HELLENIC REPUBLIC

UNIVERSITY OF THESSALY

"MSc in Government Digital Innovation and Transformation"

STUDY GUIDE

2025-2026

CONTENTS

FOREWORD BY THE DIRECTOR

Dear students,

The MSc in Government Digital Innovation and Transformation is established in accordance with the provisions of Law 4957/2022, as amended and in force.

Our goal is to train scientists with knowledge and skills that will allow them to successfully meet the challenges of modern Greek and European administration and economy in a global economic environment that is evolving dynamically. At the same time, we seek to contribute to the creation of socially aware citizens who will be able to face their professional life with a high sense of social responsibility.

In the Study Guide you can find detailed information about the content of the courses and the lecturers of the MSc as well as many useful instructions for your studies at the University of Thessaly.

On behalf of the teaching and administrative staff, we welcome you to the MSc Government Digital Innovation and Transformation and wish you a fruitful and productive academic year. For our part, we will do our best to ensure that your period of study is creative, fruitful and full of positive experiences.

Director of the MSc

THE UNIVERSITY OF THESSALY

ESTABLISHMENT AND ADMINISTRATION

The University of Thessaly was founded in 1984 (together with the University of the Aegean and the Ionian University) by Decree 83/1984 (FEK 31/tr.1o/20-3-1984), which was amended in 1985 by Decree 302/1985 (FEK 113/tr.1o/31-5-1985). The seat of the University of Thessaly is Volos. After the merger with the TEI of Thessaly and Sterea, the new University of Thessaly has 8 faculties and 37 departments and is the 3rd largest university in the country.

As a Higher Educational Institution, the University is a legal entity under public law with full self-government. It is supervised and subsidized by the State through the Ministry of Education and Religious Affairs. According to the institutional framework for higher education, the administration of the University is exercised by the Rector and the Senate.

The Senate of the University of Thessaly
The Senate is composed of:
1. the Rector, the Deans of the 8 Faculties and the Presidents of the 37 Departments.
2. representatives of students, postgraduate students and doctoral candidates.
3. a representative of the Special Education Staff (SEP)
4. a representative of the Special Teaching Staff (STS).
5. one representative of the Special Administrative Technical Staff (SAB).
6. one representative of the administrative staff.

ORGANISATION OF SCHOOLS AND DEPARTMENTS

School of Economics & Finance Administrative Sciences (Volos-Larisa)

- Department of Business Administration
- Department of Accounting and Finance
- Department of Economics

School of Humanities and Social Sciences (Volos)

- Department of Primary Education
- Department of Special Education
- Department of Early Childhood Education
- Department of Language and Intercultural Studies
- Department of History Archaeology and Social Anthropology
- Department of Culture and Creative Media and Industries

School of Agricultural Sciences (Volos-Larissa-Karditsa)

- Department of Agriculture, Fisheries and Aquatic Environment
- Department of Plant Production and Rural Environment

- Department of Agriculture - Agrotechnology
- Department of Animal Production Science
- Department of Food Science and Nutrition

School of Engineering (Volos)

- Department of Architectural Engineering
- Department of Electrical and Computer Engineering
- Department of Urban Planning and Regional Development Engineering
- Department of Mechanical Engineering
- Department of Civil Engineering

School of Health Sciences (Larissa-Karditsa-Lamia)

- Department of Biochemistry and Biotechnology
- Department of Public and Unified Health
- Department of Medicine
- Department of Veterinary Medicine
- Department of Nursing
- Department of Physiotherapy

School of Physical Education, Sports and Dietetics (Trikala)

- Department of Dietetics and Nutrition
- Department of Physical Education and Sport Science

School of Sciences (Lamia)

- Department of Mathematics
- Department of Informatics and Telecommunications
- Department of Informatics with Applications in Biomedicine
- Department of Physics

Technology (Larissa-Karditsa)

- Department of Forestry, Wood Science and Design
- Department of Environment
- Department of Energy Systems
- Department of Digital Systems

SERVICES OF THE UNIVERSITY

ADMINISTRATIVE SERVICES

The Administrative Services of the University of Thessaly are based in Volos and deal with budget, payroll, procurement, etc. Their main objective is the administrative and financial support for the proper functioning of the University of Thessaly and the provision of high quality services to the students of the institution (e.g. food, accommodation, health care, counselling, etc.).

