UNIVERSITY OF PIRAEUS

School of Finance and Statistics

Department of Banking and Financial Management

«MASTER OF SCIENCE (MSc) IN FINANCIAL TECHNOLOGY (FinTech)»

Study Guide 2023-2024

Department of Banking and Financial Management

«MASTER OF SCIENCE (MSc) IN FINANCIAL TECHNOLOGY (FinTech)»

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Dear Students

Welcome to the M.S.c in Financial Technology!

The **MSc in FinTech** offered by the Department of Banking and Financial Management at the University of Piraeus, has been designed in such a manner to equip the graduate students with modern knowledge and technical skills in theoretical and practical applications to prepare them for a successful career in the realm of financial technology.

Our program has been designed so as to keep a rational balance between the theoretical and practical aspects of financial technology. Upon the completion of the program, the graduate students will have managed to acquire a solid background in the domain of the fundamental values of financial technology, as well as the necessary quantitative tools which will allow them to get familiarized with the theoretical mechanisms and approaches, as well as the practical applications in big data/data analytics, blockchain, and the cryptocurrency markets.

The academic staff that teaches in the program is of exceptionally high caliber who hold a PhD degree from US and European universities. All members of the staff are highly recognizable academic professionals with many publications in high-ranking journals, while simultaneously carrying high professional experience from dealing with the business and the banking sector.

I am fully confident that our graduate program will provide the necessary and required knowledge and tools the financial technology sector requires.

Therefore, we call you to join us and to get and enjoy the experience of an academic graduate program that only our Department can offer!

Nicholas Apergis, PhD
Director of the Graduate Program

Contents

Department of Banking and Financial Management

General Information

The Department of Banking and Financial Management was established in 1989 and is the only one in the field of Finance in Greece.

The curriculum is comparable with the respective curricula of the foreign universities, is adjusted to the Greek academic reality and aims at covering the educational needs of the financial sector of the country. In particular, apart from anextended emphasis in Economic Analysis, Quantitative Methods and Social Sciences, studies in the Department of Banking and Financial Management offer basic knowledge in the operation of enterprises, credit institutions, and money and capital markets.

Special emphasis is given in the following aspects:

- the role of the financial manager of a modern corporation in achieving business targets, in financial planning and reporting and in rasing and using funds,
- the structure and functions of banking institutions,
- money and capital markets, particularly the functions of Stock Exchanges and portfolio management, using options, futures, hedging and swaps,
- the structure and functions of investment banking firms with special emphasis in their activities, concerning mergers, takeovers and divestitures,
- international banking and international banking institutions,
- the use of microcomputers and related applications for analysing and presenting data for solving financial problems.

The curriculum accommodates the professional needs of students who wish to become executives in private and state enterprises, banks and other profit-making and non-for-profit institutions.

With this curriculum, the Department deals with the present and future needs of the country in specialised administrative and business executives across all sectors supported by the Department of Banking and Financial Management.

Goal

To prepare students to enter the field of finance, the department offers a comprehensive degree in the areas of investments, financial planning, derivative markets, corporate finance, banking, the macroeconomy, and the general financial sector, financial econometrics, and many others. Finance is also one of the most practical majors where students can learn how to invest for their personal profits, how to get prepared for their retirement, how to finance a home purchase, or the purchase of a brand new car.

In this department we expect our students to learn both the theory and applications of the many topics covered in class. For instance, our students will be prepared to deal with the viability of a new product, with trading in futures and options, with analyzing what price of housing they can afford or with modelling of a lease versus purchase dilemma. The elective courses allow graduate students to plan their specialized course programs ready to satisfy their career goals.

Employment Projects

Wide scope of professional activity
In today's working environment of international financial markets and multinational groups, the demand on executives is constantly increasing, as executives are at the heart of every company and their quality determines its prospects of that company. The globalised economy and international competition bring a continuous increasing demand for quality, innovation and adaptation of knowledge on the part of managers.

In the financial sector in particular, changes are constant and rapid, which makes life-long learning essential to those who wish to further develop their careers.

Typical Career Paths
Immediate integration or advancement in the job market, either in positions of responsibility in companies and organizations in the private or public sector, or as self-employed.
Postgraduate studies in internationally renowned universities, possibly leading to doctoral studies and an academic career.

Accreditations
The Department of Banking and Financial Management has been awarded the following accreditations from CFA Greece, ICAEW and ACCA.

Electronic Secretariat

From this electronic application, graduate students can:

- be informed about the courses of the curriculum, the teachers, the proposed textbooks as well as the announcements issued by the Secretariat and the teachers.
- be informed about the grades in the courses examined,
- submit electronically the course statements of each semester.
- receive immediately and in electronic form certificates of attendance.
- submit license applications.
- access to this application occurs through the personal account of each student.

Website: sis-portal.unipi.gr

Faculty

Professors

Anagnostopoulou Seraina (Chair)

https://bankfin.unipi.gr/faculty/seraina-anagnostopoulou

Antzoulatos Angelos
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Apergis Nikolaos (Vice -Chair)
Director (M.Sc.) in «Banking and Finance»
Director (M.Sc.) in «Banking and Finance and Finance Law»
https://bankfin.unipi.gr/faculty/nikolaos-apergis
Kourogenis Nikolaos, Director (M.Sc.) in «Financial Management of Public Organizations and Units»
https://bankfin.unipi.gr/faculty/nikolaos-kourogenis
Malliaropoulos Dimitrios
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Pittis Nikitas
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Skiadopoulos George
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Associate Professors

Anthropelos Michalis
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Kyriazis Dimitrios
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Skoulakis Georgios
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Assistant Professors

Asinakopoulos Panagiotis
https://bankfin.unipi.gr/faculty/panagiotis-asimakopoulos
Englezos Nikolaos
https://bankfin.unipi.gr/faculty/nikolaos-englezos

Emeritus Professors

Panagiotis Athanasopoulos, 1999
Spyros Makridakis, 2008
George Katsimbris, 2010
Nikolaos Karamouzis,2013
George Diacogiannis, 2018
Gikas Hardouvelis, 2023

Secretariat of the Department of Banking and Financial Management

Papadaki Eleni, Secretariat
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Efentaki Christina
116/Main Building phone: 210 4142183
Karagkouni Eleni
116/Main Building phone: 210 4142226
Kyfonidou Sofia
328/Main Building, phone: 210 4142153
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116/Main Building phone: 210 4142093

Chair's Office
Apostolou Liana, E.T.E.P.
328/Main Building, phone: 210 4142183
Perantonaki Irene, E.T.E.P.
328/Main Building, phone: 210 4142323
Christodoulou Theodora
328/Main Building, phone: 210 4142156

I.T. Support
Amanatidis Lazaros
325/Main Building

Advisory Board of the Department of Banking and Financial Management

https://bankfin.unipi.gr/advisory-board

External Members:

- Dr. Maria Vassalou, Co-CIO, Multi-Asset Solutions, Goldman Sachs,
- Dimitris Koutsopoulos, CEO Deloitte Greece, ACCA,
- Panos Laskaridis, CEO Laskaridis Shipping Co. Ltd. and Lavinia Corporation,
- Christos Megalou, CEO Piraeus Bank,
- Georgios Papadimitriou, CEO/Country Managing Partner EY, CFA,
- Dimitris Papalexopoulos, Chairman of the Group Executive Committee of Titan Cement International & Chairman of the Hellenic Federation of Enterprises (SEV),
- Professor Dimitris Papanikolaou, Northwestern University,
- Professor Nikolaos Tessaromatis, Head of the HELLENIC AUXILIARY PENSIONS DEFINED CONTRIBUTIONS FUND (TEKA) and Professor of Finance at EDHEC Business School,
- George Chryssikos, CEO Grivalia Hospitality

Internal Members:

- Professor Anagnostopoulou Seraina, Chair of the Department
- Professor Malliaropoulos Dimitrios, Chairman of the Department's Internal Evaluation Team
- Professor Skiadopoulos George, Chairman of the Advisory Committee

Department's Internal Evaluation Team (OMEA)

Professor Malliaropoulos Dimitrios, Chairman, Ass. Professor Skoulakis Georgios, Ass. Professor Voliotis Dimitrios and Ass. Professor Englezos Nikolaos

The Graduate Programs of the Department of Banking and Financial Management

The Department of Banking and Financial Management offers three (3) Graduate Programs during the academic year:

Master of Science (M.Sc.) in «Banking and Finance» Specialization in «Banking and Financial Management»

Master of Science (M.Sc.) in «Banking and Finance and Finance Law»
Master of Science (M.Sc.) in «Financial Management of Public Organizations and Units»

Quality Assurance

Declaration of Quality

The Department of Banking and Financial Management at the University of Piraeus is committed to ensure quality in all its policies and activities. It is also committed to provide qualitative education and research programs, as well as useful services for accommodating the needs of the academic community and society in general. To this ends, the Department provides education that is human-centered, modern, accessible, equal and inclusive, based on international quality standards.

This approach largely reproduces, with a few adjustments, the corresponding quality assurance of the general policy adopted by the University of Piraeus.

Quality Policy of the Department

The Department of Banking and Financial Management at the University of Piraeus implements a Quality Policy application aiming at continuous improvements of its Educational Programs, research activities, and administrative services, with the goal of upgrading the research, teaching and administrative work.

The desired outcomes of the Department's Quality Policy are to deliver excellent education and ensure a high level of research. The Quality Policy relies on the close cooperation between its teaching/research staff and the administrative staff so that the Department can continuously respond to the international challenges of educational excellence, as well as the expectations of students, graduates, teaching, research and administrative staff, and the institutions cooperating with the Department and the society in general.

The Department with its Quality Policy commits to:

- being consistent with the broader institutional and legal framework of Higher Education, as well as the regulatory framework of the Department and the University, in particular,
- setting, evaluating, and, if necessary, repositioning its goals of quality assurance and ongoing improvements, while at the same time, guaranteeing the consistency of the latter with the University's overall strategy.

The Department is committed to achieving quality goals by adopting a student-centered, academic and research strategy.

According to its Quality Policy, the Department:

1. aims at operating in agreement with international quality standards,
2. aligns with the Quality Policy of the University and the strategic and operational objectives of the Department, in terms of teaching, research and administrative functions.
3. guarantees the active participation of all members of the academic community (students, faculty, and administrative staff) in the implementation of this policy.

Based on the above, the Department commits to implement procedures that will guarantee:

- the suitability of teaching and research staff qualifications,
- the promotion of the research work of its members,
- the suitability of the offered study programs,
- the pursuit of learning outcomes and qualifications in accordance with the European and National Framework of Higher Education Qualifications,
- the alignment of graduates' qualifications with the labor market,
- the high quality of the supporting services (computer laboratory, administration office, student care, liaison office, library, internship, etc.).

The OMEA members of the Department, in collaboration with the MODIP of the University of Piraeus, are in charge of:

- monitoring the implementation of quality objectives,
- carrying out internal evaluations across all of the Department's activities,
- the implementation of corrective actions, where necessary (e.g., failure to achieve quality goals, etc.),
- making decisions towards the continuous improvement of the quality of the Department's output.

The members of the Internal Evaluation Committee disseminate the Quality Policy to all interested members of the Academic Unit. At the same time, they encourage an open dialogue about all matters regarding possible improvements by establishing regular meetings with the participation of the members of the academic unit (students, teaching, administrative and research staff), as well as external bodies (labor market, social partners, etc.).

The Quality Policy is published on the Department's website and posted on various locations within the University: Office of the Rector, Administration Office, Department Computer Laboratory, etc., to ensure the availability of information to all interested parties.

Information on the Graduate program in Financial Technology (FinTech)

The Graduate Program in Financial Technology (FinTech) provides to students specialized knowledge in certain areas in finance in relevance to the operation of certain markets, such as cryptocurrencies and blockchain, as well as the employment of certain platform tools that handle big data/data analytics. The primary characteristics of the program are the combination of academic knowledge and the professional experience of the instructors, along with the composition of various course fields.

The Graduate Program in Financial Technology (FinTech) has been designed in a manner to equip graduate students with modern knowledge and the necessary technical tools in relevance to applications in the area of financial technology; as a result, graduate students will be well prepared to follow a successful career in the new field of finance.

The graduates can work in various fields in the job market, such as:

Banking, financial services advisors, advisors for electronic payments and mobile wallets advisors, investment management, lending services through modernized forms of fundings, such as P2P lending), robo-advisors, and financial services.

The Program will start in 2024. Its duration is 3 academic semesters.

Submissions: March 2024-July 2024. Maximum number of students: 70

The Program is offered in **English** and on a **Hybrid** mode (both online and in class-students express their preference during their registration)

The Program is supported by Stout

Employment Prospects - Career

On a global scale, the sector of Financial Technology is at the beginning of its development. The majority of relevant firms are focusing on payment services. More specifically, within the Greek digital financial environment, a substantial number of firms are already offering relevant services, such as Access Payment Services, ARGO Exchange, Everypay, Intelli Express, KMT, NBL Money Transfer, Smart Pay Services, Paylink, International Express Remittance, as well as some institutions focusing on electronic money, such as Viva and Tora Wallet.

