

MASTER & MBA PROGRAM

MASTER'S IN DIGITAL ENGINEERING AND SCIENCES

Two years to become an expert

Mastère Ingénierie et Sciences du Numérique — Deux ans pour devenir expert

2 years

120 ECTS, IN-DEPTH...

5 Master's tracks

SOFTWARE · AI & BIG DATA · ...

2 degrees

ESGI MASTER'S DEGREE...

DEGREES AWARDED · DIPLÔMES DÉLIVRÉS

ESGI Master's Degree (ESGI Paris)

Master's Degree in Information Systems Management (UFRA)

ACADEMIC YEAR 2026-2027

Université Française d'Abidjan · ESG Graduate School — Abidjan

01 PROGRAM OVERVIEW

Présentation du programme

The Master's programs of the UFRA × ESGI Digital Engineering & Sciences hub train highly qualified engineers and managers in the strategic fields of information technology. Two years, 120 ECTS, in-depth specialization, a thesis, and a long internship: this program enables students to become recognized experts, capable of leading complex projects, driving innovation, and supporting companies' digital transformation. Five Master's tracks to choose from, all leading to the Master's Degree in Information Systems Management (UFRA).

LEARNING OBJECTIVES

- ◆ Train versatile professionals who master the fundamentals of advanced computer science;
- ◆ Develop cutting-edge expertise in a key digital field: software, AI and Big Data, systems and cloud, cybersecurity, or IS management;
- ◆ Train senior executives and project managers capable of handling the technological, strategic, and human dimensions of IT projects;
- ◆ Provide the tools needed to innovate, launch ventures, and create value through technology;
- ◆ Offer international exposure through a dual degree and global partnerships.

KEY FACTS · REPÈRES

Master · Bac+5

EXIT LEVEL

2 years

DURATION

French

LANGUAGE OF...

Bac+3

ADMISSION

SPECIALIZATIONS

Software Architecture

Design of complex architectures, microservices, cloud-native systems, and technical leadership.

CURRICULUM

- ◆ Advanced software architecture: microservices, design patterns, UML
- ◆ Advanced programming: Java, .NET, Python, C#
- ◆ DevOps and industrialization: CI/CD, Docker, Kubernetes, GitOps
- ◆ Advanced databases: optimization, Big Data, distributed databases
- ◆ Cloud and distributed development: AWS, Azure, Google Cloud
- ◆ Software testing and quality: TDD, code audits
- ◆ Software security: OWASP standards
- ◆ Agile methods: Scrum, Kanban, Lean

TARGET ROLES

Software Architect / Cloud Architect · Senior Software Engineer · Expert Full Stack Developer · DevOps Engineer · Software Development Project Manager · Chief Technology Officer (CTO) · Software Solutions Entrepreneur

Artificial Intelligence and Big Data

Advanced models, MLOps, data project industrialization, and trustworthy AI.

CURRICULUM

- ◆ Advanced AI fundamentals: algorithms, optimization, probabilistic models
- ◆ Machine Learning and Deep Learning: neural networks, CNN, RNN, transformers
- ◆ NLP – Natural Language Processing: chatbots, conversational AI
- ◆ Computer vision and applied AI
- ◆ Big Data and Data Engineering: Hadoop, Spark, data lakes
- ◆ Cloud and AI: Azure AI, AWS ML, Google AI
- ◆ MLOps and model industrialization
- ◆ AI ethics, compliance, and governance

TARGET ROLES

Senior Data Scientist · Machine Learning Engineer · Big Data Architect · AI Research Engineer · AI and Data Science Consultant · Artificial Intelligence Project Manager · CTO specialized in AI

Systems, Networks and Cloud Computing

Large-scale cloud architectures, advanced DevOps, resilience, and performance.

CURRICULUM

- ◆ Advanced systems and network architectures: high availability, load balancing
- ◆ Cloud Computing and virtualization: AWS, Azure, Google Cloud, Kubernetes, VMware
- ◆ Advanced DevOps and automation: Python, Bash, PowerShell
- ◆ Resilience, performance, and service continuity

TARGET ROLES

Systems and Network Architect · Senior Cloud Engineer · DevOps Engineer · IT Infrastructure Technical Director

Cybersecurity

Security management, auditing, advanced penetration testing, governance, and compliance.

CURRICULUM

- ◆ Advanced cybersecurity: cryptography, secure protocols
- ◆ Penetration testing and ethical hacking: Red Team/Blue Team
- ◆ Security governance and standards: ISO 27001, GDPR, ITIL, NIST
- ◆ Cloud security and DevSecOps
- ◆ Digital forensics and crisis management: post-incident analysis, business continuity/disaster recovery plans (BCP/DRP)

TARGET ROLES

Cybersecurity Engineer / SOC Manager · IT Security Consultant · Penetration Tester / Ethical Hacker · Security Auditor · CISO (Chief Information Security Officer)

Information Systems Management

IS governance, enterprise architecture, digital transformation, and IT department management.

