STUDY GUIDE

DIGITALTAXFINANCE

MSC IN TAX AND FINANCIAL SERVICES DIGITAL TRANSFORMATION

DEPARTMENT OF MANAGEMENT SCIENCE AND TECHNOLOGY

UNIVERSITY OF PATRAS

MEG. ALAXANDROU 1,

PATRAS

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UNIVERSITY OF PATRAS
ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΑΤΡΩΝ

University of Patras

The University of Patras is a nationally and internationally distinguished and respected institution of higher education, thanks to its multifaceted and innovative actions in the fields of natural sciences, engineering, health sciences, as well as humanities, social, and economic sciences. Its geographical location allows for interaction with a rich natural environment, contributing significantly to the development of the broader region.

The University was established in November 1964 with the vision of becoming a model university that fosters the spirit of international cooperation and scientific progress. The goal has gradually been achieved through its remarkable research activities.

Since its inception, the University turned towards an international orientation and adopted the European Strategy. Within this framework, it actively participates in programs, partnerships, and agreements with other universities, research institutes, and organizations abroad.

The University is located in the city of Patras, with two campuses, one in the Rio area and one in the Koukouli area. Departments of the University of Patras are also located in Mesolongi and Agrinio.

Department of Management Science and Technology

The Department of Management Science and Technology of the University of Patras was established in 2019 (Law 4610/19, Article 36) and commenced its operation in the academic year 2019-2020. The department is based in Patras and is part of the School of Economic Sciences and Business Administration.

The main objective of the Postgraduate Program of the Department of Management Science and Technology is to educate and create capable professionals equipped with knowledge of administrative science, combined with management skills and the use of new technologies. This ensures that graduates can meet the demands of modern businesses and public administration. The department provides students with all the necessary theoretical knowledge and practical skills that will help them develop their abilities and interests, whether academically or professionally, playing a leading role in the contemporary economic and social environment at the local, national, and international levels.

The Department's mission is to provide education and conduct research in the fields of Management Science that are linked to modern technologies and organizational studies. Emphasis is placed on the utilization of quantitative methods, information technology, and communications in decision-making, strategic business planning, and the reorganization of business activities. The increasing role that new technologies play in the development and operation of businesses today, the demand for electronic integration of the activities of modern units, the need for organizational transformation of businesses, and the pressure exerted by international competition significantly influence the knowledge and skills required by professionals in businesses and organizations.

The Department of Management Science and Technology aims to prepare professionals in this category, thus the curriculum focuses on the interdisciplinary integration of administrative and technological scientific branches.

The Department offers two advanced semester specializations:

- Decision-Making in Business
- Information Systems

Additionally, three Postgraduate Programs are in operation:

- Educational Management

- Digital Innovation and Management
- Tax and Financial Services Digital Transformation

The department is governed by its organs, which include the President and the General Assembly. The department has 17 faculty members, with one more currently undergoing appointment.

Academic Calendar 2023-24

The start and end dates of the Teaching and Examination Periods are determined by the University of Patras Senate and are common for all Departments of the University. The aforementioned schedule is established for each upcoming Academic Year at the end of each academic year and is posted by the Secretariat in the respective Announcements area.

Each academic year runs from September to June.

Courses

A Semester (Fall)

- Start date: 02.10.2023
- End date: 12.1.2024

B Semester (Spring)

- Start date: 19.2.2024
- End date: 31.5.2024

Exams

A Semester (Fall)

- Start date: 22.1.2024
- End date: 9.2.2024

B Semester (Spring)

- Start date: 10.6.2024
- End date: 28.6.2024

September 2024 exam period

- 28.8.2024 – 25.9.2024

MSC in Tax and Financial Services Digital Transformation

The Department of Management Science and Technology at the University of Patras is organizing the Postgraduate Program in "TAX AND FINANCIAL SERVICES DIGITAL TRANSFORMATION" starting from the Academic Year 2023-24.

The total duration of studies for the full-time program is two academic semesters, including the dissertation. Classes will be held at the facilities of the Department of Management Science and Technology in Patras, on Friday afternoons and weekends, considering the availability of working postgraduate students, or via a digital platform if conditions require. The total tuition fee for attending the postgraduate program and obtaining the degree is 3,000 euros, which will be paid in installments.

The number of admissions of Postgraduate Students to the program per year is set at a maximum of forty (40).

Subject and Purpose of the Postgraduate Program

The academic subject of the postgraduate program is interdisciplinary and covers the fields of Information Technology, Accounting, and Finance, with an emphasis on the Digital Transformation of services in Accounting, Auditing, Taxation, and Finance at an applied level. The aim of the program is to provide high-level postgraduate education and to develop specialized and applied knowledge and skills in students. The objectives of the program include the specialization of university and technical institute graduates so that they can contribute to the advancement of knowledge in the fields and develop professionals who can either engage in the business world and public administration or promote research and application.

The purpose of the postgraduate program's curriculum is to integrate the desired approach to accounting, finance, auditing (both tax and non-tax), and standardized procedures in companies through the specialization of their personnel in a digital manner. Information Technology is utilized as a control mechanism through the quality assurance processes of the Internal Audit Service.

By introducing postgraduate students to the automation of accounting, finance, and auditing, the program provides a strong, innovative, and competitive advantage, enabling them to stand out in the job market. This specific postgraduate program is the first in Greece to introduce its students to the concept of the digital transformation of the accounting office.

Learning Outcomes of Graduates

- Understand and describe the usage of digital applications for accounting, tax, and financial services.
- Know and apply principles of accounting and financial science.
- Apply techniques and tools of electronic project management.
- Be familiar with best practices and representative case studies for workplace issues.
- Analyze different proposals for implementing basic information security techniques in the information systems of a company or organization and evaluate them.
- Configure information resources according to the duties of accounting and financial management.
- Develop the strategic planning of businesses and organizations.
- Analyze the requirements of information systems in accounting and finance.
- Manage Enterprise Resource Planning (ERP) Systems.

Duration of Studies

The acquisition of the M.Sc. degree is completed after the successful completion of two (2) academic semesters, during which postgraduate students attend the corresponding courses, undertake a Master's Thesis, and fulfill the required credit units (ECTS).

Courses Structure and ECTS

Code	**ECTS**	**Fall Semester**
AFT-101	7,5	Tax Accounting and Tax Planning
AFT-102	7,5	Accounting Digital Transformation
AFT-103	7,5	Forecasting Financial Data using Digital Technologies
AFT-104	7,5	Accounting and Tax Big Data Analysis
Total	**30**	
		Spring Semester

AFT-201	6	Audit Automation and Financial Risk Management
AFT-202	6	Labor Law and New Technologies
AFT-203	6	Digital Accounting and Financial Business Management
AFT-204	12	Master Thesis
Total	**30**	

Categories of Admitted Students

The M.Sc. program accepts graduates from departments of domestic universities and recognized equivalent departments of foreign universities, graduates from departments of former Technological Educational Institutes (TEI), as well as graduates from departments of Police Academies and Military Academies.

Tuition Fees - Scholarships

The tuition fees for attending the M.Sc. program amount to 3,000 euros, which will be paid in installments of three (3) parts, as follows:

- One thousand (1,000) euros at the beginning of the M.Sc. program upon registration,
- One thousand (1,000) euros at the end of the first semester, and
- One thousand (1,000) euros at the end of the second semester.

Tuition fees will be deposited into a bank account of the Institution's Research Committee, and the relevant receipt will be submitted to the Secretariat of the M.Sc. program. In case of discontinuation of enrollment in the M.Sc. program, the portion of the tuition fees that has been paid is not refunded.

Scholarships are provided in the form of partial or full exemption from tuition fees, in accordance with the provisions of laws 4899/16.9.2022 and 4957/27.7.2022.

Required Application Documents

The application is submitted electronically through the university's portal https://matrix.upatras.gr/sap/bc/webdynpro/sap/zups_pg_adm and is also mandatory to be submitted in hard copy format to the Secretariat of the M.Sc. program.

The required documents that candidates must submit in hard copy format are:

1. Electronic application https://matrix.upatras.gr/sap/bc/webdynpro/sap/zups_pg_adm#
2. Curriculum Vitae
3. Copy of Bachelor's or Diploma degree
4. Transcript of Records (with precise GPA)
5. Photocopy of Identification Card
6. Certificate of Proficiency in English at least at level B2 (as recognized by ASEP). In cases where there is no language proficiency certificate, a relevant examination may be conducted.

7. 2 Recommendation Letters (either from academic staff members or from the workplace)

The following are considered (optionally, if available):

1. Certificate of Computer Skills
2. Second Bachelor's or Diploma Degree
3. Second Master's Degree and/or Doctoral Diploma
4. Proof of Professional Experience
5. Scientific Publications/Awards

Note: All documents are submitted in copies according to the provisions of Law 4250/2014, regarding the abolition of the obligation of certified copies, with the required declaration in a folder bearing relevant numbering.

