ.



### **Georges Badr**

Georges is an experienced university instructor and skilled in Artificial Intelligence, C++, Java, and Team Leadership. He holds a PhD and a research Masters and a Computer and Communications Engineering diploma.

Georges is also interested in Artificial Intelligence and Machine Learning. He supervised many projects and a PhD thesis in the medical data mining field. Georges is actually a full-time associate professor at the Faculty of Engineering at the Antonine University.

Georges is an expert trainer at the Professional Training Center of USJ.



# AXIS 1: DIGITAL TRANSFORMATION

**LEARNING OUTCOMES:** Knowing what a company or individual can benefit from in a rapidly changing environment becomes difficult.

- \* Understand the Digital transformation concept and the latest concepts and business models
- \* Identify emerging technologies that are empowering the future
- \* Reshape the Financial Services (Financial Technologies – Fintech)
- \* Learn about Blockchain & Crypto Currency, the Decentralized payments
- \* Digital Transformation Maturity

*A practical group exercise will follow at the end of Axis 1*

## 1 INTRO TO DIGITAL TRANSFORMATION | 3 HOURS

 Date: November 20, 2023 from 5:30 pm till 8:30 pm

 Trainer: Rudy Shoushany

By the end of this module, you will be able to understand:

- \* The introduction to the Digital transformation
- \* The Digital Transformation Case
- \* The 3 Components of market leaders
- \* Transformation vs Change
- \* Innovation
- \* Disruptive Innovation
- \* The 3 Digital D's (Digital Product, Digital Process, Digital Services)
- \* Use case

## 2 DIGITAL TRANSFORMATION IN FINANCE | 3 HOURS

 Date: November 24, 2023 from 5:30 pm till 8:30 pm

 Trainer: Rudy Shoushany

By the end of this module, you will be able to understand:

- \* Fintech Storm
- \* Introduction to Fintech
- \* Fintech 4.0 Evolution (*available technologies trends*)
- \* Overview of Fintech & Market Size
- \* Financial Model transformation
- \* Innovation in finance (*Neo Banking, Blockchain*)
- \* GAFA (*Google, Amazon, Facebook, Apple*)
- \* Payments API / Sandbox
- \* Retail Banking of the future

## 3 EMERGING TECHNOLOGIES | 3 HOURS

 Date: November 27, 2023 from 5:30 pm till 8:30 pm

 Trainer: Rudy Shoushany

By the end of this module, you will be able to understand:

- \* 6Ds Framework
- \* 5G
- \* Big Data
- \* Data Science
- \* Artificial Intelligence (AI)
- \* Cloud Computing, serverless
- \* VR/AR
- \* Quantum computing
- \* Robotic & Robotic Process Automation (RPA)
- \* The Internet of Things (IoT)
- \* 3D Printing
- \* Use cases

## 4 BLOCKCHAIN BITCOIN CRYPTOCURRENCY TECHNOLOGIES | 3 HOURS

 Date: December 1, 2023 from 5:30 pm till 8:30 pm

 Trainer: Rudy Shoushany

By the end of this module, you will be able to understand:

- \* Intro to blockchain
- \* Explain cryptographic building blocks and reason about their security
- \* Define Bitcoin's consensus mechanism
- \* Learn how the individual components of the Bitcoin protocol make the whole system works: transactions, script, blocks, and the peer-to-peer network
- \* Define how mining can be re-designed in alternative cryptocurrencies
- \* Understand the different cryptocurrencies, such as Ethereum
- \* Understand the different wallets
- \* Central Bank Digital Coins CBDC
- \* Intro to non-fungible tokens NFT
- \* Understand the concept of Dapps
- \* Understand Smart contracts and its future use cases
- \* Define Decentralized Finance DEFI

## 5 DIGITAL TRANSFORMATION MATURITY | 3 HOURS

 Date: December 4, 2023 from 5:30 pm till 8:30 pm

 Trainer: Rudy Shoushany

By the end of this module, you will be able to understand:

- \* Understanding Digital Transformation Maturity
- \* Key Factors Impacting Maturity Levels
- \* Advantages of Advancing in Maturity
- \* Assessing Current Digital Transformation Maturity group exercise

