BACHELOR OF BUSINESS ADMINISTRATION

2024-2025

YEAR 1

BIG DATA & MANAGEMENT

PROGRAMME SUPERVISOR(S) :

Luisa ROCHA DA SILVA

Marc GIBIAT

BBA – Big data & Management

YEAR 1 – Autumn Semester

CORE COURSES

Course code	Title	ECTS Credits
EPSI	Sports	2
FINANCE	Accounting / Finance	3
INFOI	Algorithmics	3
INFOII	Introduction to scientific computing	3
MARKETMIX	Marketing Mix	3
MATHSI	Mathematics I : analysis I	3
MATHSII	Mathematics II : linear algebra I	3
MICROECON	Principles of Microeconomics	3
SALESI	Sales techniques	3

LANGUAGE COURSES

Course code	Title	ECTS Credits
LV1I	English	4
FLEI	French	4

BBA – Big data & Management

YEAR 1 – Spring Semester

CORE COURSES

Course code	Title	ECTS Credits
COST	Cost analysis	3
EPSII	Sports	1
INFOIII	Scientific programming	3
INFOIV	Data structures management	3
MARKET	Market study	3
MATHSIII	Mathematics I : analysis II	3
MATHSIV	Mathematics II : linear algebra IV	3
PRODINNOV	Product innovation	3
SALESII	Sales communication	3
STAGE1	International internship	3

LANGUAGE COURSES

Course code	Title	ECTS Credits
LV2I	Chinese	2
FLEII	French	2

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Autumn Semester

Sports [BDM_EPSI]

LEAD PROFESSOR(S): Luisa ROCHA DA SILVA

Requirements

Objectives

Sport as a: - counterbalancing element, promoting physical and moral health (general physical preparation) - group-building element through team activities promoting the development of the notions of cooperation, opposition, mutual aid, confidence... - as a factor of autonomy and balance.

Course contents

- Take an active role in one's training by choosing one's sport - Understand and assimilate the physiology of effort - Design, evaluate and regulate learning situations - Organize the work and production of others

Course material

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	2	0 hrs	0 hrs	16 hrs	0 hrs	0 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Autumn Semester

Accounting / Finance [BDM_FINANCE]

LEAD PROFESSOR(S): Luisa ROCHA DA SILVA

Requirements

Objectives

Financial accounting provides the basis for all the management tools used by company executives. It translates business activities (supply,production, distribution, investment, financing ...) into monetary terms and enables decision-making based on the use of standardised documents that reflect the performance and financial position of the company.
At the end of the classes, students should be able to :
-Make accounting entries in the company journal and prepare the company's general ledger, trial balance, balance sheet and income statement(P&L account)
- Read a balance sheet and an income statement

Course contents

Journal
Ledger
Trial balance
Balance sheet
Income statement

Course material

"Accounting for Non-Accounting Students" , John R. Dyson.
"Accounting and Finance: A Firm Foundation", Alan Pizzey.
Professional magazines :
- DAF magazineFinance et Gestion
- Revue française de la comptabilité

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	3	0 hrs	24 hrs	0 hrs	0 hrs	2 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Autumn Semester

Algorithmics [BDM_INFOI]

LEAD PROFESSOR(S): Hugues DIGONNET

Requirements

Objectives

The goal of this course is to help students acquire basic concepts in algorithms, regardless of the programming language.

Course contents

- Top-down analysis
- Algorithmic structures
- Simple data types, arrays, and structures
- Functions
- Data organization: searching and sorting

Course material

Assessment

Collective assessment: EVC 1 (coefficient 0.3)

Individual assessment: EVI 1 (coefficient 0.7)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	3	12 hrs	0 hrs	12 hrs	0 hrs	2 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Autumn Semester

Introduction to scientific computing [BDM_INFOII]

LEAD PROFESSOR(S): Luisa ROCHA DA SILVA

Requirements

Objectives

The objective of this course is to help students acquire the basic notions of Python as a scientific programming language.