Selection Criteria for Candidates

The M.Sc. program admits 40 graduates from all Departments of Greek Universities and recognized equivalent Departments of foreign Universities, graduates from Departments of former Technological Educational Institutes (TEI), as well as graduates from Police and Military Academies.

Students of Departments of Greek Universities and former Technological Educational Institutes (TEI) can also apply, provided that they have obtained a certificate of completion of their studies no later than one day before the evaluation committee meeting date for the verification of the successful candidates' list. In this case, a copy of their diploma or degree must be submitted before the program start date. In any case, successful applicants must submit all required documents by the end of the registration period.

If the number of candidates exceeds 40, the selection of postgraduate students is made by taking into account the following criteria, each of which assigns a specific number of points:

1. Degree grade/diploma: 40%

2. Level of proficiency in a foreign language: 5%

3. Publications in scientific journals, Presentations at scientific conferences: 5%

4. Possession of other postgraduate degrees: 5%

5. Relevant professional experience: 10%

6. Interview with the candidate before the Evaluation Committee: 35%

During the candidate's interview, the following are taken into account: (i) Evaluation of their personality, (ii) Assessment of their potential research activity, (iii) Knowledge in the subjects covered by the MSc program, (iv) Quality of the required two recommendation letters.

Services Provided to Students

Postgraduate students who do not have other medical and hospital care are entitled, upon enrollment in the M.Sc. program, to full medical and hospital care in the National Health System with coverage of related expenses by the National Organization for the Provision of Health Services.

Additionally, postgraduate students are entitled to use the university's sports facilities (more information at http://gym.upatras.gr/), the Foreign Language Teaching Center (more information at http://languages.upatras.gr/el), and to become members of various student clubs and cultural groups at the University of Patras.

Finally, upon enrollment in the M.Sc. program, students can access various services at the University of Patras through their Upnet ID account. Specifically, these services include:

- Email
- Virtual Private Network (VPN)
- Wireless Access (Eduroam)
- Microsoft Imagine
- IBM SPSS Statistics Software
- Microsoft Office 365 Education Service
- Google Apps for Education
- Academic Repository (Nemertes)
- Online File Storage (Pithos+)
- Virtual Machine Service (VM)
- ArcGIS Software Distribution
- IT Helpdesk Services

Teaching Staff

Antonopoulou Hera (Sotiria) - (hera@upatras.gr)

Hera (Sotiria) Antonopoulou holds a degree in Mathematics from the Department of Mathematics of the University of Patras and a PhD from the Department of Computer Engineering & Informatics of the University of Patras. Since 1994, she is a faculty member of the Department of Business Administration of TEI of Patras with the subject "Programming and Applications". From 2001 to 2017 she was a Consultant Professor at EAP in the undergraduate program in Computer Science. Since 07-05-19 she is a Professor at the Department of Management Science and Technology at the University of Patras.

She is the Director of the Entrepreneurship and Digital Innovation Lab with international title "ENTREPRENEURSHIP & DIGITAL INNOVATION LAB" (E.D.I. Lab), GGC 768/30-04-15. She was Vice Rector of TEI PATRON and President of the Research Committee of TEI PATRON (ELKE) and Deputy Rector of Academics of TEI of Western Greece. She has also served as Dean of the School of Business Administration of TEI of Patras and President of three departments of the same institution. He has many years of teaching experience in higher education at undergraduate and postgraduate level. Her research interests include Mathematical Logic, Combinatorics, Algorithm Theory, Cryptography and Information Systems Security, Privacy Protection in the Information Society as well as Programming & Applications in various fields of knowledge such as in business and education. She has published over 120 original publications in prestigious international journals and conferences and has authored 5 books.

Sotirios Kotsiantis (sotos@math.upatras.gr)

Sotirios Kotsiantis is Associate Professor at the Department of Mathematics, University of Patras. He is a graduate of the same Department, with postgraduate studies in Computational Mathematics and Informatics with a grade of Excellent and in 2005 he was awarded a doctorate from the Department of Mathematics of the University of Patras. Mr. Kotsiantis has over 23,000 citations in his published work, which makes him one of the best and internationally recognized scientists in the world. He participated in 5 research - development projects. The courses he teaches are in

Artificial Intelligence, Machine Learning and Data Science. His research interests focus on Artificial Intelligence, Machine Learning, Data and Knowledge Mining, Data Science.

Niki Georgiadou Niki (ngeorgiadou@upatras.gr)

Niki Georgiadou was born in Athens. In 1994 she graduated from the Law Department of the National and Kapodistrian University of Athens. From 1997 to 2001 she completed her doctoral thesis on "The principle of equal treatment of employees". In 2001 she received her PhD degree from the Faculty of Law with the grade "Excellent". She has been a lawyer since 1997, being gradually promoted to the Athens Court of Appeal in 2001 and to the Supreme Court in 2007. Since 1997, she has been an active lawyer dealing with cases in the fields of labour, civil, insurance, commercial and administrative law. In 2008, she was elected Assistant Professor in the field of "General Principles of Private Law" and since 2019 she has been working at the Department of Administrative Science & Technology of the University of Patras. She has teaching experience in Higher Educational Institutions from 2003 to date at undergraduate level and since 2017 at postgraduate level. For all courses she has developed supporting material. She has participated in Research Projects. She has published 30 publications on labour, educational and public law, has authored two books in the field of labour law and in the field of educational law and has received significant citations for her work. Finally, he has done considerable administrative work at the Foundation, he has participated in a large number of committees on administrative and educational matters, he is Vice-Chairman of the Board of Directors of the Foundation. She has been the Director of the MSc in Education Administration, Scientific Responsible for the Internship Programme, Member of the Gender Equality Committee of the University of Patras, while she has served as President of the independent office of the Student Advocate and Member of the Scientific Working Group for the implementation of the General Data Protection Regulation (GDPR).

Ioanna Giannoukou (igian@upatras.gr)

Ioanna Giannoukou is Assistant Professor at the Department of Management Science and Technology of the University of Patras, Greece. She is a graduate of the Department of Business Administration of the University of Patras, with postgraduate studies at Cass Business School, City University London and the Hellenic Open University. He received a PhD in Strategic Management of International Business from the Department of Business Administration, University of Patras. He has taught Business Administration, Total Quality Management, Business Strategy and Entrepreneurship at the former Technical University of Western Greece and Business Administration at the Department of Computer Engineering and Information Technology, University of Patras. She is an Associate Faculty member at the Hellenic Open University where she teaches at undergraduate and postgraduate level. She has significant research activity in National and mainly International research projects through the University of Patras, the former Technical University of Western Greece, the former Technical University of Epirus and the I.T.Y.E. "Diophantus". She has published her work in International Scientific Journals and has given presentations in International and Greek Conferences. Her scientific interests include strategic business development, entrepreneurship and international business.

Thanasas George (thanasasgeo@upatras.gr)

George Thanasas is an Assistant Professor of Accounting at the Department of Management Science and Technology of the University of Patras (Government Gazette 753/C/26-03-2021). He has studied Accounting and Business Administration at TEI West. He has studied Business Administration and Management at TEI of West Macedonia and TEI of West Macedonia. He has studied Business Administration and Management in Economics and Business Administration in Greece. He has also studied Accounting and Finance at the Athens University of Economics and Business (ASOEE) and holds an MBA from the University of Patras and an MSc in Conflict Management from the National and Kapodistrian University of Athens. He holds a PhD from the Department of Business Administration of the University of Patras in the field of Accounting with emphasis on Management Accounting.

He has worked as an accountant at ERT SA and as a Customs Officer in the positions of Rapporteur of the Tax and VAT Department and as an Auditor and Supervisor in various Customs Offices in the country. He has teaching experience

both at undergraduate (University of Patras, TEI of West Macedonia, Central Greece and West Greece) and postgraduate level (University of West Macedonia and EAP). Finally, he has been a member of two research teams in research projects which were Interdisciplinary and Interuniversity.

His research activity is reflected in international journals and conferences which appear in lists relevant to his field of interest.

Giotopoulos Konstantinos (kgiotop@upatras.gr)

Konstantinos X. Giotopoulos was elected Assistant Professor at the Department of Management Science and Technology of the University of Patras in 2020 with the subject "Information Systems in Management and Economics" (Government Gazette 1039/03-07-2020 vol.) He holds a Diploma in Computer Engineering and Informatics (1999, Department of Computer Engineering and Informatics, Polytechnic School of the University of Patras), a Master's Degree in Computer Science and Technology (2002, thesis: "Use of Evolutionary Methods for Optimization of the Student Model Finding Process") and in 2007 he was awarded a PhD from the Department of Computer and Information Engineering (thesis: "Intelligent Agents in Virtual Learning Environments").

