



**MASTER IN MANAGEMENT**

*Grande Ecole*

**MASTER 1**

**CORE COURSES CATALOG**

**M1 EXL3**

**2024/2025**

## SUMMARY

MASTER 1 CYCLE – ACADEMIC CURRICULUM .....	3
<b>CORE COURSES</b> .....	<b>4</b>
DROIT DES SOCIÉTÉS.....	4
ORGANIZATIONAL BEHAVIOR.....	7
FINANCIAL MARKETS .....	14
STRATEGY .....	18
MANAGEMENT AND COST ACCOUNTING .....	27
MARKETING MANAGEMENT .....	32
OPERATIONS AND SUPPLY CHAIN MANAGEMENT.....	40
FINANCE D'ENTREPRISE.....	44
INTRODUCTION A LA SCIENCE DES DONNÉES .....	48
ENGLISH – WORKSHOPS AND INTEGRATED ACADEMIC ENGLISH.....	52

## MASTER 1 CYCLE – ACADEMIC CURRICULUM

	Core Courses	Hours	ECTS
✓	Droits des Sociétés	18	2.5
✓	Organization Behavior	24	3
✓	Financial Markets	18	2.5
✓	Strategy / Stratégie	36	5
✓	Management and Cost Accounting	24	3
✓	Marketing Management	36	5
✓	Operations and Supply Chain Management	36	5
✓	Finance d'Entreprise	36	5
✓	Introduction à la Science des Données	18	2.5
✓	Anglais	60	5

## CORE COURSES

### DROIT DES SOCIETES

**Enseignants :** Mirko HAYAT (coordinateur du cours)

**Durée :** 18h

**Nombre de crédits ECTS :** 2.5

Niveau	Période	Langue d'enseignement	Effectif max	Mode
M1	-	Français	54	Présentiel

**Département décanat :** DROIT

**Famille de cours (Module d'Acquisition de Compétences) :** LAW, POLICY, SOCIETY

**Mots-clés :**

LAW POLICY SOCIETY

#### SYNOPSIS

L'objectif de ce cours est d'offrir les outils conceptuels nécessaires à la bonne compréhension de la dimension juridique de l'entreprise en ce compris les aspects liés à sa responsabilité sociale et environnementale.

#### DESCRIPTION DETAILLEE

**Prérequis :**

Non applicable.

**Présentation générale du cours :**

Qu'il s'agisse de créer une start-up, de lever des fonds pour assurer la croissance externe d'un groupe international, l'entreprise se trouve, à des moments clés de son existence, face à des choix qui vont conditionner son futur. Si ces choix sont principalement guidés par une analyse stratégique et économique, leur réussite dépend en grande partie des conditions juridiques dans lesquelles ils seront réalisés.

Au-delà de cette nécessaire dimension, l'entreprise détient une responsabilité particulière sur les questions sociales et environnementales. Le droit français et européen n'est pas resté en dehors de cette évolution (raison d'être des sociétés, sociétés à mission...). C'est pourquoi le cours de droit des sociétés accorde une place privilégiée à la Responsabilité Sociétale et Environnementale des entreprises qui irrigue l'ensemble des développements.

**Thèmes principaux :**

Création d'entreprise, Gouvernement d'entreprise, Responsabilité Sociétale et Environnementale

**Objectifs Pédagogiques :**

- Comprendre comment se forme le contrat de société

- Comprendre la complémentarité des aspects économiques, financiers, et juridiques de la vie des entreprises
- Mesurer la responsabilité des créateurs et des dirigeants d'entreprises
- Maîtriser les aspects juridiques des grandes étapes de la vie des sociétés : apports, levée de fonds (augmentation de capital) fusions-acquisitions, cession.
- Comprendre la place de l'entreprise dans la transformation sociale et environnementale de la Société

### **Organisation du cours – plan détaillé :**

Cours organisé autour de douze séances d'une heure et trente minutes chacune.

Les douze séances d'une heure et trente minutes chacune sont prévues et réparties entre les six thèmes suivants :

- Création d'entreprise et contrat de société;
- Société et entreprise ;
- Gouvernement d'entreprise et R.S.E.;
- Grands types de société ;
- Opérations des sociétés ;
- Cessions de droits sociaux, pactes d'actionnaires et groupes de sociétés

## **MATERIEL PEDAGOGIQUE**

### **Ouvrages :**

Outre le polycopié, de nombreux ouvrages de droit des sociétés existent parmi lesquels peuvent être cités :

- « Droit des sociétés », Manuel LEXISNEXIS, 33<sup>e</sup> édition (parution août 2020), Professeurs Maurice Cozian, Alain Viandier et Florence Deboissy ;
- « Mémento Pratique Francis Lefebvre Sociétés Commerciales 2021 », Editions Francis Lefebvre, 52<sup>e</sup> édition (à jour au 1er septembre 2020).
- « Droit commercial : sociétés commerciales 2022-2023 » Philippe MERLE avec la collaboration de Anne FAUCHON. 26<sup>ème</sup> édition - Editeur : Dalloz

Enfin, du fait que le droit des sociétés est une matière pratique et évolutive liée intrinsèquement à la vie économique et financière, il est fortement conseillé de se tenir au courant de celle-ci par, notamment, la lecture régulière de journaux spécialisés tels que « Les Echos ».

### **Ressources numériques :**

Pour la consultation des textes applicables et en particulier des articles du Code civil et du Code de commerce, ceux-ci peuvent être trouvés à jour de la dernière réforme sur le site Internet suivant :

<https://www.legifrance.gouv.fr/>.

## METHODES PEDAGOGIQUES

La méthode pédagogique est d'abord basée sur un travail personnel de l'étudiant.

En cours, les notions décrites dans les vidéos seront abordées à travers l'étude de cas pratiques et de documents et articles de la presse économique afin de pouvoir saisir aussi bien la portée théorique que l'enjeu pratique de ces notions.

## TRAVAUX ET ÉVALUATIONS

### Travaux demandés :

Vidéos courtes consacrées au droit des sociétés au sein de la collection « MOOC<sup>1</sup> Sorbonne Droit des entreprises » sur la plate-forme FUN<sup>2</sup>. Les vidéos sont divisées entre les six thèmes qui sont abordés lors des douze séances d'une heure et trente minutes chacune.

### Evaluation des acquis :

Outil/support/mode d'évaluation	Durée et format	Pondération dans la notation finale
<i>Test de mi-parcours</i>		1/3
<i>Test Final</i>		2/3

## BIOGRAPHIE

**Mirko Hayat** est professeur affilié au département droit et fiscalité. Avant de rejoindre le groupe HEC il dirigeait le département fiscal de la CCI de Paris. Il commença sa carrière comme inspecteur des impôts. Il a été rapporteur auprès du Conseil des prélèvements obligatoires (antérieurement, Conseil des impôts), et expert auprès du Comité économique et social européen.

Il est docteur en droit de l'Université Paris XIII, titulaire d'un DEA d'économie, d'une Habilitation à diriger des recherches "Sciences Juridiques" et ancien élève de l'Ecole Nationale des Impôts.

Mirko Hayat est membre du conseil d'administration et du conseil scientifique de la branche française de l'IFA (international fiscal association), du bureau de l'AJE (association des juristes européens), et de la commission fiscale de la chambre de commerce internationale (comité français).

Il est l'auteur de divers ouvrages et articles sur la fiscalité.

---

1 « Massive Open Online Course ».

2 « France Université Numérique ». Le lien vers le site Internet est le suivant : [https://www.canal-u.tv/producteurs/universite\\_paris\\_1\\_panthéon\\_sorbonne/droit\\_des\\_entreprises](https://www.canal-u.tv/producteurs/universite_paris_1_panthéon_sorbonne/droit_des_entreprises)

## ORGANIZATIONAL BEHAVIOR

**Teacher:** Julien JOURDAN

**Duration:** 24h

**Number of ECTS credits:** 3

Education Level	Period	Language of instruction	Max staffing	Teaching Mode
M1	-	English	54	In-person

**Dean Department:** MRH

**Course family** (Module d'Acquisition de Compétences): STRATEGY, MANAGEMENT, MARKETING

**Keywords:**

MANAGEMENT ORGANIZATION

### SYNOPSIS

In today's open and complex world, the "human side" of business is increasing critical. This is the focus of Organizational Behavior (OB), an interdisciplinary field drawing on anthropology, sociology, economics, psychology, and political science. In this course, we will explore what people do, think, and feel in organizational contexts and how leaders can unlock the full potential of individuals, teams, and organizations.

### DETAILED DESCRIPTION

**Prerequisites:**

Not applicable

**Course overview:**

Business leaders are faced with the increasingly daunting tasks of understanding, analyzing, and navigating the complexities of contemporary organizational life. To succeed, they constantly need to enhance employee engagement, increase individual, team, and organizational performance, by enhancing employee motivation, team dynamics and organizational design and creating a positive and attractive work culture. This course is designed to help you gain a deep understanding of organizational processes at the individual, group, and organizational levels, and to help you and develop into an effective and socially responsible leader. The theories, discussions, and activities we will engage in throughout this course will help you learn to diagnose, assess, and navigate the workplace for future personal and organizational success.

**Principal Items:**

We will explore topics such as:

- Understanding yourself and others
- Motivating others

- Working in teams
- Negotiating
- Influencing others
- Building the right culture
- Designing an effective organization

#### **Pedagogical Objectives:**

- Develop a strong understanding of essential Organizational Behavior concepts and theories.
- Apply these concepts and theories in real-world scenarios through case studies, simulations, exercises, and projects.
- Cultivate self-awareness and reflection skills to assess their impact on others in group and organizational settings.
- Demonstrate effective communication and collaboration skills while interacting with other classmates, team members, and the professor

#### **Skills:**

- Leadership skills: lead effectively by understanding the role individual differences and motivation play in successfully managing the relationships between leaders and subordinates.
- Teamwork and collaboration skills: work effectively in teams, manage conflicts, and build strong working relationships.
- Critical thinking and problem-solving skills: analyze complex organizational problems, develop solutions, and make decisions based on evidence and data.
- Communication skills: effective communication skills, including written and verbal communication, active listening, and nonverbal communication.
- Diversity and inclusion skills: work effectively with people from diverse backgrounds and cultures.
- Sustainability skills: develop into a socially sustainable leader (the “S” in ESG).

#### **Course organization – detailed outline:**

The course comprises:

- Lecture videos designed to help you gain an understanding of the key concepts and theories before coming to class.
- Face-to-face sessions in which you will apply key OB concepts and theories to real-world scenarios such as case studies, simulations, and exercises. Each session is also a milestone for the team project.
- “Simulation” sessions.



Session	Topic	Case	14 <sup>th</sup> ed. chapter*	15 <sup>th</sup> ed. chapter*
Class 1	Understanding yourself & others	-	2 and 4	3 and 5
Class 2	Motivating others	-	7 and 8	7 and 8
Class 3	Influencing others	-	13 (option: 12)	13 (option: 12)
Class 4	Building the right culture	Henkel	16	16
Class 5	Designing organizations	Valve	15	15
Class 6	Presenting your teamwork	-	-	-
Simulation A	Working in teams	-	11 (option: 10)	10 (option: 9)
Simulation B	Negotiating	-	-	-

\* All the textbook chapters listed, except for optional ones, are required readings for the final exam

## TEACHING MATERIALS

### Books:

Stephen P. ROBBINS, Stephen P., and JUDGE, Timothy A. *Essentials of Organizational Behavior* (14<sup>th</sup> or 15<sup>th</sup> Global Edition). Pearson Education.

### Digital Resources:

Additional resources, including online courses, cases and simulations, will be made available on BlackBoard.

## TEACHING METHODS

OB class is by nature highly interactive and will require students' active involvement and participation:

- Significant preparation work is required, including introductory lecture videos and readings.
- Coursework will involve in-class exercises, case discussion, and various forms of simulations.
- Students will be asked to apply the concepts and theories learned in class to a real-life organization (guidelines will be communicated in class).

