DEMOCRATIC AND POPULAR REPUBLIC OF ALGERIA
MINISTRY OF HIGHER EDUCATION
AND SCIENTIFIC RESEARCH

COMPLIANCE CANVAS L.M.D

TRAINING OFFER
L.M.D.
PROFESSIONAL MASTER
2023-2024

Establishment	Faculty/Institute	Department
University Mohamed Khider Biskra	Faculty of Economics, commerce and Management Sciences	Economics Sciences

Domain	Branch	**Major**
Economic Sciences and Management Sciences	Economic Sciences	Digital Economy

People's Democratic Republic of Algeria MINISTERE DE L'ENSEIGNEMENT SUPERIEUR ET DE LA RECHERCHE SCIENTIFIQUE

CANEVAS DE MISE EN CONFORMITÉ

OFFRE DE FORMATION
L.M.D.
MASTER PROFESSIONNALISANT
2023-2024

Etablissement	Faculté / Institut	Département
Université de Biskra	Faculté des sciences économiques, commerciales et des sciences de gestion	sciences économiques

Domaine	Filière	Spécialité
Sciences Economiques, de Gestion et Commerciales	sciences économiques	Economie Numérique

Contents

I - Master's identification card---------- P04
1 - Location of the training ---------- P05
-
2- Training partners ---------- P05
3 - Context and objectives of the training ---------- P06
A - The general organization of the training: the status of the project- ---------- P06
B - Training objectives ---------- P06
C - Targeted qualifications and competencies ---------- P07
-
D - Regional and national employability potential ---------- P07
E - Gateways to other majors ---------- P07
F - Training monitoring indicators ---------- P08
4 - Available human resources ---------- P08
A - Framing capabilities ---------- P09
B - Internal framing harnessed for training in the major ---------- P09
C - External framing harnessed for training in the major ---------- P09
D - The total sum of human resources devoted to training ---------- P11
5 - Specific material resources available ---------- P11
A - Pedagogical Laboratories and Equipment ---------- P12
B- Internship sites and in-company training ---------- P13
C- Documentation available at the university institution related to the proposed training offer ---------- P13
D - Personal work spaces and ICT ---------- P16
II - Semester organization card ---------- P16
- First semester ---------- P17
-
- 2nd semester ---------- P18
- 3rd semester ---------- P19
- 4th semester ---------- P20
- overall summary of the training ---------- P22
III - Detailed program by module ---------- P23
IV - Contracts/Agreements ---------- P53
V- A summarized CV of each person from the pedagogical team concerned with training in the major ---------- P55
VI - Opinion and visa of administrative and scientific bodies ---------- P57
VIII- Opinion and visa of the regional symposium ---------- P58
VIII- Opinion and visa of the National Pedagogical Committee for the domain ---------- P59

1- Master's Degree Identification Card

1. Training Location Identification :

Institution: University of Mohamed Khider - Biskra Faculty: Faculty of Economic and Commercial Sciences and Management Sciences Department: Economic Sciences"

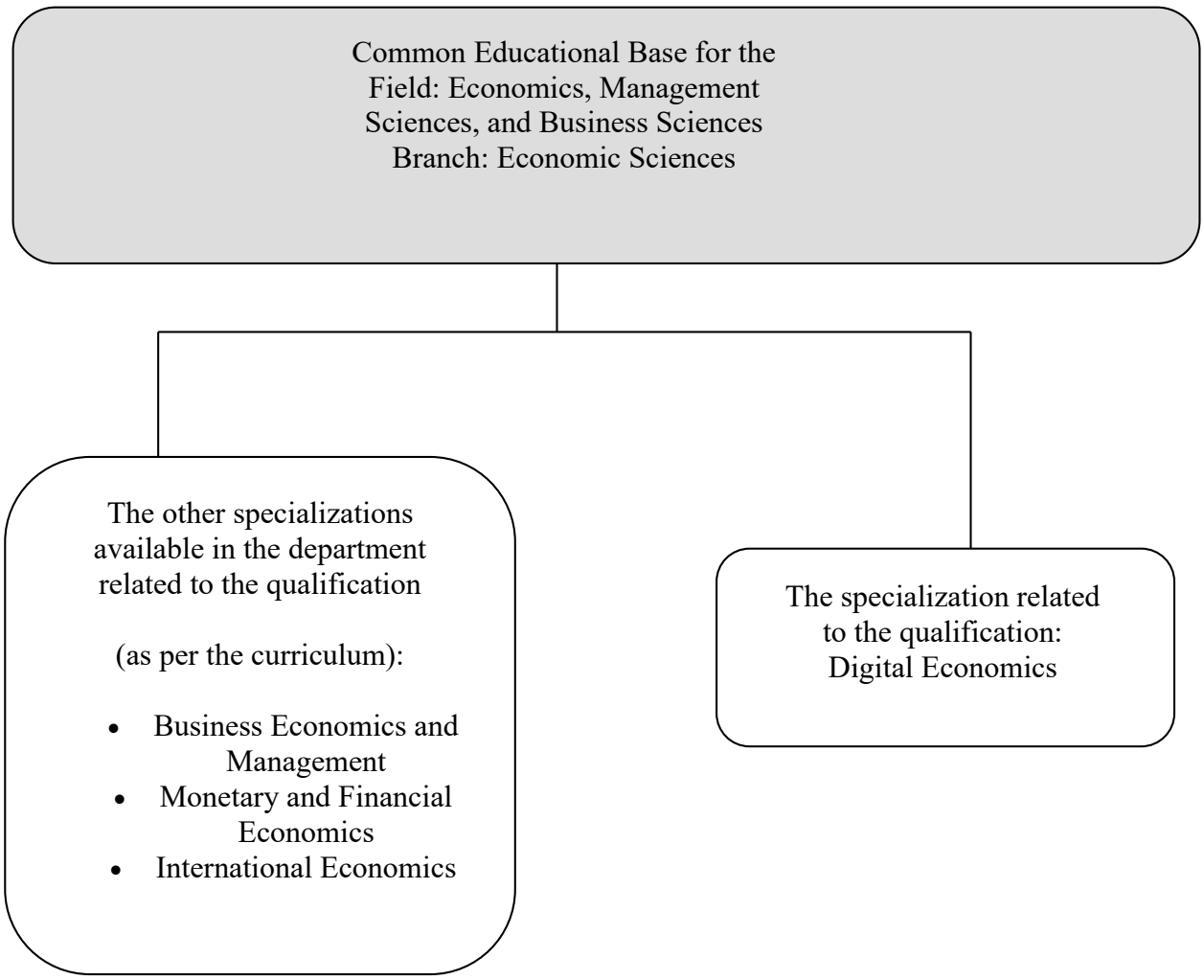
- Master's Qualification Decision Number: Reference Decision for the Program: Decision Number 1384 dated 17/10/2022, specifying the education and training program for the Digital Economics Master's specialization.

2. **Other Participants**: In addition to professors, experts in the field, and stakeholders from the world of work, other entities involved in this training due to the nature of the specialization aiming to link the university with the economic and social environment.