From 2000 to 2004 Dr. Giotopoulos worked as a Computer & Information Technology Engineer in Research and Development projects in Information Technology, co-funded by the European Commission (IST Projects). From 2004 to 2013 he worked as a Project Manager in Regional Development projects, co-funded by the European Commission, specifically for the Prefectural Development Enterprise, the Prefecture of Achaia and the Region of Western Greece.

His research is related to the use of Information Systems in Management and Economics, Intelligent Agents, Computational Intelligence techniques, Artificial Intelligence and Semantic Knowledge Representation for the development of intelligent systems in the fields of e-learning, and retrieval of information and content on the web.In addition, he has participated in numerous research projects, while his authoring work includes more than 40 publications in international journals/conferences and a significant number of references in In addition, over the last ten years he has been a member of the organizing committee of several scientific conferences.

Konstantinos Halkiopoulos (halkion@upatras.gr)

Konstantinos Halkiopoulos is an Assistant Professor at the Department of Management Science and Technology of the University of Patras: "Knowledge Extraction Techniques with Application to Marketing". He holds a BSc degree in Mathematics (BSc) with specialization in the field of Computer Science. He holds a Master's degree (MSc) with specialization in "Mathematics of Computers and Decision" and in particular in "Mathematical Foundations of Computer Science and Applications in Artificial Inference and Decision Making", from the Interdepartmental Master's Programme of the Department of Mathematics and the Department of Computer Engineering & Informatics of the University of Patras. At the same time, he holds a Master's Degree (MEd) in "Leadership and Management in Education", School of Education, University of Rome "ROMA TRE". He holds a PhD from the Departments of Mathematics and Computer Engineering & Informatics of the University of Patras. His research interests focus on the scientific fields of Artificial Intelligence, Expert Systems and Data Mining with application in Marketing and parallel utilization of Psychometric Tools for Behavioral Data Analysis, with emphasis on innovative fields such as Digital Marketing, Neuromarketing, Digital Leadership, Neuroleadership, Cognitive Science etc. He has professional and research experience in the development and management of multimedia applications, development of integrated platforms for the management of electronic content using "Semantics Web" technologies, Relational Database Management Systems (RDBMS) and Applied Information Systems for decision making. He has participated in numerous research projects and has published in international journals and conferences.

Theodorakopoulos Leonidas (theodleo@upatras.gr)

Leonidas Theodorakopoulos is a graduate of Computer Engineering, holds a Master's Degree in Education Administration, and has been awarded a PhD by the Department of Business Administration of the University of Patras with the thesis title "Big Data Analysis in Humanities and Economics with Machine Learning techniques and use of Cloud Computing Technologies". He is also a member of the Entrepreneurship and Digital Innovation Laboratory [EDILAB] of the Department of Management Science and Technology. His research interests include: Big Data Analysis,

Machine Learning, Information Retrieval, Big Data Analysis in Financial Databases, Internet Technologies and Applications, Distributed Computing Systems. His research work is reflected in publications in international journals and conferences in lists relevant to his field.

Appendix I

Detailed Course Descriptions

Tax Accounting and Tax Planning (AFT-101)

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMICS AND BUSINESS								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	POSTGRADUATE								
COURSE CODE	AFT-101	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
			x							
COURSE TITLE	Tax Accounting and Tax Planning								

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures	3	7,5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Scientific Area
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (including English bibliography)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	https://eclass.upatras.gr/courses/DITAF104/

2. LEARNING OUTCOMES

Learning outcomes
The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the

successful completion of the course are described.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

The aim of the course is to introduce students to topics of tax accounting and taxation for both individuals and legal entities. The course will delve into specialized subjects such as the representation of taxation for individuals and legal entities, deferred taxation, inheritance tax, value-added tax (VAT), and the Planning and Design of businesses based on Taxation.

Specifically, upon completion of the course, students will be able to:

- Operation and purpose of the tax system and the obligations arising from it.
- Determination of taxation for individuals.
- Calculation of corporate taxes arising from profits.
- Handling inheritance taxes.
- Handling deferred tax obligations and claims.
- Value-Added Tax (VAT) and its treatment.
- Tax Planning for businesses.
- Tax Programming for businesses.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*……*
Production of new research ideas	*Others…*
	…….

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Decision-making
- Working independently
- Working in an international environment
- Production of new research ideas
- Production of free, creative and inductive thinking

3. SYLLABUS

- Introduction to Taxation – Distinctions of Taxes (Indirect and Direct)
- Accounting Treatment of Taxes – Indirect Taxes (Investment Taxes, Contributions, Tax Exemptions)
- Accounting Treatment of Taxes – Direct Taxes (Income Tax for Individuals and Freelancers)
- Accounting Treatment of Taxes – Direct Taxes (Corporate Income Tax)
- Presentation of Taxes in Financial Statements (Purpose of Corporate Taxation, Basic Principles of Income Computation)
- Value-Added Tax (VAT)
- Tax Treatment of Expenses
- Tax Reforms
- Deferred Tax Liabilities
- Deferred Tax Assets
- Inheritance Tax (Basic Principles, Exemptions, Tax Payment)
- Tax Planning for Businesses

- Tax Programming for Businesses

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	x
	Distance learning (synchronous)	x
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	

TEACHING METHODS	***Activity***	***Semester workload***
The manner and methods of teaching are described in detail. *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	Lectures	39
	Tutorials	
	Laboratory Practice	
	Essay writing	40
	Seminars	
	Projects	58,5
	Study and analysis of bibliography	
	Placements	
	Clinical practice	
	Art workshop	
	Interactive teaching	
	Educational visits	
	Artistic creativity	
	Independent study	50
	Other:	
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***187,5 hours (total student work-load)***

STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work,*	Written work, essay/report		
	Problem solving		
	Multiple choice question		

essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	naires			
	Final exam with Multiple choice questionnaires			
	Oral examination			
	Project	X	40%	
	Mid-term exam (concluding)			
	Final exam with developing questions	X	60%	
	Public presentation			
	Mid-term exam (formative)			
	Laboratory work			
	Written work, essay/report			

5. ATTACHED BIBLIOGRAPHY (in Greek)

- *Επιχειρηματικότητα και Φορολογία, Ελληνική Εταιρία φορολογικού δικαίου και δημοσιονομικών μελετων, Νομική Βιβλιοθήκη, 2021*
- *Φορολογική Λογιστική, Γκίνογλου Δ., Broken Hill Publishers, 2018*

Accounting Digital Transformation (AFT-102)

COURSE OUTLINE

6. GENERAL

SCHOOL	ECONOMICS AND BUSINESS								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	POSTGRADUATE								
COURSE CODE	AFT-102	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
			x							
COURSE TITLE	Accounting Digital Transformation								

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures	3	7,5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Scientific Area
PREREQUISITE COURSES:	Not required

LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (including English bibliography)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	https://eclass.upatras.gr/courses/DITAF101/

7. LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

The objective of this course is to equip future professionals in the fields of accounting and digital business with fundamental knowledge regarding the impacts of advancements in digital technology, digital disruption, and digital transformation in the accounting profession.
Upon successful completion of the course, students will be able to:

• Develop new strategies, implement changes, and manage innovations in the accounting field of the new era.
• Successfully address all challenges of the Digital Age.
• Explore advancements in digital technology, understanding what they are and how they could be utilized to enhance accounting practices.
• Internalize the impact of digital evolution and digital transformation on various accounting functions, roles, and activities.
• Integrate traditional concepts of accounting information systems with modern digital business concepts and digital transformation.
• Be familiar with a framework and a set of tools for preparing future accounting workforce for the digital age.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology

Adapting to new situations

Decision-making

Working independently

Team work

Working in an international environment

Working in an interdisciplinary environment

Production of new research ideas

Project planning and management

Respect for difference and multiculturalism

Respect for the natural environment

Showing social, professional and ethical responsibility and sensitivity to gender issues

Criticism and self-criticism

Production of free, creative and inductive thinking

……

Others…

…….