More information on the website:
HTTPS://WWW.UTH.GR/SCHETIKA/DIOIKESE/ADMINISTRATIVESERVICES

TELEMATICS NETWORK CENTRE

The project of the Telematics Network of the University of Thessaly is the maintenance of a network supporting unified services that interconnects all the buildings of the University of Thessaly, in all the cities of Thessaly where the University has facilities, as well as the provision of high quality telephony, data and video services. Some of its services include user account creation (electronic identity and e-mail), software access and distribution, website hosting, etc.

More information on the website: HTTPS://IT.UTH.GR

INTERNATIONAL RELATIONS AND ERASMUS OFFICE

The Office of International Relations and Erasmus+ belongs to the Department of Cultural Exchanges and Public Relations of the University of Thessaly.

The Office provides information, guidance and mobility grants: a) to students, allowing them to spend part of their studies in another country, b) to students to undertake an internship in another country, and c) to lecturers, in order to promote the European dimension in studies.

More information on the website: HTTP://ERASMUS.UTH.GR/GR/

EMPLOYMENT AND CAREER STRUCTURE (DASTA) OF THE UNIVERSITY OF THESSALY

DASTA is the main gateway of the University of Thessaly to the labour market. Its aim is to develop the strategy, vision and policies of the University of Thessaly for its connection with the labour market and the careers of its students. It coordinates the activities of the following structures:

- Innovation and Entrepreneurship Unit
- Internship Office
- Liaison Office

More information on the website: HTTP://DASTA.UTH.GR/

INNOVATION AND ENTREPRENEURSHIP UNIT (IEU)

The main objective of the Innovation and Entrepreneurship Unit (IUU) is to develop the entrepreneurial and innovative skills of the students of the University of Thessaly and to support them in undertaking entrepreneurial activities. For this purpose, the MOKE implements activities such as: teaching entrepreneurship courses related to entrepreneurship and innovation, ensuring direct contact with the entrepreneurial community, lectures by well-

known entrepreneurs, seminars and mentoring programmes, student entrepreneurial activities through specialised guides and tools and individual counselling.

INTERNSHIP OFFICE

The Internship Office of the University of Thessaly creates a channel of constant communication between the University of Thessaly and businesses and institutions of the public and private sector, for the integration of students in the productive system of the country and the better utilization of the knowledge they acquire at the University. The Head of the Department of Internship is Professor C. G. G. Iatridis.

More information on the website: HTTP://PA.UTH.GR/

LIAISON OFFICE

The Liaison Office is funded by the European Union and the Greek State. This office provides information to graduates about possible positions in the labour market, as well as about the prospects for further education and specialisation by helping them to find postgraduate studies, scholarships, companies for the implementation of their internship, etc. The Office is located in the complex of Tsalapata, Giannitsa & Yannitsa. Lachanas, Volos.

More information on the website: HTTP://WWW.CAREER.UTH.GR

CENTRE FOR TRAINING AND LIFELONG LEARNING (KEDIBIM)

KEDIBIM's main objective is the design, organization and implementation of a series of integrated professional training and specialization programs in various cutting-edge scientific fields. On its website, an extensive list of new, innovative and competitive training courses in various fields of specialization of the University of Thessaly is presented.

More information about the available programmes at: http:// learning.uth.gr/

UNIVERSITY PUBLICATIONS

University Publications was founded in 1998 with the aim of promoting and disseminating scientific knowledge and upgrading educational teaching.

- They encourage the writing of modern university publications in areas where the small size of the domestic market does not ensure the interest of publishers.
- They offer the possibility of intervention of the scientific potential of the University of Thessaly and other Educational Institutions by writing studies, monographs or the creation of periodical scientific publications on issues and areas of social, economic and technological interest.
- Produce teaching and educational material in printed and electronic form, such as notes, exercises, articles, research papers, which are distributed mainly to students.

More information on the website: HTTP://press.uth.gr

BOOKSTORE OF UNIVERSITY OF THESSALY PUBLICATIONS

The bookstore of the publications together with the gift and souvenir shop of the University of Thessaly have been operating since 2013 and are housed on the ground floor of the Tsikrikis building, 145 Iasonos Street, Volos. Tel. 24210-74118.

More information on the website: HTTPS://BOOKSHOP.UTH.GR/

STUDENT CARE

The purpose of the Student Affairs office is to inform, organize and provide quality services on issues related mainly to food, housing and health care benefits, based on the current legislation.