- Other Universities: None
- Other Economic and Social Partner Institutions: Algerian Post and Telecommunications Directorate (Annex 01).
- Foreign International Partners: No foreign partners.

3. **Training Framework and Objectives**:

- General Organization of the Training: Project Position:


Common Educational Base for the Field: Economics, Management Sciences, and Business Sciences Branch: Economic Sciences
The other specializations available in the department related to the qualification
(as per the curriculum):
Business Economics and Management
Monetary and Financial Economics
International Economics
The specialization related to the qualification: Digital Economics

- **Training Objectives :**

Targeted Competencies and Acquired Knowledge at the End of the Training.

Through its program, which includes many measures, including theoretical and practical, this composition allows to provide a theoretical base and a deeper understanding of the foundations and concepts associated with this field - the digital economy - through basic units, in addition to which there are methodological modules that provide more economic analysis tools such as database design, electronic commerce, technological incubators, etc. On the other hand, we find exploratory and horizontal units that support theoretical knowledge gained and analytical tools used by addressing laws applicable to Algeria's digital economy, etc.

Overall, the objectives of this composition can be summarized in a few points as follows:

- The formation of students capable of controlling digitization techniques with a view to integrating them into the labour market;

- Meeting the economic sector's needs for qualified frameworks in the digital economy;

- Control of fields related to digital administrative communications;

- Contribute to the inclusion of new governance methods within the framework of the State's orientation towards the digital economy;

- Developing students' individual capacities in terms of digitization services to public and private economic institutions while reducing cost;

- Analyse and anticipate the future digital economy environment and prepare for it;

- Enabling the student to obtain the necessary technical competencies to understand, analyze and train the participants in all the methods and techniques necessary to carry out the tasks entrusted to them with the required speed, accuracy and satisfactory efficiency.

- **Target qualifications and competencies** :

This specialization allows students to integrate into the digital economy by teaching and providing a qualified category in the field of digitization that can easily integrate into the job market;

Provide qualified frameworks for employment in public and private economic institutions;

Providing the labour market with a qualified category capable of managing economic institutions in the digital economy, which contributes to the country's development, especially in the world's developments in the area of digitization;

This certificate also enables students to acquire different bottom knowledge of the digital economy allowing them to integrate into different professions or continue their doctoral studies.

Regional and national operational capabilities.

The study of this specialization offers students several prospects for working in public and private economic institutions on the following:

- Ability to control everything related to the digital economy;

- Ability to drop scientific theoretical concepts on reality;

- Ability to meet enterprises' needs for services provided by the digital economy;

- Ability to operate in major national or foreign economic institutions operating in Algeria or abroad;

- Pursue PhD studies (phase III) and work in the field of scientific research.

- Bridges to other disciplines :

Students with a bachelor's degree in economics (classical or LMD) are enrolled in all disciplines belonging to the Division of Economics.

It is also possible through this specialization to continue studying in doctorates (academic or professional) in the Division of Economics, which includes disciplines that correspond to this specialization as a digital economy, an international economy, a development economy....

- Success indicators to follow the composition : (Standards of durability, success ratio, operability, follow-up of graduates, acquired competencies...)

- Simultaneous specialization in the digital economy and the tendencies of Algeria's economy towards a transition to this area in the light of developments at the regional and international levels;

- The University's availability of material and human resources (structures/framing);

- Competition in the labour market;

A qualified framework capable of contributing to digitization and thereby developing the country's economy;

This composition is also followed up on the digital economy based on the programme in the four hexagons and the courier size spread over 15 weeks per hexagon.

- Focusing on basic education units and the student's personal work without neglecting the rest of the educational units to conclude this composition by preparing a graduation note in the field of digital economy.

4. Available Human Potential:

Internal framing:

Framing capabilities:

Internal framing for specialization composition :

Name and Surname	Graduation certificate + major	Postgraduate certificate + major	Rank	Nature of the intervention *	signature
Saleh Meftah	Bachelor's degree, Financial Sciences	State doctorate, Money and Finance	Full professor	Lecture, directed work, supervision	
Moussa Rahmani	Bachelor's degree, Planning	State doctorate, Quantitative Economics	Full professor	Lecture, directed work, supervision	
Khenchour Djamel	Bachelor's degree, Planning	State doctorate, Management	Full professor	Lecture, directed work, supervision	
Rabeh kouni	State doctorate, Management Sciences	Management Sciences	Full professor	Lecture, directed work, supervision	
Morgad Lakhdar	Bachelor's degree, management	Doctorate, Money and Finance	Full professor	Lecture, directed work, supervision	
Ben Sama'in Hayat	Bachelor's degree, management	Doctorate, Money and Finance	Full professor	Lecture, directed work, supervision	
Mohamad Adnan ben Dif	Bachelor's degree, Money, Finance and Banking	Doctorate, Money and Finance			
Ali Bouabdallah	Bachelor's degree, Money, Finance and Banking	Doctorate, Money and Finance	Full professor	Lecture, directed work, supervision	
Amal Rahmane	Bachelor's degree, Money, Finance and Banking	Doctorate, Economics and Environmental Management	Full professor	Lecture, directed work, supervision	Amal Rahmane
Lahcen Dardouri	Bachelor's degree, Money, Finance and Banking	Doctorate, Money and Finance	Full professor	Lecture, directed work, supervision	
Farid ben Abid	Bachelor's degree, Money, Finance and Banking	Doctorate, Money and Finance	Full professor	Lecture, directed work, supervision	
Adissa Chahra	Bachelor's degree, Money, Finance and Banking	Doctorate, Money and Finance	Senior lecturer	Lecture, directed work, supervision	
Abdallah Ghalem	Bachelor's degree, Financial Sciences	Doctorate, Money and Finance	Full professor	Lecture, directed work, supervision	

Abderezak Benzaoui	Statistical engineer	Doctorate, Economic Measurement	Full professor	Lecture, directed work, supervision	
Adel Mayah	Bachelor's degree, Business Administration	Doctor, Industrial Economics	Senior lecturer	Lecture, directed work, supervision	
Borni Latifa	Bachelor's degree, Economics and Corporate Management	Doctorate, Economics and Corporate Management	Senior lecturer	Lecture, directed work, supervision	
Laila Joudi	Bachelor's degree, Money, Finance and Banking	Doctorate, Money and Finance	Senior lecturer	Lecture, directed work, supervision	
Abba Farid	Bachelor's degree, Financial Sciences	Doctor, Development Economics	Junior lecturer	Lecture, directed work, supervision	
Abdelmounim benfarhat	National School of Administration	Doctorate, Economics and Business Administration	Senior lecturer	Lecture, directed work, supervision	
Sebti wassila	Bachelor's degree, Money, Finance and Banking	Doctorate, Money and Finance	Full professor	Lecture, directed work, supervision	
Anfal Necib	Bachelor's degree, Money and Finance	LMD doctorate, Economics of Money, Banking and Financial Markets	Senior lecturer	Lecture, directed work, supervision	
Bensmina Aziza	Bachelor's degree, Money, Finance and Banking	Doctorate, Money and Finance	Full professor	Lecture, directed work, supervision	
Guessouri Insaf	Bachelor's degree, Money, Finance and Banking	Doctorate, Money and Finance	Senior lecturer	Lecture, directed work, supervision	
Abdallah Ghalem	Bachelor's degree, Financial Sciences	Doctorate, Money and Finance	Full professor	Lecture, directed work, supervision	
Abderezak Benzaoui	Statistical engineer	Doctorate, Economic Measurement	Full professor	Lecture, directed work, supervision	
Adel Mayah	Bachelor's degree, Business Administration	Doctor, Industrial Economics	Senior lecturer	Lecture, directed work, supervision	
Borni Latifa	Bachelor's degree, Economics and	Doctorate, Economics and Corporate	Senior lecturer	Lecture, directed work,	