At the same time, there is a rising interest by many relevant businesses in overseas to start offering similar services within the Greek environment, For instance, more than 375 payment services firms and over 170 electronic money firms are planning to start business in the near future. Revolut has invested significant resources in the Greek environment, with this investment project being the 4th biggest

market in Europe, only following those in the UK, France, and Lithuania, while the substantial goal of the firm is to attract 150,000 users in the very near future.

The Graduate Program in "Financial Technology" is the first step in the race for renewal and adaptation of knowledge in this new field of finance. It deepens critical thinking, teaches innovation, and equips students with the necessary theoretical and practical knowledge to be able in the future not only to successfully integrate into today's workplace, but also to update and adapt their knowledge to future developments in this sector.

The program places particular emphasis on the mechanisms of specific markets, such as cryptocurrency markets, blockchain, as well as the tools and algorithms that can handle big data/data analytics.

Apart from the scientific knowledge it provides, with a modern curriculum, comparable to the best universities in the world, the graduate degree encourages, promotes, and rewards competition, excellence, and a professional mindset, seeking to educate leaders and responsible citizens.

Moreover, an important path of student's career upon graduation is that of doctoral studies in domestic and internationally renowned universities, possibly leading to an academic career.

Some of the jobs of the Program's graduates are listed below. These are positions of responsibility, which require from the financial executives to:

have critical thinking and the creativity to respond successfully to the challenges of the rapidly changing economic and social environment,

combine high-level theoretical training with a practical mindset to provide solutions to real-world problems, by taking strategic decisions, as is appropriate for graduates of a Finance Department,

undertake the training and management of a team.

In particular, the graduates of the Program can get important positions in the banking sector, as independent advisors of financial services focusing on innovative technologies in computer sciences and communication, as advisors in investment sectors focusing on electronic payment services, i.e., electronic payments and mobile wallets, in sectors associated with investment management, in sectors focusing on lending activities, mainly through alternative means of fundings, such as P2P lending, as well as in sectors specialized in automated checks of financial services, such as robo-advisors. Finally, the graduates can get jobs in the insurance sector.

Learning Outcomes for the Graduate Program «Master of Science (MSc) in Financial Technology (FinTech)»

The Graduate Program in Financial Technology (FinTech)» offers substantial learning outcomes in relevance to the knowledge and skills to its graduate students. More specifically, upon the completion of the program, the graduates will be capable of:

- determining and analyzing the various uses of financial technology,
- explaining the mechanisms governing peer-to-peer Lending,
- critically approaching the way Crowdfunding platforms operate,
- recognizing and interpreting the dynamic role and applications of artificial intelligence and machine learning in financial services,
- explaining the role of Innovation Hubs, as well as that of Regulatory Sandboxes,
- realizing and describing the mechanisms governing the operation of Blockchain technology,
- describing the use of Cryptoassets, as well as their role under various regulatory environments and in combination of various forms of monetary policy,
- applying alternative forms of funding and bank lending and using new forms of electronic payments.

Master of Science (MSc) in Financial Technology

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General Rules

The Department of Banking and Financial Management of the School of Finance and Statistics at the University of Piraeus will implement, starting in the academic year 2024-2025, The Graduate Program entitled «Master of Science (MSc) in Financial Technology», according to this Regulation and the L. 4957/2022 (Α΄141).

Principles of the Graduate Program

The Graduate Program is characterized by its unique innovative and pioneering features within the Greek and European standards.

More specifically, they are:

- The direct and consistent communication between teachers and students. The process is characterized by the careful recruitment of students, as well as the students' active participation in the Department's activities, either as teaching/research assistants or as volunteers,
- The provision of fellowships based on students' academic performance,
- Emphasis on qualitative teaching,
- The significant variety of offered courses and their frequent modification based on a consistent communication with the private sector,
- The taking advantage of the technology's capacity to assist the synchronous methods in teaching, via:
    - The electronic distribution of teaching material (notes and homework)
    - The assistance of lectures by the employment of several multi media
    - The collection and analysis of real economic and corporate data from online databases
    - The direct contact about the progress of domestic and international financial markets in real time.
    - The constant expression of interest for the students' progress not only during the program's duration, but also even after the student's graduation

Goal

The Graduate Program «Master of Science (MSc) in Financial Technology», plans to provide modern and qualitative knowledge, the support of empirical and theoretical research and the experience in global practice, about modern Financial Technology, while it is governed by the principles of academic freedom, meritocracy, and competitiveness.

The Goal of the Graduate Program is a Graduate Diploma in Financial Technology which will offer:

1. Deep knowledge of Financial Technology.
2. The familiarization of students with the new environment in financial markets as this is formed by the latest technological novelties. This environment combines knowledge and skills in finance, as well as in applied computer science.
3. High quality knowledge, so as students can enter the global community of FinTech.
4. The implementation of a graduate program whose goal is to communicate not only the theoretical analysis, but also the practical applications in the new environment of financial services.
5. The preparation of qualitative assets that will be capable of responding to the increased demand for professionals with a deep knowledge on financial market issues, along with knowledge in data analytics, mathematics and programming, so as these assets will be able to enhance the efficiency of traditional financial institutions, and to generate and support new products and services.
6. The satisfaction of the market for an increased demand for professionals in Financial Technology because of the goal of many traditional institutions to modernize and automatize the majority of their financial activities in an electronic manner, to reduce their operational expenses, to increase their productivity, and to offer new products and services based on new technologies, so as to gain a comparative advantage over other competitive firms in FinTech.

Selective Criteria and the Procedure of Selection for Candidate Students

1. The procedure and the criteria of selection follow the parts of this current Regulation of Graduate Studies.

2. The General Assembly publishes and uploads onto the Department's site the call for new graduate students. The call describes all the necessary details (dates and place of applications submission, the required documents, etc.). The candidates electronically send their applications to the Secretariat Office before the deadline, which can be extended by the decision of the General Assembly.

3. The required documents are:

1. Application form.
2. Resume (CV).
3. A copy of their Bachelor's certificate or a certified note that they have successfully completed their studies. Those who are near to completion they need to officially declare that their acceptance to the program is under the condition that they will get their degree during the September exam period and by the beginning of the program.
4. A certified document about their grading performance.
5. One (1) recommendation letter coming wither from a member of the academic staff or from an employer. This letter can be submitted either through a special recommendation form or as an independent letter either in a written or an electronic form.
6. A copy of their undergraduate thesis (if it exists).
7. Any refereed journal publications (if they exist).
8. Any documented proof of professional or research activities (if they exist).
9. Proof of knowledge of the English language, level B2 or any degree of the first or second level from an overseas university. Those who are unable to submit such proof during the application period they need to officially declare that their successful acceptance by the program is under the condition that they will submit it by the beginning of the registration process.
10. Any proof of professional documents (if they exist).
11. A full copy of their ID or passport.
12. A recent photo.
13. An official declaration through the service https://www.gov.gr/ipiresies/polites-kai-kathemerinoteta/upeuthune-delose-kai-exousiodotese or any other certification about the validity of their signature from a KEP station in Greece); this declaration will certify that all the above submitted documents are valid.

The General Assembly can ask for more documentation.

4. The candidates who hold a Bachelor's degree from overseas universities need to certify and submit their degree so as the university's services can check the validity of this degree about the inclusion of the university of origin in the National Record of recognized overseas higher academic institutions, as well as in the National Record of non-material study titles of recognized overseas institutions. If candidate students hold this recognition decisions by DOATAP, then they submit it, along with their Diploma.

5. The selection of the graduate students is achieved and organized by the Selection Committee consisting of members of the teaching staff from the department and recommended by the General Assembly. The approval for the students' registration is also recommended by the General Assembly. The successful candidates are receiving the relevant email.

Duration of Studies

1. The time duration of the Graduate Program is three (3) semesters, including the time spent on the graduate thesis.

2. The maximum allowed time for a student to complete his/her studies is five (5) semesters. However, the General Assembly may extend this deadline under special circumstances. Upon the completion of this time extension, the student must leave the program.

Tuition Fees

The students in the Graduate Program in «Master of Science (MSc) in Financial Technology», need to overall pay 7.000 euros as tuition fees.
These fees are formed at 2,400 euros for the first and second semesters and at 2,200 ευρώ at the third semester.

Students' classification

1. The Graduate Program can accept students who hold a Bachelor's degree from domestic or overseas universities.

2. Members of the administrative staff in the categories of E.E.P., E.DI.P. and E.T.E.P. and any other category of administration, who satisfy the requirements of the previous paragraph, can apply and only one per year can be accepted if he/she satisfies the required criteria.

Curriculum

1. The Graduate Program starts either in the Fall or in the Spring semester each academic year. Students need to be examined in five (5) selective courses, as well as to successfully pass their Thesis.

2. Courses are organized per semester and on a weekly basis. The description of the courses is offered on the site of the Graduate Program. The official language of the program is the English language, while the official language of the Thesis is also the English language. The teaching activities are organized on a hybrid basis. The graduate students must attend their classes in either manner (face-to-face or distant). The percentage of each teaching method will be determined by the General

Assembly. The distant teaching method ensures that special needs students can ensure their access to all teaching activities. The University offers all the equipment for those students to have full access to teaching rooms and places, as well as to all electronic sites.

3. Upon a decision by the Selection Committee, a certain number of students need to attend two preparatory courses (without exams) « Data Structures and Algorithms» and «Fundamental Principles of Finance» or (if necessary) only one of them. All issues associated with these two courses are arranged by the General Assembly.

4. The offered courses, their distribution per semester and the associated credits (ECTS) are reported in the following table:

A´ Semester	
Courses	**ECTS**
1. Principles in Financial Technology	7.5
2. Modern Programming Methods (C++ and Python)	7.5
3. Artificial Intelligence and Machine Learning in Finance	7.5
4. Computational and Quantitative Finance with C++	7.5
Total	**30**

B´ Semester	
Courses	**ECTS**
1. Quantitative Risk Management	7.5
2. Elective Course	7.5

3. Elective Course	7.5
4. Elective Course	7.5
Total	**30**

C´ Semester	
Courses	**ECTS**
1. Elective Course	7.5
2. Elective Course	7.5
MSc Thesis	15
Total	**30**

(*) Elective Courses in the Fall Semester
1.   Behavioral Finance
2.   Derivative Markets
3.   Databases for Business Analytics
4.   The Regulatory Framework of Modern Financial Technology (FinTech)
5.   Valuation of pre-IPO Equity Interests
6.   Internship in Financial Technology (FinTech)

(*) Elective Courses in the Spring Semester
1.   Asset Allocations and Investment Strategies
2.   Algorithmic Game Theory and Mechanism Design
3.   Blockchain and Cryptocurrencies
4.   Operational Risk Management & Business Continuity Management / Cybersecurity Risk Management
5.   Environmental Finance

5. **Total ECTS:** 90
6. The teaching hours are subject to the associated legal framework.

Thesis

1. To write a thesis, students need to submit an application that describes the title of the thesis and the recommended supervisor. The Coordinating Committee recommends the title of the thesis, the supervisor and two (2) more staff members to the General Assembly. The procedure associated with the recommended titles occurs in the semester prior to that of the thesis, so as students will have time to start early all activities linked to the thesis.

2. Supervisors could be: a) Staff Members (D.E.P.), Special Educational Staff (E.E.P.), Lab teaching Staff (E.DI.P.) and Special technical Lab Staff (E.T.E.P.) from the Department or any other Departments of the same University or other Universities (A.E.I.) or from the Higher Military Educational Institution (Α.Σ.Ε.Ι.), b) Professors Emeritus or retired members of the staff from the Department or any other Departments of the same University or other Universities c) joint professors, d) other instructors, e) visiting professors or researchers, f) researchers and special scientists working for research and technological entities defined by the article 13A of L. 4310/2014 (Α' 258) or other research institutions in the national market or overseas, under the condition they are holding a doctoral degree.

3. The Coordinating Committee recommends and the General Assembly decides to assign theses even to staff members (D.E.P.) or E.E.P. and E.DI.P. in the department who do not teach in the Graduate Program.

4. The language of the thesis is the English language.

5. The Coordinating Committee recommends and the General Assembly approves the Instruction Manual with all guidelines for writing a thesis. This Manual is communicated to the graduate students, and includes all necessary instructions about the front page of the thesis, the logo, the minimum-maximum number of words etc.

6. Prior to the presentation to the thesis students submit it to the eclass platform to be checked for similarity or plagiarism issues. Students present their thesis in from of an Examination Committee. Next, the committee writes the evaluation of the thesis and assigns the associated grade (at least two (2) members of the committee need to agree on the performance evaluation result), and finally they send their evaluation to the Secretariat Office.

7. If students fail to submit their thesis in time or in cases the thesis fails to successfully pass the examination process, then students need to renew their registration for an extra semester by paying an amount determined by the General Assembly. Overall, the extension period cannot go over two (2) semesters.

8. The successful theses are uploaded (by the students themselves) onto the depository platform of DIONI organized by the University Library.

Study Criteria – Rights and Obligations for graduate students

1. The graduate students have all the rights and provisions offered to undergraduate students, except that of free textbooks. The University takes care of the equal access to all rooms and spaces, as well as the full access to electronic services associated with the educational material.

2. The graduate students are allowed to attend all seminars and workshops organized by the Department or the University, to visit all university labs, all conferences and one-day research meetings etc.

3. The graduate students can participate in courses in the area of Informatics organized by the University's Library and have to do with: strategies of seeking education sources and results (validity, relativity), literature review processes and citations, plagiarism and similarity issues, and the deposit of graduate theses onto the platform of DIONI.