More information about the services of Student Services at the website: HTTPS://WWW.UTH.GR/ZOI/FOITITIKI-MERIMNA

STRUCTURE "ACCESS"

The Support Structure for Students with Disabilities and/or Educational Needs (SEN) aims to enhance the accessibility of students with disabilities to the services and facilities of the University. It provides needs recording and assessment, information and support services. To date, 148 students from all departments of the University of Thessaly are registered in "Access".

More information on the website: HTTP://PROSVASI.UTH.GR/

STUDENT COUNSELLING SERVICE

The Student Counselling Service is implemented by the Laboratory of Psychology and Applications in Education. It provides psychological support and assistance services to students who request it.

More information about the services and how to contact us at: HTTPS://WWW.UTH.GR/ZOI/YPOSTIRIXI/SYMBOYLEYTIKI

SPORTS AND CULTURAL ACTIVITIES

The students of the University of Thessaly can participate in various sports and/or cultural activities organized under the auspices of the University of Thessaly. For more information visit the website:

https://www.uth.gr/zoi/politismos-athlitismos

- Physical Education Office: aims to improve the physical fitness of students and to strengthen the spirit of teamwork through their participation in university sports teams and the promotion of fair play.

- Artistic groups: the theatre group of the University of Thessaly "Third Floor" gives students the opportunity to get to know the art of theatre, to work in groups and to discover their expressive potential through theatre play and improvisation.
- Music Ensembles: their aim is to promote the collective musical creation and musical culture of the students through vocal expression. Through their artistic activity through the realization of concerts, seminars, music publications, festivals, cultural exchanges, etc., they contribute to the active presence of the University of Thessaly in relation to culture.
- Choir of the University of Thessaly: The Choir of the University of Thessaly was founded in 2015, in Volos, where its headquarters are located. The choir's classes are made up of students and its activities include all the departments of the University from Volos, Larissa, Karditsa, Trikala and Lamia. In 2015 she started her artistic activities, which she continues consistently until today. The choir rehearses in the "Skuvaras" hall, on the mezzanine floor (building 3) of the coastal complex of the University of Thessaly.
- Student Internet Radio Station (yuth-radio.com): the station is mainly addressed to the students of the University of Thessaly, providing information, among other things, on student issues and events of the University of Thessaly. The operation of the station is carried out by students - members of the University of Thessaly.

LIBRARY

The Library of the University of Thessaly started operating in 1988. It is a single service, with its headquarters in Volos, where the Central Library is located, and branches in the five cities where there are Departments and Faculties of the University of Thessaly. The Library is responsible for ordering and managing books, scientific journals and databases. All transactions of the Library (loans, reservations, orders) are carried out through an automated computerized system. The book and journal catalogues and databases are available to users via the Internet. The Library functions as a lending library for students, faculty members and all interested researchers and scholars in the region.

Apart from members of the university community, all interested researchers, scholars and the general public of the region have the right to use the Library. In order to be issued with a Library user card, upon presentation of which users can borrow materials from the Library, prospective users must complete and submit the relevant application form together with a passport-type photograph. The user card can be used to borrow or search for material in all branches of the Library, regardless of the branch to which the application for the card was submitted. The submission of the application for user status means that the applicant accepts all the terms of the Library's Rules and Regulations.

The library needs of the students of the Department are covered by the Central Library of the University of Thessaly. All processes, such as borrowing, reservations, orders, for example, are carried out through the automated system of the Central Library in Volos.

For more information on the operation and services offered by the library of the University of Thessaly, please visit the website: HTTP://WWW.LIB.UTH.GR/

THE DEPARTMENT OF BUSINESS ADMINISTRATION

The Department of Business Administration (BBA) of the University of Thessaly (UTH) based in Larissa was established by Law 4589/2019 (Government Gazette A 13/29.01.2019, Article 22, paragraph 1d) and has been operating since September 2019. With its establishment, the Department of Business Administration joined the Faculty of Economics and Management Sciences of the University of Thessaly, which was also established by Law 4589/2019 (Government Gazette 13 A/29.01.2019, Article 21, paragraph 1bb). The aim of the curriculum of the Department of Business Administration of the University of Thessaly is to provide scientific knowledge on issues related to business administration. In this context, the Curriculum includes courses of both qualitative and quantitative approach, which enable graduates to analyze and understand the functioning of enterprises in the contemporary environment and to identify policies and practices that optimize their effectiveness and efficiency. Upon completion of their studies, students can work either as executives, business executives, public and non-profit organizations, or continue their studies at the postgraduate level.