# AXIS 2: ARTIFICIAL INTELLIGENCE

## LEARNING OUTCOMES

- ✧ Understand the foundational concepts and components of data science
- ✧ Describe the fundamentals of AI and generative AI
- ✧ Recognize the practical applications of AI in diverse sectors
- ✧ Develop an understanding of diverse AI domains and their intersections
- ✧ Learn techniques and tools for generating text, images, videos and audio using AI
- ✧ Recognize essential security compliance measures and organizational requirements
- ✧ Identify and address ethical issues related to AI and data usage

## 1 DATA SCIENCE FUNDAMENTALS | 3 HOURS

📅 Date: December 8, 2023 from 5:30 pm till 8:30 pm

👤 Trainer: Georges Badr

- ✧ What is Data Science?
- ✧ Types of Data
- ✧ The Data Science Lifecycle
- ✧ Data Acquisition and Preparation
- ✧ Data Modeling and Visualization
- ✧ Data Science Roles
- ✧ Benefits of Data Science
- ✧ Challenges of Data Science
- ✧ Business Use Cases for Data Science

## 2 AI FUNDAMENTALS | 3 HOURS

📅 Date: December 11, 2023 from 5:30 pm till 8:30 pm

👤 Trainer: Georges Badr

- ✧ A Brief History of AI
- ✧ What is Artificial Intelligence?
- ✧ Different types of AI
- ✧ Deep Learning and Neural Networks
- ✧ Real-world Applications of AI
- ✧ AI in the MENA region
- ✧ Benefits and Challenges of AI

## 3 DOMAINS OF AI | 3 HOURS

📅 Date: December 15, 2023 from 5:30 pm till 8:30 pm

👤 Trainer: Georges Badr

- ✧ What is Natural Language Processing (NLP)?
- ✧ NLP applications (Sentiment Analysis, Chatbots, etc..)
- ✧ What is Computer Vision?
- ✧ Computer Vision challenges
- ✧ Computer Vision applications (Facial Recognition, Object Detection, etc..)
- ✧ Robotics and Autonomous Systems
- ✧ Reinforcement Learning
- ✧ Emerging AI Technologies

## 4 GENERATIVE AI - PART 1 | 3 HOURS

📅 Date: December 18, 2023 from 5:30 pm till 8:30 pm

👤 Trainer: Georges Badr

- ✧ Intro to Generative AI
- ✧ Generative AI Concepts
- ✧ Generating Text Using AI
- ✧ Hands-on example with ChatGPT
- ✧ Prompt engineering for text generation
- ✧ Common text generation tools

## 5 GENERATIVE AI - PART 2 | 3 HOURS

📅 Date: January 8, 2024 from 5:30 pm till 8:30 pm

👤 Trainer: Georges Badr

- ✧ Generating Images and Video Using AI
- ✧ Prompt engineering for image generation
- ✧ Common image generation tools
- ✧ Common video generation tools
- ✧ Generating Audio Using AI
- ✧ Hands-on examples & demo
- ✧ Challenges of Generative AI

## 6 CYBERSECURITY | 3 HOURS

📅 Date: January 12, 2024 from 5:30 pm till 8:30 pm

👤 Trainer: Christophe Zoghbi

- ✧ Identifying Security Compliance Measures
- ✧ Identify Organizational Compliance Requirements and Resources
- ✧ Recognizing and Addressing Social Engineering Attack
- ✧ Maintain Physical Security of Devices
- ✧ Use Secure Authentication Methods
- ✧ Protect Your Data
- ✧ Use the Internet Securely
- ✧ Use Social Networks Securely

## 7 DATA & AI ETHICS | 3 HOURS

📅 Date: January 15, 2024 from 5:30 pm till 8:30 pm

👤 Trainer: Georges Badr

- ✧ Introduction to Data Ethics
- ✧ Identifying Ethical Issues
- ✧ Ethical Frameworks
- ✧ Privacy, Fairness, and Safety
- ✧ Algorithms and Human-Centered Values
- ✧ Transparency and Explainability: The Black Box Problem