Course contents

- Why and how learning Python
- Data types and variables
- Loops and branching
- Functions
- Advanced data types I: lists and classes
- Organising data: searching and sorting

Course material

- J.V. Guttag, J. Sussman, Introduction to Computation and Programming Using Python, Third Edition, With Application to Computational Modeling and Understanding Data, MIT Press, 2021
- R. Sedgewick, K. Wayne, Introduction to Programming in Python: An Interdisciplinary Approach, Addison-Wesley Professional, 2015
- www.python.org
- https://openclassrooms.com/en/courses2304731-learn-python-basics-for-data-analysis

Assessment

Collective assessment: EVC 1 (coefficient 0.3)

Individual assessment: EVI 1 (coefficient 0.7)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	3	12 hrs	0 hrs	12 hrs	0 hrs	2 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Autumn Semester

Marketing Mix [BDM_MARKETMIX]

LEAD PROFESSOR(S): Luisa ROCHA DA SILVA

Requirements

Objectives

1. Understand the key theoretical constructs of traditional and contemporary marketing environment and marketing mix
2. Interpret knowledge of marketing theories and managerial practices in contemporary national and international context
3. Analyse and evaluate marketing strategies and fundamental marketing mixes used and applied by a range of organisations from differentindustries
4. Develop recommendations for organisational efficiencies and competitiveness using effective marketing strategies

Course contents

Fundamentals of the Marketing Concept
Marketing Mixes
Marketing Information & Customer Insights (MIS)
Consumer Markets & BuyerBehaviour
Consumer Driven Value Creation, Products & Services Marketing
Pricing Strategies
Branding & Advertising
Digital Marketing

Course material

- Gary Armstrong, Philip T. Kotler, Michael Harker,
- Ross Brennan (2019). Marketing: An Introduction. London: Pearson. Fourth Edition
- Philip Kotler, Gary Armstrong (Gary M.), Lloyd C. Harris, Hongwei He. 2019. Eighth European edition.
- Levitt, T. (2006). What business are you in? Classic advice from Theodore Levitt. Harvard Business Review, 84(10), 126-37.
- Levitt, T. (2017). Marketing myopia. Taylor & Francis.
- Smith, N. C., Drumwright, M. E., & Gentile, M. C. (2010). The new marketing myopia. Journal of Public Policy & Marketing, 29 (1), 4-11.
- Yankelovich, D., & Meer, D. (2006). Rediscovering market segmentation. Harvard business review, 84(2), 122.
- Anderson, E., & Simester, D. (2003). Mind your pricing cues. Harvard Business Review, 81(9), 96-103.
- Narver, J. C., & Slater, S. F. (1990). The effect of a market orientation on business profitability. Journal of marketing, 54(4), 20-35.

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	3	0 hrs	24 hrs	0 hrs	0 hrs	2 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Autumn Semester

Mathematics I: analysis I [BDM_MATHSI]

LEAD PROFESSOR(S): Mazen SAAD

Requirements

Objectives

The aim of this course is to help students acquire the basic notions of Calculus.
The fundamental concepts and methods of calculus for functions of one real variable are presented with the primary purpose of letting students assimilate their effective employment. We focus on the trigonometric functions and introduce the complex numbers. This course provides an opportunity to upgrade the initial knowledge in analysis.

Course contents

1) Basic notions: sets, elements of mathematical logic
2) Functions: domain, image, injective, surjective, bijective, inverse, monotone
3) Exponential, logarithmic, trigonometric functions
4) Complex numbers
5) Limits and continuity

Course material

1- K. R. Davidson, A.P. Donsig. Real Analysis and Applications, Theory in Practice, Springer,
2- E.D. Bloch. The Real Numbers and Real Analysis, Springer.
3-K.A. Ross, Elementary Analysis. The Theory of Calculus, Springer.
4-A. Browder, Mathematical Analysis. An Introduction, Springer.