The course of study at the Department lasts for eight semesters. The degree requires the successful completion of 36 compulsory courses, 4 elective courses and 4 foreign language courses, which together count for a total of 240 ECTS credits. In total, the Programme of Studies offers 54 courses covering the subject areas of Management, Marketing, Accounting and Finance, Information Technology, Quantitative Methods, Economic Analysis and Law. In each of the first four semesters, five compulsory courses are taught in each of the first four semesters, plus a foreign language. In each semester of the third and fourth year the student takes four compulsory courses and one elective course. In the elective procedure, four courses are offered in each semester of the third year and five courses in each semester of the fourth year. Alternatively, in the eighth semester, the student may prepare a Thesis instead of an elective course. The preparation of a thesis requires that the student has attended and successfully passed the Research Methods course in the seventh semester.

The Department of Business Administration of the University of Thessaly considers the knowledge of the English language essential and for this reason all students are required to register and attend English as a Foreign Language. Instead of English, students who hold at least a C1/C1 level English Language certificate have the possibility, if they wish, to register and attend French instead of English. Foreign Languages at the Department of Business Administration of the University of Thessaly are taught in four levels, in the first four semesters. Adequate attendance of all four levels is compulsory and the average of 4 grades is counted as one course in the calculation of the degree grade.

Address: Gaeopolis, Regional Road Larissa-Trikala, P.C. 41 110, Larissa

Telephone: +30 2410 684235

Email: g-de [at] uth [dot] gr

Website: HTTP://DE.UTH.GR/

Members of the General Assembly of the Department of Business Administration

THE SECRETARIAT OF THE MSC

The MSc Secretariat is responsible for administrative, academic and student affairs. In particular:

Academic and Student Issues

Registration of students, transfers, compilation of student lists according to the declaration of course selection, maintenance of student records (grades, scholarships, diplomas, etc.) and issuing of certificates, etc.

Administrative and Research issues

Keeping records of faculty and staff members etc.

Secretariat of Postgraduate Studies:

Argyro Gerakopoulou 2410-684708, dgov@uth.gr

Information on study issues etc. is posted on the website - http://dgov.uth.gr/

PURPOSE-OBJECTIVE

Although there is no universally accepted definition, recent research defines digital transformation as "the process of fundamental change driven by digital technologies, aiming to achieve radical improvements and innovations in an entity (organization, business, industry, or society), with the goal of creating value for its stakeholders through strategic balancing of its critical resources and capabilities." This definition suggests that digital transformation primarily concerns change management and less about technology, which makes the development of appropriate management tools even more crucial. In this sense, digital transformation is being systematically approached at international, European, and national levels, through the formulation and implementation of corresponding strategies. Similar actions are recorded in a range of cities and societies, as well as organizations and businesses, while large-scale initiatives are also being funded in less developed countries.

The digital transformation of the public sector represents a significant challenge, as despite the implementation of large-scale strategies for digital governance, goals that align with the efficiency of transactions and the achievement of smart governance are still being set (Anthopoulos et al., 2021), where technology leads to self-evolving public services. A critical success factor is the presence of properly trained personnel in the public sector, particularly in the new required skills and technologies that can overcome the barriers of resistance to change, as well as other types of failures in the implementation of digital governance programs (Anthopoulos et al., 2016).

Therefore, the proposed postgraduate program aims to present students with the challenges faced by governments, as well as to help them understand the emerging opportunities and issues the public administration faces in their digital transformation. Furthermore, it aims to provide them with the necessary knowledge required for the design, management, and implementation of digital technologies in the public sector.

The MSc in "Government Digital Innovation and Transformation" follows a modern yet innovative interdisciplinary approach, according to which graduates of the program will be able to:

- Understand the theoretical background of digital transformation and digital governance.
- Manage the development of strategy and innovation in public administration.
- Manage the sustainable development of projects in the public sector.
- Organize and manage data generated in the public sector and understand its use in governance.
- Understand the techniques for activating citizens.

- Understand the core modern technologies in the public sector such as cloud computing, artificial intelligence, big data analytics, security, privacy, etc.

REGULATION OF THE POSTGRADUATE STUDIES PROGRAMME

TOPICS OF STUDY

The registration of students to the MSc of the University of Thessaly (UTH) is done by the MSc Secretariat through the information system of the Electronic Secretariat of the UTH (https://euniversity.uth.gr/unistudent/ and https://cas.uth.gr/).