Please consider this syllabus as a CONTRACT that defines obligations and expectations on both parts. Read it carefully and ask your instructor if you need clarification. As a matter of fairness, rules equally apply to all students (no exception).

**Preparing for class.** Coming to class prepared is the only way to make the most of class and participate in a meaningful manner. We expect you to have carefully watched the lecture videos, read the case listed for the session (if applicable), taken notes, and be ready to discuss videos and case. Skipping class preparation is a losing strategy: not only will it undermine your participation grade, but you will have to do the work eventually to prepare for the final exam.

**Attendance and punctuality.** Attending means being in class *on time* and fully prepared. Late students may not be accepted in class. While being present is not a sufficient condition for participating, it's a necessary one: failing to attend class or prepare appropriately before class will negatively and significantly affect your participation grade. While we strongly recommend that you attend **all classes**, one absence may be excused. Any further absence needs to be justified **in advance** with your instructor. Given the experiential nature of the course, you will have to retake the course if you have three or more absences – without exception. As a general rule, please let your instructor know in advance if you anticipate any specific constraint.

**Communication and electronic devices.** All material, including links to lecture videos, cases, and readings will be made available on the class BlackBoard page. Unless otherwise specified, class material is copyrighted and can't be shared. You may use electronic devices for taking notes (unless otherwise specified by your instructor). Inappropriate or disruptive use of devices (e.g., gaming, social media) is a violation of class rules: it may get you expelled from class.

**Red lines.** When joining HEC Paris, you agreed to follow the school's honor code. Our goal is to create a safe learning climate in which all student feels comfortable to speak up and share their own ideas and thoughts: you are expected to always behave appropriately in and outside class. Rule violations, including the following ones, will get you expelled from class and reported to the school's disciplinary council:

- 1) Plagiarism (including self-plagiarism).
- 2) Cheating or lying (e.g., falsifying records).
- 3) Sharing class or exam material beyond what is explicitly permitted by the instructor (e.g., sharing with other students outside the class, sharing on online platforms).

## WORK AND EVALUATIONS

### Work requested:

- Thoroughly prepare for each session by watching the assigned lecture videos and prepare case discussion (when applicable).
- In class, actively and pertinently contribute to exercises and discussions.
- With your teammates, meet the weekly milestones of your teamwork assignment.
- Read the appropriate textbook chapters (required for passing the final exam).

### Assessment of achievement :

Tools / Method of evaluation	Duration and Mode	Weight in the final grading
<i>Final exam (minimal grade: 60/120)</i>	<i>90 min. (ind.)</i>	<i>45%</i>

<i>Teamwork assignment</i>	<i>5 x 3 hrs. (group)</i>	<i>35%</i>
<i>Participation</i>	<i>Class time (ind.)</i>	<i>20%</i>

Additional details:

**Final Exam.** Your knowledge of OB will be tested by an individual exam at the end of the term. All lecture topics are relevant for the exam (cases are not).

The exam will test your in-depth knowledge and understanding of class material, including lecture videos and designated textbook chapters, and your ability to apply the concepts and ideas discussed in class to real-world situations. The exam is closed book and your presence at the exam is mandatory. A **minimal grade** of 60 over 120 points is required to validate the course. In case of failure (F or FX), you'll be given a chance to take one remedial exam.

**Team project.** You will be enrolled in a team in charge of analyzing a real-world organization (please refer to the "Team Project" document on BlackBoard for more details). Your work will be assessed by its content and delivery. Failure to meet the project milestones will negatively affect your team grade. We assume that all members will equally contribute to the work. If that does not happen, teams are allowed to "fire" a member whose contribution to teamwork is deemed insufficient. This may however only happen after a formal written warning has been given (and the instructor informed). Students expelled from their team—an abnormal and extremely rare outcome—are expected to deliver the work on their own and will be evaluated as if the work had been produced by a team. All the members of the team need to be present for the final presentation.

**Participation.** Classroom participation reflects how much you add to class learning through questions, comments, and sharing experiences or relevant readings. Quality of contributions counts more than quantity. Your goal is to pass the "so-what" test: why does it matter. This can be done by sorting through facts of a complicated case and building on prior comments made by other students to move the discussion forward. You might also be called to contribute to the class discussion. Remember that being physically present in class is only a prerequisite: it will not help your participation grade.

**Admission to the final exam.** Students failing to meet the requirements for the team project and participation (i.e., 55% of the final grade in combination) cannot validate the course. They will receive an F and will NOT be allowed to take the final exam.

**Need help?** Should you have any question or a concern regarding the course content and evaluation, please do not hesitate to contact your instructor. For any technical issue (e.g., difficulty accessing readings or cases), please contact directly [01assist@hec.fr](mailto:01assist@hec.fr) (cc-ing the course assistant).

**Reminder.** Grading structure of the HEC Grande Ecole program

<b>HEC GRANDE ECOLE GRADING GUIDELINES</b>	
A	between 10 and 20 %
A + B	between 20 and 40 %
A + B + C	between 40 and 70 %
A + B + C + D + E	between 70 and 100 %
FX + F	Maximum of 30 %

## BIOGRAPHY

**Julien Jourdan** is an Associate Professor of Management and Human Resources at HEC Paris. He teaches management and leadership in the PhD, MSc, and MBA programs. His research focuses on reputation, legitimacy, and other social evaluations of organizations. He examines how stakeholders evaluate organizations in institutionally complex environments and how these evaluations shape organizational conduct, strategy, and performance.

His work is published in academic journals including *American Journal of Sociology*, *Academy of Management Journal*, *Organization Science*, and *Strategy Science*. He previously held academic positions at Bocconi University, PSL-Paris Dauphine, and Imperial College London. A former finance executive at a major film studio, he has retained a strong interest in creative industries.

**Federica De Stefano** is an Assistant Professor of Management and Human Resources at HEC Paris and a Senior Fellow of Wharton People Analytics. Her research focuses on how organizations deploy their employees. In studying this topic, she has developed two research streams. In her first stream, she adopts the individual perspective to study how HR processes, such as staffing, digital communication, and performance appraisals, shape individuals' career rewards and the sustainability of their working conditions. Her second stream focuses on a strategic perspective to examine how firms can achieve competitive advantage from human capital. Theoretically, her work seeks to speak to the literatures on human resource management, macro-organizational behavior, careers, and strategic human capital. Empirically, much of her work is quantitative and based on field studies in organizational contexts. Professor De Stefano is a member of the Editorial Board of *Human Resource Management* and *Human Resource Management Review*. She has been awarded with several research grants, including a Marie Curie grant from the European Commission. She also served as elected Representative-at-Large for the Strategic Human Capital Interest Group of the Strategic Management Society (SMS). Prior to joining HEC Paris, she was a Post-Doctoral Fellow at the Wharton School of the University of Pennsylvania. She holds a Ph.D. in Business Administration and Management, a M.Sc. in International Management, a BA in Management from Bocconi University in Milan (Italy), and a M.Sc. in Management Science and Corporate Management from Fudan University in Shanghai (China).

**Audrey Holm** is an Assistant Professor of Management and Human Resources at HEC Paris. Her research focuses on shifting work dynamics at the individual, relational and occupational levels, with a particular interest in issues related to labor market inclusion and inequality. Audrey primarily adopts an ethnographic approach to reflect on how people experience and relate to their work, organizations and occupations. In her dissertation, Audrey examined the work of counselors specialized in helping formerly incarcerated jobseekers. Audrey's research has also included an examination of how expertise is translated across relational contexts, and how categorization occurs in qualitative analysis. Her work has been featured in the *American Sociological Review* and *Academy of Management Review*. Audrey was a finalist in the INFORMS/Organization Science Dissertation Proposal Competition and for the Academy of Management's Louis Pondy Best Dissertation Paper Award. She holds an M.B.A. from ESSEC Business School and a Ph.D. in Management from Boston University's Questrom School of Business.

**Wooseok Jung** received his Ph.D. in Management and Organizations from Northwestern University, the Kellogg School of Management. His research focuses on the political interactions between corporations and their stakeholders with a broad interest in reputation and status. In his dissertation, he explains how status competition and rivalry prompt elite U.S. law firms to reinforce their social performance by changing internal reward systems and acquiring new partners. His work has appeared in a leading scholarly journal, the *American Journal of Sociology*. He serves as an ad-hoc reviewer for various academic journals and is a member of the Academy of Management and the American Sociological Association.

**Ekaterina Netchaeva** is an Assistant Professor of Management and Human Resources at HEC Paris. She holds a PhD in Organizational Behavior from the University of Utah as well as a BSc in Microbiology and Immunology and a BA in Psychology from the University of British Columbia. Prior to joining HEC Paris, she was an Assistant Professor at Bocconi University and a visiting Assistant Professor at London Business School. Ekaterina's research focuses on gender bias in the workplace, women's everyday experiences at work, work-family interface and team dynamics, and was published in leading academic journals, such as *Organization Science*, *Psychological Science*, and *Organizational Behavior and Human Decision Processes*. Her work has also been covered by various media outlets, including MIT Sloane Review, BBC radio, *The Atlantic*, Yahoo, and Huffington Post. Ekaterina has taught courses in the Bachelor, Master and PhD programs on organizational behavior, leadership, diversity management, and high-performance teams.

**Santosh Srinivas** received his Ph.D. in Management from the McCombs School of Business, the University of Texas at Austin. His research is grounded in cultural and symbolic perspectives, with substantive interests in the intersection between social assessments and entrepreneurship. In his dissertation, he examines and observes gender differences in the entrepreneurs' crowdfunding requests. His work has appeared in the *Journal of Organizational Behavior*, *Journal of Management*, and *Oxford Handbook of Management*. He serves as an ad-hoc reviewer for *Information Systems Research*, *Strategy Science*, and the *Journal of Management Inquiry*, and is a member of the Academy of Management.

## FINANCIAL MARKETS

**Teachers:** Profs. Stefano LOVO, Evren ÖRS, Alina ROȘU (course coordinators)

**Duration:** 18h

**Number of ECTS credits:** 2.5

Education Level	Period	Language of instruction	Max staffing	Teaching Mode
M1	S1	English	54	In-person

**Dean Department:** FINANCE

**Course family** (Module d'Acquisition de Compétences): FINANCE & ECONOMICS

**Keywords:**

FINANCE STOCKS BONDS FORWARDS-FUTURES OPTIONS

### SYNOPSIS

This course will introduce you to the valuation of financial contracts and the markets in which they trade. You will learn how to value stocks, bonds, forwards, futures, and options and how these instruments are used by corporations: to raise capital in stock and bond markets (including the differences in the ESG- versus non-ESG stock valuations, ESG- vs non-ESG-bond pricing), to forecast economic outcomes (including political outcomes), to manage various risks (including climate-change related risks: (temperature change, rain- or snow-fall risks, water-shortage risks).

### DETAILED DESCRIPTION

**Prerequisites:**

Student attending this course should be proficient in the content of the Financial Economics course, which is the first core finance course: time value of money; capital budgeting; portfolio theory; CAPM.

**Course overview:**

This course introduces the students to the basics of financial markets and financial instruments traded in these markets. It covers the stock market, the bond market, forward and futures contracts, and options markets. An important theme of the course is the various pricing methods to come up with the values of various financial contracts: dividend-discount and comparables-based models for stocks, yield-curve and no-arbitrage-based models for bonds, spot-forward parity based modeling of forwards, and various binomial option pricing models. This course also introduces the students to basic concepts related to socially responsible investing and risk management (including investors' non-pecuniary preferences, investing in green bonds, etc.).

**Principal Items:**

- Stocks
- Bonds

- Forwards/Futures
- Options

**Pedagogical Objectives:**

You will know cash-flows that different financial instrument pay to their holders. They will be able to identify financial contract-mispricing and the associated arbitrage opportunities. They will learn how use the main derivative to manage different form of risk, including climate change related risks.

**Skills:**

Student will be familiar with the main financial assets, what determine their price in the market and how they can be used by investors and firms to allocate funds rise funds and manage risk.