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Decision-making
- Working independently
- Working in an international environment
- Production of new research ideas
- Production of free, creative and inductive thinking

8. SYLLABUS

- Introduction to the objectives and significance of the course – contemporary issues of the digital transformation of businesses – Basic Concepts
- Information Systems and Digital Technologies in Business
- Advances in digital technology and understanding digital technologies.
- Digital enterprise and digital business transformation
- Digital transformation of accounting
- Impacts of digital technologies and digital transformation on accountants
- Leveraging digital technologies in the digital age: the roles of accountants in the digital business capabilities of an organization
- The role of accountants in the strategic digital transformation, digital business strategy, digital innovation, digital learning, and adaptability.
- The role of accountants in digital customer engagement, digital stakeholder commitment, and digital customer experience
- The role of accountants in enterprise architecture, data analysis, data science, and data management
- The role of accountants in cybersecurity, information privacy, and digital ethics
- Deep dive into the Digital Transformation Technologies of the 4th Industrial Revolution and examples of Web and Cloud Applications
- Trends and developments in the field of digital accounting and examples of Web and Cloud Applications

9. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x	
	Distance learning (asynchronous)	x	
	Distance learning (synchronous)	x	
	Others:		
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x	
	E-class	x	
	Virtual (simulated) laboratory training		
TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***	
	Lectures	39	
	Tutorials		
	Laboratory Practice		
	Essay writing	60	
	Seminars		
	Projects		
	Study and analysis of bibliography		
	Placements		
	Clinical practice		
	Art workshop		
	Interactive teaching		
	Educational visits		
	Artistic creativity		

	Independent study		88,5
	Other:		
	Total number of hours for the Course (25 hours of work-load per ECTS credit)		***187,5 hours (total student work-load)***
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	Written work, essay/report		
	Problem solving		
	Multiple choice question naires		
	Final exam with Multiple choice questionnaires		
	Oral examination		
	Project	X	40%
	Mid-term exam (concluding)		
	Final exam with developing questions	X	60%
	Public presentation		
	Mid-term exam (formative)		
	Laboratory work		
	Written work, essay/report		

10. ATTACHED BIBLIOGRAPHY (in Greek)

Προτεινόμενη Βιβλιογραφία

1. ΛΑΜΠΑΝΑΡΗΣ ΓΙΩΡΓΟΣ. ΨΗΦΙΑΚΟΣ ΜΕΤΑΣΧΗΜΑΤΙΣΜΟΣ ΕΠΙΧΕΙΡΗΣΕΩΝ, ΔΙΣΙΓΜΑ, 2020.
2. Busulwa, Richard, and Nina Evans. Digital Transformation in Accounting. Routledge, 2021.
3. Συλλογικός Τόμος Επιμέλειας ΔΟΥΚΙΔΗ Ι. ΓΕΩΡΓΙΟΥ. ΤΟ ΨΗΦΙΑΚΟ ΜΕΛΛΟΝ - ΜΕΤΑΣΧΗΜΑΤΙΣΜΟΣ, ΣΤΡΑΤΗΓΙΚΗ ΔΙΑΚΥΒΕΡΝΗΣΗ ΤΕΧΝΟΛΟΓΙΕΣ, Εκδόσεις ΣΙΔΕΡΗΣ Ι., 2019

-Συναφή επιστημονικά περιοδικά:

1. International Journal of Digital Accounting Research (IJDAR)
2. International Journal of Accounting Information Systems, ELSEVIER

- Journal of Applied Accounting Research, Emerald

Forecasting Financial Data using Digital Technologies (AFT-103)

COURSE OUTLINE

11. GENERAL

SCHOOL	ECONOMICS AND BUSINESS								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	POSTGRADUATE								
COURSE CODE	AFT-103	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
			X							
COURSE TITLE	Forecasting Financial Data using Digital Technologies								

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures	2	7,5

Laboratory component	1	
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Scientific Area
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (including English bibliography)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	https://eclass.upatras.gr/courses/DITAF103/

12. LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

The course aims to introduce students to the concepts of Statistical Processing of Accounting Data using the R language. The goal is to understand the basic principles of statistical analysis and become familiar with the essential tools of the R language. These concepts are crucial for further monitoring and understanding of upcoming courses in the curriculum, as well as for the student's ability to recall and apply the knowledge acquired from the course when needed

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

• Understand and apply basic statistical principles.

• Calculate and interpret appropriate confidence intervals for estimates in accounting data.

• Conduct hypothesis tests regarding the mean, variance, binomial proportion, and difference of means in accounting data.

• Use simple linear regression as a statistical modeling technique to investigate the correlation between a dependent and an independent variable, and interpret the results of regression in accounting data.

• Recognize different types and foundations of databases. Data mining and analysis. Programming techniques and syntax of the R programming language.

• Write code to solve problems. Import data into the R environment and generate numerical and graphical results.

• Combine the use of databases and programming for the analysis of questions in the field of accounting science.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology

Adapting to new situations

Decision-making

Working independently

Project planning and management

Respect for difference and multiculturalism

Respect for the natural environment

Showing social, professional and ethical responsibility and sensitivity to gender issues

Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*……*
Production of new research ideas	*Others…*
	…….

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Adapting to new situations
- Working independently

13. SYLLABUS

- Introductory concepts: computer structure, software, algorithms.
- Overview of the R programming language.
- Data types and basic operations.
- Complex types of accounting data.
- Exploration of accounting data.
- Importing and exporting accounting data {Working with files} [Lab 1].
- Presentation of accounting data: Graphical representations using R. [Lab 2].
- Program flow control: conditional. [Lab 3].
- Program flow control: iterative. [Lab 4].
- Functions with applications to accounting data. [Lab 5].
- R's loop structures: the apply family of functions applied to accounting data. [Lab 6].
- Vectorization techniques and program optimization.
- Analysis of Accounting data using R.

14. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	Learning R Software in the Computer Laboratory
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x
	E-class	x
	Virtual (simulated) laboratory training	

TEACHING METHODS

The manner and methods of teaching are described in detail.

Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.

The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS

Activity	***Semester workload***
Lectures	39
Tutorials	
Laboratory Practice	26
Essay writing	40
Seminars	
Projects	32,5

	Study and analysis of bibliography	50	
	Placements		
	Clinical practice		
	Art workshop		
	Interactive teaching		
	Educational visits		
	Artistic creativity		
	Independent study		
	Other:		
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***187,5 hours (total student work-load)***	

STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	Written work, essay/report	X	100%	
	Problem solving			
	Multiple choice question naires			
	Final exam with Multiple choice questionnaires			
	Oral examination			
	Project			
	Mid-term exam (concluding)			
	Final exam with developing questions			
	Public presentation			
	Mid-term exam (formative)			
	Laboratory work			
	Written work, essay/report			

15. ATTACHED BIBLIOGRAPHY (in Greek)

Φουσκάκης Δ. Ανάλυση δεδομένων με χρήση της R. Εκδόσεις Τσότρας, ISBN:

978-618-80741-5-6.

Τσιώτας Κ. Γ. Ανάλυση Δεδομένων-Πιθανότητες-Επαγωγή-Εισαγωγή στο R, Εκδόσεις Τζιόλα,

ISBN: 978-960-418-578-8.

Matloff (2011). The Art of R Programming

- *R. I. Kabacoff (2011). R in Action.*

Accounting and Tax Big Data Analysis (AFT-104)

COURSE OUTLINE

16. GENERAL

SCHOOL	ECONOMICS AND BUSINESS									
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY									
LEVEL OF STUDIES	POSTGRADUATE									
COURSE CODE	AFT-104	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
			x							
COURSE TITLE	Accounting and Tax Big Data Analysis									

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures	2	7,5
Laboratory component	1	
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Scientific Area
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (including English bibliography)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	https://eclass.upatras.gr/courses/DITAF102/

17. LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

The aim of the course is to introduce students to topics related to distributed computing systems and decentralized infrastructures with the goal of efficiently managing and analyzing large volumes of data. Upon successful completion of the course, the student will be able to:

1. Understand advanced topics in decentralized computing systems.
2. Implement and manage basic DHT-based large-scale Data Management systems.
3. Understand the basic design and analysis tools of Map-Reduce algorithms for solving large-scale data management problems in NoSQL Database systems.
4. Grasp the Apache Spark software tool.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*……*
Production of new research ideas	*Others…*
	…….

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Adapting to new situations
- Team work
- Working in an interdisciplinary environment
- Production of new research ideas
- Production of free, creative and inductive thinking

18. SYLLABUS

- P2P Infrastructures for Large-Scale Data Management
- DHT Infrastructures for Large-Scale Data Management: The Case Study of Chord
- DHT Infrastructures for Large-Scale Data Management: The Case Study of Pastry
- Internet Caching Protocols and Bloom Filters – Locality Sensitive Hashing (LSH)
- Multidimensional Data
- Data Mining Algorithms for Classification
- Data Mining Algorithms for Clustering
- Distributed File Management Systems (HDFS – GFS)
- Map – Reduce: Parallel and Distributed Programming for Efficient Management and Analysis of Large-Scale Data
- NoSQL Databases
- Introduction to the Apache Spark Software Tool

19. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x	
	Distance learning (asynchronous)		
	Distance learning (synchronous)		
	Others:		
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x	
	E-class	x	
	Virtual (simulated) laboratory training		
TEACHING METHODS	***Activity***	***Semester workload***	
	Lectures	39	

The manner and methods of teaching are described in detail.

Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.

The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS

Tutorials	
Laboratory Practice	28,5
Essay writing	40
Seminars	
Projects	
Study and analysis of bibliography	
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Independent study	80
Other:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***187,5 hours (total student work-load)***

STUDENT PERFORMANCE EVALUATION

Description of the evaluation procedure

Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other

Specifically-defined evaluation criteria are given, and if and where they are accessible to students.

Written work, essay/report	X	30%
Problem solving		
Multiple choice question naires		
Final exam with Multiple choice questionnaires		
Oral examination		
Project		
Mid-term exam (concluding)		
Final exam with developing questions	X	70%
Public presentation		

	Mid-term exam (formative)			
	Laboratory work			
	Written work, essay/report			

20. ATTACHED BIBLIOGRAPHY (in Greek)

ΕΞΟΡΥΞΗ ΑΠΟ ΜΕΓΑΛΑ ΣΥΝΟΛΑ ΔΕΔΟΜΕΝΩΝ

(ΞΕΝΟΓΛΩΣΣΟΣ ΤΙΤΛΟΣ: MINING OF MASSIVE DATASETS)

ΣΥΓΓΡΑΦΕΙΣ: RAJARAMAN ANAND, ULLMAN D. JEFFREY

ΜΕΣΑΦΡΑΣΗ: ΓΟΥΝΑΡΗΣ ΑΝΑΣΤΑΣΙΟΣ, ΜΑΝΩΛΟΠΟΥΛΟΣ ΙΩΑΝΝΗΣ, ΠΑΠΑΔΟΠΟΥΛΟΣ ΑΠΟΣΤΟΛΟΣ

ΕΚΔΟΣΕΙΣ ΝΕΩΝ ΤΕΧΝΟΛΟΓΙΩΝ, ΧΡΟΝΟΛΟΓΙΑ ΕΚΔΟΣΗΣ: 2013

ISBN: 9789606759833

BIG DATA SCIENCE IN FINANCE 1ST EDITION

ΣΥΓΓΡΑΦΕΙΣ: IRENE ALDRIDGE, MARCO AVELLANEDA

ΕΚΔΟΣΕΙΣ WILEY

ISBN-13: 978-1119602989

- *ISBN-10: 111960298X*

Audit Automation and Financial Risk Management (AFT-201)

COURSE OUTLINE

21. GENERAL

SCHOOL	ECONOMICS AND BUSINESS								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	POSTGRADUATE								
COURSE CODE	AFT-201	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
				x						
COURSE TITLE	Audit Automation and Financial Risk Management								

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures	2	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Scientific Area
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (including English bibliography)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	

22. LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

The aim of the course is to introduce students to the topics of Auditing, Internal Control, and Financial Risks. The principles of auditing, audit risks, and the development of an audit plan will be presented. Additionally, audit evidence and the procedures to be followed by auditors, as well as sampling techniques for auditing, will be covered.

Furthermore, the course will address audit reports and how audit results should be presented.

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

• Explain the concept of auditing and the functions of internal control.
• Understand the specificities of businesses, assess the risk, and identify inaccuracies arising from fraud or irregularities.
• Plan the audit of financial statements.
• Describe and evaluate internal control, audit techniques, and tests, providing appropriate recommendations.
• Identify audit procedures in accordance with International Standards on Auditing.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*……*
Production of new research ideas	*Others…*
	…….

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Adapting to new situations
- Decision Making
- Working Independently
- Working in an interdisciplinary environment
- Production of new research ideas
- Project Planning and Management
- Production of free, creative and inductive thinking

23. SYLLABUS

- The concept of auditing. Distinction between internal and external auditing.
- Principles of corporate governance.
- Object and General Principles of Auditing.
- Analysis of audit risk.
- Audit Plans – Specifics of businesses and financial reporting frameworks.
- Internal Control – Systems.
- Assessment of internal control systems.

- Scope of internal control operation – Assignments to auditors.
- Assertions and audit evidence.
- Audit Procedures.
- Audit Sampling.
- Audit Reports.
- Presentation of data and information effectively using new technologies.

24. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x	
	Distance learning (asynchronous)	x	
	Distance learning (synchronous)	x	
	Others:		
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x	
	E-class	x	
	Virtual (simulated) laboratory training		
TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	***Activity***	***Semester workload***	
	Lectures	39	
	Tutorials		
	Laboratory Practice		
	Essay writing	30	
	Seminars		
	Projects		
	Study and analysis of bibliography	21	
	Placements		
	Clinical practice		
	Art workshop		
	Interactive teaching		
	Educational visits		
	Artistic creativity		
	Independent study	60	
	Other:		
	Total number of hours for the Course (25 hours of work-load per ECTS credit)	***150 hours (total student work-load)***	
STUDENT PERFORMANCE EVALUATION	Written work, essay/report	X	40%

Description of the evaluation procedure *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	Problem solving			
	Multiple choice question naires			
	Final exam with Multiple choice questionnaires			
	Oral examination			
	Project			
	Mid-term exam (concluding)			
	Final exam with developing questions	X	60%	
	Public presentation			
	Mid-term exam (formative)			
	Laboratory work			
	Written work, essay/report			

25. ATTACHED BIBLIOGRAPHY (in Greek)

Σύγχρονα Θέματα Ελεγκτικής και Εσωτερικού Ελέγχου, Νεγκάκης Χ. και Ταχυνάκης Π., Εκδόσεις Διπλογραφία ΙΚΕ, 2012

Ελεκτική, Αληφαντής Γ., Εκδόσεις Διπλογραφία ΙΚΕ, 2019

- *Ελεγκτική-Σύγχρονες Τάσεις και Προοπτικές, Arens Alvin, Elder Randal, Beasley Mark, Hogan Chris, Εκδοσεις Broken Hill Publishers, 2021*

Labor Law and New Technologies (AFT-202)

COURSE OUTLINE

26. GENERAL

SCHOOL	ECONOMICS AND BUSINESS									
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY									
LEVEL OF STUDIES	POSTGRADUATE									
COURSE CODE	AFT-202	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
				x						
COURSE TITLE	Labor Law and New Technologies									

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures	3	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised*	Scientific Area

general knowledge, skills development	
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (including English bibliography)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	

27. LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

The course provides the necessary legal background for managing a business in the field of labor relations with the aim of integrating the principles of administrative science, financial management, and information technology tools with the requirements of labor legislation.

Upon completion of the course, postgraduate students are able to:

- Apply appropriate rules of labor legislation for successful and legally sound management within the new digital environment.
- Familiarize themselves with the application of new technologies in managing labor relations within the limits allowed by labor legislation (e.g., digital work card, telecommuting, electronic communication of employees, digital platforms).
- Understand the risks posed by new technologies to the privacy and personal data of employees and are trained in lawful management.
- Understand the functioning (digital or not) of key bodies, institutions, and processes of labor legislation involved in the operation of labor relations and act restrictively and determinatively in relation to managerial authority and broader employer powers.
- Evaluate cases of crises and conflicts in the workplace and apply preventive and management methods within the regulatory framework of labor legislation.
- Grasp the legal position of employers and employees regarding their rights and obligations. Special consideration is given to the case of crowdworkers in the provision of digital work.
- Lastly, based on the above knowledge, evaluate real and legal data, synthesize different perspectives, and manage any legal or practical issues they may encounter in the business.

At the end of the course, the student will have developed the following skills:

- Familiarity with the organization and functioning of labor relations, thus developing the ability to manage them.
- Making appropriate business and legally acceptable decisions according to the needs and purposes of the business.
- Utilizing new technologies and modern models of work management in a beneficial way for both employees and employers.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology

Adapting to new situations

Project planning and management

Respect for difference and multiculturalism

Decision-making *Working independently* *Team work* *Working in an international environment* *Working in an interdisciplinary environment* *Production of new research ideas*	*Respect for the natural environment* *Showing social, professional and ethical responsibility and sensitivity to gender issues* *Criticism and self-criticism* *Production of free, creative and inductive thinking* *……* *Others…* *…….*

- Decision Making
- Working Independently
- Team work
- Working in an interdisciplinary environment
- Respect for difference and multiculturalism
- Showing social, professional, and ethical responsibility and sensitivity to gender issues

28. SYLLABUS

The course includes the following thematic units:

- Introduction to the basic concepts of labor law - The impact of the digital era on the fundamental characteristics of employment relationships.
- Employment Contract - Flexible forms of employment - Telecommuting - Work and information technology.
- Obligations and rights of the employee in general and specifically in the digital environment.
- Employer's obligations - Issues related to wages - Linking remuneration to productivity within and outside the employer's premises - Electronic employment beyond working hours - Monitoring employees using electronic means.
- Other obligations of the employer - Labor Inspectorate (P.S. ERGANI) - Protection of employees' personal data - Health and safety at work in a digital work environment.
- Termination of the Employment Contract (fixed-term and indefinite).
- Trade Unions - Collective Action - Trade Unionists - Strikes - Digital registers and online elections.

29. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x	
	Distance learning (asynchronous)		
	Distance learning (synchronous)		
	Others:		
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x	
	E-class	x	
	Virtual (simulated) laboratory training		
TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.*	***Activity***	***Semester workload***	
	Lectures	39	
	Tutorials		
	Laboratory Practice		
	Essay writing	35	

The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS

Seminars	
Projects	
Study and analysis of bibliography	46
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Independent study	30
Other:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***150 hours (total student work-load)***

STUDENT PERFORMANCE EVALUATION

Description of the evaluation procedure

Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other

Specifically-defined evaluation criteria are given, and if and where they are accessible to students.

Written work, essay/report	X	20%
Problem solving		
Multiple choice questionnaires		
Final exam with Multiple choice questionnaires		
Oral examination		
Project		
Mid-term exam (concluding)		
Final exam with developing questions	X	80%
Public presentation		
Mid-term exam (formative)		
Laboratory work		

	Written work, essay/report			

30. ATTACHED BIBLIOGRAPHY (in Greek)

- Παπαδημητρίο, Κ. Πληροφορική και Εργατικό Δίκαιο, Συλλογικό Έργο, Νομική Βιβλιοθήκη, 2018.
- Ζερδελής Δημήτριος, Ατομικές εργασιακές σχέσεις , Έκδοση 2019
- Τραυλός Τζανετάτος, Το εργατικό δίκαιο στην 4η βιομηχανικη επανάσταση, Έκδοση 2019.
- Γεωργιάδου Νίκη, Εισαγωγή στο Εργατικό Δίκαιο, Έκδοση 2021
- Αγαλλοπούλου, Π. Εισαγωγή στο Εργατικό δίκαιο, Έκδοση 2019.
- Λαναράς, Νομοθεσία Εργατική και ασφαλιστικής, Έκδοση 2018.
- Κουκιάδης, Ι. Ατομικό και συλλογικό εργατικό δίκαιο, Έκδοση 2017.
- Βλαστός, Αλλαγές στις ατομικές και συλλογικές εργασιακές σχέσεις συνεπεία της οικονομικής κρίσης, Έκδοση 2013.
- Λεβέντης, Γ./Παπαδημητρίου, Κ., Ατομικό εργατικό δίκαιο, Έκδοση 2011

Digital Accounting and Financial Business Management (AFT-203)

COURSE OUTLINE

31. GENERAL

SCHOOL	ECONOMICS AND BUSINESS								
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY								
LEVEL OF STUDIES	POSTGRADUATE								
COURSE CODE	AFT-203	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
				x						

COURSE TITLE	Digital Accounting and Financial Business Management	
INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures	1	6
Laboratory component	2	
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		
COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Scientific Area	
PREREQUISITE COURSES:	Not required	
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (including English bibliography)	
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No	
COURSE WEBSITE (URL)	https://eclass.upatras.gr/courses/DITAF105/	

32. LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

The aim of the course is to introduce students to issues of professional reality so that they can meet the requirements of a modern business. To achieve this, a computerized program from a well-known company will be used.

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

- Understand the operation of a computerized accounting system.
- Maintain double-entry books in digital format.
- Extract information from accounting records.
- Use accounting information for making business decisions.
- Express technical judgment regarding business investments.
- Evaluate businesses.
- Make and assess investment decisions.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and *Project planning and management*

information, with the use of the necessary technology *Adapting to new situations* *Decision-making* *Working independently* *Team work* *Working in an international environment* *Working in an interdisciplinary environment* *Production of new research ideas*	*Respect for difference and multiculturalism* *Respect for the natural environment* *Showing social, professional and ethical responsibility and sensitivity to gender issues* *Criticism and self-criticism* *Production of free, creative and inductive thinking* *……* *Others…* *…….*

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Adapting to new situations
- Decision Making
- Team work
- Working in an interdisciplinary environment
- Production of new research ideas
- Production of free, creative and inductive thinking

33. SYLLABUS

The purpose of the course is to introduce students to the subjects of digital accounting and financial management with the immediate goal of extracting information for the administration of modern businesses. Students will be trained using an accounting information system with modern digital practices and techniques in the fields of accounting and financial management.
The organization of the course includes the following thematic units, which will be covered in 13 weeks:

- The Environment of Financial Management (Nature and Role of Financial Markets and the Financial System, Legal Framework in Greece – EU.)
- Introduction to the Electronic Books of the G.G.A. for businesses. Creation of a company in the system and its parameterization.
- Monitoring and Management of Fixed Assets (Management of Working Capital)
- Monitoring and Management of Inventories, Customers, and Suppliers (Management of Working Capital)
- Accounting Events of Revenues and Expenses
- Payroll
- Entries for VAT clearance, periodic declarations, withheld taxes, summary tables - Intrastat.
- Adjustment and Adaptation Entries
- Depreciation and Balance Sheet
- Techniques for Investment Appraisals

34. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x	
	Distance learning (asynchronous)	x	
	Distance learning (synchronous)	x	
	Others:		
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	x	
	E-class	x	
	Virtual (simulated) laboratory training		
TEACHING METHODS	***Activity***	***Semester workload***	

The manner and methods of teaching are described in detail.

Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.

The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS

Lectures	39
Tutorials	
Laboratory Practice	39
Essay writing	
Seminars	
Projects	40
Study and analysis of bibliography	
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Independent study	32
Other:	
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***150 hours (total student work-load)***

STUDENT PERFORMANCE EVALUATION

Description of the evaluation procedure

Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other

Specifically-defined evaluation criteria are given, and if and where they are accessible to students.

Written work, essay/report	X	
Problem solving		
Multiple choice question naires		
Final exam with Multiple choice questionnaires	X	
Oral examination		
Project		
Mid-term exam (concluding)		
Final exam with developing questions	X	
Public presentation		

	Mid-term exam (formative)			
	Laboratory work			
	Written work, essay/report			

35. ATTACHED BIBLIOGRAPHY (in Greek)

Γενική Λογιστική (Θεωρία – Ασκήσεις με ΕΛΠ), Χατζής Α. – Θανάσας Γ., Εκδόσεις Αγάθη Κουλίδου και ΣΙΑ, 2022

Χρηματοοικονομική Λογιστική Θεωρία - Ασκήσεις με Ε.Λ.Π. (Απλογραφικό - Διπλογραφικό Σύστημα), Αναστάσιος Χατζής, Εκδόσεις Αγάθη Κουλίδου 2021

MSc Thesis (AFT-204)

COURSE OUTLINE

36. GENERAL

SCHOOL	ECONOMICS AND BUSINESS									
ACADEMIC UNIT	MANAGEMENT SCIENCE AND TECHNOLOGY									
LEVEL OF STUDIES	POSTGRADUATE									
COURSE CODE	AFT-204	**SEMESTER**	1st	2nd	3rd	4th	5th	6th	7th	8th
				x						
COURSE TITLE	MSC Thesis									

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures		12
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Scientific Area
PREREQUISITE COURSES:	Not required
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (including English bibliography)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	

37. LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

Upon successful completion of the MSc thesis, the student will have:

- Delved deeply into a specific topic within the scientific areas covered by the department.
- Utilized relevant knowledge gained during their studies and developed synthetic skills.
- Learned to search for appropriate scientific information from relevant scientific literature.

- Acquired skills in writing scientific texts.
- Developed skills in organizing and orally presenting the thesis topic.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	……
Production of new research ideas	*Others…*
	…….

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Decision Making
- Working independently
- Working in an interdisciplinary environment
- Production of new research ideas
- Production of free, creative and inductive thinking

38. SYLLABUS

- Literature Review
- Literature Study
- Results Processing
- Thesis Writing
- Oral Presentation

39. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face	x
	Distance learning (asynchronous)	
	Distance learning (synchronous)	
	Others:	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Slides	
	E-class	
	Virtual (simulated) laboratory training	

TEACHING METHODS	***Activity***	***Semester workload***
The manner and methods of teaching are described in detail.	Lectures	
Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational	Tutorials	
	Laboratory Practice	

visits, project, essay writing, artistic creativity, etc.

The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS

Essay writing	110
Seminars	
Projects	
Study and analysis of bibliography	70
Placements	
Clinical practice	
Art workshop	
Interactive teaching	
Educational visits	
Artistic creativity	
Independent study	90
Other: Oral Presentation	30
Total number of hours for the Course (25 hours of work-load per ECTS credit)	***300 hours (total student work-load)***

STUDENT PERFORMANCE EVALUATION

Description of the evaluation procedure

Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other

Specifically-defined evaluation criteria are given, and if and where they are accessible to students.

