



M2

FINANCIAL DATA MANAGEMENT

FINANCE JOBS GOING DIGITAL AND FINANCIAL ROLES
OPENING UP TO ENCOMPASS BUSINESS STRATEGY

Campus: Caen

Language: English

Pace: Work/study or classic

Access requirements: TOEIC score of at least 790

Academic Director

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"In a context where agile decision-making is paramount and the panorama is increasingly unpredictable, it is worth knowing how to manage ever more volatility and uncertainty.

Tools used are more predictive than they were and the future looks to be moving towards prescriptive tools. These new tools – everything from KPIs to predictive analysis software – use AI techniques and machine learning.

For those in financial roles, the challenge is now to select the right information and carry out the best possible analysis using the data available to allow for optimum decision-making within efficient timelines.

Students choosing this course will in future be able to work in a field involving both strategic links to senior management and supporting operations staff." Odile BERNARD

Summary of the course and its aims

Through a teaching approach based on case simulations solved using software, students will acquire an expertise in Finance and will be able to manage databanks and predictive tools, as well as manage multidisciplinary teams.

The strong point of the programme is that it brings future graduates a strong knowledge basis both in standard core principles in Management and Business Finance and also Digital terminologies and tools, Big Data and AI directly relevant to their functions of tomorrow. As performance in this respect is also social and societal, pride of place is devoted to soft skills: competencies linked to interpersonal and collaborative skills and emotional intelligence.

STRENGTHS

- A course catering for the finance world's digital transformation
- 100% English programme
- A course that produces professionals: Finance Bootcamp, in-company missions, Academic Research Partnership with a business, company internship



CONTENT:

SEMESTRE 1	
CONTENT	TECHNICAL CONTENT, SOFT SKILLS
DATA GOVERNANCE AND ARCHITECTURE	
Data management tools	<ul style="list-style-type: none"> - Work with an IT team, describing business needs - Understand information modelling principles for designing a system - Use a relational or non-relational database - GDPR and data law
Enterprise Resource Planning	<ul style="list-style-type: none"> - Analyse the quality, security and integrity of data - Integrate and consolidate data from multiple systems - Create an overall view of data
Organising internal and external data processing	<ul style="list-style-type: none"> - Study the principles and characteristics of ERP - Data protection policy
Storage - blockchain - data security/transfer	<ul style="list-style-type: none"> - Learn blockchain technical basics - Assess the relevance of use cases
Enterprise Performance Management	<ul style="list-style-type: none"> - Decide on Business Process Management - Formalise and model processes
PREPARING FINANCIAL DATA	
Financial analysis	<ul style="list-style-type: none"> - Dynamic balance sheet analysis - Cash flow analysis
Enterprise value	<ul style="list-style-type: none"> - Value, time and information - Value and risk - Value and securities
Taxation	<ul style="list-style-type: none"> - French tax system - Multinational taxation
Choosing investments and funding	<ul style="list-style-type: none"> - Economic profitability of an investment - Optimum financial structure of a project
Cash flow management	<ul style="list-style-type: none"> - Causes of cash flow problems - Value dates, short-term funding decisions for surplus funds - Cash flow risks in an increasingly volatile context
Financial engineering	<ul style="list-style-type: none"> - Master basic financial tools - Deal with legal issues - Understand a company's environment, no matter its industry - Comprehensively analyse a business and its environment - Understand sustainable development and ethical concepts and issues they pose within an organisation - Propose relevant strategic recommendations
FINANCIAL STRATEGY	
Strategic environment awareness	<ul style="list-style-type: none"> - Knowledge of the context and environment - Strategic diagnosis after researching the economic, legal and fiscal contexts
Strategic deployment	<ul style="list-style-type: none"> - From strategy formulation to execution - Evaluating strategic initiatives - Dynamics of and leading on strategic initiatives
Risk management: finance, digital, human connections	<ul style="list-style-type: none"> - Learn about credit and cash flow risks - Learn about interest and exchange rate risks - Learn about and master financial risk hedging instruments
CSR and finance	<ul style="list-style-type: none"> - Follow the main innovative trends across key sectors - Analyse innovative business strategies - Anticipate certain consequences of ecological and societal transition
FINANCIAL COMMUNICATIONS AND MANAGEMENT	
Managing multi-disciplinary teams	<ul style="list-style-type: none"> - Understand how to set up collaboration between different groups - How to establish multicultural teams - How to improve leadership skills in diplomacy, mediation and engagement
Media and economy	<ul style="list-style-type: none"> - Learn to critically analyse a range of information
Financial communications techniques	<ul style="list-style-type: none"> - Design and deliver an oral message for a public presentation, a telephone interview or a one-to-one - Design effective financial communications - Adapt a message to an audience
Data ethics and law	<ul style="list-style-type: none"> - Personal data protection - The legal context of cybersecurity



	- Blockchains and the law
ACADEMIC AND PROFESSIONAL KNOWLEDGE	
Dissertation methodology	<ul style="list-style-type: none"> - Take a scientific research approach - Write an end-of-studies dissertation meeting academic expectations - Use qualitative and/or quantitative data collection methods in the field
Careers path	- (see description below)
PROFESSIONAL SKILLS	
- Mission: Prepare for the company's digital transformation	<ul style="list-style-type: none"> - Learn how to lead on change - Prepare operations staff for new information systems and databases coming into their everyday work - Take opportunities to carry out analysis not yet conducted - Ensure the cybersecurity of databases - Organise the collection, storage, transfer and processing of data