Assessment

Collective assessment: EVC 1 (coefficient 0.3)

Individual assessment: EVI 1 (coefficient 0.7)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	3	12 hrs	0 hrs	12 hrs	0 hrs	2 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Autumn Semester

Mathematics II: linear algebra I [BDM_MATHSII]

LEAD PROFESSOR(S): Françoise FOUCHER

Requirements

Objectives

The aim of this course is to help students acquire the basic notions of linear algebra. It focuses on vectorial spaces, linear mappings and Euclidean spaces.

Course contents

Vectorial spaces: real vector spaces, subspaces, linear dependence or independence, finite dimension, bases, sum of subspaces, direct sum, complementary subspace
Linear mappings: addition and composition, kernel and image, projection and symmetry, isomorphism, rank nullity theorem
Euclidean spaces: inner product, norm, triangle inequality, Cauchy-Schwartz inequality, orthogonal and orthonormal family and basis, Pythagorean theorem, Gramm-Schmidt orthogonalization, orthogonal complement, orthogonal projection

Course material

- Sheldon Axler, Linear algebra done right, third edition, Undergraduate texts in mathematics, Springer, 2015.
- Erwin Kreyszig, Advanced Engineering Mathematics, 10th edition, John Wiley & Sons, 2010.
- Seymour Lipschutz, Marc Lipson, Linear algebra, 5th edition, Scaum's outline series, Mc Graw Hill, 2013

Assessment

Collective assessment: EVC 1 (coefficient 0.3)

Individual assessment: EVI 1 (coefficient 0.7)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	3	12 hrs	0 hrs	12 hrs	0 hrs	2 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Autumn Semester

Principles of Microeconomics [BDM_MICROECON]

LEAD PROFESSOR(S): Luisa ROCHA DA SILVA

Requirements

Objectives

Define companies/enterprises and more broadly public and private organizations and situate them in their environment.
Explain how organizations evolve over time.
Describe different functions and activities within an organization and how they interact and organize themselves
Explain how managers and leaders can bring people together and motivate them to achieve a shared common goal.
Undertake and internal and external strategic analysis
Evaluate different strategic options available to the enterprise

Course contents

The firm
- GDP and value-added
- Forms of companies
- Public and private companies
- Public goods
- The role of the firm as a producer (production functions, cost, scale economies,..)
- The role of the firm as distributor of wealth (circular flow model, income distribution)
- Social role of the company, employee well-being
- CSR
- Business structures and designs
- Leadership, Situational leadership
- Motivation and engagement
- Performance
- Internal and External Strategic Audits
- Corporate Strategy

Course material

- https://openstax.org/details/books/introduction-business
- https://openstax.org/details/books/organizational-behavior
- https://openstax.org/details/books/principles-management

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	3	0 hrs	24 hrs	0 hrs	0 hrs	2 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Autumn Semester

Sales techniques [BDM_SALESI]

LEAD PROFESSOR(S): Luisa ROCHA DA SILVA

Requirements

Objectives

The objective of this module is to give students the fundamentals for conducting a sales interview, by following a common thread covering the main stages of sales.
- Be able to conduct a sales meeting, in particular the discovery of needs
- Provide students with a toolbox
- Address the 1st bases of negotiation
- Learn to self-analyze, measure the issues

Course contents

- The red thread of the sales interview
- The 4x20
- The CVAC method
- The SONCASE
- The argument with the CAP
- Handling objections

Course material

Vendeurs: Passez en mode solution; Frédéric Buchet, Dunod, Janvier 2018
Savoir conseiller et vendre à l'ère post-digitale (Vendeurs et commerciaux: des métiers à réinventer)
Régine Vanheems, Editions EMS, septembre 201

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	3	0 hrs	24 hrs	0 hrs	0 hrs	2 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Autumn Semester

English [BDM_LV1I]

LEAD PROFESSOR(S): David TROYA

Requirements

Objectives

- Improving your communication skills in English
- Becoming an active listener
- Enhancing your non-verbal communication skills
- Developing empathy towards different ideas and cultures
- Acquiring professional communication skills
- Practicing your managerial and organizational skills

Course contents

This course aims to enhance your communication skills in English. To achieve this, we will explore a variety of subjects from different perspectives to broaden our viewpoints and deepen our understanding of current world events.