	Corporate Management	Management		supervision	
Ben Turki Walid	Bachelor's degree, Finance, Banking and Money	Doctorate, Industrial Economics	Senior lecturer	Lecture, directed work, supervision	
Ghogal Ilyes	Bachelor's degree, Finance, Banking and Money	Doctorate, Money and Finance	Senior lecturer	Lecture, directed work, supervision	
Hamrit Rachid	Bachelor's degree, Finance, Banking and Money	Doctorate, economic analysis	Senior lecturer	Lecture, directed work, supervision	
Asma Haddana	Bachelor's degree, economics and corporate management	Doctorate of Science, Money and Finance	Senior lecturer	Lecture, directed work, supervision	
Chaouch Ikhwan Sihem	Bachelor's degree, Finance, Banking and Money	Doctorate, Money and Finance	Senior lecturer	Lecture, directed work, supervision	
Saad Ibtissem	Bachelor's degree, Finance, Banking and Money	Doctorate, Money and Finance	Senior lecturer	Lecture, directed work, supervision	
Namoune Iman	Bachelor's degree, Finance, Banking and Money	Doctorate, Industrial Economics	Senior lecturer	Lecture, directed work, supervision	
Belabidi Ayda Abir	Bachelor's degree, Finance, Banking and Money	Doctorate, Money and Finance	Senior lecturer	Lecture, directed work, supervision	
Naoui Fatima	Bachelor's degree, Finance, Banking and Money	Doctorate, Finance and Banking	Senior lecturer	Lecture, directed work, supervision	
Msemeche Nadjet	Bachelor's degree, Finance, Banking and Money	Doctorate, Money and Finance	Senior lecturer	Lecture, directed work, supervision	

*Other: Support and Technical Users

5. Available Material Capabilities

a.Pedagogical laboratories and equipment :

(Provide a card on the pedagogical equipment available for the practical work of the proposed composition. (1 card per informant)

Laboratory Title: Economics and Management Sciences Laboratory

number	Processing Name	number	notes
01	computer	06	
02	printer	06	
03	photocopier	04	
04	display	02	
05	Computer Table	20	
06	chairs	30	
07	Auditorium	1 (30 students)	
08	library	1 (500 books)	
09	Internet	WIFI	

Laboratory Title: Finance, Banks and Business Administration

number	Processing Name	number	notes
01	computer	04	
02	printer	04	
03	photocopier	02	
04	display	02	
05	Computer Table	04	
06	chairs	30	
07	Auditorium	1 (30 students)	
08	library	01	
09	Internet	WIFI	

b.Fields of education and training in institutions:

Place of Education	number of students	Duration of education
All institutions affiliated with Algeria Post & Telecommunications	30	3 months

c. Research laboratories to support the proposed configuration

ج- مخابر البحث لدعم التكوين المقترح:

مخبر العلوم الاقتصادية وعلوم التسيير
رئيس المخبر قريشي محمد
رقم اعتماد المخبر 235 بتاريخ 28 ماي 2002
التاريخ : مدير المخبر أ.د/ محمد قريشي رأي رئيس المخبر:

مخبر مالية، بنوك وإدارة الأعمال
رئيس المخبر غالم عبد الله
رقم اعتماد المخبر 222: 2009/07/13
التاريخ : رأي رئيس المخبر:

D - **Research Projects Supporting the Proposed Training**:

Title of the research project	Project Code	project start date	Project End Date
The role of digital financial services in achieving economic recovery in Algeria during the COVID-19 crisis	F02N01UN070120220007	01/01/2022	31/12/2025
The Digital Economy and Investment Challenges in the Stock Exchange - A Case Study of Algeria: Current Situation and Prospects.	F02N01UN070120220003	01/01/2022	31/12/2025
Socioeconomic impacts of entrepreneurial university as a critical actor of triple helix: The case of sample of Algerian universities	F01L02UN070120220003	01/01/2022	31/12/2025
The effectiveness of strategies implemented in Algeria for non-hydrocarbon export development amidst current international developments.	F02N01UN070120220008	01/01/2022	31/12/2025
The Efficiency of	F02N01UN070120220006	01/01/2022	31/12/2025

Resource Utilization as a Strategic Choice within Sustainable Development Frameworks.			
The Developmental Capacities of Islamic Banking Supporting Takaful Insurance Institutions in Algeria: A Comprehensive Study on the Foundations and Outcomes of Collaboration.	F02N01UN070120220005	01/01/2022	31/12/2025
The Impact of Oil Price Fluctuations on Financial Stability in Algeria During 1992-2026.	F02N01UN070120220004	01/01/2022	31/12/2025
The Impact of Modern Internet Applications on the Service Sector.	F01L02UN070120220001	01/01/2022	31/12/2025
marketing innovation of tourism adopting of marketing innovation as a tool for improving the quality of services in the tourism sector	F01L01UN070120220001	01/01/2022	31/12/2025
The Role of Knowledge Management Technology in Enhancing the	F01L02UN070120210001	01/01/2021	31/12/2024

Performance of Higher Education Institutions: An Applied Study in a Group of Algerian Universities - Biskra, Batna, and El Oued.			
The Role of Fiscal Policy in Addressing the General Budget Deficit in Algeria: An Analytical and Statistical Study for the Period 1992-2023.	F02N01UN070120210002	01/01/2021	31/12/2024
Accompanying the Entrepreneurial Journey from Construction to Growth.	F01L02UN070120200003	01/01/2020	31/12/2023

e- **The available documentation** (its relation to the proposed training):

The central library and the college library contain numerous and diverse references related to the specialization of digital economics. They comprise various books, journals, periodicals, and dissertations ranging from undergraduate to doctoral levels.

Moreover, the college library offers summaries, CDs, or books from study days, seminars, and conferences.

f- Personal workspaces and information and communication technologies.

To enable students to accomplish their research, applications, and personal work, the University of Biskra provides the following facilities:

- College library with access to over 50,000 references across all disciplines.
- Three multimedia rooms equipped with state-of-the-art ICT tools.
- Wi-Fi internet service covering the library and reading rooms.