DURATION OF SEMESTER-STUDIES

The duration of the program for the award of the Master's Degree (MSc) is three (3) semesters, with the final semester dedicated to the completion of the thesis.

Postgraduate students are required to attend the distance learning programme in accordance with the course programme. If there are serious reasons, up to 30% of the teaching hours per semester can be missed.

For the acquisition of the MSc, 90 ECTS: European Credit Transfer System credits are required, divided into 30 per semester and 30 for the thesis.

ACADEMIC CALENDAR

The academic year begins on 1 September and ends on 31 August of the following year. The teaching work of each academic year is divided into two semesters (winter and spring).

The courses of the winter semester start in the 1st 15th week of October and last 13 weeks. The teaching schedule is announced no later than the end of the first week of September.

Spring semester courses begin after the end of the winter semester exams and also last 13 weeks. The teaching schedule is announced no later than the end of the first week of February.

The academic calendar for each year is set by the Senate at least two months before the beginning of the academic year. By decision of the Assembly, the Department may modify the decision of the Senate according to its needs.

COURSE MAKE-UPS

The lecturer may request a make-up of a course that he/she misses only due to a planned absence or illness. In this case, he/she submits a written request to the Director and the Coordinating Committee of the MSc and cooperates with them to find a classroom and a time to make up the class.

The time and place of the make-up must be communicated to students at least four (4) days prior to the class.

If the above procedure is not followed and the course is not made up, the lecturer is obliged to notify the MSc Secretariat in writing.

The make-up cannot coincide with another course in the same semester. Make-ups in the same course must be made on a day other than the day on which the course is normally taught and in any case may not precede or follow the course consecutively.

REGISTRATION AND RENEWAL OF REGISTRATION

Both the registration and the declaration of courses of the students in each semester are jointly necessary actions in order for the student to have an active presence in the Institution. The renewal of registration each semester is carried out by the MSc Secretariat through the information system of the ETH Electronic Secretariat (https://euniversity.uth.gr/unistudent/ and https://cas.uth.gr/).

COURSE DECLARATION

The course registration is carried out every semester by the MSc Secretariat, in order to be able to attend and participate in the course examinations. The MSc Secretariat declares the courses of each semester according to the rules set by the MSc Programme of Studies.

Please note that the declaration of courses each semester is done through the above information system. Please note that students are only entitled to take examinations in courses that they have declared to attend during the semester in question.

SUSPENSION OF STUDIES

Students have the right to discontinue their studies, with a written request to the MSc Secretariat, for as many semesters, consecutive or not, as they wish, and in any case not more than the minimum number of semesters required for the award of a diploma according to the indicative curriculum. The application must indicate the exact period of suspension. These semesters do not count towards the above maximum duration of study. Students who suspend their studies as described above do not have student status for the entire period of suspension. After the end of the interruption, students are reinstated and rejoin the Department. In the meantime, students have the right, with a justified written request to the MSc Secretariat, to terminate their suspension at the beginning of each semester.

WITHDRAWAL

In case of absence or failure of a student, in the course review or in the review of the MPA, the matter is referred to the Steering Committee (SC), which recommends to the Assembly the final deletion of the student from the MSc, or the attendance of the same course. If the Assembly decides that the student should attend the same course and fails, then the student will be removed from the MSc, following a decision of the Assembly.

The student has the right to withdraw from the MSc after a written request to the Secretariat. The necessary forms for withdrawal are the following:

- Deletion Request Form
- Confirmation from the Student Residence and the Library of the Faculty of Engineering of the University of Thessaly, that there is no outstanding amount.
- Pass, Academic Identity Card and Health Card (whichever of them were issued) are returned to the MSc Secretariat.

GRADE SCALE

The performance of students in the courses is graded on a scale of 0-10, with a 10 being the pass mark and the minimum passing grade being 5. Grades are given in half-point increments. The ten-point grading scale followed for all courses is as follows:

8,50 - 10 : "Excellent"

7,00 - 8,49 : "Very well"

6,00 - 6,99 : "Good"

5,00 - 5,99 : "Sufficiently"

0,0 - 4,99 : "Unfortunately"

Regarding the degree of the Diploma and in accordance with the current regulations, the grade is on a 10-point scale with a pass mark of 10 and a minimum pass mark of 5.