4. The graduate students are obliged to:
- To attend their classes with the minimum number of absences while they join their classes in time. The maximum number of unexcused absences is six (6) hours, i.e., two classes. If the students go over this number of absences, they fail the class. In cases, however, this excess number can be excused in certain important cases, such as health/medical reasons, professional reasons, or personal reasons. All these issues are considered and examined by the General Assembly.
- Equip themselves with the necessary textbooks and papers/articles suitable for the course material.

- Submit intime all homeworks.
- To be in time for their exams, carrying with them their student ID.
- To satisfy all their obligations in relevance to activities associated with their program participation (fee payments, course selections etc).

Any failure to satisfy those obligations, without any serious and proven justification/excuse, increases the likelihood of the student's failure in this class or even may totally disqualify the students after a General Assembly's decision.

Academic Advisor

Each graduate student has his/her own academic adviso, with all advisor assigned by the General Assembly, Academic Advisor are members of the staff.

Exams

1. The educational program is offered in two semesters, Fall and Spring, with the total number of weeks determined by the legal education framework. Attendance of classes and/or labs is mandatory. If a class is missed, the program must replace it. The date and the time of replacement are decided by the instructor of the course.

2. If the students' evaluation is through exams, this occurs either at the end of the academic semester, or after the completion of all educational activities in relevance to this course.

3. If some graduate students fail to attend their exams, then the student fails his/her class. Any class failure implies that the student needs to retake the exam within a reasonable time framework. If students fail this exam again, then they need to take the exam for the third time, within a reasonable time framework. If the students fail the exam for the third time, then they take it for the fourth time by paying an extra 300 euros. This failure fee can be modified by the General Assembly. If the students fail their third and fourth time, then the Director of the program may decide to offer tutorial courses that could assist the failed students to improve their skills in relevance to this course. If the students fail the course for the fourth time, they need to apply for taking an exam in front of an Examination Committee, The members of this committee are determined by the General Assembly and they can be members of the staff either from the department or other department at the university (whose areas are close to that of the course), but not the instructor of the course.

Diploma

1. The Diploma of Graduate Studies is a public document determined by the Senate of the University. The Diploma is issued both in the Greek and in the English language.

2. The Diploma of the Graduate Program is a level 7 certificate in accordance with the European Qualification Framework (EQF) and the National Qualification Framework (NQF).

3. The Diploma is signed by the Rector of the University, the Chair of the Department, and the Rector of the Department.

4. The grading system is based on the following scale: from 5 to 6.49 GOOD, from 6.50 to 8.49 VERY GOOD and from 8.50 to 10 EXCELLENT.

5. The book of graduates is signed by the Secretary of the Department, the Chair of the Department, and the rector of the University.

6. The Diploma carries an Appendix in both the Greek and English languages, in accordance with the article 15 of L. 3374/2005 (FEK 189, t.A') and the M.D. F5/89656/B3/13-8-07 (FEK 1466, t.B').

Inauguration Ceremony

1. The students who have successfully completed their requirements participate in the inauguration ceremony in front of the Rector of the University or the Vice Rector of the University, the Dean of the School, the Chair of the Department, and the Director of the Graduate Program. The ceremony is a necessary condition for graduate students to receive their Diploma.

2. If for special and important reasons students cannot participate in this ceremony, they can ask for their Diploma without participating or they may ask to participate in the ceremony of the next cycle. They can still receive though a document that certifies their successful completion of the program.

3. The text of the oath that the graduates take is determined by the Senate. Those graduates who do not wish to take a religion oath are allowed to take the call of their honor or consciousness.

Course Descriptions

Fundamental Principles of Finance

Syllabus

- Introduction to corporate finance and corporate governance

- The time value of money - discounting and present value

- Investment evaluation and investment decisions rules under conditions of certainty

- Valuation of bonds and equity shares

- Weighted Average Cost of Capital

- Expected return and risk of investments

- Empirical facts on returns of major asset classes

- Portfolio theory and diversification

- Capital Asset Pricing Model and compensation for systematic risk

- Derivatives and applications to risk management

Learning Outcomes

The course focuses on developing knowledge and broad understanding of key topics in corporate finance as well as the role of financial management within companies. It also enables students to fully understand how corporate finance relates to other corporate managerial activities; the nature of financial decisions companies make; implementation of investment appraisal techniques; the importance of capital structure and their implications for the company. In addition, students should be able to demonstrate knowledge and understanding of time value of money and its implications and apply various investment appraisal techniques used by financial managers and discuss their importance for the company. Additionally, they should be able to understand the valuation process of financial assets and discuss the importance of cost of capital and its implications for company financing decisions. In the second half of the course, we will cover the basics of investments. We will discuss the trade-off between risk and expected return and present empirical facts on broad stock and bond indexes. Then, we will discuss the construction of optimal portfolios based on a risky asset and several risky assets and stress the importance of diversification. The Capital Asset Pricing Model will be presented next, and the concept of systematic risk will be developed. Finally, we will briefly discuss the use of derivative contracts in risk management. With the successful completion of the course, students will be sufficiently capable to:

- analyze and evaluate the role and purpose of financial management in businesses and the nature of financial decisions made by businesses

- understand the concept of time value of money

- understand the investment decision-making process in modern businesses and make investment decisions by applying different investment appraisal techniques

- evaluate bonds and stocks and compare stock valuation results from different approaches

- calculate the weighted average cost of capital of the company based on its capital structure

- understand the relationship between the average compensation from an investment and the associated risk

- be familiar with basic empirical facts on stock and bond returns

- understand how portfolios of individual assets are formed and how to evaluate the expected return and risk of portfolios

- appreciate the value of diversification

- be familiar with the Capital Asset Pricing Model and the concept of systematic risk

- understand the basics of derivative products and how they can be used to manage risk

Data Structures and Algorithms

Syllabus
- Introduction to corporate finance and corporate governance
- The time value of money - discounting and present value
- Investment evaluation and investment decisions rules under conditions of certainty
- Valuation of bonds and equity shares
- Weighted Average Cost of Capital
- Expected return and risk of investments
- Empirical facts on returns of major asset classes
- Portfolio theory and diversification
- Capital Asset Pricing Model and compensation for systematic risk
- Derivatives and applications to risk management

Learning Outcomes

The course is preliminary and introduces students to a variety of fundamental data structures and their related algorithms. It provides an overview of new types of data structure concepts such as arrays, stack, queues, trees, and graphs. Some basic graph and discrete transform algorithms for creating, manipulating and using these structures will also be discussed. Students will implement operations that can be applied to data structures using various searching and sorting techniques. Algorithm analysis and efficient code design are discussed. This course provides different data structures and how are effectively used for solving problems.

With the successful completion of the course, students will be sufficiently capable to:

- Describe all types of data structures and know how to apply them effectively in problem solving

- design or select an appropriate data structures for a particular problem

- understand the techniques of algorithm analysis

- develop basic algorithms related to data structures, such as searching and sorting algorithms

- analyze and select the most suitable and effective algorithm for solving certain problem

- develop a structured and logical process of thinking

Principles in Financial Technology

Syllabus

The topics that will be discussed in this course are included in the following sections: 1) What is FinTech today? Major landmarks in FinTech's history 2) The framework: Opportunities and Restrictions 3) Big Data, Open Data and connectivity 4) KYC platforms 5) Introduction to Automation, Machine Learning and Generative AI. Robo-advising in Finance. 6) P2P lending and crowdfunding 7) Blockchain, cryptocurrencies and Initial coin offerings (ICOs), smart contracts 8) NFTs 9) Open Banking and Payments: AISP, PISP and ASPSP. Integration with mobile devices, smart rings and related technologies 10) Three other -Techs: InsurTech, WealthTech and PropTech 10) Virtual environments. Towards the future All topics will be discussed with real-world examples.

Learning Outcomes

The financial services industries are changing rapidly with the emergence of financial technology (FinTech). The course offers an introduction to the foundations and business applications of FinTech. The topics include big data, open data, automation, machine learning, generative AI and robo-advising, P2P lending, crowdfunding, blockchain, cryptocurrencies, smart contracts, initial coin offerings (ICOs), NFTs, payments and Payment Initiation Service Providers (PISPs), Account Initiation Service Providers (AISPs), Know Your Customer (KYC) platforms, Open Data, WealthTech, InsurTech and PropTech, etc.

Students are expected to develop a broad understanding of the recent FinTech development and its impact on different parts of the financial world. Upon successful completion, students will have the knowledge and skills to:

- Describe technological innovations influencing the provision of financial services

- Determine how major advances in artificial intelligence and machine learning are applicable to specific finance problems

- Demonstrate basic knowledge of techniques in artificial intelligence and machine learning

- Demonstrate knowledge of major trends in Fintech

- Learn to think outside the box

- Critically evaluate new ideas and their implementation

- Recognise opportunities to innovate

Modern Programming Methods

Syllabus

The following material will be presented:

- Introduction to C++ and Python Programming, and general understanding.

- Practical demonstrations of C++ Programming and Python Programming.

- Understanding of C++ And Python programming interface.

- C++ Arrays, C++ Operators, C++ Assignment, Logical and Relational Operators.

- C++ Accessing Structure Members, C++ Functions, Calling a Function, Class Template, Conditional Compilations.

- Python Arrays, Python Operators, Arithmetic, Bitwise, Membership Operators.

- Python List, Python Access, Update and Delete Lists, List Methods, Built-in Functions.

- Python Tuple and Tuple Operations, Python Dictionary and Dictionary Operations.

- Python Conditional Statements, Python Loops and Statements.

- Python Functions

Learning Outcomes

This course provides the general foundations of Python. Knowing programming languages may be a useful skill. Python is a wonderful programming language, where execution speed appears often as an issue in practical applications. For applications where this is an issue, also coding in C++ can significantly improve performance. As C++ can relatively easily be integrated in a Python project, it is also possible (and common) to code just the bottleneck in that language.

Upon successful completion of the course, the students will be able to:

- learn the fundamental programming concepts and methodologies which are essential to building good C++ programs.

- practice the fundamental programming methodologies in the C++ programming language via laboratory experiences.

- code, document, test, and implement a well-structured, robust computer program using the C++ programming language.

- identify core aspects of programming and features of the Python language.

- understand and apply core programming concepts in Python like conditionals, loops, variables, and functions.

- use different ways for writing and running Python code.

- design and write fully-functional Python programs using commonly used data structures, custom functions, and reading and writing to files.

Artificial Intelligence and Machine Learning in Finance

Syllabus

Lecture 1(Theoretical): Linear Classifiers,Linear and Logistic Regression

Lecture 2(Theoretical): Multilayer Neural Networks

Lecture 3(Theoretical): Recurrent Neural Networks

Lecture 4(Theoretical): Support Vector Machines

Lecture 5 (Theoretical): Reinforcement Learning

Lecture 6 (Laboratory): Standard Machine Learning Models for Stock Price Prediction

Lecture 7(Laboratory): Multi-Layer and Recurrent Neural Networks for Stock Price Prediction

Lecture 8(Laboratory): Machine Learning Models for Investor Risk Tolerance and Robo Advisors

Lecture 9(Laboratory): Machine Learning Algorithms for Automated Trading

Lecture 10(Laboratory): Reinforcement Learning Models for Optimal Portfolio Allocation

Learning Outcomes

This course aims to provide students with a comprehensive understanding of machine learning techniques and their applications in the financial industry. Through a combination of theoretical concepts, practical exercises, and real-world case studies, students will develop the skills necessary to apply machine learning algorithms to financial data, extract insights, and make informed investment and risk management decisions.

Computational and Quantitative Finance with C++

Syllabus

The following sections will be presented:

- Monte Carlo Simulation: Generating Random Numbers, Expected Value Estimation, Pricing of European Options, Number of Replications.

- Variance Reduction Techniques: Antithetic Sampling, Control Variates, Common Random Numbers – Estimation of the Greeks.

- Binomial Model Simulation: Construction of Binomial Tree, Pricing of European and American Options.

- Finite Difference Method: Difference Quotients, Construction of Grid, Boundary Conditions, Explicit and Implicit Methods in Pricing European Options, Connection with Trinomial Tree.

- Simulation of Geometric Brownian Motion: Sources of Errors, Asset Path Generation, Stop-Loss and Delta Hedging Strategies, Pricing of Exotic Options – Asian, Barrier and Lookback Options.

Learning Outcomes

The intent of this course is to describe the technical and algorithmic aspects of a wide spectrum of computer applications currently used in the financial industry, and to prepare students for the development of new applications. It addresses to those who wish to learn modern and state-of-the art C++ language features, de-facto standard C++ libraries, and use them to create financial applications. The course uses object-oriented, modular and generic programming techniques, design patterns, and the interoperability with Excel to create efficient applications for a range of derivatives, such as equity and options.

Upon successful completion of the course, the students will be able to

- develop numerical algorithms in C++ for pricing financial derivatives and computing their Greek letters with the simulation method of Monte Carlo.

- employ variance reduction techniques for the numerical improvement of simulation methods of random numbers.

- develop numerical lattice algorithms in C++ for pricing financial derivatives with the method of Binomial Tree.

- solve numerically partial differential equations in C++ for pricing financial derivatives with the method of Finite Differences.