- Numerous reading rooms within the college library, central library, and laboratories.

g- **Educational aids**

Digital learning platforms.

link to the digital platform.	establishment	Type of digital learning platform (Moodle...)*
http://elearning.univ-biskra.dz/moodle/	University Mohamed Khider Biskra	Moodle
https://univ-biskra.dz	University Mohamed Khider Biskra	professional email

*Other platforms used mentioned

I - Organization Card for Semesters

Attachment to Decision No. 1384 dated October 17, 2022
Specifies the education program for obtaining a Master's degree

Field: "Economic Sciences, Management, and Business"
Branch: Economic Sciences
Specialization: "Digital Economy"

The first semester :

Assessment Type		Educational Methodology		Others*	The Semester Credit Load (15 weeks)	Weekly Study Load			Grades	Education Credits	Course Titles	Education Units
Exam	Continuous Assessment	Online	In-person			Applied Assignments	Directed Assignments	Courses				
60%	40%		X	00H 65	00 H 45		30 H 1	30H 1	2	5	Innovation Economics and Intellectual Property	Core Teaching Unit Code: 1.1 BAS Credits: 18 Grade: 8
60%	40%		X	00 H 65	00 H 45		30H 1	30 H 1	2	5	Project Management	
60%	40%		X	00H 55	00 H 45		30 H 1	30 H 1	2	4	Advanced Microeconomics	
60%	40%			00 H 55	00H 45		30 H 1	30H 1	2	4	Electronic Banking	
60%	40%		X	00 H 65	00H 45		30 H 1	30 H 1	2	5	Time Series Analysis	Methodological Teaching Unit Code: 1.1 MET Credits: 9 Grade: 4
60%	40%		X	00 H 55	00 H 45		30 H 1	30 H 1	2	4	Communication and Administrative Editing	
60%	40%		X	00 H 5	00 H 45		30 H 1	30 H 1	2	2	Industrial and Commercial Property Law	Exploratory Teaching Unit Code: 1.1 EXP Credits: 2 Grade: 2
-	100%	X	X	00 H 2	30H22		30 H 1		1	1	Specialized Foreign Language	Horizontal Teaching Unit Code: 1.1 HOR Credits: 1 Grade: 1
				30 H 367	30 H337		00 H 12	30 H 10	15	30	The total for the first semester	

- **Additional Work and Personal Assignments as determined by the Pedagogical Team of the Subject**

The second semester

Assessment Type		Educational Methodology		Others*	The Semester Credit Load (15 weeks)	Weekly Study Load			Grades	Education Credits	Course Titles	Education Units
Exam	Continuous Assessment	Online	In-person			Applied Assignments	Directed Assignments	Courses				
60%	40%		X	00 H 65	00 H 45		30 H 1	30 H 1	2	5	Advanced Econometrics	Core Teaching Unit Code: 1.1 BAS Credits: 18 Grade: 8
60%	40%		X	00 H 65	00 H 45		30 H 1	30 H 1	2	5	Blockchain Economics	
60%	40%		X	00 H 55	00 H 45		30 H 1	30 H 1	2	4	Advanced Macroeconomics	
60%	40%			00 H 55	00 H 45		30 H 1	30 H 1	2	4	Digital Marketing	
60%	40%		X	00 H 65	00 H 45		30 H 1	30 H 1	2	5	Data and Machine Learning	Methodological Teaching Unit Code: 1.1 MET Credits: 9 Grade: 4
60%	40%		X	00 H 55	00 H 45		30 H 1	30 H 1	2	4	The Methodology of Master's Thesis Preparation	
60%	40%		X	00 H 5	00 H 45		30 H 1	30 H 1	2	2	Business Law	Exploratory Teaching Unit Code: 1.1 EXP Credits: 2 Grade: 2
-	100%	X	X	00 H 2	30 H 22		30 H 1		1	1	Specialized Foreign Language 02	Horizontal Teaching Unit Code: 1.1 HOR Credits: 1 Grade: 1
				30 H 367	30 H 337		00 H 12	30 H 10	15	30	The total for the second semester	

- **Additional Work and Personal Assignments as determined by the Pedagogical Team of the Subject**

The third semester

Assessment Type		Educational Methodology		Others*	The Semester Credit Load (15 weeks)	Weekly Study Load			Grades	Education Credits	Course Titles	Education Units
Exam	Continuous Assessment	Online	In-person			Applied Assignments	Directed Assignments	Courses				
60%	40%		X	00 H 105	00 H 45		30 H 1	30 H 1	3	6	Big Data and Artificial Intelligence	Core Teaching Unit Code: 1.1 BAS Credits: 18 Grade: 8
60%	40%		X	00 H 105	00 H 45		30 H 1	30 H 1	3	6	Business Process Reengineering	
60%	40%			00 H 105	00 H 45		30 H 1	30 H 1	3	6	Global Value Chains	
60%	40%		X	00 H 65	00 H 45		30 H 1	30 H 1	2	5	Entrepreneurship02	Methodological Teaching Unit Code: 1.1 MET Credits: 9 Grade: 4
60%	40%		X	00 H 55	00 H 45		30 H 1	30 H 1	2	4	Financial Technology	
60%	40%		X	00 H 5	00 H 45	30 H 1		30 H 1	2	2	Cybersecurity	Exploratory Teaching Unit Code: 1.1 EXP Credits: 2 Grade: 2
-	100%	X	X	30 H 2	30 H 22	30 H 1			1	1	Statistical Software	Horizontal Teaching Unit Code: 1.1 HOR Credits: 1 Grade: 1
				30 H 367	30 H 337	00H 03	30 H 07	00 H 09	16	30	The total for the third semester	

- **Additional Work and Personal Assignments as determined by the Pedagogical Team of the Subject**

- **The fourth semester**:

Field: Economic Sciences, Management Sciences, and Business Sciences Branch: Economic Sciences.

Branch: Economic Sciences

Specialization: Digital Economics

Field Study - Master's Thesis Defense

Credits	Factor	The weekly academic workload	
30	04	30 h/ week	Personal Work
/	/	03 h/ week	Field Study
/	/	02 h/ week	Conferences (Attendance Certificate for a Conference, Training Course, or Workshop during the second year of the Master's program)
/	/	05 h/ week	Other Assignments (As determined by the Pedagogical Committee for the specialization)
30	4	600	The total for semester 4 (15 weeks)

Comprehensive Overview of the Training :
The total academic workload is divided between lectures and applications for the four semesters for various educational units:

The total	Horizontal	Exploratory	Methodology	The Core	
00 H 459	00H00	30 H 76	00 H 135	H 247 30	Lecture
30 H 442	H15	H 45	00 H 135	H 247 30	Directed Assignments
30 H23	30 H 22	30 H 01	00H00	00H00	Applied Assignments
00 H 450	00H00	00H00	00H00	H 450 00	Applied Assignments
30 H 1275	30 H 102	H 15	00 H 360	H 795 00	Other Work
30 H 2226	140	30 H 166	H 630	H 1290	The total
120	03	06	27	84	Credit Hours
%100		%10	%30	%60	The Credits for each Teaching Unit %

III- Detailed Program for Each Course

The Semester: First

Teaching Unit: Fundamental
Subject: Economics of Innovation and Intellectual Property
Credit Hours: 5
Coefficient: 2
Teaching Method: In-person

Educational Objectives:
To equip students with various knowledge about innovation and intellectual property.