The number of courses for the award of the Diploma is calculated as the total number of courses that the student has successfully completed in order to obtain 90 ECTS credits.

The grade of the MPA is the weighted average of the grades of the courses and the thesis based on the credit units assigned to each course and the thesis, as specified in the Y.A. Φ141/Β3/2166 (Government Gazette 308 t.B'. 18.6.1987) according to the following formula (where the credit units replace the weighting factors of the Y.A.), and more specifically the mathematical formula is the following:

$$\beta = \frac{(\beta_\delta \times \pi_\delta) + \sum_{i=1}^{N}(\beta_i \times \pi_i)}{\pi_\delta + \sum_{i=1}^{N}(\pi_i)}$$

Where :

- N = number of courses
- b_i = course grade i
- b_δ = postgraduate thesis grade
- p_δ = number of credits attributed to the MCE
- p_i = number of credits allocated to course i
- b = M.Sc. degree

In case of unsuccessful completion of the course, the student receives a certificate of attendance of the MSc (*according to the regulations of the University of Thessaly's Postgraduate Studies*).

ACADEMIC IDENTITY-PASS

For the issuance of an Academic Identity Card with an integrated Student Ticket (PASO), students submit their application online at the website https://submit-academicid.minedu.gov.gr. Thereafter, and once the application has been approved by the Secretariat, students can collect the special ticket voucher (pass) from a specific delivery point, which they will have selected when submitting their application. More information is available here: https://ba.uth.gr/ακαδημαϊκή-ταυτότητα.

CERTIFICATES

Applications for certificates shall be made through the information system. Through the same system, the student can monitor his/her card and consequently his/her progress. The student comes to the Secretariat of the Department, within the student service hours (in order to receive the certificates. The student service hours are posted on the MSc website.

The Secretariat of the Department issues the following certificates:

- Certificate of attendance, which confirms that the applicant is an active student.
- Certificate of analytical grades, indicating the student's progress in the courses taught.
- Certificate of Completion of Studies, for those who have fulfilled the obligations of the Programme of Studies, but have not been awarded the diploma.
- Copies of diplomas and certificates relating to graduation (transcripts) and suspension of studies.

ANNEX TO THE DIPLOMA

The University of Thessaly since June 2012 awards the Diploma Supplement to all graduates at undergraduate and postgraduate level and is a form of certification that the University of Thessaly applies the European ECTS system. The Diploma Supplement is automatically given to all without any application and is filled in with information on the characteristics of the study programme (e.g. the courses that one has successfully attended etc.), in Greek and English. The Diploma Supplement enables students to apply to any Greek or foreign university for a postgraduate programme without the need for any other official translation.

COMPLETION OF STUDIES-PROCLAMATION OF GRADUATES OF THE MSC

The student completes his/her studies and is awarded the degree when he/she successfully passes the courses provided by the MSc Programme of Studies.

Upon completion of their studies, students must collect the following documents within a reasonable period of time:

- Confirmation from the Student Residence that there are no outstanding issues.
- A certificate from the Library of the School of Economics and Management Sciences (SODE) of the University of Thessaly, that he/she has delivered a copy of his/her thesis and that there is no pending work.
- Pass, Academic Identity Card are returned to the Secretariat of the Department.

Students apply for their Oath of Office at the Secretariat at a time announced on the Department's website, by submitting the following form:

- Oath of Office Application Form (provided by the Secretariat and available on the department's website)

The CNDE and, by extension, the MSc holds three inaugurations per year (one after the January examination, one after the June examination and one after the September examination).

STUDY GUIDE

The MSc must prepare its annual Study Guide which contains the detailed Programme of Studies, the individual courses for the diploma, the learning outcomes of the diploma and each course as well as other useful information. The Study Guide must be posted on the MSc website at the beginning of the academic year.

CURRICULUM ISSUES

Each course corresponds to a number of credits as the University of Thessaly follows the ECTS (European Credit and Accumulation Transfer System), which is followed in all European universities.

CURRICULUM

The aim of the MSc of the University of Thessaly is to provide knowledge on issues related to Business Administration. In this context, the curriculum includes courses of both qualitative and quantitative approach, which enable graduates to analyze and understand the operation of businesses in the modern environment and to identify policies and practices that optimize their effectiveness and efficiency.

STRUCTURE OF THE PROGRAMME OF STUDIES

The MSc has been developed in accordance with the quality assurance procedures provided in each case.