Speaking and understanding English as a second or third language is a great accomplishment; however, becoming an effective communicator is a professional skill that even fluent speakers can benefit from.

Our next step involves, among other things, understanding the intricate elements of intercultural communication, a skill of paramount importance in the modern professional environment. We will address these topics through case studies leading to class discussions.

Several competencies will be developed through class exercises. Oral presentations will provide an opportunity to practice both verbal and non-verbal communication skills.

While clear pronunciation is important, we will also focus on practising articulation, intonation, and developing a natural pace in speech delivery.

Throughout this course, you will also be expected to apply your managerial skills when working in groups and planning your final semester project.

Course material

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	4	0 hrs	32 hrs	0 hrs	0 hrs	0 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Autumn Semester

French [BDM_FLEI]

LEAD PROFESSOR(S): Astrid DE BRUYN

Requirements

(N/A)

Objectives

For the beginner level:
The objective is to familiarize the learner with the French language and French culture through entertaining communicative language teaching.
At the end of the first year, the students will be able to communicate in spoken and written French, in a simple, but clear manner, on familiar topics suchs as:

- Introduce oneself, introduce somebody and speak about likes, dislikes and hobbies
- Speak about student life and everyday life
- Carry out transactions in shops and services
- Extend and respond to invitations
- Speak using the present, past and future forms

For the intermediate / advanced level:

- Develop oral and written understanding of varied and authentic documents
- Develop speaking and written skills about one's specialisation and different topics
- Discover French culture and life in Nantes

Course contents

The course activities cover a whole range of practical language and communication exercices that span written and oral comprehension and expression.

Course material

Written and televised press, Internet, specific documents, digital tools.

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	4	0 hrs	32 hrs	0 hrs	0 hrs	0 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Spring Semester

Cost analysis [BDM_COST]

LEAD PROFESSOR(S): Luisa ROCHA DA SILVA

Requirements

Objectives

Financial accounting provides the basis for all the management tools used by company executives. It translates business activities (supply,production, distribution, investment, financing ...) into monetary terms and enables decision-making based on the use of standardised documents that reflect the performance and financial position of the company. At the end of the classes, students should be able to :
-Make accounting entries in the company journal and prepare the company's general ledger, trial balance, balance sheet and income statement(P&L account)
- Read a balance sheet and an income statement.

Course contents

Journal
Ledger
Trial balance
Balance sheet
Income statement

Course material

"Accounting for Non-Accounting Students" , John R. Dyson
"Accounting and Finance: A Firm Foundation", Alan Pizzey
Revues professionnelles :
- DAF magazine
- Finance et Gestion
- Revue française de la comptabilité

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	3	0 hrs	24 hrs	0 hrs	0 hrs	2 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Spring Semester

Sports [BDM_EPSII]

LEAD PROFESSOR(S): Gildas GUIHENEUF-LALERE

Requirements

Objectives

Sport:
- as a compensatory element, a factor of physical and moral health (general physical preparation)
- as a unifying element of cohesion through collective activities that develop the notions of cooperation, opposition, mutual aid, confidence, etc.
- as a factor of autonomy and equilibrium
- as a support for role-playing on themes linked to leadership and group management.

Course contents

- Take an active role in one's training by choosing one's sport
- Understand and assimilate the physiology of effort
- Design, evaluate and regulate learning situations
- Organize the work and production of others

Course material

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	1	0 hrs	0 hrs	8 hrs	0 hrs	0 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Spring Semester

Scientific programming [BDM_INFOIII]

LEAD PROFESSOR(S): Hugues DIGONNET

Requirements

Objectives

The goal of this course is to help students acquire skills in data manipulation and visualization, as well as problem-solving using the Numpy, Matplotlib, and Pandas libraries.