Ability to comprehend the benefits of innovation in organizations.
Understanding the mechanisms of innovation.
Prerequisites:
No prerequisite mastery of any prior educational subject is required.

Course Content:
Axis One: General Introduction to Innovation
Axis Two: Intellectual Property in Creating Innovation Incentives
Axis Three: Social Returns of Innovation
Axis Four: Economics of Innovation
Axis Five: Aggregate Economics of Innovation
Axis Six: General Introduction to Intellectual Property
Axis Seven: Modern Trends and Policies in Intellectual Property, Research, and Development

Assessment Method:
Continuous assessment + final exam. The grade for the course is measured by the weighted average of lectures and directed activities. %40Continuous Assessment + 60% In-person Written Exam.

References :

- Blandine Laperche, L'innovation et l'économie contemporaine. (2004). De Boeck Supérieur.
- François Lévêque, Yann Ménière. (2003). Économie de la propriété intellectuelle. La Découverte. Alger.
- Christine Greenhalgh, Mark Rogers , Innovation, Intellectual Property, and Economic Growth(2010) PRINCETON.
- G.M. Peter Swann, The Economics of InnovationAn Introduction , (2009).
- Sanghoon Ahn, Intellectual Property for Economic Development (2014)

The Semester: First

Teaching Unit: Fundamental
Subject: Project Management
Credit Hours: 5
Coefficient: 2
Teaching Method: In-person

Educational Objectives:

To equip students with the capability to make optimal project choices through mathematical models and feasibility studies.

Prerequisites:

Familiarity with some economic concepts and principles.

Basic understanding of mathematical principles.

Course Content:

Axis One: Introduction to Project Management

Axis Two: Evolution of Project Management Since the Early 20th Century

Axis Three: Fundamentals of Project Evaluation

Axis Four: Methods of Evaluating Investment Projects

Axis Five: Planning and Scheduling of Projects

Axis Six: Resource Management

Axis Seven: Risk Management

Assessment Method:

Continuous assessment + final exam. The course grade is determined by the weighted average of lectures and directed activities.
%40Continuous Assessment + 60% In-person Written Exam.

References :

- Josh Wright,. (2023). Project Management (2020) JOSH WRIGHT.
- Harold Kerzner, Project Management. (2017). WILEY -5e éd. .
- Greg Horine. (2018). Project Management Absolute Beginner's Guide..

The Semester: First
Teaching Unit: Fundamental
Subject: Advanced Microeconomics
Credit Hours: 4
Coefficient: 2
Teaching Method: In-person

Educational Objectives:

Enable students to delve deeper into microeconomics by acquiring knowledge about monopolistic markets, production, its functions, and competition theory.

Prerequisites:

Students are required to have studied the Microeconomics course.

Course Content:

Axis One: Review of Consumer Behavior
Axis Two: Consumption in Multiple Periods
Axis Three: Production
Axis Four: Production Function Forms
Axis Five: Short-Term Production
Axis Six: Revenue and Profit
Axis Seven: Competition Theory
Axis Eight: Market Failures
Axis Nine: General Equilibrium and Welfare Economics

Assessment Method:

Continuous assessment + final exam. The course grade is determined by the weighted average of lectures and directed activities.
%40Continuous Assessment + 60% In-person Written Exam.

References :

- Bien, F., & Méritet, S. (2016). Microeconomie: Comportements des agents et concurrence parfaite (No. hal-01474495).
- Buisson-Fenet, E., & Navarro, M. (2018). La microéconomie en pratique-3e éd. Armand Colin.
- Cowell, F. (2018). Microeconomics: principles and analysis. Oxford University Press.
- Frank, R., & Cartwright, E. (2016). Microeconomics and Behaviour (2. utgave). London.
- Gravelle, H., & Rees, R. (2004). Microeconomics. Pearson education.

- Kolmar, M., & Hoffmann, M. (2018). Workbook for Principles of Microeconomics. Springer International Publishing.
- Ragan, C. T., & Lipsey, R. G. (2013). Microeconomics. Pearson Education.
- Varian, H. R. (2006). Introduction à la microéconomie 6e édition. Brussels: De Boeck.
- Varian, H. R. (2015). Introduction à la microéconomie moderne. De Boeck Superieur.

The Semester: First

Teaching Unit: Fundamental
Subject: Electronic Banking
Credit Hours: 4
Coefficient: 2
Teaching Method: In-person
Educational Objectives:
This course aims to describe, organize, classify, summarize, and present a set of data clearly in tables or graphical forms. Additionally, it focuses on calculating various statistical measures to describe one or more variables in a given community.
Prerequisites:
Students are only required to be familiar with the basic operations and mathematical rules covered in secondary education.
Course Content:

Axis One: Introduction to the Evolution of Media and Communication in Banking Devices
Axis Two: General Framework of Electronic Banking
Axis Three: Electronic Banking Institutions
Axis Four: Electronic Payment Systems
Axis Five: Electronic Payment Methods
Axis Six: Electronic Banking Operations
Axis Seven: Risks of Electronic Banking
Axis Eight: Global Experiences in Electronic Banking

Assessment Method:
Continuous assessment + final exam. The course grade is determined by the weighted average of lectures and directed activities.
%40Continuous Assessment + 60% In-person Written Exam.
References :

- Misra R N. (2011). E-Banking Management. Discovery Publishing House Pvt Ltd.
- Education B. V, C. (2001). Electronic Banking: The Ultimate Guide to Online Banking, Springer.
- Marta Vidal, avier Vidal-García, (2017). Online Banking Security Measures and Data Protection

The Semester: First

Teaching Unit: Methodological
Subject: Time Series Analysis
Credit Hours: 5
Coefficient: 2
Teaching Method: In-person

Educational Objectives:

Understand the changes occurring in economic phenomena over time.

Comprehend the reasons behind these changes and their consequences.

Explore the relationship between different economic variables.

Study time series to identify the most suitable statistical model for predictive purposes.

Predict future values not present in the series.

Prerequisites:

Students must have completed Statistics 1, Statistics 2, and Statistics 3, as well as have a grounding in macroeconomics and specialized measures to establish an economic relationship.

Course Content:

Axis One: Understanding Time Series, its Nature, Types, and Objectives

This covers the concept, nature, types, and objectives of time series. Additionally, it delves into prediction errors, measuring series magnitude, criteria for selecting appropriate forecasting methods, traditional prediction methods, their advantages, disadvantages, and compound time series estimation methods.

Axis Two: Basic Concepts of Stochastic Processes

This section addresses the concept of stochastic processes, their types, stationarity, and conditions for stationarity.

Axis Three: Necessary Definitions and Concepts to Comprehend Modern Time Series Analysis using Box-Jenkins Methodology

This focuses on self and partial auto-correlation functions, methods of estimation, and mathematical transformations to stabilize non-stationary series.