In order to obtain the MSc, students must attend and pass all courses, which are divided into two semesters (A and B) and complete the Postgraduate Diploma Thesis in the third semester. Attendance of the courses is compulsory.

To obtain the Master's Degree (MSc), students are required to attend and successfully pass 8 (eight) courses, which are distributed across the first and second semesters (Semester A and B), and to complete the Master's Thesis in the third semester.
The attendance of courses is mandatory and is conducted remotely. The program corresponds to a workload of 90 ECTS credits, which are distributed between the taught courses and the Master's Thesis (MT).
Each semester lasts 13 full weeks of classes and corresponds to a workload of 30 ECTS credits.
The Master's Thesis is mandatory for all students and is carried out in the final semester of their studies, accounting for 30 ECTS credits.
The detailed programme of studies of the MSc is attached as an annex to the existing regulation.

DIPLOMA THESIS

The thesis is carried out during the third semester of studies and requires the student's substantial employment for at least one regular semester of studies. The grade of the thesis will be included in the final degree grade with a weighting factor proportional to its importance.

ASSIGNMENT OF DISSERTATIONS.

Each postgraduate student prepares a postgraduate thesis as part of his/her obligations for the award of the Diploma of Postgraduate Studies. The postgraduate thesis may not be undertaken earlier than the end of the second semester of study.

The SC, following the candidate's application, which includes the proposed title of the thesis, the proposed supervisor and the abstract of the proposed thesis, appoints the supervisor and constitutes the three-member examination committee for the approval of the thesis, one of whose members is the supervisor.

In order for the paper to be approved, the student must support it before the examination committee. The members of the committee must have the same or a related scientific discipline as the subject of the thesis. The design of the Master's Thesis of each student is the responsibility of the supervisor.

After the completion of the collection and processing of the sources or research data, the writing of the Master's Thesis follows.

The way of writing the Postgraduate Thesis of each Programme has specific specifications, is included in each Postgraduate Studies Regulation and is posted on the website of each MSc.

The content of the Master's Thesis should be on contemporary issues of science and should be compatible with the mission of the MSc, as defined in the introduction of this Regulation. Postgraduate students, in collaboration with their supervisors, are encouraged to present their research data at conferences and publish them in scientific journals.

THESIS DELIVERY PROCEDURE.

A thesis is considered completed when, after the supervisor's agreement, it is written and delivered to the supervisor.

After the completion of the writing of the Master's Thesis and after the agreement of the supervisor, the candidates deliver a copy of the thesis to the members of the Committee. When the Committee deems the thesis ready, it is publicly supported after an announcement by the Programme Secretariat, within a specific period of time, provided for by the Regulations for Postgraduate Studies of the Department's MSc. The language of writing of the Master's Thesis is specified in the regulations of the MSc. .

THESIS EVALUATION.

The final evaluation and assessment of the Master's Thesis is carried out by the Master's Thesis Evaluation Committee.The approval requires the unanimous opinion of two thirds (2/3) of the members of the Committee. The Master's Thesis is graded from zero (0) to ten (10), with a minimum passing grade of five (5). A grade >8.5 is given when the Master's Thesis has been published in a scientific conference, scientific report/chapter/book or scientific journal

The final grade of the thesis consists of the average of the three grades of the members of the examination committee.

In case the grade of a thesis is not acceptable, the student has the right to apply to the Department for either a change of topic or an extension of the time period for the thesis until the next examination period in order to improve it.

In case of rejection of the Master's Thesis, a new evaluation date is set by the AC, at least three (3) months after the first evaluation. In case of a second rejection, the candidate shall be removed from the MSc.

The approved Master's Thesis, after the completion of any corrections proposed by the Committee, is submitted to the library in one (1) copy in electronic form and posted on the Library's website. Under the responsibility of the

Library of the University of Thessaly, an electronic database of the Postgraduate Theses of the University of Thessaly is created and published in the institutional repository of the University.

COPYRIGHT AND OTHER RIGHTS OF A THESIS.

The thesis is a product of cooperation between the student and the Professors or Lecturers who supervise its preparation at the University of Thessaly.These individuals also have the copyright to publish the results of the thesis in scientific journals. These publications shall comply with scientific ethics.

The costs for the preparation of the thesis are, as a rule, covered entirely by the U.T.H. The U.T., which finances the preparation of the thesis and is the employer of the professors of the faculty members participating in the thesis, has all rights to any economic benefits that may arise from commercial or other applications of the results of the thesis.