Written work, essay/report	X	
Problem solving		
Multiple choice question naires		
Final exam with Multiple choice questionnaires	X	
Oral examination		
Project		
Mid-term exam (concluding)		
Final exam with developing questions	X	
Public presentation		
Mid-term exam (formative)		
Laboratory work		

	Written work, essay/report			

40. ATTACHED BIBLIOGRAPHY (in Greek)

Study and writing guidelines are determined by the respective supervising professor.

MSc Thesis

Thesis Writing Guide

The writing of a thesis is a requirement for all postgraduate students in order to complete their studies. The thesis offers the student an opportunity to demonstrate their ability to use the knowledge acquired during their studies and to engage in and investigate a topic of interest to them, applying a scientific approach.

The scientific work requires:

- Collection and utilization (analysis, presentation, and interpretation) of information/data,
- Formulation of an answer/solution to a specific research question/problem,
- Application of a process based on rigorous scientific analysis.

Scientific papers are divided into two major categories: research and studies, which are theoretical works.

A) Research

The research process begins with the formulation of a problem or a hypothesis (which requires a thorough literature review to be informed about the findings from previous research on the topic and the methodology followed). It continues with the design of the research, the collection, organization, and analysis of data, and concludes with drawing conclusions and generalizations related to the problem and/or the hypothesis of the research.

B) Studies

A theoretical paper is one in which the author relies on literature. The author starts with a specific topic, investigates what has preceded on this topic, collects relevant information, compares this information, and concludes with their own positions and conclusions.

An interesting thesis should have a clear purpose and, during its reading, should answer the following questions:

- Is the topic important from an academic perspective?
- Is the topic interesting from a practical perspective?
- What could be the academic and practical implications (e.g., further research in specific fields)?

For the writing of the thesis, besides selecting the topic correctly, faithful adherence to certain basic rules is required. Below are some of these rules regarding the structure and style of writing scientific papers. It should be emphasized that these rules are not absolute and do not apply in all cases. The personal opinion of the supervising professor will also play a significant role in the final shaping of the thesis.

1. STRUCTURE OF THE THESIS

When it comes to research, the following structure is suggested as indicative:

- Cover Page
- Title Page
- Dedication Page (optional)
- Abstract (Greek and English language)
- Table of Contents
- Preface
- Introduction
- Theoretical Framework
- Methodology
- Conclusions
- Bibliography
- Appendix (optional)
- Index (optional)

Additionally, and if useful for the thesis, following the Table of Contents, the following optional sections may be included:

- List of Abbreviations
- List of Figures and Illustrations
- List of Tables

Below is a brief description of what each section should include

1.1. Abstract

Perhaps the most crucial section of our work and one that is usually read by everyone. The reader should be able to understand in just a few lines (up to 400 words):

- the purpose,
- the methodology,
- the results,
- the limitations,
- the practical applications, and
- the original contributions of the research conducted within the thesis. At the end of the abstract, Keywords are listed (Key concepts or terms that can be used for indexing, e.g., in databases, and also provide the main axes of the work)

1.2. Introduction

The introduction succinctly outlines the motivation and purpose that led to the preparation of the thesis/research, the steps followed, and the methods employed. The structure of the introduction serves as a summary of the entire work. Specifically, it begins by briefly stating the thesis's purpose and the contents of all chapters of the literature review. Subsequently, it describes the methodology and research conducted, while summarizing the results and conclusions of the work at the end.

In the introduction, acknowledgments are also expressed towards all those who contributed to the completion of the work (supervisor, examining committee, public services, organizations, companies, professors, colleagues, other individuals, etc.). It is solely the student's right to express gratitude to someone/some people or not.

Regarding the writing style of the introduction, it should be noted that it becomes more personal when acknowledgments are included.

1.3. Introduction

The introduction describes the subject of the research and presents a brief overview of the approach taken to address it (or alternatively, the problem statement and its development). The introduction should include the following sections (in the order presented):

- Identification of the problem examined by the thesis (1 paragraph) and the purpose and objectives of the thesis (1 paragraph).
- Previous knowledge on the approach to the problem (1 paragraph).
- Description of the methodology/method used in developing the thesis topic (The combination of "problem-theory-method") (2 paragraphs).
- Brief presentation of the chapters that will follow (1 paragraph per chapter).

The introduction typically does not include results, conclusions, or reflections arising from the work. It refers to information that is already known and published (e.g., in books, journals, or conferences), providing a systematic (but critical) review of the sources used in the thesis. It demonstrates that the student/researcher is familiar with the existing literature on the subject, thus justifying the specific approach chosen to investigate the problem presented in the thesis.

In summary, the purpose of the introduction is to help the reader understand the scope of the thesis and to present the chosen approach for its development. It is advisable for the introduction to accurately reflect what has been done and what essentially exists in the subsequent chapters of the thesis. For this reason, the introduction is written as the work progresses or can be written at the end.

The introduction should not exceed 2-3 pages (depending on the total length of the thesis).

1.4. Main Body

The main body of the thesis is structured into individual chapters with continuous numbering. The sequence and structure of their contents are based on a predetermined outline. Each chapter addresses a specific topic or problem that contributes to the investigation of the thesis topic. Together, all chapters lead to the development of the central problem and support the results obtained from its analysis.

Depending on the thesis topic and the approach taken, the following chapters may be included:

A) Literature Review or Survey: In this chapter, the researcher attempts to contextualize the problem under investigation within a broader theoretical framework. By examining the existing relevant literature, the researcher identifies the historical development of the topic and describes the current state of research. Simultaneously, through the findings and perspectives of previous authors, the researcher presents their own viewpoint on the problem. At the end of this chapter, the research hypotheses are presented and formulated, if required by the objectives of the thesis. The text of the thesis follows the conventional logic that dictates first stating the problem and then discussing it. At the end of the thesis, it is examined whether the hypotheses are confirmed or refuted. In some cases, more than one chapter may be necessary to cover the cognitive subject and research problem addressed by the thesis.

B) Research Methodology: This chapter clarifies, from every perspective, the approach taken in the research, thereby answering questions of how, when, where, and with whom:

These chapters are essential for structuring the thesis coherently and guiding the reader through the logical progression of research and analysis. Each chapter contributes to building the argument and validating the conclusions drawn from the study.

- Describes the setting where the research took place and the conditions that made it suitable for this purpose.
- Analyzes the method of selection, as well as the key characteristics of the research sample.
- Provides a detailed description of the experimental design followed, including the methods used (quantitative or qualitative, etc.).

C) Results/Findings of the research.

In this chapter, the author provides a detailed description of the methods, means, and sequence of analysis and processing of the research data. It is more extensive than all that has preceded it. The text of this chapter includes statistical tables and diagrams (histograms, bar charts, etc.), within which the main results of the data analysis are presented.

D) Conclusions and Recommendations of the research.

This chapter typically includes what is commonly referred to as the "discussion" of the results, meaning the author's / researcher's commentary on the findings of their research. This chapter concludes with a necessary summary and final commentary on the findings. It also includes the final integration of the literature review and the empirical part of the research conducted. In this chapter, based on the results and data of their research, the author / researcher proposes certain theoretical or practical changes in the field of science and educational reality, respectively. Additionally, limitations of the analysis and the work in general are discussed, and there is a reference to future research prospects on the subject. This chapter takes the place of a "Conclusion" found in archival and bibliographic studies, although "Recommendations" and "Conclusion" are not necessarily identical. Note: each chapter in the main body may have an introduction at the beginning and a summary-conclusions section at the end, explaining why and how it connects with the rest of the work, without this being mandatory.

1.5. Bibliography

Citations and their correct use within the text of the thesis are among the most crucial issues for a thesis and perhaps play the most significant role in its evaluation. Citations are used each time we:

- quote verbatim within quotation marks or exactly reproduce the words of the author from a source,
- in general terms, convey information summarily from a source.

Citations are not used in cases where personal judgments and the author's conclusions are expressed in the work. Authors of scientific papers are obligated to indicate the sources from which they have derived the information used in their work.

Answering the question "where did the author of the scientific work obtain this information" is accomplished through the use of citations within the text. Furthermore, by using citations and accurately presenting their sources, the author adds credibility, validity, and reliability to their work. Additionally, the use of citations helps to avoid plagiarism and the theft of references, i.e., using citations from other works or books. Therefore, citations used throughout the thesis should be referenced, and the author should have read them.

However, when a bibliographic reference cannot be found, it can be cited as follows: "...according to Akerlof (1970), as cited in Watson et al. (2002)..." This is typically done for older works or works found in rare books and journals where access is not possible.