**Course organization – detailed outline:**

The course is composed of twelve lectures of 1.5 hours, ten daily quizzes, and an on-paper final exam. Attendance is compulsory.

- Stocks:
  - Dividend Discount Model
  - Present Value of Growth Opportunities
  - Price-Earnings ratio
  - Non-pecuniary preferences of stock-market investors
  - Market efficiency
- Bonds:
  - Coupon rate; Interest rate; Yield-to-maturity
  - Arbitrage pricing
  - Green bonds and sustainability-linked bonds
  - Default risk
  - Yield curve
  - Forward interest rates
  - Interest rate risk
  - Duration
- Forwards/Futures
  - Payoffs
  - Counterparty risk

- Hedging
- Valuation
- Options
  - Payoffs
  - Option strategies
  - Put-call parity
  - Arbitrage bounds
  - Binomial option pricing models

## TEACHING MATERIALS

### Books:

“Finance” by BODIE & MERTON available in English & French (BOD-5)

“Investments” by BODIE, KANE & Marcus available in English (BOD-5-712)

### Digital Resources:

Students will be provided with a reader (in PDF) with exercises that will complement the lectures and copies of the lecture slides. All material will be available online either on blackboard or on the instructor’s personal webpage.

## TEACHING METHODS

Lectures in class. Daily in-class online quizzes.

## WORK AND EVALUATIONS

### Work requested:

Students will be required to review the content of the previous class before attending the subsequent class. There will be ten (10) on-line quizzes eight-best of which will count towards the final grade. The quiz questions will be randomly chosen among the sets of quizzes previously made available to all students.

### Assessment of achievement :

Tools / Method of evaluation	Duration and Mode	Weight in the final grading
<i>Final exam</i>	<i>2 hrs</i>	<i>73%</i>
<i>Eight in-class quizzes (eight best of 10 given)</i>	<i>3 mins/quiz</i>	<i>27%</i>



## BIOGRAPHY

**Stefano LOVO** is a professor of finance who received his Ph.D. in 2000 from CORE (Université Catholique de Louvain). He is the academic director of the HEC Center for Impact Finance Research, and a member of CNRS Lab GREGHEC. His research focuses on information economics and its applications to financial markets, corporate finance and sustainable finance. He has worked on various topics such as impact finance, stock price formation, repeated games, market herd behavior, auctions. His work is published in academic journals such as *Econometrica*, *The American Economic Review*, *The Journal of Financial Economics*, *The Review of Economic Studies*, *The Review of Financial Studies*, among others.

**Evren ÖRS** is an associate professor of finance at HEC Paris and a member of GREGHEC. He is the Academic Director of the Major and Master in International Finance programs. He has papers published in the *Journal of Finance*, *Journal of Financial Economics*, *Review of Financial Studies*, *Review of Economics and Statistics*, and the *Journal of Labor Economics*, among other academic journals. Evren, who received his Ph.D. in finance from Boston College in 1999, is a faculty member at HEC Paris since 2003. He teaches finance courses at in the L3/M1-years of the Grande Ecole as well as at the executive education-level at HEC Paris.

**Alina ROȘU** has been teaching at HEC Paris since 2017. Born and raised in Romania, she graduated from the Academy of Economic Studies in Bucharest with a master's degree and went on to Chicago Booth in the U.S. to obtain an MBA with specialization in Finance and Econometrics. In 2016 she obtained her PhD. in Finance from HEC Paris, with a specialization in Asset Management. Alina has taught courses in Empirical Asset Pricing and Portfolio Management, Financial Economics and Financial Markets. Her research interests are in Asset Management, Investments, Mutual funds.

## STRATEGY

**Teacher:** Hyejun KIM (Course coordinator)

**Duration:** 36h

**Number of ECTS credits:** 5

Education Level	Period	Language of instruction	Max staffing	Teaching Mode
M1	S1	English	54	In-person

**Dean Department:** SPE

**Course family** (Module d'Acquisition de Compétences): STRATEGY, MANAGEMENT, MARKETING

**Keywords:**

STRATEGY

### SYNOPSIS

The objective of this course is to review the main concepts, methods and tools which are used in the strategy analysis, formulation and implementation processes, identify the business situations in which they can be applied most effectively, as well as understand the limitations of the various approaches.

### DETAILED DESCRIPTION

**Prerequisites:**

Not applicable

**Course overview:**

Why are some firms more successful than others? This is the fundamental question of strategy. As the business environment is becoming ever more complex, turbulent, global, and competitive, thinking strategically about how a firm should position itself in order to compete successfully is becoming increasingly critical. Those firms that will survive, grow, create, and capture value are firms with a clear vision of what their competitive advantage is and of how to maintain and enhance it.

The perspective of this course is that of a general manager whose responsibility is to maximize the overall performance of the firm or the performance of a business unit within the firm. To achieve this objective, general managers must analyze the business-level drivers of the firm's performance and identify external changes that may affect this performance. Their job is then to find ways to better leverage the firm's resources to sustainably improve performance. At the corporate level, general managers' responsibility is also to define the scope of the firm's activities, to implement strategic moves that will affect this scope, and convince shareholders and stakeholders of the relevance of their strategy.

The objective of this course is to review the main concepts, methods, and tools which are used in the strategy analysis, formulation, and implementation processes, identify the business situations in which they can be applied most effectively, as well as understand the limitations of the various approaches.

### Principal Items:

The course covers the two main areas of strategy:

- Business Strategy focuses on competition and the creation of a competitive advantage in a particular area of business,
- Corporate Strategy is concerned with defining the scope of the firm and achieving sustainable profitable growth.

### Pedagogical Objectives:

- **Understand and apply key concepts and analytic frameworks** of strategic management to analyze strategic problems at the business and corporate level.
- **Understand the dynamic influence of the strategic actions** of a firm and its rivals on business and corporate strategy and industry structure.
- **Appreciate and understand the various stakeholders** in a company and how they influence and are affected by a company's strategy

### Skills:

- **Improve your ability to analyze and critically assess** complex, unstructured business problems using appropriate tools and frameworks.
- **Improve your skill** in synthesizing information and results of analyses to develop solutions to strategic problems.
- **Improve your skill** in expressing arguments and conclusions clearly, logically and persuasively in written and oral forms.

### Course organization – detailed outline:

12 in-class sessions of 90-mins.

12 asynchronous sessions

The course covers the two main areas of strategy: Business Strategy and Corporate Strategy. Business Strategy focuses on competition and the creation of competitive advantage in a particular area of business, while Corporate Strategy is concerned with defining the scope of the firm and achieving sustainable and profitable growth. While the first two sections assume that economic profit and shareholder value creation are the main drivers of firm performance, a third section addresses the social and environmental factors that make business and corporate strategies environmentally and socially sustainable.

### Part 1: Business Strategy

- Industry and competitor analysis
- Sources of competitive advantage
- Cost leadership
- Differentiation
- Competitive dynamics

- Platform strategies

## Part 2: Corporate Strategy

- Vertical integration
- Global competition and international expansion
- Diversification
- Mergers and Acquisitions
- Strategic Alliances

## Part 3: Sustainability Strategy

- Sustainability as a strategy
- Stakeholder management
- Solving global problems

## Week 1: Introduction to Strategy

(\* denotes required videos)

### Case: Southwest Airlines (mini case)

- **Why has Southwest Airlines been so successful for so long?**
- **Why has no other competitor successfully imitated their strategy?**

Videos:

- Intro to strategy\*, Strategy performance and value creation\*, What is business strategy\*, Business strategy framework\*, SWOT\*, Strategy timeline I and II

Readings:

- Michael PORTER. 1996. *What is Strategy?* Harvard Business Review
- ROTHARMEL, F.T. Strategic Management. Chapter 1

## Week 2: Industry Analysis

### Case: Cola Wars (short case)

- **Why has the soft drink business been so profitable for so long?**
- **Can Coke and Pepsi sustain their profits in the wake of flattening demand and the growing popularity of non-carbonated drinks?**

Videos:

- Why industry matters\*, PESTLE\*, Industry analysis—5 force model (4\*) and industry types (1\*),

Readings:

- Michael PORTER. 2008. The Five Forces that Shape Strategy. Harvard Business Review

- ROTHARMEL, F.T. Strategic Management. Chapters 2 & 3

### **Week 3: Competitive Advantage**

#### **Case: Apple 2015**

- ***What, historically, have been Apple's competitive advantages?***
- ***Analyze the personal computer industry. How have the dynamics of the PC industry changed? Why did Apple struggle historically in PCs? Evaluate Apple's strategy since 1990.***

Videos:

- Cost and Willingness to Pay\*, Types of competitive advantages\*, Cost drivers\*, Experience curve\*, Differentiation\*, Intro to competitive dynamics, How to use game theory, Competitor intelligence, First mover advantage

Readings:

- ROTHARMEL, F.T. Strategic Management. Chapters 4 & 5 & 6

### **Week 4: Disruptive Strategy / Competitive Dynamics**

#### **Case: Launching Telmore**

- ***What is the business model of TDC? What are their choices, and how are they different from Telmore's?***
- ***Is Telmore a threat to TDC?***

Videos:

- Business models and competitive advantage\*, Resources and capabilities\*, VRIST\*, Features of strategic resources\*, Intro to business models, Value proposition, Value architecture, Profit equation, Business level strategy, Business level strategy updated

### **Week 5: Ecosystems / Two-Sided Markets**

#### **Case: Uber vs Didi**

- ***How does Uber differ from a taxi company? What is the competitive advantage of Uber?***
- ***How transferable is Uber's competitive advantage to an emerging market such as China?***

Videos:

- What are multi-sided platforms?\*, Characteristics of multi-sided platforms I\* & II\*

Readings:

- ALSTYNE, M. W., Parker, G. G., & CHOUDARY, S. P. 2016. Pipelines, platforms, and the new rules of strategy. *Harvard Business Review*

## Week 6: Vertical Scope

### Case: Disney Pixar

- ***Is the value of Pixar and Disney in an exclusive relationship greater than the sum of value that each could create if they operated independently of one another? If so, can that value be realized through a new contract? Or is common ownership(i.e., acquisition) required?***

#### Videos:

- What is corporate strategy\*, Directions and modes of growth\*, Choosing modes of growth\*, Value creation\*, Agency problems and governance\*
- What is vertical integration(VI)\*, Myths on VI\*, What are transaction costs(TC)\*, When do TC lead to VI\*, Advantages and disadvantages of VI\*, Good and bad integration, Advantages and disadvantages of outsourcing, Why is VI making a comeback

#### Readings:

- ROTHARMEL, F.T. Strategic Management. Chapter 8
- CUMENAL, F. 2017. Tiffany's CEO on Creating a Sustainable Supply Chain. *Harvard Business Review*
- SEARCY, C. 2017. Sustainable Procurement Requires Perseverance. *MIT Sloan Management Review*

## Week 7: Horizontal Scope

### Case: Disney 2022 (short case)

- ***What are the sources of Disney's continued success over the last 70 years? How can Disney remain creative while pursuing growth?***
- ***Why did Disney acquire ABC Network? Evaluate the acquisition from (a) a vertical integration perspective and (b) a diversification perspective.***

#### Videos:

- What is diversification?\* Industries, businesses and product categories\*, Rationale for diversification\*, Downsides of diversification\*, Synergies I\* & II\*, Business portfolio models I & II
- Organic growth as the baseline option, Intro to M&As, Assessing the performance of M&As, Benefits of M&As, Downsides of M&As, Creating value through M&As I & II

#### Readings:

- ROTHARMEL, F.T. Strategic Management. Chapter 8

## Week 8: Group Project Proposal Presentations

## Week 9: International Scope

### Case: L'Oreal

- ***What were the main issues L'Oréal was facing in implementing its global strategy?***

- ***Should all product lines and brands follow the same “universalization” strategy in all markets? To what extent should local managers be given the freedom to adapt L’Oréal products and brands to market circumstances?***