Course contents

1) Discovering Numpy (8h)
- Introduction to Numpy
- Creating Numpy arrays and data objects
- Operations on Numpy arrays
- Random numbers and probabilities
- Matrix algebra with Numpy
- Reading and writing data files: ndarrays
- Scipy for high-level scientific computing

2) Mastering Matplotlib (8h)
- Overview
- Formatting plots
- Object hierarchy
- Axes, ticks, legends, and annotations
- Creating subplots
- Types of plots: histograms, contour plots, etc.
- Image processing with Python and Matplotlib

3) Transitioning from Numpy to Pandas (8h)
- Introduction to Pandas
- Pandas DataFrames: accessing and modifying values by group
- Reading and writing data in Pandas
- Grouping and multi-level indexing
- Data visualization
- Date and time management, time series
- Plotting with Seaborn

Course material

Assessment

Collective assessment: EVC 1 (coefficient 0.3)

Individual assessment: EVI 1 (coefficient 0.7)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	3	12 hrs	0 hrs	12 hrs	0 hrs	2 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Spring Semester

Data structures management [BDM_INFOIV]

LEAD PROFESSOR(S): Luisa ROCHA DA SILVA

Requirements

Objectives

The objective of this course is to help students acquire the advanced notions on managing complex data structures with Python.

Course contents

Extension of the INFO_II course on:
- Lists, tuples, aliasing, mutability, cloning
- Recursion, dictionaries
- Classes and object oriented programming, inheritance
- Searching and sorting

Advanced user defined structures:
- Arrays vs List
- Stack, Queue
- Trees
- Linked lists
- Graphs, Hash maps

Advanced memory management in Python

Course material

Assessment

Collective assessment: EVC 1 (coefficient 0.3)

Individual assessment: EVI 1 (coefficient 0.7)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	3	12 hrs	0 hrs	12 hrs	0 hrs	2 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Spring Semester

Market study [BDM_MARKET]

LEAD PROFESSOR(S): Luisa ROCHA DA SILVA

Requirements

Objectives

On successful completion of the course students should be able to demonstrate the following knowledge and skills outcome.
- Understand the key theoretical constructs of traditional and contemporary marketing environment and marketing mix
- Interpret knowledge of marketing theories and managerial practices in contemporary national and international context
- Analyse and evaluate marketing strategies and fundamental marketing mixes used and applied by a range of organisations from differentindustries
- Develop recommendations for organisational efficiencies and competitiveness using effective marketing strategies

Course contents

Fundamentals of the Marketing Concept
Marketing Mixes
Marketing Information & Customer Insights (MIS)
Consumer Markets & BuyerBehaviour
Consumer Driven Value Creation
Products & Services Marketing
Pricing Strategies
Branding & Advertising
Digital Marketing

Course material

- Philip Kotler and Gary Armstrong (Gary M.). (2020). Principles of Marketing. London: Pearson. Eighteenth edition
Gary Armstrong, Philip T. Kotler, Michael Harker, Ross Brennan (2019).
Marketing: An Introduction. London: Pearson. Fourth Edition
- Philip Kotler, Gary Armstrong (Gary M.), Lloyd C. Harris, Hongwei He. 2019. Eighth European edition.
- Levitt, T. (2006). What business are you in? Classic advice from Theodore Levitt. Harvard Business Review, 84(10), 126-37.
- Levitt, T. (2017). Marketing myopia. Taylor & Francis.
- Smith, N. C., Drumwright, M. E., & Gentile, M. C. (2010). The new marketing myopia. Journal of Public Policy & Marketing, 29 (1), 4-11.
- Yankelovich, D., & Meer, D. (2006). Rediscovering market segmentation. Harvard business review, 84(2), 122.
- Anderson, E., & Simester, D. (2003). Mind your pricing cues. Harvard Business Review, 81(9), 96-103.
- Narver, J. C., & Slater, S. F. (1990). The effect of a market orientation on business profitability. Journal of marketing, 54(4), 20-35

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	3	0 hrs	24 hrs	0 hrs	0 hrs	2 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Spring Semester

Mathematics I: analysis II [BDM_MATHSIII]

LEAD PROFESSOR(S): Mazen SAAD

Requirements

Objectives

The course completes the introduction to Analysis (MATHS I) with a deeper insight into the single variable function Calculus.
The course focuses on limits, expansion of functions around a point, and integration.
Examples will be taken from appropriate engineering applications.