Axis Four: Joint Integration Methods and Vector Error Correction Models (VECM)
This axis explores the concept of joint integration, the Engle-Granger two-step method, Johansen's method, VAR models' stability, and the dynamic analysis of VAR models.

Axis Five: Box-Jenkins Methodology: Identification, Estimation, Diagnostic, and Prediction Phases
This part covers the identification, estimation, diagnostic, and prediction phases using Box-Jenkins methodology.

Assessment Method:

Continuous assessment + final exam. The course grade is determined by the weighted average of lectures and directed activities.

%40Continuous Assessment + 60% In-person Written Exam.

References :

- R. Carter Hill, William E. Griffiths, and George G. Judge, Undergraduate Econometrics, 3rd Edition, John Wiley & Sons; 2006

Semester: First
Teaching Unit: Methodology
Subject: Administrative Communication and Writing
Credit Hours: 4
Factor: 2
Teaching Method: In-person
Educational Objectives:
This course aims to introduce students to the applications of communication processes in public administration, equip them with administrative writing skills, and teach them how to compose and issue various administrative, legal, and regulatory messages and documents.

Understanding the communication process
Distinguishing and scrutinizing written and non-written communication processes and evaluating them
Mastering written communication skills within public administration
Distinguishing between formal communication methods in public administration and those in private sector management
Proficiency in documenting various administrative activities
Required Prior Knowledge:
Familiarity with basic legal terminology and concepts
Minimum knowledge of various administrative and managerial activities

Course Content:
Axis 1: Administrative communication
Axis 2: Administrative communication in public organizations
Axis 3: Foundations and rules of administrative writing
Axis 4: Various administrative messages and documents
Axis 5: Legal and regulatory texts

Assessment Method: Final exam
References :

- Rajhans GUPTA & Pranavi GARG, communication for management, Pragati Prakashan ,Merut, 2003
- Robert Barras, Writing at work, a guide to better writing in administration, business and management, published by Routledge, 2002

M.A Giraudy et P.Guérin, de la prise de note au compte rendu efficace, Paris, 3ème édition, ,Top Edition

Semester: First
Teaching Unit: Exploratory
Subject: Intellectual Property Law
Credit Hours: 2
Factor: 2
Teaching Method: In-person

Educational Objectives:
To equip the student with a clear understanding of the legal framework of industrial and commercial property.
Required Prior Knowledge:
Previous knowledge of commercial law and business law.

Course Content:
Axis 1: Concept of industrial and commercial property rights
Axis 2: Types of industrial and commercial property
Axis 3: Trademarks
Axis 4: Patents
Axis 5: Industrial designs and models
Axis 6: Designations of origin
Axis 7: Integrated circuit layout designs
Axis 8: National protection of industrial and commercial rights
Axis 9: Civil protection of industrial and commercial rights
Axis 10: Criminal protection of industrial and commercial rights
Axis 11: International protection of industrial and commercial rights

Assessment Method:
Continuous assessment + final exam. The course grade is determined by the weighted average of lectures and directed activities. %40Continuous Assessment + 60% In-person Written Exam.
References :

-Anne Rodell. (2020). Commercial Property, College of Law Publishing

Semester: First
Teaching Unit: Horizontal
Subject: Specialized Foreign Language 01
Credit Hours: 1
Factor: 1
Teaching Method: In-person + Remote

Educational Objectives:
Enriching the student's linguistic knowledge through specific terminologies and language rules.

Required Prior Knowledge:
Proficiency in the basics of the English language.

Course Content:
As deemed appropriate by the training team.

Assessment Method: Continuous assessment.
References :

- Ian Mackenzie .(2002). Financial English. Christopher Wenger Publishing.
- Mahoney, S., & Frendo, E. (2007). English for Accounting. Oxford University Press.
- Simon Sweeney .(2002). Test your Professional English-Management. Pearson Education Limited. Second Edition.

Second Semester
Education Unit: Fundamental
Subject: Advanced Econometrics
Credit: 6
Coefficient: 3
Teaching Style: In-person

Educational Objectives:
This subject aims to empower students with tools to measure economic relationships using realistic data. It aims to test the validity of these relationships as presented by economic theory, interpret some phenomena, devise policies, or forecast the behavior of certain economic variables by solving problems related to standard models previously introduced.

Recognizing and dealing with standard problems in econometrics Familiarity with alternative regression methods such as non-linear regression and estimation methods. Also, time-delayed models and simultaneous equations models.

Required Prior Knowledge:
Students need prior knowledge in:
Descriptive Statistics, Probability Calculus, Applied Statistics, and Time Series.

Course Content:

First Axis: Multiple Linear Regression
Second Axis: Heteroscedasticity
Third Axis: Autocorrelation Problems
Fourth Axis: Error Models on the Model
Fifth Axis: Non-linear Models
Sixth Axis: Time-delayed Models
Seventh Axis: Simultaneous Equations Models

Assessment Method:

Continuous assessment + Final exam, with the course grade measured by the weighted average of lectures and guided activities.

%40 Continuous Assessment + 60% Written In-person Exam

References :

- Bourbonnais régis. (0000). Econométrie, édition Dunod, 10ème édition, Paris, France
- Baltagi Bad. (2008). Econométrie. Springer edition, fourth edition, USA.

Second Semester
Education Unit: Fundamental
Subject: Blockchain Economics
Credit: 5
Coefficient: 2
Teaching Style: In-person

Educational Objectives:
Empower students with knowledge of modern financial technology and methods of utilizing blockchain in economics and financial transactions.

Required Prior Knowledge:
Financial Technology

Course Content:

First Axis: Financial Technology
Second Axis: Origins and Evolution of Financial Technology
Third Axis: Fundamental Concepts of Blockchain
Fourth Axis: Use of Blockchain in Financial Transactions
Fifth Axis: Use of Blockchain in Financial Institutions
Sixth Axis: Advantages and Disadvantages of Blockchain

Assessment Method:
Continuous assessment + Final exam, with the course grade measured by the weighted average of lectures and guided activities.
%40 Continuous Assessment + 60% Written In-person Exam
References :

- ANYONY LEWIS. (2018). The Basics of Bitcoins and Blockchains.
- TIANA LAAURENCE. (2018). Blockchain For Dummies.

Second Semester
Education Unit: Fundamental
Subject: Advanced Macroeconomics
Credit: 4
Coefficient: 2
Teaching Style: In-person

Educational Objectives:
Enable students to delve deeper into macroeconomics.

Course Content:

First Axis: Classical Analysis - Study of General Equilibrium in the Classical Model
Second Axis: Keynesian Analysis - Study of the Keynesian Model (Four Sectors)
Third Axis: Multiplier Theory
Fourth Axis: Post-war Consumption Theories
Fifth Axis: Goods and Services Market Equilibrium (IS)
Sixth Axis: Money Supply
Seventh Axis: Money Demand
Eighth Axis: Money Market Equilibrium
Ninth Axis: Dual Balance Equilibrium
Tenth Axis: Impact of Prices and Wages on General Equilibrium
Eleventh Axis: IS-LM-BP Model Equilibrium - Graphic Equilibrium
Twelfth Axis: Inflation
Thirteenth Axis: Unemployment - Phillips Curve

Assessment Method:
Continuous assessment + Final exam, with the course grade measured by the weighted average of lectures and guided activities.