- construct in C++ numerical paths of Geometric Brownian Motion for simulating dynamic risk hedging and pricing path-dependent financial derivatives with the simulation method of Monte Carlo

Quantitative Risk Management

Syllabus

Quantitative Risk Management and Fintech

Overview: This postgraduate course focuses on the principles and techniques of quantitative risk management with a fintech flavor. The course will provide students with a solid foundation in risk measurement, modeling, mitigation, stress testing, and their applications in the fintech industry.

Course Duration: 12 weeks (final duration not known at the time of preparation of the current syllabus, decision on the final list of topics to be covered conditional on the duration of the course, list of topics below is indicative)

Course Outline:

1. Introduction to Risk Management

   o Overview of risk management principles and frameworks with a focus in the fintech industry

   o Identification and classification of risk types specific including fintech

   o Risk governance and regulatory considerations including fintech

2. Value at Risk (VaR)

   o VaR concept and interpretation

   o Parametric VaR estimation techniques

   o Historical simulation and Monte Carlo simulation for VaR

3. Expected Shortfall (ES)

   o ES as a complementary risk measure to VaR

   o Parametric, semi-parametric, and nonparametric approaches to ES

   o Comparison and interpretation of VaR and ES

4. Univariate Risk Models

   o Statistical concepts for univariate risk modeling

   o Distribution fitting and parameter estimation

   o Extreme value theory (EVT) and its applications

5. Multivariate Risk Models

   o Correlation and dependence modelling

   o Copulas and tail dependence for multivariate risk modeling

   o Portfolio risk and diversification

6. Tail Risk Management

   o Understanding tail risk and its impact on risk management

- o Tail risk estimation techniques, including extreme value methods
- o Tail risk hedging strategies and risk mitigation approaches

7. Stress Testing Framework

- o Introduction to stress testing and its importance in risk management
- o Scenario-based stress testing techniques
- o Sensitivity analysis and reverse stress testing customized scenarios

8. Backtesting of Risk Models

- o Importance of backtesting in evaluating risk models
- o Backtesting techniques for VaR and ES models
- o Challenges and considerations in backtesting risk models

9. Credit Risk Modeling

- o Introduction to credit risk
- o Credit scoring models and credit risk assessment techniques
- o Default probability estimation and credit portfolio risk

10. Market Risk Modeling

- o Market risk measurement and modeling
- o Volatility modeling and estimation techniques
- o Risk factors and stress testing in market risk management

11. Operational Risk Management

- o Understanding operational risk and its challenges including the fintech industry
- o Key operational risk indicators and measurement methodologies
- o Risk control frameworks and operational risk mitigation strategies

12. Advanced Topics in Quantitative Risk Management

- o Cybersecurity Risk Management
- o Emerging risks in fintech, such as AI and blockchain, and their implications
- o Machine learning applications in risk modeling and management
- o Case studies and real-world applications of quantitative risk management

Learning Outcomes

- • Understanding of the principles and frameworks of risk management in the fintech industry.

- Familiarity with various risk measures, including Value at Risk (VaR) and Expected Shortfall (ES), and their application in fintech contexts.

- Knowledge of univariate and multivariate risk modeling techniques, including copulas and tail dependence, tailored for risk management in fintech.

- Understanding of stress testing frameworks and their relevance in assessing and managing risk in fintech environments.

- Knowledge of credit risk modeling techniques and their application in fintech-specific scenarios.

- Familiarity with market risk modeling and volatility estimation methods relevant to fintech risk management.

- Understanding of operational risk management challenges specific to the fintech industry.

- Knowledge of cybersecurity risks and risk management strategies specific to fintech applications.

- Awareness of emerging risks in fintech, such as AI and blockchain, and their implications for risk management.

- Ability to apply risk measurement and modeling techniques, including VaR and ES, in fintech risk scenarios.

- Proficiency in selecting and implementing appropriate univariate and multivariate risk models tailored for fintech environments.

- Competence in credit risk modeling techniques and their practical application in fintech credit assessments.

- Skill in identifying and assessing operational risks specific to fintech companies and implementing risk control frameworks.

- Ability to recognize and address emerging risks in fintech using appropriate risk management techniques.

Asset Allocations and Investment Strategies

Syllabus

1. Main market participants (households, investment companies, pension funds, insurance companies, sovereign wealth funds) and their goals

2. Major asset classes and markets (equities, bonds, derivatives)

3. Equity index construction (value-weighted, price-weighted, equally-weighted)

4. Main equity market indexes (S&P500, Dow Jones, FTSE, Nikkei)

5. Portfolio optimization with two and multiple assets and diversification

6. Practical issues of portfolio optimization due to parameter estimation error

7. Portfolio performance evaluation (Jensen's alpha, Sharpe ratio, Treynor measure) and performance attribution

8. Alternative investment strategies such as naive diversification and momentum

9. Equity market timing using financial ratios and macroeconomic variables

10. Bond strategies (passive, indexing, immunization)

11. The use of derivatives in managing risk (hedging with futures, protective puts)

12. The role of transaction costs and taxes

13. The impact of behavioral biases on investment performance (overconfidence, disposition effect, loss aversion, under-diversification)

14. Ethical and ESG investing (Socially Responsible Investing (SRI) funds, Environmental, Social, and Governance (ESG) funds, Impact funds, Faith-based funds)

Learning Outcomes

This course covers the field of investment. It describes the main participants, their objectives and constraints, and the major investment markets. It covers investment strategies for bonds, equities, and structured products, including the use of derivatives in managing risk. Portfolio optimization and asset allocation are covered, as well as how to measure portfolio performance. Ethical investment, the role of taxation, and behavioral investment biases are also explored. Students should be able to evaluate individual securities, investment strategies, and portfolio performance in the context of investor objectives, constraints and behavioral biases.

Upon successful completion of the course, students should

- Be familiar with the major asset markets and market participants.

- Understand how the major stock indices are constructed.

- Know how to perform portfolio optimization but also understand its practical challenges and limitations.

- Be familiar with various performance evaluation metrics as well as performance attribution.

- Be familiar with alternative equity strategies, such as naïve diversification, bond strategies, such as immunization, and how derivatives can be used to mitigate risk.

- Understand the role of investor behavioral biases and the importance of investor objectives beyond pure performance.

Algorithmic Game Theory and Mechanism Design

Syllabus

1. Games in normal form, Pareto optimality, Nash equilibrium

2. Games in normal form, Refinements, Bayesian Games

3. Equilibrium computation in normal form games, the Lemke-Howson algorithm

4. Games with sequential actions, the Perfect information extensive form

5. The basics of mechanism design., Introduction and examples

6. Auctions, single-item auctions, sealed-bid auctions, first and second price auctions

7. The Myerson lemma,, single-parameter environments, allocation and payment rules, statement of the lemma and proof

8. The VCG mechanism, multi-parameter environments, the Revelation principle

9. Matching theory, one-to-one matching, stable matching, many-to-one matching Gale-Shapley algorithm

10. Overview of the material, more examples and exercises. Presentations

Learning Outcomes

Algorithmic Game Theory is an interdisciplinary field that combines concepts from computer science, economics, and mathematics to analyse strategic interactions in computational settings. This graduate course provides a comprehensive introduction to the fundamental theories, techniques, and applications of Algorithmic Game Theory. Students will gain a deep understanding of strategic decision-making, game-theoretic models, algorithm design, and computational complexity in the context of economic and social systems.

The course objectives are:

1. understand the basic concepts of game theory and their applications,

2. explore the equilibrium concepts and their computational aspects

3. investigate the complexity of computing equilibria in various game-theoretic models and

4. examine the role of mechanism design in optimizing outcomes and incentivizing strategic behaviour.

Blockchain and Cryptocurrencies

Syllabus

*   Bitcoin Foundations and Technology

- o Bitcoin Protocol - A technical overview

- o Bitcoin and Blockchain History: From anonymity to widespread adaption

- o Blockchain and Bitcoin Dynamics: Public and Private Blockchains

- o Bitcoin Mining and Difficulty

- Ethereum and Smart Contracts

  - o The new Ethereum Roadmap

  - o Merge Economics

  - o Decentralized Apps, EVM, and the Ethereum blockchain

- Consensus protocols

  - o Proof of Stake: Blockchain without waste

  - o Proof of Work and Electricity Usage

- Cryptocurriences and Mass adoption

  - o Crypto Assets – Tokens, Stablecoins, Securities enabled by Smart Contracts

  - o Correlation with financial markets

  - o Decentralized Finance (DeFi)

  - o Fungible and Non – Fungible Tokens

- Centralized vs Decentralized Exchanges

  - o Privacy on a public blockchain

  - o Scaling the blockchain

  - o Wallets: managing and protecting crypto assets

- Crypto Regulation

  - o Global Regulatory Challenges

  - o The SEC vs. CFTC Proxy War

  - o MiCa – European Regulation Markets in Crypto Assets

  - o The Crypto Ecosystem and Financial Stability Challenges

  - o The Ripple case

- Central Bank Digital Currencies (CBDCs)

  - o The U.S. Dollar in the Age of Digital Transformation

  - o The FedNow instant payment system

  - o European Central Bank and the Digital Euro

Learning Outcomes

This course covers the core fundamentals of how cryptocurrencies work, who uses them, what level of security they have, and how they are different from traditional hard currencies, as well as how Bitcoin originated and why it is becoming a global phenomenon. From an economics perspective, topics include price determination under the Proof of Work protocol, the welfare costs and benefits of cryptocurrencies, the surrounding legal issues, and the effects of digital currencies on the monetary policies of central banks. The course also provides a broad overview of the essential concepts of blockchain, the technology that is used to allow fast, secure, transparent transactions to take place, and it discusses smart contracts, consensus mining, and the key advantages of blockchain technology.

After successful completion of the course, students will have:

- The ability to compare the different cryptocurrencies available in the market.

- Knowledge of how using Bitcoin works in practice.

- Knowledge of the Ethereum ecosystem, along with smart contracts.

- An understanding of the current uses and future opportunities of blockchain technology.

- Familiarity with the regulatory concerns and governance related to cryptocurrencies and the blockchain.

- An understanding of the impact of digital currencies on the monetary policies of central banks.

Operational Risk Management & Business Continuity Management / Cybersecurity Risk Management

Syllabus

The course aims to help participants understand the basic concepts, principles, and practices of Operational Risk Management. It aims to provide participants with modern methods of analysis on how to plan and make decisions regarding Operational Risks that threaten an organization. It also focusses on applying the principles of Business Continuity and Cybersecurity for sustainable, safe, and uninterrupted operation of business activities. The course analyzes the modern developments in the field of Business Continuity (the uninterrupted business operation) and Cybersecurity. Students will be taught the appropriate methods organizations use in today's globalized and highly competitive business environment, in order to maintain their competitive advantages and provide their services and products under any conditions, especially in times when extraordinary events threaten to interrupt and/or suddenly stop business operation. These events have an impact on the financial results and corporate reputation of organizations.

Students who will attend the course will develop critical knowledge and skills for a successful career in the ''world of business'' in the fields of Risk Management, Business Continuity, Cybersecurity either as entrepreneurs or as Business executives.

The sections covered in the course are:

- Stakeholder Management,

- Development of a risk management plan,

- Identification of risks,

- Qualitative risk analysis,

- Quantitative risk analysis,

- Planning risk management strategies,

- Risk monitoring,

- Description of Business Continuity life cycle,

- Benefits of implementing Business Continuity,

- Design of business impact analysis (BIA) questionnaires,

- Alternative Strategies and critical factors for their implementation,

- Business Continuity and relationships with suppliers,

- Business Continuity and Communication Management,

- Planning and implementing a test program,

- Staff training in business continuity,

- Basic principles and concepts of cyber security,

- Incident response and disaster recovery,

- Access controls,

- Network Security

- Security Operations.

Learning Outcomes

The course focuses on the modern reality of identifying and managing operational risks. The main objective of the course is to help students understand the basic concepts related to risk management, to develop important business skills and actions, to enrich their knowledge by analyzing important aspects of operational risks and to provide them with an important background for their professional careers. At the same time, students will be trained in basic concepts, principles and rules of Business Continuity and cyber security.

Upon successful completion of the course, students will be able to develop:

- ability to identify and manage stakeholders and the identificatoin and evaluation of operational risks in the Company,

- analysis and processing of data/information related to operational risks and the ability to select upon the most suitable strategies for dealing them,

- a holistic Business Continuity Management system that recognizes potential threats for the organization and possible outcomes on operation model, if implemented,

- understanding the importance of Cybersecurity in approaching and interpreting everyday phenomena in Business,

- knowledge and implementation of strategies in order to improve the resilience of a business,

- identification of future trends and challenges in the Fields of Business Continuity and Cybersecurity,

- the effective use of relevant techniques, tools, and strategies.