SEMESTER 2	
CONTENT	TECHNICAL CONTENT, SOFT SKILLS
DECISION-MAKING AND PREDICTIVE TOOLS	
Analytical statistics techniques applied to finance	<ul style="list-style-type: none"> - Univariate statistics - Regression - Time series' and decomposition by moving averages
Leading an IT project	<ul style="list-style-type: none"> - Identify key project phases, activities and how they follow on from each other to meet goals - Assess tasks and organise a project schedule - Manage and communicate within a project
Business Plan	<ul style="list-style-type: none"> - Carry out a financial analysis - Evaluate risks - Draw up activity forecasts - Present the project
Budget modelling (EPM)	- Understand how to draw up a budget model using experience of setting up a cost control system
FINANCIAL MECHANISMS AND STRATEGY	
IFRS consolidated accounts and standards	<ul style="list-style-type: none"> - Regulatory framework - Scope for consolidation - Consolidation methods and main adjustments
Financial issues in mergers and acquisitions	<ul style="list-style-type: none"> - Business acquisition process - Merger process and mechanics - Setting up an LBO
Introduction to market finance	<ul style="list-style-type: none"> - The role, place and organisation of financial markets within the economy - The main families of financial products
Strategic diagnosis/simulation	<ul style="list-style-type: none"> - Methodological links between techniques to analyse environment, strategic decisions, management control and organisational learning - The multiple interactions between operations management, economic and financial approaches governing activity and a necessarily biased perception of the environment
PERFORMANCE MODELLING	
Key management control methods	<ul style="list-style-type: none"> - Learn the broad management control tool categories - Understand how a management IS is organised and identify stakeholders - Learn management control concepts that apply to large organisations and SMEs
Making data reliable	<ul style="list-style-type: none"> - Ability to use different database management systems - Understand how relational data works - Understand how database queries work - Understand and use data exchange formats
- Deciding on and updating indicators (KPIs)	- How to decide on indicators, add them into a management tool, share them
PROFESSIONAL SKILLS	
Careers path	- (see description below)
Missions: Use data management tools	<ul style="list-style-type: none"> - Check the Finance Service is prepared for digital transformation Human, technical, legal aspects - Analyse the company's strategic deployment



	Key strategy indicators Make internal and external data reliable
Academic Research Partnership with a company	- When writing the thesis/dissertation, get a concrete sense (in the field) of the value of Academic Research for a business.
Finance Bootcamp (tutored projects)	- Links up academic training sessions focusing on acquiring financial techniques and the professional world where these techniques are to be used. - Learn to use financial technique tools (in a simulation) and organise this usage in the most effective way possible to deliver the work expected in the allotted time.
End-of-studies dissertation	Professional thesis Relatively sophisticated Research Task With a cutting-edge section and empirical section Discuss the results obtained from the literature review Oral viva - Introductory research dissertation Offer a new and objective perspective on a current topic in the subject area studied Respond to a management issue with a rigorous scientific approach
End-of-studies internship	At least 4 months at a company (MSc) / 6 months at a company (M2)

Professional tools/software: SAGE 1000, Power B.I., SAP, R, RStudio, etc.

Certifications: SAGE 1000

Example staff and articles published

Aubry M. & Lerouxel A. (2020), "Vie associative des étudiants et sentiments d'auto-efficacité entrepreneuriale et professionnelle ?", *Entreprendre & Innover*, n° 41.

Bernard O. (2019), "L'appropriation du système de contrôle de gestion par le propriétaire-dirigeant de petite entreprise : trois étapes en lien avec le concepteur", *Revue Internationale PME (RIPME)*, vol. 32, n° 1, pp.101-126.

Favreau, F (2019), "Le transnational : du symptôme à la crise de l'Etat régalien", *Politiques & Management Public*, vol. 36/4, October-December, pp. 371-387.

Fournès Dattin C. (2017), "The emergence of statutory auditing in France and the recurring issues of independence and competence, 1867-1966", *Accounting History*, vol. 22, n° 2, pp.193-213.

Liu Z. & Bo L. (2017), Dynamic Analysis of Fama-French Five-Factor Model, *Economic Theory and Business Management*.

Pétel F. (2012), "À qui doit profiter l'immobilier des entreprises ?", *Réflexions Immobilières*, n° 62, pp 41-45.

WORK PLACEMENTS

Classic Pathway

- 1 x Scientific Research Partnership with a company
- 2 x tutored projects (Bootcamp)
- 2 x in-company missions lasting 3 and 5 weeks
- 1 x 6-month internship in France or elsewhere
- 1 x professional thesis (MSc/Dual Degree); end-of-studies dissertation (M2)

Work/Study Pathway

- 3 weeks per month at a company/1 week of lessons at the School.
- Then full-time at the company until the end of the contract.



CAREERS PATH

Reflective support that allows students:

- to become aware of their expanded skillset and the values that drive them
- to make use of the group's collective intelligence
- to capitalise on all their experiences in higher education and elsewhere to be able to transpose them into the business environment.

BEHAVIOURAL PREFERENCE TESTS, INDIVIDUAL COACHING SESSIONS, FEEDBACK AND CO-DEVELOPMENT SESSIONS, ETC.

CAREERS

The employment market:

All companies, from start-ups to multinationals, are considering, have already initiated or are currently finalising a digital shift for their Financial Service. All sectors of activity are impacted, with no exceptions.

Example roles:

Junior Finance Executive
Cash Manager
Credit Manager
Performance Manager
Head of Financial Communication
Risk Manager ...

Graduate employment data (based on 2019 employability survey):

Net employment rate: 98%
82% in executive employment
89% on permanent contracts
60% of graduates found a job before graduation, 100% within 2 months
Average gross annual salary including bonuses for the last 4 years groups in similar roles: €45,500
39% are working at large companies (with over 5,000 staff)
33% are working at medium-sized businesses (with 250 to 4999 staff)
25% of graduates are working at SMEs (with 10 to 249 staff)

Some examples of companies where our graduates work:

PWC, Thalès, PSA, EY, Porsche Distribution