Videos:

- What is globalization\*, Global vs. multi-domestic industries\*, What drives globalization I\* & II\*, Liability of foreignness\*, Adaptation and configuration\*, Advantages and disadvantages of adaptation vs. standardization, Advantages and disadvantages of different configurations, Business features and international strategy I & II

Readings:

- ROTHARMEL, F.T. Strategic Management. Chapter 9

### **Week 10: Sustainability**

#### **Case: Unilever’s New Global Strategy**

- ***How would you evaluate Paul Polman's decision to implement a new strategy based on the Unilever Sustainable Living Plan? What benefits did it offer? What risks did it present?***
- ***How effective has the implementation of the new strategy have been to date? What actions should the company take now?***

Videos:

- The social responsibility of business\*, Linking sustainable development CSR and strategy\*, Circular economy\*, Usage-based business models\*
- Stakeholder salience\*, Stakeholder engagement and materiality\*, Measuring stakeholder value\*

Readings:

- RANGAN, K. et al, 2015. The truth about CSR. *Harvard Business Review*
- BOWER, J.L. & Paine, L.S. 2017. The error at the heart of corporate leadership. *Harvard Business Review*
- LYON et al. 2018. CSR needs CPR: Corporate Sustainability and Politics. *Business & Society*

### **Week 11: Solving Global Problems**

#### **Case: Pharmaceutical Industry Faces AIDS in Africa**

- ***What strategy should the pharmaceutical companies follow to protect their intellectual property rights? Should they decrease the price of the drug?***
- ***How should they respond to the plague of AIDS in Africa? How far should they be willing to go in addressing the problem?***

### **Week 12: Group Project Final Presentations**

## **TEACHING MATERIALS**

### **Cases (required):**

Business cases will be provided on Blackboard. Reading assigned cases ahead of the class is a mandatory requirement.

To better prepare for the case discussion, please read my advice below.

#### **Digital Resources (required):**

Asynchronous material, such as videos and other specified readings, will be provided on Blackboard.

#### **Additional Textbook (recommended):**

ROTHAERMEL. F.T. Strategic Management, McGraw-Hill. (HEC library 4-22 ROT). Copies are on reserve in the library. There are numerous editions of this textbook, all with very similar content. This textbook complement digital content

Blackboard will be used extensively as a course website. The site includes links to core and supplementary materials, discussion boards, class slides, and key course information such as the syllabus, assignments, and updates. Material on Blackboard for a week will be assumed to have been reviewed. Every material on Blackboard including syllabus, assignment, and course slides are copyrighted and distributing any of the material online is prohibited.

### **TEACHING METHODS**

The course uses a “blended learning” approach by integrating face-to-face in-class sessions with asynchronous content for independent study.

Each week, teaching consists of **(i) a 90 minute in-class discussion** of a business case and other assigned material and **(ii) asynchronous content** in which you will review assigned material (videos, articles, mini-cases, etc.) and complete assigned exercises.

For asynchronous sessions, interactive videos are assigned every week. Videos include important theoretical content of the course. My recommendation is to **review the videos of the week before our in-class session** so that our face-to-face session is reserved for discussion of cases and application of theoretical concepts.

In our synchronous, face-to-face sessions, the case method is used to better expose you to the complexity and ambiguity of strategic management situations. Please note that very little or no lecturing will take place during the synchronous sessions, as conceptual aspects of the course are covered in asynchronous content. **The case-based learning assumes your preparation and involvement.** To better prepare for the case discussion, please read my advice on page 5.

For each hour of the 36-hour course, you are expected to work independently for at least another 2 hours. Therefore, **each week**, you are expected to work independently for **at least 6 hours in addition to** the 3 hours of class time and studying asynchronous content.

### **WORK AND EVALUATIONS**

#### **Work requested:**

The minimum you have to do before attending any session is to read the assigned case. If you haven’t read the case, you will waste your time hearing a conversation that you simply won’t understand. Please don’t do that!

Here’s the approach I recommend to prepare for each case discussion session:

- Skim the case to get a general sense of the content.
- Check the discussion questions of the case from the schedule below.



- Read the case thoroughly and think about how you can apply the frameworks discussed in the videos or previous sessions. Use the discussion questions to guide your preparation.

I do NOT encourage you to research “what actually happened” before you have gone through all the steps above. The best possible learning experience comes from stepping into the shoes of executives with the information they had at the time and applying the concepts and frameworks we learned in class to do so. Generally speaking, the views you express should be based on (and backed up by) the information made available to you in the case or information that was available at the time of the case situation. Therefore, you can look up additional information, but make sure you only use information that was available at the time of the case situation.

**Assessment of achievement:**

Tools / Method of evaluation	Duration and Mode	Weight in the final grading
<i>Individual Participation</i>		20%
<i>Group Project Presentation</i>		30%
<i>Final Exam</i>		50%

Additional details:

The HEC Strategy department implements the grading structure of the HEC Grande Ecole Programme, which is based on a distribution of student grades. Students will be rank-ordered based on the total score to determine their course grade.

A	between 10 and 20 %
A + B	between 20 and 40 %
A + B + C	between 40 and 70 %
A + B + C + D+ E	between 70 and 100 %
FX + F	Maximum of 30 %

**Participation (20% of final grade)**

Case-based learning occurs through discussion, thus, we want everyone’s active participation. Evaluation of class participation will be based upon your ability to raise and answer questions, to bring up ideas or insights, and to build upon the ideas of others, NOT on the simple frequency of speaking. The level of in-class participation of each student is determined by the professor.

In addition to reading the assigned case, you will also have assigned videos for the week. The majority of videos are interactive—you have to answer pop-up questions to proceed. Students are expected to watch all videos marked as required until the end of the semester and provide answers to the embedded questions.

**Group presentation (30% of final grade):**

Each student will be part of a presentation group of 5-6 individuals. You will work with your group to apply tools learned in class to a firm of your choice.

The final presentation will take place in the last week. The presentations should be around 15-20 minutes long, depending on the number of groups. For presentation weeks, additional sessions will be scheduled to accommodate everyone's in-person presentations.

Evaluation criteria and further presentation logistics will be shared separately on Blackboard. Clear evidence that group work has been unevenly completed can count against the group presentation grade of free-riding individuals.

**Final Exam (50% of final grade):**

The purpose of the final exam is to test your understanding of the main concepts introduced throughout the course. The exam will be based on (a) multiple-choice, (b) open-ended questions, and (c) short cases.

**HEC Ethical Code will be strictly enforced.**

## **CLASS RULES**

- **Attendance is mandatory.** It is your responsibility to schedule other activities and engagements so that they do not conflict with class time. **If you should miss more than two of the 12 classes, you may automatically receive an F or FX grade.** If you have to miss a class, it is your responsibility to find out from your classmates what was covered in class and pick up any handouts from me.
- Access to the classroom may be refused in case of arriving late or leaving in the middle.
- Use of laptop, cellphones and smartphones is not allowed in the classroom.

## MANAGEMENT AND COST ACCOUNTING

**Teachers:** Keith ROBSON (Course coordinator)

**Duration:** 24h

**Number of ECTS credits:** 3

Education Level	Period	Language of instruction	Max staffing	Teaching Mode
M1	-	English	54	Blended

**Dean Department:** COMPTA-CTRL

**Course family** (Module d'Acquisition de Compétences): ACCOUNTING

**Keywords:**

ACCOUNTING MANAGEMENT MANAGEMENT ACCOUNTING COST ACCOUNTING BUDGETING PLANNING AND CONTROL

### SYNOPSIS

This course aims to develop students' capacity to select and structure management accounting information necessary to evaluate alternative courses of action, calculate costs and facilitate planning and control systems. It is designed to enable students to translate typical management situations into accounting terms by applying costing techniques and reasoning methods that can be mobilized for management decisions. Specifically, the course covers different types of costs, different methods of cost analysis and their relevance to decision-making, and budgeting techniques and practices.

### DETAILED DESCRIPTION

**Prerequisites:**

Not applicable

**Course overview:**

What are costs? We all take for granted that costs are important, but what are they and how do you know to calculate costs? Management and cost accounting is essentially concerned with these questions. Starting from a framework of 'different costs for different purposes', the course explores how costs are classified and the uses to which 'knowing costs' can be put. Management and cost accounting is essentially about planning, control and decision-making. Navigating through complex organizational decision contexts requires managers and executives to apply a variety of accounting and strategic analyses, in particular concerning the cost and profitability of products, services, customers and activities.

This course aims to develop students' capacity to select, structure and interpret management accounting information necessary to evaluate alternative courses of action, calculate costs and facilitate planning and control systems.

It is particularly designed to enable students to translate typical management operational process situations into accounting terms by applying costing techniques and reasoning methods that can be mobilized for management decisions.

Specifically, the course covers different types of costs, different methods of cost analysis and their relevance to decision-making.

**Pedagogical Objectives:**

The course learning objectives are as follows:

- Know how to identify the techniques, methods and reasoning adapted to a management situation or to make a specific managerial decision;
- Master the different techniques and methods to calculate costs and measure profitability in the organization;
- Develop an understanding of information usefulness in a variety of organizational contexts across hierarchies

**Skills:**

Use of cost data to construct management accounting information for short term decision making, costing, planning and budgeting, variance analysis, and pricing

**Course organization – detailed outline:**

- What is management and costs accounting? How does it relate and compare with financial accounting?
- Cost classification and ‘different costs for different purposes’
- Types of costs: fixed/variable costs, direct/indirect costs, opportunity costs, relevant costs, costs incurred;
- Cost-volume-profit relationships and breakeven analysis;
- Decisions based on contribution margin: special orders, product-mix, outsourcing; contribution per unit of scarce resource, discontinuation decisions;
- Cost allocation; purposes and rationales;
- Full cost calculation methods, with and without stock
- Inventory valuation;
- Job-order costing;
- Process Costing
- Service departments: 2-step allocation method;
- ABC methods;
- Accounting for Customer Profitability: cost and value analyses;
- Target Costing & Pricing
- Budgeting;
- Variance Analysis;
- The Investigation of Variances;

- Ethics and sustainability issues in management accounting
- Management accounting for start-ups: Projections of the profitability of products /markets /activities /customers; launch decisions

Session	Topics
<b>Online A</b>	Course Overview
<b>Online B</b>	Financial Accounting <i>and</i> Management and Cost Accounting: relationships between the two.
<b>In Class 1</b>	Introduction to Contribution Margin Analysis: Cost-Volume-Profit, Break-Even Points
<b>In Class 2</b>	Contribution Margin Analysis: Optimising the use of Scarce Resources
<b>In Class 3</b>	Contribution Margin Analysis: Short term Decisions (Special orders, make or buy, etc.)
<b>Online C</b>	Introduction to Cost allocation
<b>In Class 4</b>	Job costing and normal costing
<b>Online D</b>	Inventory Valuation: Inventory Flow Equations, Inventory Flow Assumptions
<b>In Class 5</b>	Process costing (I)
<b>In Class 6</b>	Process costing (II)
<b>In Class 7</b>	Service department costs: Two-stage allocation systems
<b>In Class 8</b>	Activity-based costing & CPA
<b>Online E</b>	Introduction to Budgeting
<b>In Class 9</b>	Budgeting and budget preparation: comprehensive budgets
<b>In Class 10</b>	Standard Costs; Master and Flexible Budgets Variance Analysis
<b>Online F</b>	Interpretation of Variances
<b>In Class 11</b>	Target Pricing: Management Accounting and the Customer
<b>Online G</b>	Business Planning: Accounting for Start-ups
<b>In Class 12</b>	Revision

## TEACHING MATERIALS

### Books:

BHIMANI, A., HORNGREN, T.C., DATAR, S.M. & RAJAN, M. (2019): Management and Cost Accounting, 7th Edition, Pearson Higher Education. Multiple copies and an online digital copy are available in the library/through the Library website

**Digital Resources:**

Asynchronous material, such as videos and other specified readings, will be provided on Blackboard. Most weeks you are required to watch the videos. In the short video posted on Blackboard, I provide the overview and rationale for these videos.