Environmental Finance

Syllabus

Part A: *The big picture*

1. Environmental and Social sustainability

2. Market failures in an intractable global problem

3. Government intervention in search for adequate responses

4. Thinking about environmental and social risks

5. Environmental and social risks – A taxonomy

6. Other risks

7. Major Stakeholders and their incentives

8. Measuring ESG performance – Logical difficulties, AI limits

Part B: *On State intervention*

1. Tackling market failures: The return of State intervention in the economy and the financial system

2. Promises and pitfalls

3. The EU Classification System

4. Building the necessary infrastructure

Part C: Accounting issues

1. Financial and non-financial reporting

2. Corporate sustainability

3. Accounting information and sustainability – Looking through the fog

Part D: 'Green banking'

1. Risks and opportunities

2. Environmental and social credit-risk assessment

3. What's different

4. The limits of AI

5. Proposed regulatory interventions – Unintended consequences of good intentions

Part E: Financial investments

1. Decision-making under extreme uncertainty

2. 'Green' financial products

3. ESG criteria and portfolio investments

4. Does it pay to go 'green'?

Part F: Carbon markets

1. Economic rationale

2. Tradeable permit systems

3. Financial investments

Learning Outcomes

This course is a thorough introduction to the fast-evolving and expanding subject of environmental finance. In particular, it

- introduces the environmental and social risks for firms, financial institutions and investment professionals and highlights the difficulty of their measurement;

- describes the risks for firms, banks and investors when they do not take sufficiently into account the ESG (Environment, Social, Governance) performance of their counterparties and the entities they finance;

- analyzes the on-going effort for the development of accounting standards for ESG measurement;

- discusses the fast-changing institutional environment and the additional challenges it poses to all economic agents;

- analyzes the economics of 'green' banking, 'green' investments and pollution markets;

- explores how banks, and the financial system in general, can contribute towards addressing environmental and social problems.

After completing the course, the students are expected to understand

- climate and, more generally, environment-related risks, as well as the resultant risks (most notably, regulatory, operational, legal, reputational, financial) and the attendant opportunities for firms, financial institutions and investors;

- 'green' financial products and their risk-return trade-offs;

- the role and the incentives of major players, such as, firms, financial institutions, institutional investors, NGOs and governments;

- the risks (rewards) of financial institutions that provide financial services to firms with weak (strong) ESG credentials;

- the difficulties of measuring ESG performance and the accounting standards under development;

- the *carbon footprint* of corporations and institutions, and ways to reduce it;

carbon credits –creation and usage– and related investment opportunities in pollution markets.

Behavioral Finance

Syllabus

1. The axiomatic foundations of financial theory: The theory of expected utility

- Rational choice and the Utility function

- Maximizing Expected Utility

- Risk Aversion

1. Violation of axiomatic premises of the theory of expected utility Allais paradox

- Common Outcome effect

- Common Ratio Effect

- Kahneman and Tversky's

  o The Reflection Effect

  o The Isolation Effect

1. Rationality and Investor Psychology: Prospect Theory

- Loss aversion

- The Value function and value weights

- Mental accounting

- Framing

1. Heuristics

- Representativeness

    o Conjunction fallacy

    o Base rate neglect

- Anchoring and Conservatism

- Overconfidence

- Self-Serving Bias

- Confirmation Bias

1. The impact of Heuristics on investment decστις Επενδυτικές αποφάσεις

2. Noise trading and limits to arbitrage

Learning Outcomes

This course focuses on the connection of psychology and neuroscience with financial theory and practice by formylating a novel paradigm for financial behavior and outcomes. Investors choices and company executives are not always consistent with rational choice as required by financial theory. Moreover, their deviation from rational behavior is not random but governed by heuristic biases.

Behavioral finance categorizes these biases and studies their impact on financial outcomes such as asset pricing and corporate decisions and investor choices. Students taking this course have a firsthand experience of the alleged violation from rational choice. By studying heuristic behaviors such as representativeness, mental accounting and overconfidence students are becoming aware of the reasons of observed financial choices. Most importantly by studying the related experimental literature they are able to devise their own experiments.

Upon successful completion of the course, the students will be able to

- Recognize the difference between rational and biased choices in financial matters

- Understand the impact of biased behavior on asset prices

- Understand the impact of biased behavior on corporate decision making

- Understand the difference between investor behavior led by risk aversion and loss aversion

- Employ the results of prospect theory while designing investment choices

- Understand the courses of non-rational behavior (not compatible with expected utility paradigm) which tend to create financial puzzles

- Anticipate when financial outcomes are driven by behaviorally biased attitudes

Derivative Markets

Syllabus

Futures and Futures Contracts: Terminology – Payoffs – Standardization – Margin Operations – Valuation – Speculation – Risk Hedging – Options Markets: Call and Put – Basic Positions – Payoffs and P/L Charts – Standardization – Trading – Spreads – Options —— Properties of Stock Options: Basic Assumptions – Factors Affecting the Value of Options – Speculation – Put-Call Parity – Early Exercise of American Options – The Effect of Dividends – Options and Speculative Strategies– Interpretation of the Put Call Parity – Binomial Model: One-Step Binomial Trees – Two-Step Binomial Trees – Valuation with Risk-Free Portfolios – Risk Neutral Valuation – Valuation of European Options – Valuation of American Options – Hedging Delta Risk - Black, Scholes & Merton's MDE – Risk Neutral Valuation – Black & Scholes Valuation Formulas – Implied Volatility.

Learning Outcomes

The course focuses on the operating mechanisms of the financial derivatives markets which are currently an active part of the international financial markets. The main objective of the course is to help students gain the intuition and to provide the necessary skills for pricing and hedging of derivative securities, and for using them for investment, risk management, and prediction purposes. It discusses a wide range of applications and real-life cases, including the use of derivatives in asset management, interest rate derivatives, credit derivatives, as well as crude oil derivatives and currency derivatives. In addition to theoretical discussions, it also emphasizes practical considerations of implementing strategies using derivatives as tools. In order to provide a useful treatment of these topics in a world that is changing rapidly, it is necessary to stress fundamentals and to explore topics at a technical level. Specifically, the objective of this course is to teach students how to analyse a problem/situation involving derivatives so that they also know how to deal with a different one in the future.

After the successful completion of the course, students will be able to

- know the main features of basic financial derivative securities

- use basic financial derivative products to design speculative strategies, arbitrage strategies, and hedging strategies.

- interpret the main risk components, such as sensitivity coefficients, of basic financial derivative products and use them for risk management of dynamic portfolios.

Databases for Business Analytics

Syllabus

Lectures:

1. Descriptive Analytics: Probability Theory, Frequency distributions, Hypothesis testing, Statistical inference.

2. Diagnostic Analytics: Regression models, Time-series analysis.

3. Forecasting analytics: Objective and Subjective Probability, Bayes Rule, Decision making under uncertainty, Monte Carlo Simulations.

Laboratory Practice:

- Entity Relationship diagrams.

- Structure of relational databases

- Basic commands in Azure SQL: (i) objects creation, (ii) tables storing, (iii) updating of existing data, and (iv) execution of queries on databases.

- Basic command in R: (i) connection with Azure SQL, (ii) accessing and processing of data, (iii) application of econometric methods to analyze data.

- Empirical applications.

Learning Outcomes

Upon successful completion of the course, the student:

(a) will be able to draw Entity-Relationship diagrams to illustrate the structure and characteristics of a relational database.

(b) will have the ability to manage relational databases through Azure SQL, specifically: (i) create objects, (ii) fill in tables, (iii) update existing data, and (iv) execute queries on databases.

(c) will be familiar with the R language and know its basic functions, which are needed to be able to process data stored in a relational database.

(d) will be able to use econometric methods to focus on the analysis of a business in order to make optimal decisions.

The Regulatory Framework of Modern Financial Technology (FinTech

Syllabus

Technological innovation plays a key role in the design and development of financial services and products. This development is captured by the term Fintech, which is used to convey a range of technological products, innovative applications, processes, and business models that are being developed in the banking and financial sector for the provision of banking and financial services. The interplay between finance and technology is not a novelty. The financial sector has always used

technology and technological innovation as a tool to develop its business. Dematerialised securities, which have revolutionized the way financial services are provided, are a good example. The rapid development of modern technologies has changed the traditional communication structures used by financial service providers to get in touch with their potential customers, to negotiate and contract with them and, in general, to conduct their business. By exploiting the opportunities offered by modern technologies, innovative forms of business models have developed; they operate in parallel and in competition with traditional financial service providers.

At the same time, technological innovation allows the development of business ideas through the so-called start-up companies, which have a strong inherent element of risk, but are also associated with expectations of high profits. These technological innovations can be used in the wider business sector, including traditional businesses, amongst others for the development of environmentally friendly products and to support sustainable development and the transition to a circular economy that is safe, climate-neutral, resilient to climate change and more resource-efficient. These objectives are vital to ensure the long-term competitiveness of the European Union's economy. The existence and enhancement of financial flows towards activities compatible with the development of low greenhouse gas emissions and resilience to climate change is an objective which the European Union has declared.

Technological innovation developments over the last fifteen years approximately have been tremendous. The so-called ''disruptive technologies'' of the 4th Industrial Revolution are giving rise to the development of new, innovative financial technology that is impacting traditional financial tools in the financial sector and dramatically changing the landscape of traditional and financial services. The financial sector has always been subject to regulation. The raising of capital from the investing public, its investment, and its use by professionals has always been associated with an element of risk. The use of technological innovation in the financial sector constitutes a new challenge. The globalization of the economy and the intensity of cross-border transactions make it unrealistic to refuse it. The challenges for the legislator are enormous. How does the legislator, both at the EU and the national level, deal with technological innovation in the field of financial services? What are the regulatory approaches to the emerging challenges? How intrusive is or should the legislator be with regard to the new products that are constantly being developed and launched on the market? Does regulation gasping follow developments or can it play a leading role in this direction? Does it facilitate or hinder technological development? How much does it help businesses and how does it protect investors? These questions, typical in the financial sector, are being asked anew in the face of new technological innovations and transactional practices. Where will legislators strike a balance between the objectives of ensuring the stability of the financial sector, protecting investors and fostering entrepreneurship? How will it address the risk of money laundering inherent in many of the new products?

The subject matter of this course is to present the problematic of technological innovation in the modern regulatory framework of financial services. After a general introduction, specific key examples will be presented, mainly related to the following topics:

I. Revolutionary technologies and financial technology (''Fintech'')

- Concept and examples of revolutionary technologies and Financial Technology as a revolutionary and explosive element in the provision of financial services

- Technologies of the 4th Industrial Revolution

1. a) Artificial intelligence

2. b) Internet of Things

3. c) Augmented reality (Metaverse)

4. d) Biometrics, Cloud computing, Big Data

- Blockchain (DLT)

1. a) Disintermediation

2. b) Smart contracts

3. c) Decentralized finance (DeFi)

- The creation of new business models using Financial Technology - examples

1. a) Provision of financing outside the traditional banking system and development of alternative forms of financing (P2P lending /marketplace lending platforms, digital platforms / Innovation: financial institutions v. new entrants)

2. b) Crowdfunding

3. c) Forms of Funds for financing new business models and new financial products

- New infrastructures (Financial APIs, Mobile applications, Web-based solutions) and their mode of operation / need for legislative intervention or market regulation?

- The creation of new financial products through Financial Technology:

1. a) Digital coins

2. b) Cryptocurrencies

3. c) Payment services and payment systems.

II. The advantages and risks of new business models and new products of Financial Technology / Regulatory challenges and regulatory approaches

- Adequacy, gaps and the need to complement the existing institutional framework of the capital market and banking system (investment services, public offering, prospectus, provision of funding, payment systems, et.c.)

- The challenges and regulatory dilemmas:

1. a) Legislation (the risk of market strangulation and the risk of hindering the development of new products in case of over-regulation, effectiveness of legislation)

2. b) Self-regulation and self-engagement / the risks

- Security of transactions and the risk to financial stability

- Investor protection and market confidence - Examples: crowdfunding regulation, rules for raising funds from the public, prospectus costs etc. / advantages and disadvantages of the alternatives

- Personal data protection and privacy

- Promoting ESG / sustainability objectives

- Cross-border transactions (issues of applicable law and scope of restrictions)

- The risk of distortion of competition and discrimination in the European Union / level playing field

- Lack of harmonization at the European level, legal uncertainty and transactional uncertainty

III. The European Regulatory Framework

- The EU Digital Finance Strategy

1. a) Purpose

2. b) Priorities

   1. Removing fragmentation

   2. Adapting the EU regulatory framework to facilitate digital innovation

- Promoting data-driven innovation in finance

1. Addressing challenges and risks

- Regulation (EU) 2022/858 ''on a pilot regime for market infrastructures based on distributed ledger technology ('DLT')''

1. a) DLT Market Infrastructures

2. b) Requirements for the operation of DLT Market Infrastructures

3. c) Financial instruments subject to the pilot scheme

4. d) Entities that may apply for an operating license

5. e) Reporting and review

- Regulation (EU) 2023/1114 ''on markets in cryptoassets'' (MiCA)

1. a) Main issues

   1. Transparency and disclosure requirements

   2. Licensing and supervision

- Function, organization, and governance of publishers
1. Consumer protection
2. Integrity of cryptoasset markets
3. b) Scope of application
4. c) ''Cryptoassets''
5. Utility tokens
6. Tokens with reference to assets
- Electronic money tokens
1. d) Obligations of issuers of cryptoassets
2. e) Obligations of service providers
3. f) Ensuring the integrity of the cryptoasset markets
- Regulation (EU) 2022/2554 on the digital operational resilience for the financial sector (DORA)
1. a) Subject matter and scope
2. b) Principle of proportionality
3. c) Information and communication technology (ICT) risk management
    1. Governance and organisation
    2. ICT risk management framework
- Prevention, treatment, and recovery
- Policies, procedures and training
- Event notification
- Testing
- Risk management framework for third-party ICT service providers
- Oversight framework for critical third-party ICT service providers
1. Exchange of information
- Directive (EU) 2015/2366 on Payment Services (PSD2)
1. a) PSD2 and open banking
2. b) To PSD3 and the Payment Services Regulation
- Directive (EU) 2011/61 on Alternative Investment Fund Managers and its supplementation
- FIDA Proposal - Framework for Financial Data Access

- Regulation (EU) 910/2014 on electronic identification and trust services for electronic transactions in the internal market (eIDAS)
- Directive 2018/843 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing (AMDL 5)
- Proposal for a Regulation on Artificial Intelligence
1. a) Main regulatory axes
    1. Adjustment according to the degree of risk
    2. Technological neutrality
- Horizontal application
1. Transparency
2. Accountability obligation
3. Extraterritorial application
4. b) A framework of ethical rules
1. Human activity and supervision
2. Technical robustness and safety
- Privacy and data management
1. Transparency
2. Diversity
3. Avoidance of discrimination
- Social and environmental protection conditions

IV. Greek law

- Law 4734/2020 on the prevention and suppression of money laundering and the financing of terrorism
- Law 4961/2022 on emerging technologies

Learning Outcomes

The aim of the course is to analyze the institutional framework of financial technology (fintech), mainly at the level of European law, so that the students:

1. understand the important role of technological innovation in the financial sector ("disruptive technology") as well as the advantages and risks it presents,

2. familiarize themselves with the main regulatory axes and concerns as well as the most important legislative regulations that form the relevant regulatory framework,

3. enhance their critical perception that will enable them to use the knowledge they will acquire in further research on complex, interdisciplinary, and innovative issues and

4. are able to monitor the effects of the above on a practical level and especially in the context of their professional activity (indicatively, effect on the market and competition and making business decisions).