Course contents

1) Limits and continuity: More fundamental limits and undetermined form
2) Derivation
3) Taylor expansions and applications
4) Integral calculus

Course material

1-Kenneth A. Ross; Elementary Analysis, the theory of calculus, Springer
2-Ethan D. Bloch; The real numbers and real analysis, Springer
3-Kenneth R. Davidson, Allan P. Donsig; Real Analysis and Applications, Theory in Practice, Springer
4-A. Browder, Mathematical Analysis. An Introduction, Springer.

Assessment

Collective assessment: EVC 1 (coefficient 0.3)

Individual assessment: EVI 1 (coefficient 0.7)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	3	12 hrs	0 hrs	12 hrs	0 hrs	2 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Spring Semester

Mathematics II: linear algebra IV [BDM_MATHSIV]

LEAD PROFESSOR(S): Françoise FOUCHER

Requirements

Objectives

The objective is to provide mathematical knowledge for theoretical and practical use. This course focuses on matrix linear algebra.

Course contents

- Matrix of a linear transformation, matrix multiplication, rank of a matrix
- Determinant of a matrix, properties of determinants
- Inverse of a square matrix
- Eigenvalues and eigenvectors of a matrix, characteristic polynomial of a matrix,
- Matrix diagonalization, some applications

Course material

- Sheldon Axler, Linear algebra done right, third edition, Undergraduate texts in mathematics, Springer, 2015.
- Erwin Kreyszig, Advanced Engineering Mathematics, 10th edition, John Wiley & Sons, 2010.
- Seymour Lipschutz, Marc Lipson, Linear algebra, 5th edition, Scaum's outline series, Mc Graw Hill, 2013

Assessment

Collective assessment: EVC 1 (coefficient 0.3)

Individual assessment: EVI 1 (coefficient 0.7)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	3	12 hrs	0 hrs	12 hrs	0 hrs	2 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Spring Semester

Product innovation [BDM_PRODINNOV]

LEAD PROFESSOR(S): Luisa ROCHA DA SILVA

Requirements

Objectives

The Product Innovation course aims at presenting each stage of the product innovation process—from the identification of problems or opportunities to launching and scaling the solution, and introducing main related concepts. It does so by sharing insights from the digital marketing landscape, main strategies/frameworks and practical tools to facilitate the creation of valuable solutions. During the course, students are stimulated to think critically and act creatively in regards to the technical, ethical, and societal impact of innovative products, which is then materialized by their group projects.
- To identify problems and opportunities concerning products (solutions)
- To propose innovative products aligned with consumers and market demands
- To think critically about the impacts of the proposed innovative product

Course contents

1- The landscape of innovation
2- Innovation and value creation
3- The role of R&D and Marketing during the innovation processes
4- Consumer insights and innovation
5- Innovation and UX design
6- The role of benchmarking and Market Research in the innovation process
7- Major trends in innovation
8- Agile development
9- Digital transformation
10- Green innovation
11- Pitch and storytelling
12- Group presentation - Each group will present their work during this 2-hour session. A Q&A will follow each presentation

Course material

Brown, T., & Katz, B. (2019). Change by design: How design thinking transforms organizations and inspires innovation (Vol. 20091). New York:Harper Business.
Brown, S. (2020). The Innovation Ultimatum: How six strategic technologies will reshape every business in the 2020s. John Wiley & Sons.
Osterwalder, A., Pigneur, Y., Bernarda, G., & Smith, A. (2015). Value proposition design: How to create products and services customers want (Vol. 2).John Wiley & Sons.
Rogers, D. (2016). The digital transformation playbook. Columbia University Press.