%40 Continuous Assessment + 60% Written In-person Exam

References :

- Mankiw, N. G. (2020). Principles of macroeconomics. Cengage learning.
- Romer, D. (2012). Advanced Macroeconomics , New York: McGrow Hill Companies.

Second Semester
Education Unit: Fundamental
Subject: Digital Marketing
Credit: 4
Coefficient: 2
Teaching Style: In-person

Educational Objectives:
Enable students to comprehend various methods and techniques used in digital marketing, as well as the modern platforms and applications for marketing in the digital world.

Required Prior Knowledge:
Students need prior knowledge in marketing and digital platforms.

Course Content:
First Axis: Marketing and the Internet
Second Axis: Basic Concepts of E-Marketing
Third Axis: Marketing and E-Marketing
Fourth Axis: Marketing Mix and E-Marketing
Fifth Axis: E-Marketing Techniques
Sixth Axis: E-Marketing in Banking
Seventh Axis: Digital Marketing Strategies

Assessment Method:
Continuous assessment + Final exam, with the course grade measured by the weighted average of lectures and guided activities.
%40 Continuous Assessment + 60% Written In-person Exam
References :
- Swaminathan T. N./Karthik Kumar. (2019). Digital Marketing: From Fundamentals to Future. Cengage Learning India Pvt. Ltd.

Second Semester
Education Unit: Methodology
Subject: Data Science and Machine Learning
Credit: 5
Coefficient: 2
Teaching Style: In-person

Educational Objectives:
This course aims to introduce students to data science, data analysis methods, key software used in data analysis, and also covers computer learning.

Required Prior Knowledge:
Basic concepts in computer science.

Course Content:

Chapter 1: Data Science
Chapter 2: Introduction to Python
Chapter 3: Data
Chapter 4: Introduction to Machine Learning
Chapter 5: Model Selection and Evaluation
Chapter 6: Supervised Learning
Chapter 7: Deep Learning
Chapter 8: Unsupervised Learning

Assessment Method:
Continuous assessment + Final exam, with the course grade measured by the weighted average of lectures and guided activities.
%40 Continuous Assessment + 60% Written In-person Exam
References :

- Reema Thareja. (2022). «Data Science and Machine Learning using Python. Standard Edition
- Dirk P. Kroese , Zdravko Botev , & 2 more. (2019). Data Science and Machine Learning: Mathematical and Statistical Methods. Chapman and Hall/CRC.
- Konrad Banachewicz , Luca Massaron, & 2 more.(2022). The Kaggle Book: Data Analysis and Machine Learning for Competitive Data Science. Packt Publishing.

Second Semester
Education Unit: Methodology - Preparing Thesis
Subject: Mathematics 2
Credit: 4
Coefficient: 2
Teaching Style: In-person

Educational Objectives:
To equip students with the necessary knowledge to complete the thesis.

Required Prior Knowledge:

Students need familiarity with methodology.

Course Content:

First Axis: Scientific Research
Second Axis: Methodological Aspects of the Master's Thesis (Introduction, Body, Conclusion)
Third Axis: Bibliographic Research
Fourth Axis: Documenting Scientific Research
Fifth Axis: Data Collection Techniques
Sixth Axis: Formal Requirements for Writing the Master's Thesis
Seventh Axis: Practical Aspects of the Thesis in Microsoft Word

Assessment Method:
Continuous assessment + Final exam, with the course grade measured by the weighted average of lectures and guided activities.

%40 Continuous Assessment + 60% Written In-person Exam
References :

- Aziz Dawood, "Approaches to Scientific Research," Dar Osama, Jordan
- Mohammed Sarhan Ali Mahmoudi, "Scientific Research Methods," Gulf Research Center.

Second Semester
Education Unit: Exploratory
Subject: Business Law
Credit: 1
Coefficient: 1
Teaching Style: In-person

Educational Objectives:
The main objective of the Business Law course is to enable students to work with Excel, deepen their understanding of the program as it pertains to the field, create data tables, lists, charts, perform advanced calculations, analyze results, and also work with WORD and POWER POINT.

Required Prior Knowledge:
Basic principles of using and operating a computer system.
Basic principles in mathematics and descriptive statistics.

Course Content:

First Axis: Competition Law
Second Axis: Consumer Protection Law
Third Axis: Commercial Practices Law
Fourth Axis: Investment Law
Fifth Axis: Small and Medium Enterprises Law
Sixth Axis: Company Law
Seventh Axis: Tax Law
Eighth Axis: Customs Law
Ninth Axis: Business Criminal Law

Assessment Method:
Continuous assessment + Final exam, with the course grade measured by the weighted average of lectures and guided activities.
%40 Continuous Assessment + 60% Written In-person Exam
References :

- Ashok Sharma. (2014). Business Law VK Global Publications Private Limited. India
- Sujit Kumar Das , &Pankaj Kumar Roy. (2017). Business Laws. Oxford University Press Apologies for the confusion earlier! Here's the translation:

Semester: Second

Education Unit: Horizontal

Subject: Specialized Foreign Language 2

Credit: 1

Coefficient: 1

Teaching Style: In-person + Remote

Educational Objectives:

Enriching students' language proficiency through specialized vocabulary and language rules.

Required Prior Knowledge:

Proficiency in the basics of the English language.

Course Content:

To be determined by the training team according to appropriateness.

Assessment Method:

Continuous assessment.

References :

- Bill Mascull (2006). Business Vocabulary in Use - Elementary. Cambridge University Press.
- MacKenzie, I. (2010). English for Business Studies Student's Book: A Course for Business Studies and Economics Students. Cambridge University Press.
- Raven, J. (2007). The Business of Books: Booksellers and the English Book Trade 1450-1850. Yale University Press.

Semester: Third
Education Unit: Fundamental
Subject: Big Data and Artificial Intelligence
Credit: 6
Coefficient: 3
Teaching Style: In-person

Educational Objectives:
Upon completing this course, the student will be capable of:

Understanding the uses of big data
Understanding artificial intelligence

Required Prior Knowledge:
Financial Technology

Course Content:

First Axis: Concepts of Big Data
Second Axis: Big Data Storage
Third Axis: Big Data Analysis
Fourth Axis: Big Data and Large Companies
Fifth Axis: Big Data Security
Sixth Axis: Concepts of Artificial Intelligence
Seventh Axis: History of Artificial Intelligence
Eighth Axis: Uses of Artificial Intelligence
Ninth Axis: Applications of Artificial Intelligence
Tenth Axis: Fields of Artificial Intelligence

Assessment Method:
Continuous assessment + Final exam. The course grade is calculated based on the weighted average of lectures and guided activities.
%40 Continuous Assessment + 60% Written In-person Exam.
References :

- Steve Williams. (2016). Business Intelligence Strategy and Big Data Analytics: A General Management Perspective, Morgan Kaufmann.