Valuation of pre-IPO Equity Interests

Syllabus

*   **Section 1:** Quantitative Option Pricing Techniques

    o   Option Pricing Method – Combination of call options calculations based on the relative risk characteristics, contractual economic rights and privileges of the various equity classes as well as certain market participant and company specific assumptions.

    o   Current Value Method – Assumes an imminent liquidation event and the distribution mechanics follow the contractual economic rights and privileges assuming acceleration of vesting of equity awards upon the satisfaction of predetermined vesting conditions.

    o   Probability Weighted Expected Return Method – Involves estimating expected future potential liquidation events of a company and weighting them by the probability of each scenario occurring accounting for the uncertainty of the future cash flows of the company. An assessment of different risk profile & return characteristics or waterfall economics is necessary depending on the type of liquidity events.

    o   Hybrid Methods – Combine multiple valuation techniques that cover the potential spectrum of the exit strategies of companies under consideration and a modeling application of various economic payoffs in order to derive fair value considerations that are consistent with the market participants view as of the measurement date or the date of the consummation of a contemplated transaction.

*   **Section 2:** Discounts for Lack of Marketability/ Lack of Control

    o   Quantitative Put Option Methods based on the Chaffee, Longstaff, Ghaidarov, Finnerty or Asian Protective Put Option. – Estimate the risk profile of each equity instrument with specific option pricing assumptions and infer a specific discount relative to primary equity securities based on a combination of different parameters.

    o   Benchmark Studies: Multiple theoretical empirical studies across different time windows and different specifications within specific range estimates depending on the stage of the company, type of transaction etc.

- o Other Approaches: Quantitative Marketability Discount Model (QMDM), Nonmarketable Investment Company Evaluation (NICE) etc.

- **Section 3:** Dynamic Optimization Techniques

  - o Multi-step Monte Carlo Simulation with various correlated variables: Simulation of various variables in a correlated way and an application of different risk adjustments depending on the risk profile of the underlying metric; application of size adjustments or market participant characteristics for calibration purposes; illustration on antithetic variate techniques and standard error minimization procedures.

  - o Least Square Monte Carlo Simulation: Dynamic simulation technique to calculation optimal payoffs of embedded derivatives either conditional or mutually exclusive.

  - o Optimal Foresight Techniques: Dynamic simulation techniques that involve perfect foresight assumptions and valuation of exotic-like option structures or more sophisticated embedded derivatives.

- **Section 4:** Standard Valuation Practices/Calibration/Backtesting

  - o Calibration: Case study illustration with calibration of fair value indications to cash considerations or purchase consideration in connection with contemplated transaction

  - o Mark to Market: Overview of valuation procedures for purposes of marking to market subject equity interests as part of financial reporting requirements for the biggest asset managers, private equity funds.

  - o Backtest/Roll Forward: Various consideration for adjustments of Income/Market Approaches when initiating fair value measurements or rolling forward valuation models

Learning Outcomes

Valuation of pre-IPO equity interests with Various Numerical Methods & Option Pricing Techniques comprises a 13-week course focusing on the applications of modern quantitative valuation advisory financial models in order to deal with the complexities of multi tranche capital structures, mark to market valuation requirements for private equity investments, dynamic asset pricing of plain vanilla awards or more sophisticated awards with exotic option pricing features as well as the implementation of various numerical methods & closed form or open ended option pricing techniques in order to derive fair value considerations that are acceptable for financial reporting or tax requirements. The fundamental goal of this course is to (i) provide an overview of the various types of capital structures/equity securities/management equity awards that are part of complex business transactions that are performed by the biggest institutional investors in the world (ii) provide a deep insight in all the quantitative valuations tools utilized for standard or more dynamic asset pricing (iii) provide thought leadership content in terms of appropriateness/limitations/challenges of the various approaches and a hands on experience in real world capital investment processes, risk evaluation and attribution analysis, optimization assessment, relative value bifurcation analysis and the foundations of optimal investor behavior with practical applications (iv) present case studies with the valuation of

complex pre-IPO equity interests and the application of various approaches contemplated within the duration of the course.

MSc Thesis

Syllabus

During the third Semester students, in collaboration with their supervisor, they need to select their topic of research for thesis implementation.. More specifically:

1st Step: Topic selection

Students have two options: a) to propose a topic related to their current employment or related to the students' research interest or b) to choose one of the topics suggested by the teaching staff.

In their first step, students need to select the topic of their thesis. Certain sources can be explored, such as teaching courses, discussion with teaching staff and high-ranking people coming from the private sector, the literature associated with the topic, topics that are considered as hot current issues or related to the students' research interest. It is a plus if the selected topic is characterized by certain novelties, which is a major plus for the thesis. Selected topics are closely related to the capacities and skills of the students which is a contusive factor for the in time completion of the thesis. Accordingly, the selected topic should not have been explored by another student or (if possible) by the literature itself. Useful sources for this are the National Archive of Doctoral Theses (https://www.didaktorika.gr/eadd/), which offers doctoral thesis from all Greek universities, the «Online Sources» through the Digital Library of the University of Piraeus (https://lib.unipi.gr/), such as the Depository of «Dione» (https://lib.unipi.gr/iguana/www.main.cls?surl=dione), various Search Machinesη of published papers offered by Google Scholar (https://scholar.google.gr/), as well as the International Database of Theses Proquest (http://proquest.umi.com/).

2nd Step: Contact with the Teaching Staff

In the next step, students need to communicate with the teaching staff of the department who have declared their interest of supervising a thesis. This kind of communication targets the discussion on a topic close to the interest of both parties, with the potential supervisor offering specific information on the topic (and particularly on the literature associated with the topic).

3rd Step: The exact Definition of the Topic

In this stage, students need to go deep into the literature associated with the selected topic. In particular, students should determine the advancement of the literature, the data they need, the selection of the appropriate methodology, as well as the resources and the time students need to

complete their thesis. Theses must have both a theoretical and an empirical part, or only a theoretical part.

4th Step: Submission of the Topic to the Secretariat Office of the Department of Banking and Financial Management.

Once the proposal is approved by the supervisor, students submit it to the Secretariat Office of the Department of Banking and Financial Management.

5th Step: Writing the Thesis

When the 3rd semester begins, students are required to start working on their thesis, while they communicate with their supervisor regularly, at least once a month. The thesis includes five specific parts:

1. Introduction, in which students explain their goal, the background of their research, the novelties, as well as the importance of the research for certain stakeholders, the required methodology, as well as any potential expected findings.

2. The theoretical part, which also includes any related literature review, as well as the theoretical background and hypotheses associated with the topic of the thesis.

The followed methodology associated with the empirical part of the thesis, as well as any justification for the selection of certain methods.

The findings of the empirical research which will confirm or not the hypotheses developed, as well as the empirical findings.

Any conclusions, as well as policy recommendations. Next, any appendices and the references sections follow.

Students need to present their literature review. To this end, they should visit electronic libraries offered by other academic institutions, the National Center of Research or any other related sources through the platform of «Argo», which offers free access to references available not only in Greece, but also around the globe, or alternatively can get references sources from the electronic library at the University of Piraeus (http://www.lib.unipi.gr/) or other alternative links, such as Heal-Link (https://www.heal-link.gr/), and other research Machines of published research papers (e.g., Google Scholar). The access to those sources can be achieved only through specific terminals available at the University of Piraeus, or alternatively from distant terminals connected with the university's environment through the VPN system.

Next, once students retrieve their necessary literature/methodology material, and in collaboration with their supervisor, they need to organize and classify it.

6th Step: Thesis Presentation

Next, students need to present their thesis to a Committee of three Staff members (one is their supervisor). They report the main parts of their work. To this end, they need to prepare a Power Point presentation, while the duration of it is 15 minutes plus a 5-10 minute Q&A section. At the same time, they also need to prepare a 5-page presentation (primarily in Word) in which they report the main parts of their work to all members of their committee.

The grading scale is:

5 - 6,49: Good

6,5-8,49: Very Good

8,5-10 : Perfect

In case, the presentation does not land on success (Grade: 0-4.99), the students are advised to explicitly consider the comments and suggestions made by the committee and then he/she re-enrolls for an extra semester.

7th Step: Thesis Submission

Upon the successful presentation of their thesis students are required to explicitly consider any minor suggestions for improvements and next to submit it to the platform of «Dione» (https://dione.lib.unipi.gr/xmlui/) which is related to the writing production of the University of Piraeus. The thesis must be submitted by the end of February, which is the end of the third semester. Any extension can be provided only based on specific reasons.

Learning Outcomes

The goal of thesis implementation is the deepening of students' critical thought through the development of a study, as well as of applied research, on topics primarily associated with the issues being dealt by the Graduate Program. More specifically, the goals of the thesis are:

1. the development of students' specialization in fields directly related to the field the research topic is lying,
2. the development of students' research skills and methodologies,
3. the way students can develop their skills to find and download statistical data associated with the selected topic of research (only if the thesis includes and empirical part), and
4. the application of the students' knowledge acquired during the program's time

Upon the successful completion of the thesis, students will be capable of implementing basic, as well as applied research, while they will be able to develop and progress knowledge ontopic directly associated with the curriculum of the program. At the same time, students will be capable of:

1. seeking and using the right information sets coming from the relevant research literature,
2. using their knowledge from the curriculum of the program and developing the required skills to do research,
3. using the literature review and associating it with the conditions in the real world of the selected topic,

4. handling statistical data that allows him/her to come up with specific recommendations and reaching the correct decisions,
5. analysing and reporting his/her results through the appropriate use of mathematical and/or econometric methods,
6. displaying his/her capacity to handle quantitative kai qualitative research methods,
7. assessing the quality of his/her findings and recommending new ways of approaching the research issues,
8. offering the appropriate recommendations that improve any conditions based on those findings,
9. offering a scientific report, and
10. organizing and reporting his findings through an oral presentation.

Internship in Financial Technology (Fintech)

Link: -

Syllabus

By offering the opportunity to students to work and train themselves in productive working environments, the internship complements the theoretical and applied knowledge provided by the Postgraduate Programme. More specifically, the internship contributes to the better utilization of the knowledge and skills acquired by students during their post-graduate studies; to the more effective and beneficial integration of higher education graduates into the productive system of the country; as well as to the creation of a two-way channel of information transmission between educational institutions and the market.

Learning Outcomes

Internship is of crucial importance for the future career of students as it brings students into direct contact with the workplace, thus connecting education with the marketplace. The aim of the internship is:

The acquisition of experience related to the profession, familiarization with the working environment, and professional integration into the same or a similar institution-organisation

The assimilation of scientific knowledge during professional practice

Highlighting the skills of trainees and developing professional awareness

The proper preparation of students for successful future vocational rehabilitation

University of Piraeus

The history of the University from 1945 until today

The University of Piraeus was founded as a "School of Industrial Studies" in 1938 by the Association of Industrialists and Craftsmen, in accordance with Law 5197/1931 and Law 28/1936, which, in collaboration with the Association of Sociétés Anonymes of Greece, intended to provide economic, legal and technical education of industry executives.

1945: It was renamed to "Higher School of Industrial Studies" and its purpose was the systematic, theoretical and practical training of managers.

1949: With Law 1245/49, its organization was completed.

1958: The "Higher School of Industrial Studies" was renamed to Graduate School of Industrial Studies of Piraeus (Law 3876/58). Attendance lasts four years and the degrees awarded are equivalent to those of other universities.