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	3	0 hrs	24 hrs	0 hrs	0 hrs	2 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Spring Semester

Sales communication [BDM_SALESII]

LEAD PROFESSOR(S): Luisa ROCHA DA SILVA

Requirements

Objectives

Sales communication
- To know how to identify the different forms of sales communication, the techniques and supports available to the communication manager
- Become familiar with the objectives and targets of sales communication
- To master the criteria of choice necessary for the establishment of an on and off line sales communication plan.

Direct Marketing Focus
Know the different exploitable databases
Know how to write efficient and professional direct mail marketing according to the proposed framework
Be creative in developing the attractive appearance of the direct mail
Be able to take a step back from a document produced

Course contents

1- Direct marketing in written format
2- Prospection by e-mail and direct mail
3- The practice of direct mail marketing
4- Positioning sales communication
5- Vectors and media of sales communication
6- Focus on the communication distribution target and relay with sales teams
7- Supervised team work
8- Feedback

Course material

Jézéquel B. and Gérard P. (2019, 4th edition) La boîte à outils de la Communication, Dunod
Adari A. and Mas C. (2018, 8th edition), the communicator- All the communication in the digital age, Dunod
Libaert T. (2017, 5th edition), Le plan de communication, Dunod
Marketing-professionnel.fr

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	3	0 hrs	24 hrs	0 hrs	0 hrs	2 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Spring Semester

International internship [BDM_STAGE1]

LEAD PROFESSOR(S): Luisa ROCHA DA SILVA

Requirements

Objectives

This internship, which takes place at the end of the 1st year, is a discovery of the business world and an experience at the execution level, in the field of digital and data analysis reference.
These objectives are:
- Discover the business world and jobs related to digital and data analysis
- Integrate into a team and develop your professional posture
- Appropriate job search procedures, use and develop their networks.

This experience must give rise to a double vision for the student:
-The vision of the operator they have been for a few weeks
-The vision of the framework they are about to become.

Course contents

Duration: 3 months, between the 1st and 2nd year.
Subject: mandatory validation by the tutor.
Location of the internship: in a company with at least 3 employees, abroad.
Conditions: Internship agreed between the 3 parties (company, school, student), which may give rise to a bonus. 35h/week. A fixed-term contract can replace the Convention (the procedures for awarding an internship remain mandatory)

Course material

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	3	0 hrs	0 hrs	0 hrs	48 hrs	0 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Spring Semester

Chinese [BDM_LV2I]

LEAD PROFESSOR(S): Jianping GUNST

Requirements

Objectives

The students will learn how to carry on a conversation in various real-life situations in China, for example asking for information at the hotel, at the train station, ordering food at a restaurant, etc. Introduction to Chinese culture and society via film and video.

Course contents

Course material

Méthode d'Initiation à la Langue et à l'Ecriture chinoises (Joël Bellasen)

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	2	0 hrs	16 hrs	0 hrs	0 hrs	0 hrs

BACHELOR OF BUSINESS ADMINISTRATION

2024/2025 - Year 1 - Spring Semester

French [BDM_FLEII]

LEAD PROFESSOR(S): Astrid DE BRUYN

Requirements

(N/A)

Objectives

For the beginner level:
The objective is to familiarize the learner with the French language and French culture through entertaining communicative language teaching.
At the end of the first year, the students will be able to communicate in spoken and written French, in a simple, but clear manner, on familiar topics suchs as:

- Introduce oneself, introduce somebody and speak about likes, dislikes and hobbies
- Speak about student life and everyday life
- Carry out transactions in shops and services
- Extend and respond to invitations
- Speak using the present, past and future forms

For the intermediate / advanced level:

- Develop oral and written understanding of varied and authentic documents
- Develop speaking and written skills about one's specialisation and different topics
- Discover French culture and life in Nantes

Course contents

The course activities cover a whole range of practical language and communication exercices that span written and oral comprehension and expression.

Course material

Written and televised press, Internet, specific documents, digital tools.

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
English	2	0 hrs	16 hrs	0 hrs	0 hrs	0 hrs