- Anand Deshpande, Manish Kumar. (2018). Artificial Intelligence for Big Data: Complete guide to automating Big Data solutions using Artificial Intelligence techniques. Packt Publishing
- Hans Weber. (2020). Big Data and Artificial Intelligence: Complete Guide to Data Science, AI, Big Data and Machine Learning.

Semester: Third
Teaching Unit: Fundamental
Subject: Business Process Reengineering
Credit: 6
Coefficient: 3
Teaching Method: Face-to-Face

Educational Objectives:
The course aims to help students understand different aspects of Business Process Reengineering.

Prerequisite Knowledge:
No specific prerequisites are required.

Course Content:

First Axis: General concepts about Business Process Reengineering.
Second Axis: Procedures of Business Process Reengineering.
Third Axis: Methods of Business Process Reengineering.
Fourth Axis: Outcomes of Business Process Reengineering.

Assessment Method:
Continuous assessment along with a final written exam. The final grade is determined by weighing lecture participation and directed assignments by 40%, and the final written exam by 60%.
References :
- Martyn A. Ould. (1995). Business Processes: Modelling and Analysis for Re-Engineering and Improvement.wiley.

Semester: Third
Teaching Unit: Essential
Subject: Global Value Chains
Credits: 6
Coefficient: 3
Teaching Method: In-person

Educational Objectives:
Understanding the concept of global value chains and their economic importance.

Prerequisites:
No prerequisites are required.

Course Content:

First Axis: Concept and importance of global value chains in the world economy.
Second Axis: Analyzing the success factors of global value chains.
Third Axis: Management of global value chains.
Fourth Axis: Types of global value chains.

Assessment Method:
Continuous assessment + Final exam. The overall grade is determined by the weight of attendance and directed activities.
40% Continuous assessment + 60% Written final exam.
References :

- World Trade Organization and Temasek Foundation Centre for Trade & Negotiations (TFCTN). (2013). Global Value Chains in a Changing World
- Stefano Ponte. (2019). Handbook on Global Value Chains.
- Gary Gereffi. (2018). Global Value Chains and Development: Redefining the Contours of 21st Century Capitalism. Cambridge University Press.
- Anthony Black ،Ivan Turok ،Javier Revilla Diez ،Sören Scholvin (2019), Value Chains in Sub-Saharan Africa, Springer International Publishing

Semester: Third
Teaching Unit: Methodology
Subject: Entrepreneurship 02
Credits: 5
Coefficient: 2
Teaching Method: In-person

Educational Objectives:

The ability of the student to manage and establish projects.

Prerequisites:
Project Management

Course Content:

First Axis: Basics of Entrepreneurship.
Second Axis: The difference between entrepreneurial and traditional projects.
Third Axis: Entrepreneurship - Intrapreneurship - Solopreneurship.
Fourth Axis: Social Entrepreneurship.
Fifth Axis: Self-discovery and characteristics of business entrepreneurship.
Sixth Axis: Business model.
Seventh Axis: Business plan.

Assessment Method:
Continuous assessment + Final exam. The overall grade is determined by the weight of attendance and directed activities.

%40 Continuous assessment + 60% Written final exam.
References :

- Niels Pedersen (2020). Financial Technology.
- Karen G. Millsm (2018) Fintech, Small Business, Springer.
- William, Jacob, (2016) , Financial Technology

Semester: Third
Teaching Unit: Methodology
Subject: Financial Technology
Credits: 4
Coefficient: 2
Teaching Method: In-person

Educational Objectives:
To comprehend everything related to financial technology.

Prerequisites:
Banking and Monetary Economics

Course Content:

First Axis: Introduction to Financial Technology.
Second Axis: Financial Services Technology.
Third Axis: Investment and Financing Technology.
Fourth Axis: Regulatory and Compliance Technology.
Fifth Axis: Financial Technology and Digital Inclusion.
Sixth Axis: The reality of financial technology in Algeria.

Assessment Method:
Continuous assessment + Final exam. The overall grade is determined by the weight of attendance and directed activities.
40% Continuous assessment + 60% Written final exam.

Semester: Third
Teaching Unit: Exploratory
Subject: Cybersecurity
Credits: 2
Coefficient: 2
Teaching Method: In-person

Educational Objectives:
Through this course, the student will be able to understand the risks associated with information security and how to safeguard information.
Prerequisites:
Computer Science

Course Content:
First Axis: Application Security
Second Axis: Network Security
Third Axis: Cloud Security
Fourth Axis: Internet of Things (IoT) Security
Fifth Axis: Fundamentals of Cybersecurity
Sixth Axis: Components of Cybersecurity
Seventh Axis: [Note: This section seems to be incomplete or lacking specific content.]

Assessment Method:
Continuous assessment + Final exam. The overall grade is determined by the weight of attendance and directed activities.
%40 Continuous assessment + 60% Written final exam.
References :

- Anand Shinde (2021). Introduction to Cyber Security.
- Michael Bush. (2018). Cyber Security For Beginners: The Fundamentals to Beat Cyber Threats with simple steps: Simple Cyber Security Tips for Parents.

Semester: Third
Teaching Unit: Horizontal
Subject: Cybersecurity
Credits: 2
Coefficient: 2
Teaching Method: In-person + Remote

Educational Objectives:
This course aims to enable the student to control how to use various statistical software, making it easier to input data, extract results, and use them in economic analysis. Required Pre-existing Knowledge:

Using various statistical software
Ability to test hypotheses and analyze statistical data using this software
Ability to formulate statistical models using this software
Ability to differentiate between the most suitable software for statistical studies
Requires prior knowledge in computer science and statistics

Course Content:
First Axis: Concept of Software and Statistical Software
Second Axis: Excel Program
Third Axis: SPSS Statistical Program
Fourth Axis: EViews Statistical Program

Assessment Method:
Continuous assessment.
References :

- An Introduction to Statistical Learning: with Applications in R 2021 (Springer Texts in Statistics). Springer, 2 nd edition.
- Garrett Grolemund & Hadley Wickham, (2017). R for Data Science: Import, Tidy, Transform, Visualize, and Model Data O'Reilly Media

IV- Contracts/Agreements
(Required Field)

V- Brief Curriculum Vitae

For each member of the pedagogical team involved in the training in the specialization

(Internal and External Supervision)

(According to the attached template)

VI- Opinion and endorsement of the administrative and scientific bodies.

Bachelor's Degree Title: Digital Economy.

Department Chair + Training Field Group Supervisor	
The date and endorsement	The date and approval
Dean of the College (or Director of the Institute)	
The date and approval	
Director of the University	
The date and approval	

VII - Opinion and endorsement of the Regional Seminar
The endorsement will only be included in the final version for submission to the Ministry

VIII- Opinion and endorsement of the National Pedagogical Committee for the field.
The endorsement will only be included in the final version for submission to the Ministry