1966: (Law 4578/1966) The school operated as a public entity.

1971-1972: Studying at the School provided two paths: Economic science and Business Administration (decision 146652/71)

1977-1978: The Department of Statistics and Insurance Science begins its operation.

With Law 1268/82 the university initially operated with one department. However, with P.D. 43/1984 the school was organized so as to include three departments:

Economic science
Business Administration and
Statistics and Insurance Science

In June 1989, with the P.D. 377/89, the School was renamed to University of Piraeus, to which three more Departments of Study were added, namely:

Banking and Financial Management
Maritime Studies
Technology and Production Systems

Since the academic year 1990-1991, only two new Departments of the three Departments (Economic science, Business Administration, Statistics and Insurance Science) have been put into operation in the three already operating Departments.

Department of Banking and Financial Management
Department of Maritime Studies

The Department of Industrial Management and Technology began operating in the academic year 1991-1992 as the Department of Technology and Production Systems and was renamed by P.D. 113/30-4-2002 / Government Gazette 95

The Department of Computer Science began operating in the academic year 1992-1993.

The Department of Technological Education began operating in the academic year 1999-2000, which according to article 3 par.2d.cc. of Law 3027/28-6-2002/Government Gazette 152, was renamed to Department of Computer Education and Digital Systems. Then, according to P.D.151/2009, Government Gazette 194/A'/1-11-2009, the Department was renamed to Department of Digital Systems.

The Department of International and European Studies started operating in the academic year 2000-2001.

The Department of Tourism Studies started operating in the academic year 2017-2018.

Access to the University

80, Karaoli and Dimitriou street - Main Building
The main building of the University houses services, professors' offices, lecture halls, classrooms, and

the like.

107, Deligiorgi and Tsamadou street Buildings

The building at 107, Deligiorgis Street houses laboratories and offices of the Department of Industrial Management and Technology, while at 78, Tsamadou Street there are two buildings, one of which has classrooms, while the other houses the student restaurant.

21, Grigoriou Lambraki and Distomou Building

The building houses the offices of the faculty of the Department of Maritime Studies, as well as classrooms.

150, Odissea Androutsou Building

The building houses the offices of the faculty of the Department of Digital Systems and the Department of International and European Studies.

126, Grigoriou Lambraki Building

The building houses the offices of the faculty of all the Departments.

82, Zeas Building

The building houses the Secretariat of the Department of Computer Science and the Secretariat of the Department of Digital Systems, as well as the offices of the Foreign Language teaching staff.

Nikaia Building Complex

Nikaia Building
Complex

Board of Directors

1. The Board of Directors has the responsibilities as provisioned by Law N.4957/2022 and any other responsibilities provided by the internal regulations of the Higher Educational Institution, provided that they have not been assigned by law to other bodies of the Higher Educational Institution. In particular, the Board of Management exercises the following responsibilities:

a) Approves, after the recommendation of the Rector and the opinion of the Senate, the four-year strategic plan of the Higher Educational Institution, which shall include, as a minimum, the strategy for the development of the Higher Educational Institution at local, national, European and international level, in accordance with its specific character and the framework of its mission in the following areas: academic and research policy, lifelong learning and education, strengthening extroversion and internationalisation of the institution, strengthening its links with society and the economy, development of innovation within the Higher Educational Institution and upgrading the quality of the academic environment of the Higher Educational Institution.

b) Approves, upon the recommendation of the Rector, the programmatic agreements of Article 15 of the law. 4653/2020 (A' 12) with the Ministry of Education and Religious Affairs, which are concluded upon the Rector's proposal.

c) Approves, upon the recommendation of the Rector and the Executive Director, the initial summary and detailed annual budget of the Higher Educational Institution (regular budget, public investment budget and own resources), its revisions, as well as the report of the Higher Educational Institution, which is submitted for approval to the Ministry of Education and Religious Affairs. In particular, the adjustments to the regular budget that concern the transfer of resources from any expenditure code provided that the amount of such transfers does not exceed thirty percent (30%) of the regular budget, as well as the adjustments concerning the public investment budget and the allocation of extraordinary grants to the regular budget, shall be carried out by decision of the Board of Directors without requiring the approval of the Minister of Education and Religious Affairs.

d) Approves, following the recommendation of the Research Committee, the initial summary and detailed budget of the Special Account for Research Funds (UPRC) of the Higher Educational Institution, its report, financial statements and results of its use.

2. By decision of the Board of Directors the responsibilities of paragraphs g', h', i', j' and m' of paragraph 1. 1 may be delegated to the Rector of the Higher Educational Institution or the competent Vice Rector, provided that the respective area of responsibility has been assigned to him/her.

Senate

The Senate has the following responsibilities and any other responsibilities assigned by the internal regulations of the Higher Educational Institutions unless they have been assigned by law to other bodies of the Higher Educational Institutions, according to Law 4957/2022:

a) Approves the establishment or modification of first, second and third cycle study programmes, including the foreign language study programmes of the Institution, as well as their content.

b) Approves the internal regulations for the operation of the curricula.

c) Approves the institutional catalogue of courses.

d) Submits to the Minister of Education and Religious Affairs an opinion on the establishment, abolition, merger, absorption, division, renaming or change of location of the Schools and Departments of the Institution.

e) Approves the conclusion of collaborations with domestic or foreign institutions or research centers, institutes and technological institutions of Article 13A of Law No. 4310/2014 (A' 258) for the organisation of inter-institutional study programs of the first, second and third cycle, as well as the protocols for academic or research cooperation with national or foreign institutions.

Rectoral Authorities

Professor Sfakianakis Michail, Professor of the Department of Business Administration, is the Rector of the University of Piraeus.

Vice Rectors:

Professor of the Department of Statistics and Insurance Science Verropoulou Georgia
Professor of the Department of Digital Systems Kyriazis Dimosthenis
Associate Professor of the Department of International and European Studies Roukanas Spyridon
Professor of the Department of Industrial Management and Technology Sofianopoulou Styliani

Benefits to Students

Student Welfare Office

The Department of Student Care is housed in the main building of the University of Piraeus, 80 Karoli & Dimitriou, 1st floor, office 114 A.
Students can learn about the following serivces:
Dining, student residences, housing benefit, healthcare, european insurance card.

The attendance of students at the Department of Student Care takes place exclusively by prior arrangement.

Phones: 2104142089, 2104142065, 2104142088.

E-mail: foitmer@unipi.gr

Library

The University of Piraeus Library is located in the main building, of the University of Piraeus, at the 2nd basement. http://www.lib.unipi.gr/
The Library is open to the public on weekdays from 08:00 to 20:00. The access to the bookstack is until 19.45.

Erasmus +

Erasmus+ is a program of the European Commission for education, training, youth and sport, which aims to strengthen skills and employability, as well as to modernize education, training and youth systems, in all areas of Lifelong Learning. The Action of the Erasmus+ program for the field of Higher Education grants the mobility of students and staff to Higher Education Institutions in countries participating in the program.
The mobility of students is considered particularly important because students have the opportunity to develop new skills and qualifications, which contribute to their personal development. In particular, students are given the opportunity to improve their language skills, develop intercultural skills, be developed into European Citizens, while in addition students who move for internships may gain valuable work experience in a company/organization abroad.
The students have the opportunity to move to universities in European countries for studies and/or internships through the Erasmus+ program KA131 & KA171, according to the decisions of the respective bodies of the Department and/or University. Promoting academic excellence, the university has established and implements certain criteria for the selection of outgoing students, with a primary focus on their academic performance. The mobility takes place at the academic institutions with which the Department has entered into a bilateral cooperation agreement.

Career Office

Its main objective is to provide multifaceted support to students/graduates for their smooth integration into the labour market and for a successful career.
It promotes the development of dynamic partnerships and the service of four poles, the Students & Alumni of the University, the Teaching & Research Staff of the University, Business, public and private institutions and organisations and Secondary Education.

The Career Office provides students/alumni with information, guidance and active support in preparing and finding employment in Greece and abroad, in choosing postgraduate studies and in the first steps of business activities.

For companies, it is a source of suitably trained executives to meet their personnel needs.

For students and prospective students, the Career Office develops information activities about the University of Piraeus and career paths.

Clinic

Primary health services are provided by the Clinic. It operates daily on the ground floor of the main building, office 003.

The clinic is fully equipped with medical equipment (cardiograph, defibrillator, and pharmaceutical material for intravenous, intramuscular or oral treatment).

The University's population is served daily by a specialist pathologist and a nurse, and occasionally a gynaecologist visits the University.

Phone: +30 210 4142166

Counseling Center

The University of Piraeus Counseling Center (UCPC) was founded in 1995 and operates as a place of Meeting, Support, Communication and Intervention. The staff of the Counselling Center, recognising the specificity of the difficulties that students may face, negotiate issues that are important to all and relate to:

Active learning
Successful adaptation to new needs and requirements
Social skills, relationships and family
Dealing with stressful situations
Prevention and Health
Ways of creative expression and entertainment
Developing skills necessary for success
Interventions and addressing the needs that arise can be done either through individual and group psychological counselling or through the conduct of seminars focusing on the promotion of academic adjustment of the student population.

The UCPC is located on the ground floor of the main building of the University of Piraeus, room 018.

The postal address of the UCPC is: Karaoli & Dimitriou 80 185 34, Piraeus

Contact telephone numbers: 210-4142042

Fax: 210-4142402

E-mail: sykep@unipi.gr

Contact hours with students: 9:00am-3:00pm. Monday to Friday

## Laboratories of the Department of Banking and Financial Management

- Institute of Finance and Financial Regulation
- Laboratory for Energy and Environmental Management
- Corporate Finance Lab
- Green Finance and Banking Lab
- FinTech and Quantitative Finance Laboratory (FinTechQF Lab)

Computer Lab / Dealing Room

All students, including the undergraduate students, have free access to the Department's Computer Lab (Room 325, 3rd Floor, Central Building, University of Piraeus). The Lab offers 35 computer stations, 15 projectors, 6 laptops, 2 internet printers, 3 interactive boards, access to the database of Refinitiv Eikon και Refinitiv Datastream, as well as access to various softwares, such as Microsoft Office, Matlab, Eviews, SPSS, R, R Studio, Python, Anaconda3, Gretl, Microsoft Power BI, and PSPP.

In the Lab, students are able to download real-time data for their homeworks and theses. Staff members can also download real-time data for their research papers and other educational activities.

The Lab is open from Monday to Friday 9am-9pm and Saturdays 9am-3pm. During the Lab hours, a permanent worker specialized in Informatics is available, along with a graduate or a doctoral student who is under the Program's payroll. These particular persons are ready to provide any assistance to the users of the Lab.
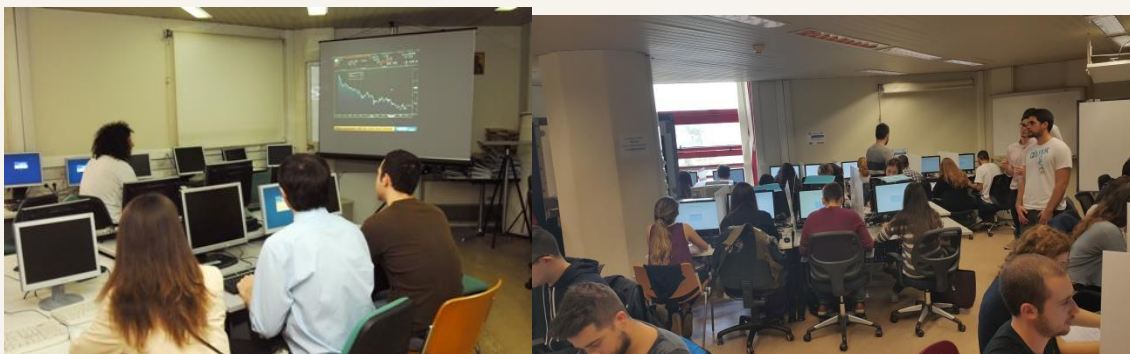
Scholarships

The Graduate Program may provide certain scholarships:

- Based on the performance during the undergraduate studies, as free studies for the 10% of the registered students (only when the percentage of those receiving scholarship is less than 30% of the registered students),
- Based on the academic performance within the Graduate Program, with funds coming from private and/or public entities and/or from own resources (tuition fees).

The scholarships are approved by the General Assembly. The criteria and the necessary document that support the application process are determined by the «Regulation of Scholarships», approved by the General Assembly.

General Information about the Electronic Services of the University of Piraeus for Students

Private code

Upon registration of the student at the secretariat of his/her department, a personal username is created, which the student can activate through the service uregister.unipi.gr, using their mobile phone number or personal email. The management and recovery of the personal password are then done through the service mypassword.unipi.gr.

Electronic Secretariat

The web application of the Electronic Secretariat operates at sis-portal.unipi.gr address. From this application, the student can:

- be informed about the courses of the curriculum, the instructors, the recommended textbooks, and the like.
- submit registration forms and course statements for each semester.
- be informed about the grades in the courses a student has been examined.
- receive immediately and in electronic form certificates of attendance.

Academic ID, Student Ticket

Academic ID is mandatory for all enrolled students. It is issued after entering the address

academicid.minedu.gov.gr

by using the student's codes and by submitting a relevant application electronically. The academic card also functions as a student ticket (pass) that facilitates travel by public transport.