CURRICULUM

- ◆ Advanced IS management: enterprise architecture, IT governance, strategic alignment
- ◆ Information systems audit and consulting
- ◆ IT project management: Agile, ITIL, PRINCE2
- ◆ Change management and digital transformation
- ◆ ERP and integrated solutions (SAP, Oracle, Dynamics)
- ◆ Business Intelligence and Data Analytics
- ◆ Cybersecurity and IT risk management
- ◆ Digital innovation and digital strategy: cloud, AI, blockchain

TARGET ROLES

Digital Transformation Consultant · IS / Digital Project Manager · Business Analyst · Information Systems Auditor · IS Applications / ERP Manager · Chief Information Officer (CIO) · Digital Transformation Manager

* Programmes may evolve to stay in step with changing professional practice.

03 CAREERS & PARTNERSHIPS

Débouchés & partenariats

TARGET ROLES

Software Architect

Lead Data Scientist

Senior Cloud Engineer

Cybersecurity Consultant

CIO

IS Project Manager

ACADEMIC PARTNER

A DUAL DEGREE WITH ESGI PARIS

A dual degree, two forms of recognition: ESGI Master's Degree awarded through the ESGI Paris partnership, and Master's Degree in Information Systems Management, accredited by the MESRS (Côte d'Ivoire).

04 ADMISSION & TUITION

Admission & frais de scolarité

ADMISSION PROCESS

1

Online application

File and transcripts on ufra-esg.org

2

File review

Assessment by the admission committee

3

Motivation interview

On campus or by videoconference

4

Enrollment

Admission decision and confirmation

ENTRY REQUIREMENTS

- ◆ Admission level: Bac+3.

FEES 2026-2027

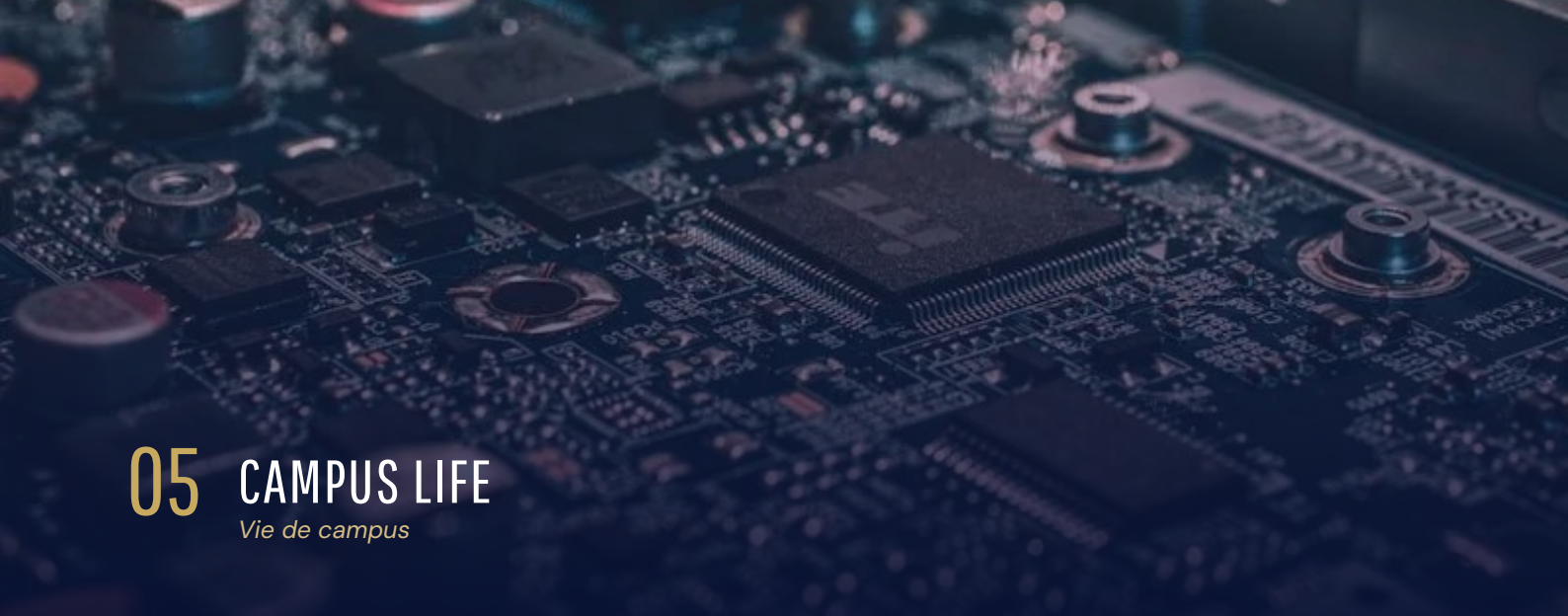
Annual **Annual tuition: 3,500,000 F CFA (Master 1), 3,700,000 F CFA (Master 2), plus a 250,000 F CFA registration fee, payable in four installments**

Daytime, evening, or weekend classes (depending on profile). Duration: 2 years. Language of instruction: French. Intake: 2026-2027 academic year.

APPLICATIONS OPEN – 2026-2027 INTAKE

Candidatures ouvertes — Rentrée 2026-2027

[UFRA-ESG.ORG](https://ufra-esg.org)



05 CAMPUS LIFE

Vie de campus

- ◆ Cocody Riviera 3 campus: library, study spaces and project rooms
- ◆ Competitions, business games and inter-school projects all year long
- ◆ Student societies: entrepreneurship, debate & public speaking, sports, culture
- ◆ Career support: annual corporate forum, alumni mentoring

ADDRESS

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APPLY

ufra-esg.org
Intake: October 2026