**TEACHING METHODS**

The course uses a “blended learning” approach by integrating 18 hours face-to-face in-class sessions with at 6 hours asynchronous online content for independent study. The online material is integrated into the course structure at the appropriate stages of the course.

- The 24-hour course is organized across 6 weeks. Each week, teaching consists of (i) two 90 minute face-to-face in-class discussions of concepts and an exercise or case. You are expected to attend and actively participate. The face-to-face elements of the course total 18 hours (ii) Asynchronous content, in which you will review assigned material (videos, articles, etc.). There will be video instruction videos of varying lengths that total around 6 hours, plus other online case questions and solutions.
- For each hour of the 24-hour course you are expected to work independently for at least another 2 hours in addition to the 3 hours of face-to-face class. This does not include the hours of viewing asynchronous content.

**WORK AND EVALUATIONS**

**Work requested:**

Required readings relevant to the session topic, viewing the online videos, preparation of case assignments and technical exercises. Group research for a project on a topic normally related to management accounting, ethics and sustainability.

**Assessment of achievement:**

Grades are based on scores for each graded component of the course. **Please pay EXTRA attention to how the course is graded.**

Tools / Method of evaluation	Duration and Mode	Weight in the final grading
<i>Class Attendance and participation</i>		10%
<i>Group project</i>		30%
<i>Final exam</i>		60%

Additional details:

Points earned for each grade component will be aggregated to obtain a total score for the course. **Students will be rank-ordered based on this total score to determine their course grade.**

## BIOGRAPHY

**Keith Robson** holds a Bachelor's Degree in Economics and Social Studies, majoring in Econometrics (Victoria University of Manchester), a Master's Degree in Accounting and Finance (Victoria University of Manchester) and a PhD in Financial Reporting (University of Manchester Institute of Science and Technology).

He has authored and co-authored three books, seven chapters in edited collections and over 35 articles in academic accounting, management and organization studies journals (Accounting, Auditing and Accountability; Accounting and Business Research, Accounting Business and Financial History; Accounting, Organizations and Society; Contemporary Accounting Research; Critical Perspectives on Accounting; Economy and Society; European Accounting Review; Human Relations, Organization; Research in the Sociology of Organizations, Science in Context).

He is an Editor (and former Editor-in-Chief) of Accounting, Organizations and Society, former associate editor of British Accounting Review, and has served on the boards of Accounting, Auditing and Accountability, Critical Perspectives on Accounting, International Journal of Auditing, Journal of Contemporary Accounting and Organizational Change, and the British Accounting Review.

His research interests include performance measures and diffusion; socio-political studies of accounting regulation; the profession, professional firms and professionalization; management control in schools; auditing methodologies. He is a member of the American Accounting Association, British Accounting and Finance Association (BAFA), European Accounting Association (EAA), and is Doctoral Alumnus of the American Accounting Association (AAA) Doctoral Consortium (as the BAA nominee), and of the European Accounting Association Doctoral Colloquium. He has held a Research Fellowship of the Institute of Chartered Accountants in England and Wales. Keith was a co-organizer of the Doctoral Colloquium of the European Accounting Association.

Keith has held posts at Aberystwyth University, University of Manchester Institute of Science and Technology (UMIST), University of Manchester and Cardiff University. taught management accounting at various levels at Aberystwyth, Cardiff and Manchester. He is an Honorary Professor at Cardiff Business School. At HEC he is currently teaching cost accounting (HEC Master of Science in Management - Grande École), an Introduction to the Philosophy of science, Theories of management control and Empirical Topics in Management Accounting (HEC doctoral program). He supervises one PhD student at HEC Paris.

## MARKETING MANAGEMENT

**Teachers:** Peter Mathias FISCHER and Klaus MILLER (Course coordinators), Craig ANDERSON, Philippe GRECO, Christopher HOGG, Valeria STOURM, Ludovic STOURM, Marc VANHUELE, Arnd VOMBERG

**Duration:** 36h

**Number of ECTS credits:** 5

Education Level	Period	Language of instruction	Max staffing	Teaching Mode
M1	-	English	54	In-person

**Dean Department:** MARKETING

**Course family** (Module d'Acquisition de Compétences): STRATEGY, MANAGEMENT, MARKETING

**Keywords:**

MARKETING MANAGEMENT STRATEGY DATA SUSTAINABILITY

### SYNOPSIS

Consisting of two integrated parts, this course first guides students through the essentials of marketing management (Part 1: Strategic Marketing)—placing an emphasis on how to segment and target customers based on sustainable customer value. Then, students will learn key concepts of data analysis intended to shape and implement data-driven and evidence-based marketing programs (Part 2: Marketing Science).

### DETAILED DESCRIPTION

**Prerequisites:**

Not applicable.

**Course overview:**

The course first guides you through the essential principles of strategic marketing. Being at the heart of marketing, you will learn on how to segment and target customers—and how to best position your offerings. A special emphasis will be placed on how companies can become strategically purpose-driven and customer-centric to successfully create sustainable value—and to capture value subsequently. Critically, we also will extensively discuss on how the digitalization and the proliferation of both data and communication channels can be used to the benefit of firms and customers, may innovate business models, and to what extent customer journey management or integrated marketing are helpful in this regard. Having received a comprehensive overview of strategic marketing, we then will introduce key concepts and methods of data analysis that are helpful to eventually shape and implement an insightful and data-driven marketing strategy. Through hands-on case studies, you will formulate marketing decisions in a dynamic business context based on information collected on the market, customers, the company and its competitors. You will apply regression analysis and optimization to develop solutions for sales forecasting, product development, pricing, online advertising campaigns, and for managing customer relationships.



### Pedagogical Objectives:

According to Bloom’s taxonomy of learning, the focus will not be on remembering or (mere) understanding, but on applying, analyzing, evaluating, and creating. More concretely, students will not only learn classical marketing management concepts such as Segmentation–Targeting–Positioning, but directly apply these concepts—with the intention to eventually create new and promising business models that are anchored on marketing. In addition, the course does not focus on knowledge and capabilities, but also aims to change attitudes. More concretely, students will learn that data science is neither pure theory nor “rocket science” but extremely valuable in a practical context. In this regard, they will be able to conduct sound market research by themselves and to critically evaluate the quality of insights

### Skills:

Students will acquire competencies in the four focal 21<sup>st</sup> century skills:

- (1) critical thinking and solving problems;
- (2) communication;
- (3) cooperation;
- (4) creativity.

For example, when crafting a detailed business plan and presenting as well as defending it at an event/award ceremony, they have to develop a creative concept that delivers sustainable value to customers. Further, they will need to develop a communication concept and to communicate their concept in a convincing manner. Finally, working on a business plan in groups, they will enhance their cooperation skills. Importantly, part 2 (i.a., Marketing Science) will equip them with the necessary skills to further improve their critical thinking—helping them to solve concrete company challenges via insights.

### Course organization – detailed outline:

Lecture	Format	Content	Required Readings
<b>Part I: Strategic Marketing (An Introduction to Value-Based Marketing Management)</b>			
1	Live	Introduction to Marketing Management	
2	Live	Key Principles to build a Sustainable Marketing Strategy	Chapters 1&2 (PM) & Chapter 1&2 (SM)
3	Live	Understand the Environment & the Market Place	Chapters 3&4 (PM) & Chapters 3&4 (SM)
4	Live	Segmentation & Targeting I	Chapters 4&5&7 (PM) & Chapters 5&7 (SM) + select journal articles

5	Live	Segmentation & Targeting II	Chapters 4&5&7 (PM) & Chapters 5&7 (SM) + select journal articles
6	Live	Positioning & Differentiation	Chapter 8 (PM) & Chapter 8 (SM)
7	Live	Service & Product Strategies Customer Access Strategies	Chapters 9&13 (PM) & Chapter 9&10&11 (SM)
8	Live	Pricing Strategies for Value Creation	Chapter 10&11 (PM) & Chapter 12 (SM) + select journal articles
9	Live	Information & Communication Strategies I	Chapter 14&15 (PM) & Chapter (13)
10	Live	Information & Communication Strategies II: Content Marketing and Storytelling	Chapter 14&15 (PM) & Chapter (13) + select journal articles
11	Live	Customer Journey Management, Integrated Marketing & Marketing Performance Measurement	Select journal articles
12	Live	Group Project Presentations	
<b>Part II: Marketing Science (Unleashing Value-Based Marketing via Insights)</b>			
13	Interactive Video	How Data Fuels Marketing Strategy: An Introduction to Marketing Science (and its Critical Role)	
14	Live	Understand the Environment & the Market Place: the Bass Model (Predicting and Forecasting Demand and Consumer Adoption)	Read before session: Case 1: <i>Forecasting the Adoption of a New Product</i>
15	Interactive Video	Creating and Capturing Customer Value: An Introduction to Conjoint Analysis  <b>Deliverable: Complete the Conjoint Questionnaire on BlackBoard</b>	Read after video: <i>Case 2: Conjoint Analysis: A Do it Yourself Guide</i>

16	Live	Conjoint Analysis for Individual-Level Preferences (Lab Session)  <b>Instructions for the group project are posted</b>	
17	Interactive Video	Conjoint Analysis for Segmentation and Product & Service Strategies: Market-Level Decisions	
18	Live	Pricing Strategies for Value Creation and Value Capturing: Price Optimization and Discrimination	
19	Interactive Video	Methodological and Practical Constraints to Pricing Strategies for Value Creation and Value Capturing	Read during video: <i>Case 3: Problems in Pricing (problems 1, 2 and 3 only)</i>
20	Live	Pricing a Product Line (Lab Session)	Read <b>in preparation</b> of session: <i>Case 4: Montclair Video (4 p.)</i>
21	Interactive Video	Targeting and Customer Evaluation: Customer Lifetime Value	Read after video: <i>Case 5: Customer Management Dynamics and Cohort</i>
22	Live	Targeting and Customer Evaluation: Customer Lifetime Value (Lab Session)  Deliverable: Group project	Read <b>in preparation</b> of session: <i>Case 6: Tuscan Lifestyles (9 p.)</i>
23	Interactive Video	Marketing Performance Measurement and Learning: Marketing Experimentation (A/B testing)	Read during video: <i>Case 7: Advertising Experiments at Restaurant Grades</i>
24	Live	Group project debrief and overall course review	

## TEACHING MATERIALS

### Books:

#### Part 1 (i.e., Marketing Strategy)

KOTLER & ARMSTRONG (2016), Principles of Marketing (PM), Pearson (Global Edition, 16th Ed)

PETERSON (2021), Sustainable Marketing (SM)

#### Part 2 (i.e., Marketing Science)

No textbook required

**Digital Resources:**

Case readings

Supporting documents (slides, answer sheets)

Excel cases and corresponding solutions

Link to access the video lectures.

**ADDITIONAL READINGS**

*Software:* We will use Microsoft Excel for data analysis. Please note that an Excel campus license is available to you

**TEACHING METHODS**

Teaching methods include presentation, video production, flipped classroom, group work, and calculation exercises (labs).

**WORK AND EVALUATIONS**

**Assessment of achievement:**

Tools / Method of evaluation	Duration and Mode	Weight in the final grading
<b>Part I: Marketing Strategy</b>		<b>50%</b>
<i>Attendance and in-class activities</i>	NA	15%
<i>Group Project I: Crafting and Presenting a Value-Based Marketing Plan</i>	12h Group	25%
<i>Exam/Videos</i>	24h Individual Prep	60%
<b>Part II: Marketing Science</b>		<b>50%</b>
<i>Attendance and in-class activities</i>	NA	15%
<i>Group Project II : Creating Value-Based Offerings Via Conjoint-Analysis</i>	8h Group	25%
<i>Exam</i>	90 minutes	60%

Additional details:

*Please note:* There will be several cohorts of students. To ensure a fair and transparent grading, grading will be across cohorts.