Beneficiaries of the academic card are successful candidates in the Universities and Technological Educational Institutes of the country after their enrollment in the first year of study. A prerequisite is the registration of first-year students in the secretariat of the school they have been admitted. The new identity card has the shape and form of a credit card and is improved in terms of security against forgery.

For the Participation in the Online Service for the Acquisition of an Academic Identity Please refer to the Terms and Conditions page.

University Textbooks

The books are distributed through the EUDOXUS service of the Ministry of Education operating at eudoxus.gr. This service records the choice of the textbooks of each semester and provides the relevant information.

The login to the EUDOXUS system is done with the student's codes.

Wi-fi and Eduroam

All teaching areas of the University are covered by a free wireless wi-fi network called unipi. Students can connect to it either with a laptop or from a mobile device, without the use of a password.

For authorized users, it is also possible to access the international academic network Eduroam (www.eduroam.gr), through which users from the global academic community have the possibility to remotely and securely use the services provided by their academic institution. On the page https://www.eduroam.org/where/ you can see the countries participating in the Eduroam network.

To configure a device to access network services through the Eduroam network (ssid: unipi), it is necessary to install software according to the device's operating system. Please visit https://cat.eduroam.org/?idp=1958 and select your device's operating system from the list of available platforms, following the instructions provided in the corresponding help button. Caution! The access details are the ones you use to log in to the University's services, but in the username you will fill in your entire institutional account, i.e. @unipi.gr.

Vritual Private Network – VPN

The access service to the University's internal network (VPN service) enables the use of the University's electronic services from remote locations or networks, such as home Internet connections. Through this service, it is, for example, possible to access the content of electronic scientific books, journals and databases available in the library from workplaces outside the University. More information about this service is available at www.unipi.gr/unipi/el/hu-sundesh-vpn.html.

Helpdesk

The Technical Support Service (Helpdesk) of the University can be found in room 003 on the ground floor of the main building

In room 003 on the ground floor of the main building, there are several computers with free internet access and printing ability. In the same area one can find the Technical Support Service (helpdesk), whose staff technically covers interdepartmental laboratories, administrative services and academic staff.

Email

The University of Piraeus provides its staff, PhD and postdoctoral candidates, as well as postgraduate students with a @unipi.gr email service.
The e-mail, except for postgraduate students, is provided upon request to the Network Operation Center (gr. 321, 3rd floor Main Building).

The Postgraduate students automatically receive emails with their institutional account details (obtained through the process u Register). To activate it, it is enough to connect to Webmail (Attention! The username in this application is @webmail.unipi.gr)

To send and receive the e-mail any e-mail client application can be configured such as Outlook, Thunderbird, Gmail, Hotmail and the like (instructions provided below) :

Receive

POP3 server (incoming): mailhost.unipi.gr
Connection security: SSL/TLS
Port: 995
Authentication: normal password
Username: username (without @unipi.gr)
Password: password

Send

SMTP server (outgoing): mailhost.unipi.gr
Connection security: SSL/TLS
Port: 465
Authentication: normal password
Username: username (without @unipi.gr)
Password: password

Alternatively, the Webmail application can be used to manage email. Attention! The username in this application is @webmail.unipi.gr.

For support regarding the email, users are requested to send email to:
noc@unipi.gr

Videoconferencing services

The Videoconferencing service enables each user to make calls (voice and video) using either the specialised equipment of a dedicated videoconferencing room or via a portable videoconferencing system.

In addition, through the e:Presence service provided by EDYTE of the Ministry of Education, Research and Religious Affairs, one can participate in videoconferences directly through his/her personal computer, provided that it has the appropriate equipment (camera, microphone).

Instructions for setting up the e:Presence platform using your browser can be found at the following link https://www.epresence.gr/support/documents.

User and Server Identity Certificates

It is possible to issue a digital server certificate and a type B digital user identity certificate, signed by the Sectigo certification authority, with which GRNET cooperates.

In the field that appears, write in Greek characters the phrase University of Piraeus and press the "Start single sign-on" button. The user is authenticated through the CAS Server (Central Authentication Service) of the University, using the details of the institutional account. The instructions provided on the Sectigo website are then followed. In the case of issuing a digital server certificate, you can contact the University's Network Management Centre (noc@unipi.gr) to have the digital certificate generated by the Sectigo certification authority.

In addition, the Public Key Infrastructure "Hellenic Academic & Research Institutions Certification Authority – (HARICA)" is a trusted third-party entity that certifies the user identity of Academic Institutions and Research Institutions in Greece. From there it is possible to issue digital user certificates of type B. The HARICA certification authority is available here. Instructions for issuing HARICA certificates can be found here.

National Network of Infrastructures for Research and Technology – Hellas and Research

The National Network of Infrastructures for Research and Technology - Research and Technology - Hellas - EDYTE S.A. is a technology provider and provides network and computing services to academic and research institutions

It thus supports the country's educational and research activity

The National Network of Infrastructures for Research and Technology – Research and Technology – Hellas (grnet.gr) is a technological institution that operates in the public interest and provides network and computing services to academic and research institutions, to educational institutions of all levels and to institutions of the public, wider public and private sector. It is responsible for the promotion and dissemination of applications of network and computing technologies and for the promotion and implementation of the Digital Transformation objectives. It thus supports the country's educational and research activities, for the development of applied and technological research in the field of telecommunications networks and computing services.

The National Network of Infrastructures for Research and Technology – Research and Technology – Hellas has the central role of coordinator of all digital infrastructures for Education and Research. With more than 20 years of experience in the fields of advanced network, cloud and computing infrastructure and services, as well as a strong international presence, it is an advisor to the Ministry of Digital Governance on the design of advanced information systems and infrastructure.

Provision of Software for Educational Use

Go to https://helpdesk.unipi.gr/software/ to find out about the software available for educational use. Please follow the installation instructions carefully.

E-Learning

The University operates, under the supervision of the Academic Departments, e-learning systems that support educational work and are hosted by the Department of Computerization at https://eclass.unipi.gr/. Notes, announcements and other educational materials are posted on these systems. Information on their use is provided by the lecturers. In addition to the central eclass system, some Academic Departments such as the Department of Computer Science and the Department of Digital Systems also have departmental e-learning systems which can be accessed at https://gunet2.cs.unipi.gr/ and https://evdoxos.ds.unipi.gr/ respectively.

Student Associations

The Plato Student Association
Ocean Students Association
AIESEC Student Association
AEGEE Student Association

Students Act

Students Act is an ideas platform where students can express their views on issues they believe can change and improve their academic careers. These ideas will be able to be implemented in collaboration with University stakeholders and provide a better student experience. Students Act takes place within the framework of the TEDx University of Piraeus, which is taking place for the first time at the University of Piraeus, with the theme "Believe.Act.Change".

TEDx University of Piraeus

TEDx University of Piraeus is a project of the University of Piraeus in collaboration with the Research Centre. The scientific coordinator is Mr. Thanopoulos.

In the framework of this project, TEDx University of Piraeus is envisioned to be a trigger for action, contribution and positive thinking in the youth community, to establish itself as an institution at the University and to become known in society for its work.

It aims to bring together idealists of humanity, inspiring entrepreneurs, progressive-minded educators and agents of change in society, who will share ideas and experiences and give young people the impetus to develop, share and put their ideas into practice. Our mission is to show the flow of change, "belief-action-change" and to urge young people to the recipe for action.

More details are provided on the TEDx University of Piraeus website at http://www.tedxuniversityofpiraeus.com/

Library - Reading Area

The main purpose of the Library is to meet the needs of the academic community in up-to-date scientific information. For the fulfillment of its basic purpose and its overall role, it implements intermediate goals, which it adapts, improves, renovates and revises whenever and wherever needed. Its mission is to enhance and support the educational and research activities of the Institution, to contribute to the retrieval, management, provision and supply of specialized information to the wider

national and international community and its effective participation in any educational and cultural activity.

The website of the Piraeus University Library is http://www.lib.unipi.gr.

Location

The library is housed in the main building of the University. The entrance is on the central circular staircase in the middle of the ground floor. Also, for the disabled, the elevator on the left can be used by the disabled.

The library consists of three main areas:

- The Reception Area, where students can find information on the material available, the closed collection, rare collections and computers for searching the catalog and the sources of information,
- The Bookstore, which houses the library's entire library collection, photocopying machine and computers for readers, and
- The Reading Room, where dictionaries, showcases with the latest issues of printed journals and other informational material are located.

Book Collection and Journals – Periodicals

The collection of the library of the University of Piraeus contains about 80,000 book titles. The books cover the areas of interest of the departments of the University, while there is a large number of titles of general interest. In addition, the library has a number of magazines available online, which are accessible from the library website (www.lib.unipi.gr) in the section: Network Services / Online Journals

Library operations & opening hours

The University of Piraeus Library is located in the main building, of the University of Piraeus, at the 2nd basement. The Library is open to the public on weekdays from 08:00 to 20:00. The access to the bookstack is until 19.45.

Services

The main purpose of the Library is to meet the needs of the academic community in up-to-date scientific information. For the fulfillment of its basic purpose and its overall role, it implements intermediate goals, which it adapts, improves, renovates and revises whenever and wherever needed. Its mission is to enhance and support the educational and research activities of the Institution, to contribute to the retrieval, management, provision and supply of specialized information to the wider national and international community and its effective participation in any educational and cultural activity.

The Library's regulation is addressed to all readers, whether they are members of the University or not, and its implementation is a prerequisite for the smooth operation of the Library and the better service to the public.

The collection consists of approximately 47,000 book titles, 800 titles of printed journals (88,000 volumes).

It also includes public and private publications, as well as audiovisual, material cd-rom and dvd.

The set of printed documents is organized thematically, in accordance with the Dewey Decimal Classification System.

The majority of printed documents can be borrowed except for the reference books, journals and theses/dissertations which can only be read in the reading room, or can be photocopied to a limited extent. A designated computer is available.

- The University library operates as a lending facility for its member users. The lending process depends on the type of material as well as the quality of the user (Undergraduate Student-Postgraduate Student-Faculty Member).

- The library offers to all members of the university community of the University of Piraeus seminars on the following topics:
  o Services and use of the library (Library collection, Basic functions and services, Rights to use and borrow the material, Library spaces, equipment)
  o Information resource search strategies (Information sources, Information resource search strategies, Evaluation of information sources, Thematic specialization (Libguides))
  o Bibliographic references and bibliography (Copyright, Informations ethics, Plagiarism, Bibliographic citation styles (APA, Harvard, MLA), Bibliographic reference management programs (Mendeley, Zotero))
  o Postgraduate seminar for students (Thesis writing (structures, bibliographic references, keywords), Presentation of the Dioni Institutional Repository, Instructions for submitting the dissertation)

- The library provides online thematic subscription and open access databases. Specialized search queries, submitted by e-mail, telephone or personally, are dealt with by the librarians.

Material that does not exist in the library can be acquired either by accepting recommendations for its enrichment ,or via interlibrary loan from Greek libraries or collaborators abroad.

Approximately 7,500 scientific journals are accessed through the Internet. Access to these journals is possible tha Approximately 7,500 scientific journals are accessed through the Internet.

Access to these journals is possible thanks to joining the Greek Network of Academic Libraries HEAL-Link.nks to joining the Greek Network of Academic Libraries HEAL-Link.

- E-books : They refer to the thematic areas of Piraeus University and come from Cengage Learning, Oxford Scholarship online, Sage, Science Direct, Taylor and Francis, Wiley Interscience and Heal-link.

- Databases : International Trade by Commodity Statistics (ITCS), Shipping Intelligence Network, Classification Web, Computer & Applied Sciences Complete, ECONLIT, ICAP, International Financial Statistics Online Service, JSTOR, Journal Citation Reports 2008 Edition, MathScience, LAW, and Open Access Databases.

Digital library repositories

- Okeanos is a metasearch tool that enables the federated search through which users manage to retrieve simultaneously more than one information resources of the University of Piraeus library (OPAC, Dione, Spoudai, KetLib, Pandora etc).

- Dione contains the Grey literature of the members of the University of Piraeus, including undergraduate and graduate dissertations and the doctoral theses that have been elaborated in the University of Piraeus.

- The CRIS of University of Piraeus contains the Institute 's scientific and research outputs, as well as books, dissertations and articles of its researchers.

- SPOUDAI is a peer-reviewed journal, publishing rigorous analytical papers, theoretical and empirical that deal with contemporary economic and business issues. It fosters both theoretical and quantitative contributions to Economics and Business. SPOUDAI not only serves as a link between theorists and practitioners, but also builds a bridge between economists and their colleagues in related fields. Contributions which make use of the methods of mathematics, statistics and operations research will be welcomed, provided the conclusions are factual and properly explained..

- The Digital Repository of the European Documentation Centres in Greece, KETlib, contains documents of European interest generated by Greek scientific and political organizations and the EU institutions

University of Piraeus Research Centre (UPRC)

The University of Piraeus Research Centre (UPRC) was founded in 1989 as part of the University that offers administration and legal support to basic and applied research, carried out by the staff of the University of Piraeus, in national and international contexts. The high quality of research and consulting

work carried out to-date by the UPRC has led to a large volume of collaborations either in international frameworks (e.g., EU-funded projects) or undertaken on behalf of large domestic companies, institutions and Ministries. (http://www.kep.unipi.gr/)