Special attention should be given to sources and information sourced from the internet. The Internet is an inexhaustible source of information and hosts a vast number of electronic sources and information originating from governmental, commercial, academic, corporate, and even personal sources. However, information published on websites on the Internet often does not undergo any form of validity and reliability checks. Moreover, anyone has the ability to "construct" a website and publish whatever interests them or attempt to promote their interests by posting data that aligns with their objectives. Therefore, the reliability of data posted on the Internet depends solely on the entity that created the website. For this reason, when an author of a scientific paper uses information published on the Internet, they should be particularly careful and evaluate websites with specific criteria (see Appendix "Website Evaluation"). Finally, references to websites should be to the specific page containing the subject matter, and not to the homepage of the entity's website, and should be accompanied by the date on which the specific information was retrieved.

In conclusion, it should be emphasized once again that any bibliographic reference mentioned in the text should be included in the bibliography with a corresponding citation, recorded in a specific manner as described below.

The bibliography is listed in alphabetical order based on the author's surname, without numbering, and must definitely be included within the main text of the paper, without differentiation between books, journals, etc. Therefore, three lists are created: one for Greek [A], one for foreign names [B], and one for websites [C].

1.6. Appendices

An appendix is optional and typically contains additional material of the research that is either extensive or of secondary importance, thus not needing inclusion within the main text of the paper. This may include, for example, lists, public documents, legislation, data collection questionnaires, extensive statistical tables, images, diagrams, maps, graphs, etc., directly related to the work. These materials can be reviewed by the reader later without disrupting or distorting the flow of information in the main part of the paper.

Appendices can be singular or multiple. Each appendix should focus on a unified theme. If additional material needs to be presented, a second appendix is created following the first. If there is only one appendix, it is simply titled "Appendix"; if there are multiple, they are referred to as "Appendix A," "Appendix B," and so on. The appendix is placed at the end of the paper after the bibliography, constituting a separate section of the work (numbered separately starting from 1) and is referenced in the table of contents. The table of contents lists each appendix as "Appendix" (or "Appendix A," etc.), without specifying its contents. Each appendix begins with the title "Appendix," followed by its content on subsequent pages.

2. General Writing Guidelines - Tone of the Thesis

The text of the thesis should be characterized by completeness, structure, organization, linguistic clarity, and precision, without compromising originality and creativity. A fundamental requirement in a thesis is accuracy, as well as logical coherence and consistency in presenting arguments, positions, and viewpoints that develop the student's reasoning in the work. Therefore, students are called upon to express their thoughts clearly and simply, using properly structured sentences. Some simple rules that can assist in this direction include:

- Use short sentences with clarity and simplicity.
- Avoid long periods.
- Have frequent paragraph changes.
- Ensure that paragraphs are logically connected.
- At the end of each (sub)chapter, it is good practice to have a concluding paragraph summarizing the individual positions supported.

- Avoid verbatim repetitions of one or more phrases or sentences from books, articles, etc. Instead, attempt to paraphrase the opinions found in books, etc.
- Include variety in expression, not only in choosing appropriate words (especially verbs) each time but also in alternating active and passive sentence constructions.
- Avoid everyday, commonplace, journalistic expressions, ornamental language, or dialectical (slang) expressions.
- Minimize the use of vowel contractions to an excessive degree
- Avoid abbreviations.
- Minimize the use of footnotes as it indicates an inability to integrate references into the main part of the thesis effectively.

3. General Printing and Formatting Guidelines

Below are some rules for formatting and printing the thesis.

Note: The following rules are not absolute but serve as a guide to achieve uniformity across the department's theses.

- Theses are written (e.g., using Microsoft Word) and printed on one side of A4 pages (21 x 29.7 cm).
- Page margins should be 2.54 cm top and bottom, and 3.18 cm left and right (default in MS Word).
- The recommended font is "Times New Roman" or "Arial", regular characters, size 12 points, with at least 1.5 line spacing, and fully justified with automatic hyphenation. Special pages, tables, etc., may be exceptions.
- The Title of the Thesis:
    - The title is written in bold, 24-point font, centered, after the sixth line (with the same letters and size), in the center of the page.
    - The title of the thesis should be concise and clear.
- Following the title is the author's name in bold, 18-point font, centered. Authors write their names nominatively.

These guidelines aim to ensure consistency and clarity in the formatting and presentation of the thesis documents.

Foreign Words

All foreign words and phrases should be italicized, without quotation marks.

Page Numbering

Page numbering is centered at the bottom footer according to the following rules:

- Introductory pages have a separate numbering with Latin numbers (i, ii, iii, iv, v, ..., ix, x, xi, etc.), starting from the abstract page to the preface.
- Arabic numeral numbering (1, 2, 3, ..., etc.) starts from the Introduction and ends before the bibliography.
- If feasible, appendices have independent numbering.

Chapter and Subchapter Numbering

Chapter and subchapter numbering follows a decimal system up to three digits (e.g., 3, 3.2, 3.2.4). Headers of chapters and subchapters are left-aligned and written with the following characters:

- For chapters (single-digit numbering), uppercase letters, 14-point bold, upright (normal bold).
- For subchapters (double-digit numbering), lowercase letters, 13-point bold, upright (normal bold).
- For paragraphs (triple-digit numbering), lowercase letters, 12-point bold, italic (italics bold).

Formatting Guidelines

- There is no indentation on the first line of text below a section or subsection title. Paragraphs should be justified with both left and right alignment.

These guidelines ensure consistency and clarity in the formatting and presentation of the thesis document.

Photos and Figures

Photos and figures should not exceed the width of the page and, in exceptional cases, should not exceed one page in size. Titles should be in 12-point font. Titles include the words "Photo" or "Figure," followed by their number and then a brief phrase describing their content, ideally in a single line. Below each photo or figure, include the source in 10-point italics. Numbering is in ascending order by chapter (2.xx). In-text references are without abbreviation, i.e., Photo 1.1, Figure 1.2. Tables: The same guidelines apply as for figures; however, tables presenting primary research data from the work do not require a source.

Appendix 2: Terms of Writing and Public Disclosure of Thesis, Postgraduate Dissertations, and Doctoral Theses at the University of Patras

The terms of writing and public disclosure of undergraduate, postgraduate dissertations, and doctoral theses approved at the session numbered 65/30.7.2015 of the Special Senate Composition of the University of Patras are in effect.

1. Each volume containing the text of the thesis prominently displays on the back of the title page the following: University of Patras, [Department] [Author's Name] [Year] - All rights reserved
2. Each student who prepares their postgraduate dissertation at a Department of the University of Patras is considered to have acknowledged and accepted the following:
    - The entirety of the dissertation constitutes original work produced by the student themselves and does not violate the rights of third parties in any way.
    - If the dissertation includes material not produced by the student, it must be clearly identified and explicitly referenced within the text as the work of a third party, indicating its identifying information. Moreover, it is certified that for the use of unaltered graphics, images, charts, etc., the student has obtained unrestricted permission from the copyright holder for inclusion and subsequent publication of such material.
    - The student bears sole responsibility for the fair use of the material used and is solely liable for any consequences arising from such use. It is recognized that the University of Patras does not assume any responsibility for any incomplete settlement of intellectual property rights.
    - The drafting, submission, and dissemination of the dissertation are not hindered by any transfer of the author's intellectual property rights to third parties, e.g., to publishers of monographs or scientific journals, at any time before or after publication of the dissertation. The author acknowledges that the University of Patras does not waive the rights to distribute the content of the dissertation according to the means it chooses.
    - For the above reasons, upon submission of the postgraduate dissertation, the student submits a declaration stating that they have read and understand the consequences of the law and the provisions of the Study Regulations of the Postgraduate Program and the Department, as well as the Internal Operating Regulations of the University of Patras, and that the dissertation submitted on the topic "_____" has been prepared under their own responsibility in compliance with the conditions specified in the applicable provisions and this Regulation.
3. The dissertations are published in the Institutional Repository no later than twelve (12) months. The Steering Committee of a Master's Program or the three-member Advisory Committee may, upon a sufficiently documented request from the Supervisor and the student, request temporary exemption from publishing the dissertation/thesis in the Institutional Repository for serious reasons related to the further progress and development of research activities, if the interests of the student or other natural persons, entities, companies, etc., are affected. The exemption period cannot exceed thirty-six (36) months, provided that no other legal impediments exist. It is noted that the submission of the dissertation/thesis occurs after its successful presentation, in accordance with the applicable provisions at the time, and before the conferment of the academic degree, but its availability is regulated by the Library according to the relevant request.

Submission of Text to the Library and the Registrar's Office The submission of the dissertation to the structures of the Library & Information Center (LIC), according to the Internal Regulations of the Library & Information Center (Senate Meeting 382/20.04.05, revision 59/04.06.15), is mandatory for the postgraduate students of the University of Patras in electronic form. Upon submission of the dissertation, the LIC provides the necessary certifications to the Secretariats of the Departments.