## BIOGRAPHY

**Craig Anderson** is Assistant Professor at the marketing department. Craig earned his PhD in Social and Personality Psychology at *UC Berkeley*. As a researcher he is broadly interested the many ways that emotions impact people's lives and has examined topics such as the contagious nature of emotions, how emotions impact information-seeking behaviors such as curiosity, and the interplay between emotions, social relationships, and physiology. One emotion he is particularly interested in is awe. His current interests include how expectations of the emotions that products and experiences will elicit influence consumer behavior. Craig has published in the leading journals in the field including the *Journal of Personality and Social Psychology*, *Emotion*, or *Journal of Experimental Psychology*.

Aside from research and teaching, Craig also regularly engages in public speaking, writing, and consulting on a wide range of topics: well-being, the emotion of awe, and of course, the healing effect of the Great Outdoors and how to make it more accessible to the people who are most in need of it. Being passionate about any outdoor activities, Craig loves to spend his leisure outdoors with his wife, young daughter, and Artemis (the family's retired racing greyhound). On weekends you are almost guaranteed to find the three humans out in nature, with Artemis choosing to snooze peacefully at home.

**Peter Mathias Fischer** is Associate Professor at the marketing department and Academic Director of Creative Destruction Lab, AI stream. Previously, he had been a guest professor at HEC Paris and at the Wharton Business School. Conducting research at the intersection of strategy, managerial decision-making, international business, (big) data, AI, psychology, and technology with publications in leading academic outlets such as *the Journal of International Business Studies*, Peter has a particularly strong interest in bridging the gap between academia and practice. For instance, he co-directed "Best Practice in Marketing", a cross-industry bench-learning executive program aimed at translating the latest research insights into practice. For almost 15 years, Peter has been training top managers on various topics in multiple countries including Brazil, Columbia, Czech Republic, France, Germany, Malaysia, Mexico, Switzerland, Sweden, or the US.

Being a passionate singer and piano player, Peter is the co-founder of Sound Leadership, a New York based company that helped organizations develop and implement strategies by means of music and songwriting. Largely dominating his passion for music and mountaineering (i.e., ski touring and freeride skiing), Peter enjoys spending his leisure time with his young family and his two little boys.

**Philippe Greco** is a highly experienced marketing executive known for his ability to drive strategic growth and transformation in leading companies. Currently serving as the Chief Marketing Officer at Intelcia, a global player in outsourcing, Philippe has spent over 20 years providing tailored services and upholding international standards for clients. His expertise extends to areas such as multichannel customer experience, offering management, and business generation strategies, catering to both large international companies and start-ups/scale-ups.

Before his current position, Philippe held significant roles in renowned organizations, including Partner in consulting companies, and Marketing & Sales executive in companies such as P&G, IBM, or Galeries Lafayette. His focus and mindset is to create and manage initiatives to stimulate business growth, optimize marketing strategies, and foster digital transformation.

Beyond his corporate achievements, Philippe is actively involved in academia, teaching Strategic Marketing, International Marketing, and Distribution at HEC Paris. His goal is to share his expertise and inspire future professionals in the field. Philippe's deep industry knowledge and proven track record make him a trusted advisor. He also serves as a Member of the Board of Advisors for several start-ups, where he provides valuable insights and guidance.

**Christopher Hogg** is an affiliate professor in the marketing department. A graduate of HEC-Paris and holder of a DEA in industrial economics, he has led a parallel academic and professional career as a business leader since the beginning of his career.

From 1994 to 2008, he worked in the logistics and Supply Chain sector, successively as Marketing and Business Development Director of Sernam, then from 2001 within Geodis as Market Director, then Key Account Director for the entire group and finally Deputy Managing Director in charge of Central and Eastern Europe. Since August 2008, he has been a shareholder director of the Lurex® Group, a global SME specializing in textiles and metallized yarns. In October 2017, the Lurex Group launched a new B2C brand Maison Lurex® in the ready-to-wear and fashion accessories market.

He joined HEC Paris in 1998 as a visiting professor at both the Grande Ecole and HEC Executive on numerous B2B Marketing and Sales programs. Since 2008, he has been an affiliate professor in the Marketing Department. In 2021, he became the academic coordinator of the Global Executive Master in Management (GEMM) and the director of its GEMM Strategic Management track. He is also the academic Director of Executive Certificates “Innovation & Leadership” and “Manage the Strategy of your Business Unit”.

He has published several op-eds and opinions in Le Monde and Les Echos, and he is the author of three books: "Le Management du Client" published by Eyrolles (1994), "Le Manager Anticrise" published by Dunod (2012) and "Les Transformations économiques" published by Ellipses (May 2020).

**Klaus Miller** joined the Marketing Department at HEC Paris as an Assistant Professor of Marketing and Hi! Paris Chairholder for the Study of Data Science & Artificial Intelligence in Business and Society in the Fall 2021. His research interests meet at the interface between empirical quantitative marketing, management economics, and information systems. Specifically, his research is concerned with pricing, advertising, and customer management issues in the digital economy. Methodically, his research is based on quantitative empirical modeling, applied econometrics, distributed statistical computing, causal machine learning, as well as large-scale field- and lab-experiments. Klaus research has been published in top-tier academic (e.g., the Journal of Marketing Research, the Journal of Product Innovation Management, or the International Journal of Research in Marketing), as well as management-oriented journals (e.g., Marketing Review Sankt Gallen, GfK Marketing Intelligence Review). In his research projects, he often collaborates with the industry to answer research questions at scale. At HEC Paris, Klaus teaches Artificial Intelligence in Management in the MBA, as well as Ph.D. program, and an introductory Marketing course in the Grande École Program.

**Ludovic Stourm** is an Assistant Professor of Marketing at HEC Paris where he teaches Marketing in the Grande Ecole program at the M1 level, with a focus on quantitative methods. He holds a PhD degree from the Wharton School of the University of Pennsylvania, a master's degree in Statistics from Harvard University and an Ingénieur degree in Computer Science from the Université de Technologie de Compiègne. His research focuses on empirical methods to understand the behavior of consumers over time. In one stream of research, he develops structural methods of demand estimation across product categories. Another stream focuses on the interactions between renters and non-professional owners in two-sided markets. Prior to his academic career, he worked as a software engineer at Apple Inc. and as a consultant applying data-driven methods to solve marketing problems. Ludovic is a member of the American Marketing Association (AMA) and the Institute for Operations Research and the Management Sciences (INFORMS).

**Valeria Stourm** is an Assistant Professor at HEC Paris. Her research focuses on customer behavior in loyalty programs, the sharing economy, and the intersection between customer-level marketing analytics with privacy, environmental sustainability and inequality. She has also published work on digital advertising.

Her research has earned prestigious recognitions: she won AMA's 2016 Donald R. Lehmann Award for “outstanding dissertation-based article published in *Journal of Marketing Research*” and was finalist for the 2015 Paul E. Green Award and for the 2020 Weitz-Winer-O'Dell Award for “the article in the *Journal of Marketing Research* that has made the most significant long-term contribution to marketing theory, methodology, and/or practice”. Her research was also selected as finalist for the Marketing Science Institute 2018-2020 Research Priorities Working Paper Competition. Her work on the intersection of marketing analytics in loyalty programs with privacy, sustainability and inequality was selected to be published from the selective 11th Triennial Choice Symposium in 2019.

Valeria's has also been honored with teaching recognitions: in recognition of her significant innovations in pedagogy, she received the HEC Foundation's school-wide teaching innovation prize, the Prix Bruno Roux de Bezieux pour l'Initiative Pédagogique in 2022. The award was granted unanimously by a jury of HEC Alumni.

**Marc Vanhuele** (PhD UCLA) is Professor of Marketing. He teaches marketing and pricing management. His research focuses on two fields: how customers treat price information and how marketing managers can improve their decision making through better use of quantitative information on the consumer's mindset. He has served as associate dean, first responsible for digital and for HEC's participation in the Université Paris-Saclay and later as director of pre-expérience programs. He also works as consultant in market research and as expert witness in commercial litigation. His research has been published in the leading academic journals in marketing and he is co-author of the book “Consumer Behavior. Applications in Marketing.” (Sage 2022) that brings together the most recent research on consumer behavior of interest to marketers.

**Arnd Vomberg** is an Associate Professor at HEC Paris. His research looks at three key changes that companies are undergoing: The ongoing digital transformation, the agility transformation, and the transition to a socially responsible marketing approach. Arnd has a strong interest in bridging the gap between academia and practice. He has gained practical experience in marketing in various industries, including chemicals, IT, automotive, healthcare, and energy. The projects covered a broad spectrum in the areas of AI, ESG, growth, marketing, and sales. Arnd has prepared and published his findings in a practical form and acted as an expert for media inquiries (e.g., BBC).

The results of his research have been awarded and published in top-tier strategy journals such as the *Journal of Marketing*, *Journal of Marketing Research*, *Strategic Management Journal*, *Journal of the Academy of Marketing Science*, and *International Journal of Research in Marketing*. He has co-edited the *Handbook of Market Research* and various special issues in academic journals. In his research projects, he often collaborates with the industry to answer research questions at scale. At HEC Paris, Arnd teaches B2B Marketing Excellence in the MBA program, and an introductory Marketing course in the Grande École Program.

## OPERATIONS AND SUPPLY CHAIN MANAGEMENT

**Teachers:** Christian VAN DELFT (Course coordinator)

**Duration:** 36h

**Number of ECTS credits:** 5

Education Level	Period	Language of instruction	Max staffing	Teaching Mode
M1	-	English or French	54	In-person

**Dean Department:** ISOM

**Course family** (Module d'Acquisition de Compétences): STRATEGY, MANAGEMENT, MARKETING

**Keywords:**

STRATEGY MANAGEMENT MARKETING ORGANIZATION

### SYNOPSIS

The objective of this course is to review the main issues, concepts and methodologies in Operations and Supply Chain management.

### DETAILED DESCRIPTION

**Prerequisites:**

Not applicable

**Course overview:**

Matching supply with demand is an enormous challenge for companies in many industries: excess supply can lead to costly inventory write-offs, while inadequate supply irritates customers and results in lost revenue. In the age of globalization and outsourcing, growing product variety, and shrinking product life cycles, supply chain management continues to capture much attention from company executives. At the same time, examples of companies demonstrate how, by excelling in operations and supply chain management, a company can revolutionize the industry by advancing new business models, thus creating enormous wealth for the shareholders.

Operations Management focuses on the processes that create goods (and services). Supply Chain Management refers to the global integration of a firm's purchasing, production, and distribution processes. The efficiency of such an integration constitutes a major competitive factor. The performance is measured in terms of costs, quality, lead-time delivery, and flexibility to respond to changes. This course presents the fundamental issues concerning information and flow management optimization in processes and supply chains.

Furthermore, organizations are interested in managing corporate social responsibility and sustainability as part of their operations management. Practices must respond to demands to address sustainability. Sustainable Operations Management corresponds to the pursuit of environmental objectives within the operations.

Many different aspects can be considered from a sustainability perspective: product design, adoption of environmental standards, process improvement, lean operations.



**Principal Items:**

Process Design and Analysis (Managing Flow, Capacity and Variability in Processes)

Process Planning and Execution (Forecasting, Aggregate Planning, MRP, Inventory Planning...)

Process Improvement (Kpi's, Lean Management, Quality Management)

Supply Chain Analysis, Design and Improvement (Network analysis, Risk Management, Logistic Kpi's, ...)

Operations and Supply Chain Sustainability

**Pedagogical Objectives:**

This course comprehensively introduces major decisions and tradeoffs in *Operations* and *Supply Chain Management*. It focuses on several goals:

1. To develop an understanding of the field as a whole (Operations and Supply Chain Management is a blanket of concepts and management techniques rather than an aggregation of tools). In particular, to show how industrial sustainability is driven by Operations Management.
2. To impart knowledge of the standard tools and techniques used in the field.
3. To develop an appreciation for the interaction of Supply Chain Management with other organizational management functions (Finance, Marketing, Accounting, Strategy, ...).
4. To develop the ability to apply the main theoretical concepts to complex case settings

**Skills:**

Learn the skills and techniques necessary to understand the key issues in real-life operations management cases and to choose the appropriate management decisions for a given supply chain situation.

**Course organization – detailed outline:**

The 36-hours course is organized across 12 weeks, and the duration of each session is 1.5 hours.

The course covers the main areas of Operations and Supply Chain Management. It explores how firms can organize their Operations and Supply Chains to align supply with demand for their products more effectively. We aim to provide foundations for understanding the insights needed by various managerial levels and study how companies have used these principles to enhance their competitiveness significantly. The course is designed as a combination of lectures, case discussions, and simulations to explore fundamental tradeoffs that general managers need to understand and evaluate to manage complex supply chains successfully. Quantitative tools designed to evaluate these tradeoffs will be studied and used extensively throughout this course.

## TEACHING MATERIALS

### Books:

The main conceptual and theoretical material is given in the slides and readings, for a more detailed analysis of some topics, the following textbooks can be consulted:

- JACOBS, CHASE and AQUILANO: Operations and Supply Management,
- CACHON and TERWIESCH: Matching Supply With Demand,
- IYER, Managing supply chains.
- French-speaking students can use Management Industriel et Logistique

### Digital Resources:

Case packets of business cases and additional readings are distributed in class or posted on Blackboard. Slides and asynchronous material, such as videos or readings, will be provided on Blackboard.

## TEACHING METHODS

The course uses face-to-face in-class sessions, completed with two online "serious games" and a project.

On average, Students are also expected to attend and actively participate. Quizzes and other exercises will be delivered through Blackboard. Two interactive cases (via computer simulation run by teams) allow the implementation of the course concepts in a competitive environment. The first case enables the implementation of the management of the operations of a virtual company. The second case corresponds to the global control of the CO2 carbon footprint of a network of companies and the associated transport system. A team project concludes the course: it consists of a company visit and an analysis of the supply chain.

## WORK AND EVALUATIONS

### Work requested:

For each hour of the 36-hour course each student is expected to work independently for at least another 1 hour.

### Assessment of achievement:

Tools / Method of evaluation	Duration and Mode	Weight in the final grading
<i>Contributions to class discussion</i>		10%
<i>Littlefield simulation – by groups</i>		10%
<i>Fresh Connection simulation – by groups</i>		10%
<i>After-class quizzes</i>		10%
<i>Project – by groups (Company Visit – Supply Chain Analysis and Report)</i>		10%

<i>Mid-Term Exam (the purpose is to test the understanding of the main concepts introduced throughout the course. This exam could be based on multiple choice, open-ended questions, and short cases).</i>		20%
<i>Final Exam (the purpose is to test the understanding of the main concepts introduced throughout the course. This exam could be based on multiple choice, open-ended questions, and short cases).</i>		30%

## BIOGRAPHY

**Julien Grand-Clément** is an Assistant Professor in the Information Systems and Operations Management Department at HEC Paris. He completed his Ph.D. from the IEOR Department at Columbia University in 2021, and his M.Sc. from Ecole polytechnique (Paris) in 2016. His research interests broadly lie at the intersection of sequential decision-making for healthcare and data-driven optimization algorithms. His latest collaborations include robust allocations of beds in intensive care units with hospitals in California and interpretable ventilator allocations guidelines with hospitals in New York City. His research articles have appeared in leading academic journals, medical and artificial intelligence conferences.

**Sajjad Najafi** is an Assistant Professor of Information Systems and Operations Management. He holds a Ph.D. in Operations Research from the University of Toronto. Prior to joining HEC Paris, he was a Research Fellow at Ross School of Business, the University of Michigan, Ann Arbor. Sajjad's current research revolves around dynamic pricing, revenue management, assortment optimization, and operations analytics in the retail and hospitality industries.

**Flore Sentenac** is an Assistant Professor in the Information Systems and Operations Management department at HEC Paris. Her research focuses on online learning on algorithms, with applications in digital advertising. She completed her Ph.D. in Applied Mathematics from ENSAE Paris in 2023 and her M.Sc. from Ecole Polytechnique (France) with a major in machine learning.

**Ali Shantia** is an Associate Professor of Information Systems and Operations Management. He completed his Ph.D. at HEC Paris in 2018 and spent two years as a visiting scholar at the Ross School of Business. Ali's research interests lie in sustainable supply chain and operations management and renewable energy markets, with articles published in leading academic journals. In addition to the courses Ali developed and taught, he also collaborates as an invited lecturer at ESSEC.

**Christian Van Delft** is an Associate Professor in the Information Systems and Operations Management department at HEC Paris. He completed his Ph.D. in Operations Management from HEC Genève (Switzerland). His research interests include stochastic optimization, optimal control, dynamic programming, inventory planning and optimization. He has taught in a variety of institutions (HEC-Genève, Ecole Centrale Paris, HEC-Lausanne, Ecole Polytechnique Fédérale de Lausanne).

## FINANCE D'ENTREPRISE

**Enseignants : Pascal QUIRY (Coordinateur du cours)**

BOUCLY, Quentin

FABAS, Olivier

FRISCH, Anne

HOMASSEL, Nicolas

LAQUERRIERE, Juliette

PHILIPPE, Henri

THOREL, Alexandre

TORTEL, Jean-Pascal

VERMEULEN, Marc

**Durée : 36h**

**Nombre de crédits ECTS : 5**

Niveau	Période	Langue d'enseignement	Effectif max	Mode
M1	-	Français	54	Blended

**Département décanat : FINANCE**

**Famille de cours (Module d'Acquisition de Compétences) : FINANCE & ECONOMICS**

**Mots-clés :**

FINANCE SUSTAINABILITY EVALUATION D'ENTREPRISE CHOIX DE FINANCEMENT FUSION-ACQUISITION GESTION DES RISQUES FINANCIERS CHOIX D'INVESTISSEMENT

### SYNOPSIS

Le cours de Finance d'entreprise s'attache principalement à comprendre comment les décisions d'investissement et de financement sont prises au sein d'une entreprise, comment sont gérés les risques financiers pour garantir sa durabilité et comment la transition énergétique et sociale est dorénavant intégrée dans les raisonnements et outils.

### DESCRIPTION DETAILLEE

**Prérequis :**

Cours de Financial Markets et de Financial Economics

Cours de Comptabilité

### **Présentation générale du cours :**

Le cours de Finance d'entreprise s'attache principalement à comprendre comment les décisions d'investissement et de financement sont prises au sein d'une entreprise, et comment sont gérés les risques financiers. Ceci ne peut pas être fait sans avoir au préalable une vision claire de la situation financière de l'entreprise (analyse financière) et de sa valeur (évaluation).

### **Thèmes principaux :**

Analyse financière, évaluation d'entreprise, choix d'investissements et de financements, fondements conceptuels de la finance d'entreprise, politique de retour aux actionnaires, financement des start-up, finance verte responsable et durable, gestion des risques financiers, opérations de fusions-acquisitions.

### **Objectifs Pédagogiques :**

Donner aux étudiants les outils conceptuels et pratiques leur permettant de diagnostiquer précisément la situation des entreprises, de comprendre leur valeur et d'être capable de prendre, proposer ou challenger des décisions d'investissements (organiques ou d'acquisition), de financement et de gestion des risques financiers.

### **Compétences développées :**

En situation professionnelle, l'étudiant sera capable de porter un jugement sur la santé d'une entreprise, de l'évaluer et de procéder à la plupart des choix (investissements, financements, risques) que l'on attend en finance d'entreprise, soit au sein d'une banque, d'un cabinet de conseil ou d'audit, ou en entreprise.

### **Organisation du cours – plan détaillé :**

24 séances de 1h30 (2 séances par semaine, dont une en salle de classe et l'autre sous format MOOC).

- Introduction
- Analyse financière
- Evaluation d'entreprise et choix d'investissement
- Fondements conceptuels de la finance d'entreprise : théorie des marchés à l'équilibre, de l'agence, du signal, finance comportementale
- Choix d'une structure de financement
- Coût du capital
- Politique de distribution et d'autofinancement
- Politique d'augmentation de capital
- Financement des start-ups
- Finance verte, responsable et durable
- Structuration de la dette et LBO (facultatif, pour ceux qui voudront faire un stage en finance)
- Gestion des risques financiers

- Fusions et acquisitions.

## MATERIEL PEDAGOGIQUE

### Ouvrages :

Finance d'entreprise de Pierre VERNIMMEN chez Dalloz (édition annuelle) ou Wiley (pour l'édition anglaise)

### Ressources numériques :

Site [www.vernimmen.net](http://www.vernimmen.net), appli Vernimmen (IOS et Android), pages LinkedIn Vernimmen

MOOCs pour la partie cours sur la plateforme de First Finance

## METHODES PEDAGOGIQUES

A partir de MOOCs, fils de discussion et de QCM accessibles 24h/24 pour la partie enseignements de ce cours.

A partir de discussions, d'exercices, questions et cas récents d'entreprises réelles illustrant le contenu traité par les MOOC pour la partie en salle de classe.

A partir de la plateforme des MOOC qui permet de poser des questions, d'apporter et d'obtenir des réponses.

## TRAVAUX ET ÉVALUATIONS

### Travaux demandés :

Le cours nécessite un travail important consistant, à chaque séance :

- Pour les séances en format MOOC, avoir vu et assimilé chaque semaine les vidéos et faits les QCM liés
- Pour les séances en classe, à préparer les exercices, le cas où les questions ou exercices qui vous ont été donnés

### Evaluation des acquis :

Outil/support/mode d'évaluation	Durée et format	Pondération dans la notation finale
QCM liés aux MOOC		20%
Test de mi-parcours	1h15 en individuel	25%
Test final	3h en individuel	55%

Précisions complémentaires :

Les tests seront avec documents et livres, mais sans ordinateur. Le test final consiste en un cas créé pour l'occasion d'une entreprise européenne dont vous devrez analyser différents points de sa situation financière, de sa valorisation et de sa politique de financement, d'investissement et de gestion des risques.

Un élément correcteur d'un échelon, positif ou négatif, dépendant de la qualité de votre participation en salle de classe sera appliqué à la note finale.

La présence en cours est requise. Au-delà de deux absences non justifiées, le cours est à reprendre.

## BIOGRAPHIE

**Pascal Quiry** est professeur de finance à HEC Paris, titulaire de la chaire BNP Paribas, où il enseigne dans les programmes de la grande école et de l'*executive education* ; il a été élu meilleur professeur d'HEC en 2013.

Il est co-auteur du *Vernimmen* (chez Dalloz en français et chez Wiley en anglais), l'ouvrage de référence en finance d'entreprise pour les professionnels et les étudiants (plus de 250 000 ventes), de son site, de ses lettres mensuelles (65 000 abonnés), de ses applications et de ses versions électroniques en français et en anglais. Il est auteur depuis 2000 chez Crossknowledge de modules de e-learning. Pionier à HEC depuis 2013 de l'enseignement digital, il a ainsi formé plusieurs dizaines de milliers de personnes à la finance d'entreprise.

Ancien *managing director* au département fusion acquisition de BNP Paribas où il dirigeait les équipes d'exécution européennes et américaines (180 professionnels), il est depuis 2013 fondateur de la société d'investissement Monestier Capital qui prend des participations minoritaires dans des *start-up* ou des PME en développement où il joue un rôle actif comme membre de l'instance de gouvernance.

Il est par ailleurs membre du mouvement *Changer par le don* qui réunit des personnes s'étant engagées à verser au moins 10% de leurs revenus ou de leur patrimoine à des organisations philanthropiques. Ancien boursier à HEC, il est grand donateur avec son épouse à la Fondation HEC et a contribué à lever plus de 4 M€ au profit de cette dernière.

## INTRODUCTION A LA SCIENCE DES DONNÉES

**Enseignants :** Julien GRAND-CLEMENT, Emmanuel KEMEL, Gilles STOLTZ, Ludovic STOURM, Nicolas VIEILLE

**Durée :** 18h

**Nombre de crédits ECTS :** 2.5

Niveau	Période	Langue d'enseignement	Effectif max	Mode
M1	B1 ou B5	Français	36	Présentiel

**Département décanat :** ISOM / ECONOMIE-SD

**Famille de cours (Module d'Acquisition de Compétences) :** DATA SCIENCE

**Mots-clés :**

DATA

### SYNOPSIS

Ce cours de Master 1, "Introduction à la Science des Données", propose une introduction aux éléments fondamentaux de la science des données. Le cours met l'accent sur la pratique en utilisant certains des packages Python les plus classiques et en proposant d'analyser un jeu de données durant chaque leçon. Les étudiants appliqueront la science des données pour résoudre des objectifs concrets liés aux entreprises et à la société.

### DESCRIPTION DETAILLEE

**Prérequis :**

Non applicable

**Présentation générale du cours :**

Ce cours introduit la science des données. Les thèmes abordés sont :

(i) Manipulation et visualisation des données ;

(ii) Apprentissage automatique : apprentissage supervisé et non supervisé avec des méthodes basiques

(par exemple : méthode des K voisins les plus proches, partitionnement en K moyennes, régression logistique) ; concepts clés tels que données de test/d'entraînement, validation croisée, choix des hyperparamètres, etc. ;

(iii) Manipulation des packages Python tels que pandas, seaborn et scikit-learn ;

(iv) Utiliser la science des données pour répondre à des objectifs commerciaux et sociétaux.

**Thèmes principaux :**

Science des données, méthodes analytiques et statistiques.



### Objectifs Pédagogiques :

- Être capable de visualiser et d'analyser un jeu de données
- Être capable d'utiliser des méthodes de prédiction classiques et d'interpréter les résultats

### Compétences développées :

- Compétences techniques : développer un notebook sous Python, via Google Colab ou Anaconda

### Organisation du cours – plan détaillé :

12 séances de 1h30, deux fois par semaine sur un bimestre

**Séance 1** : Introduction : chargement d'un jeu de données, analyse statistique de base

**Séances 2-5** : analyse exploratoire (d'une variable quantitative ou qualitative, de couples de variables qualitatives et/ou quantitatives)

**Séances 6-8** : classification : méthodes (régression logistique, KNN), critères de performance (précision, matrice de confusion), concepts d'ensembles d'entraînement et de test

**Séances 9-12** : régression : méthodes (régression linéaire, KNN), critères de performance (erreur absolue, erreur quadratique moyennes), concept de validation croisée.

## MATERIEL PEDAGOGIQUE

### Ouvrages :

N/A

### Ressources numériques :

N/A

## METHODES PEDAGOGIQUES

Analyse de multiples jeux de données réels tout au long des séances.

## TRAVAUX ET ÉVALUATIONS

### Evaluation des acquis :

Outil/support/mode d'évaluation	Durée et format	Pondération dans la notation finale
<i>Examen final</i>	<i>1h30 en individuel</i>	<i>60%</i>
<i>Examen intermédiaire</i>	<i>1h30 en individuel</i>	<i>40%</i>

## BIOGRAPHIE

**Julien Grand-Clément** est un professeur assistant en systèmes d'information et gestion des opérations à HEC Paris. Il possède un doctorat de l'Université de Columbia (NY, USA) et un master de l'Ecole polytechnique (Paris). Sa recherche se concentre sur l'automatisation des décisions médicales et les algorithmes d'optimisation robuste. Ses dernières collaborations concernent la répartition des lits en salles de soins intensifs dans des hôpitaux californiens et le triage des respirateurs dans des hôpitaux new-yorkais. Ses articles de recherche ont paru dans des journaux académiques, ainsi que dans des conférences médicales et d'intelligence artificielle.

**Emmanuel Kemel** est ingénieur de formation et a poursuivi ses études en économie et en sciences cognitives. Il a travaillé comme expert pour le Ministère du Développement Durable, et soutenu une thèse en économie à l'Université Paris 1 Panthéon-Sorbonne. Depuis 2015, il travaille au GREGHEC en tant que chercheur CNRS et est professeur affilié à HEC. Ses travaux portent sur l'observation et l'analyse des attitudes vis-à-vis du temps et de l'incertitude, et sur l'analyse des décisions assistées par des algorithmes. Il est notamment spécialisé dans la construction et l'analyse économétrique d'expériences comportementales. Les résultats empiriques et méthodologiques de ses travaux s'appliquent au management et à la micro-économie, mais également à l'évaluation des politiques publiques. Il a publié plusieurs articles dans des revues de référence en sciences de la décision et en économie des transports. Ses cours portent sur l'économie comportementale, l'économétrie et la théorie de la décision.

**Gilles Stoltz** est ancien élève de l'Ecole normale supérieure de Cachan, agrégé de mathématiques et détenteur depuis respectivement 2005 et 2011 d'un doctorat et d'une HDR de l'Université Paris-Sud. Il s'intéresse à des problèmes de prévision séquentielle de suites arbitraires, du point de vue des applications industrielles (prévision de consommation électrique ou de la qualité de l'air) ainsi que du point de vue de la théorie des jeux (deux agents essayant chacun de prévoir les actions de l'autre). Il est chargé de recherche au CNRS, affecté au laboratoire GREGHEC. Il est également professeur affilié à HEC, où il enseigne les fondements de la statistique en première année de la Grande Ecole HEC. Il a reçu en 2008 le prix Marie-Jeanne Laurent-Duhamel du jeune statisticien de la part de la Société française de statistique.

**Ludovic Stourm** est Professeur Assistant en Marketing à HEC Paris où il enseigne le premier cours de Marketing dans le programme de Grande Ecole au niveau M1. Il est titulaire d'un PhD en marketing obtenu à la Wharton School de l'Université de Pennsylvanie, d'un Master en statistiques de l'université de Harvard et d'un diplôme d'ingénieur en informatique de l'Université de Technologie de Compiègne. Dans sa recherche, il développe des méthodes empiriques pour comprendre le comportement des consommateurs dans le temps. Une partie de ses travaux concerne l'estimation structurelle de la demande à travers des catégories de produits. Une autre partie concerne les interactions entre locataires et les propriétaires dans les marchés bifaces de l'économie du partage. Avant sa carrière académique, il a officié comme ingénieur logiciel chez Apple Inc. et comme consultant appliquant des méthodes de data science. Ludovic Stourm est membre de l'American Marketing Association (AMA) et de l'Institute for Operations Research and the Management Sciences (INFORMS).

**Nicolas Vieille** a obtenu son doctorat de mathématiques en 1992, avant d'occuper des postes universitaires, Maître de Conférences puis Professeur, en mathématiques. Il a rejoint HEC en septembre 2001. Ses travaux de recherche portent sur la théorie économique, notamment sur la théorie des jeux, ainsi que sur les probabilités. Les résultats de ses travaux sont publiés dans des revues scientifiques internationales de premier plan telles que *Econometrica*, *Annals of Statistics*, ou *Operations Research*.



Il est Area Editor de Mathematics of Operations Research, et membre des comités éditoriaux de Games and Economic Behavior, International Journal of Game Theory, Annales d'Economie et de Statistiques. Ses travaux sur la théorie des jeux lui ont valu en 2003 le Lanchester Prize in Operations Research and Management Science.

## ENGLISH – WORKSHOPS AND INTEGRATED ACADEMIC ENGLISH

**Teacher:** Laura BEYER, Marina BURKE, Chantal CARLETON, Jaewon RA, Julie WHEELER, Marina YALOYAN

**Durée :** 30h

**Nombre de crédits ECTS :** 2.5

Education Level	Period	Language of instruction	Max staffing	Teaching Mode
M1	S1 et S2	English	20	In-person

**Domain:** LANGUAGES

**Course family:** English communication communication and grammar

**Keywords:**

COMMUNICATION CULTURE SUSTAINABILITY SOCIETY PERSONAL DEVELOPMENT PUBLIC SPEAKING INTERPERSONAL AND INTERCULTURAL COMMUNICATION TOEFL IBT INTERNATIONAL STANDARD FOR LANGUAGE CERTIFICATION

### SYNOPSIS

English classes at HEC are taught as Workshops through the medium of English. By implementing the new international standard for language certification of the TOEFL iBT and in synergy with the S&O, we have created a curriculum that empowers our students to linguistically prepare themselves for the global challenges of today and tomorrow.

### DETAILED DESCRIPTION

**Prerequisites:**

English classes at HEC empower students to obtain the graduation goal of a C1 CEFR level in English. If you can already prove a C1 level through a recognized language certification program, you can receive a waiver for English classes.

**Course overview:**

English classes are taught twice weekly for 1,5 hour sessions. The first part of the week are Workshops dedicated to providing communication skills and critical thinking to prepare for a professional future in the globalized world. The second part of the week are classes in Integrated Academic English, dedicated to providing linguistic training through the four skills tested within the TOEFL iBT framework (speaking, writing, listening, reading), with real-life applications with Harvard Business Review Cases.

**Principal Items:**

English language and TOEFL iBT skills; English professionalization skills; Anglophone current events and culture

**Pedagogical Objectives:**

Through the English Workshops, the student will practice communication skills through the completion of the ten Workshops; through the Integrated Academic English classes, they will obtain quantifiable linguistic and grammatical improvement through TOEFL iBT practice tests and HBR cases.

**Course organization – detailed outline:**

20 sessions of 1,5 hours, twice per week: 30 hours in one one semester:

Ten Workshops (1,5 hours each); Ten Integrated Academic English Sessions (1,5 hours each)

**Workshop 1:** Intercultural Communication

**Integrated Academic English 1:** Four Skills of the TOEFL iBT: *speaking, writing, reading, listening*

**Workshop 2:** Current Events

**Integrated Academic English 2:** *Harvard Business Review Case 1: Robot Rumors, Part 1*

**Workshop 3:** Public Speaking 1

**Integrated Academic English 3:** *Harvard Business Review Case 1: Robot Rumors, Part 2*

**Workshop 4:** Public Speaking 2

**Integrated Academic English 4:** Speaking and Writing Skills

**Workshop 5:** Crisis Management

**Integrated Academic English 5:** *Harvard Business Review Case 2: Pyre Festival, Part 1*

**Workshop 6:** Interview Techniques & Job Fair Prep

**Integrated Academic English 6:** *Harvard Business Review Case 2: Pyre Festival, Part 2*

**Workshop 7:** Job Fair

**Integrated Academic English 7:** Listening and Reading Skills

**Workshop 8:** Negotiation Techniques

**Integrated Academic English 8:** *Harvard Business Review Case 3: Communication, Part 1*

**Workshop 9:** Negotiation Simulation

**Integrated Academic English 9:** *Harvard Business Review Case 3: Communication, Part 2*

**Workshop 10:** Current Events Presentation

**Integrated Academic English 10:** Mock iBT TOEFL

## TEACHING MATERIALS

### Books:

N/A

### Digital Resources:

Harvard Business Review Cases; ETS iBT Preparation AI-powered resources

## TEACHING METHODS

The Workshops use a flipped classroom model in which the students practice their speaking skills through public speaking and debate. The Integrated Academic English classes also employ a flipped model classroom in which students enact role plays and present case studies.

## WORK AND EVALUATIONS

### Work requested:

Attendance at HEC English classes is mandatory. A language class is a laboratory of experience in which consistent effort and practice is necessary to improve. After two unexcused absences, your final letter grade is lowered one letter.

### Assessment of achievement:

Tools / Method of evaluation	Duration and Mode	Weight in the final grading
<i>Completion of 10 Workshops: final exam is pitch/presentation</i>	<i>1h30 over ten weeks</i>	<i>50%</i>
<i>Completion of 10 Integrated Academic English sessions: final exam is completion of mock iBT TOEFL</i>	<i>1h30 over ten weeks</i>	<i>50%</i>