In special cases, with the approval of the Department, it is possible to finance part of a thesis from other sources, e.g. other national institutions, private companies. It is noted in any funding contract with the PI or the student that funding of theses does not create any rights for the funder or the student in any commercial or other application resulting from the theses. In conclusion, the funding of dissertations does not create rights to any commercial or other application arising from the dissertations.

Upon commencement of the thesis, the student signs a declaration of assignment of his/her rights to the U.T.H. Otherwise, the thesis is not considered legitimate and the thesis process does not continue.

CONDITIONS FOR OBTAINING A DIPLOMA

The Programme of Studies corresponds to a workload of 90 credits, which are distributed among the taught courses and the thesis. The Master's thesis is carried out in the last semester of their studies and corresponds to 30 credit hours (ECTS).

90 credit hours are required to obtain the diploma.

TRANSITIONAL PROVISIONS

With regard to the examination of the courses of the previous Programmes of Studies of the Master of Science of the University of Thessaly, this is carried out on the basis of the relevant decisions of the Department.

CURRICULUM REVIEW

The revision of the Curriculum is based on the findings of the external and annual internal evaluation and according to the procedure provided for in the respective Senate Decision, which was approved following a recommendation of the Quality Assurance Unit (QAQM) of the U.T.H.

ORGANIZATION OF STUDIES OF THE DEPARTMENT

LEARNING OUTCOMES OF THE POSTGRADUATE PROGRAMME OF STUDIES

Learning Objectives

The objectives of the Master's program are as follows:

1. Understanding the Principles of Digital Governance, Digital Innovation, and Digital Transformation: Students will gain a comprehensive understanding of the concepts, technologies, and methodologies supporting digital governance, including service modeling, open data, machine learning, fostering innovative thinking, decision-making, and big data analysis.

2. Development of Research and Analytical Skills: Students will acquire skills in research methodologies and the ability to analyze and interpret data for digital governance.

3. Enhancement of Technical Knowledge: Students will understand the technical aspects of digital governance and digital innovation, including openness, data analysis, service modeling, and intelligent systems.

4. Understanding Citizen Engagement: Students will understand the frameworks and policies for citizen engagement, openness, transparency, and accountability.

5. Promotion of Innovation in the Public Sector: Students will understand strategies for fostering an innovative mindset and the concepts of digital and social innovation within the public sector.

Sustainable Project Management: Students will gain expertise in defining and designing projects that ensure their sustainability, particularly in the context of innovation and digital innovation

Learning Outcomes

1. The Learning Outcomes of the Master's program are as follows:

2. Digital Governance: Students will have the ability to develop creative thinking, define concepts, describe interoperability issues, and define intelligent governance.

3. Information Systems in Public Administration: Students will be proficient in the use of information technology in public administration and the basic principles of information systems design.

4. Data-Centric Governance: Students will be able to apply data analysis techniques to solve problems and use data analysis tools, combining programming languages (e.g., R and Python) with statistics.

5. Innovation and Strategy in Public Administration: Students will be able to develop strategies for effective policy-making and governance, harmonize innovation with strategy, and describe the sources that foster or hinder innovation.

6. Data Analysis: Students will be able to understand and analyze data, particularly in the field of governance, using a combination of data analysis tools.

7. Sustainable Project Management in Public Administration: Students will be able to define project management concepts, apply project management techniques and standards, manage changes and conflicts, and apply leadership styles in project management.

8. Citizen Engagement and New Media: Students will learn how to apply the knowledge of digital twins in designing and managing citizen engagement methods and using new media, as well as managing new media with appropriate citizen protection policies.

9. Research Methodology Application: Students will be able to apply appropriate research methodologies to analyze and solve complex problems in digital innovation and governance.

These learning objectives and outcomes are designed to provide a comprehensive and multifaceted understanding of the aspects of smart and sustainable urban development, preparing students for the diverse challenges and opportunities in this field.

ELIGIBILITY TO TAKE PART IN THE EXAMINATION

Only students who are taking the corresponding course in their programme of study for the semester to which the current examination period corresponds are eligible to participate. Students are entitled to participate in the September examination period for the courses included in the course declarations for the two immediately preceding semesters.

At the beginning of each semester, the SC of the MSc appoints the moderators of the courses. Two weeks before the course examination, the course leader(s) send the proposed topics to the MSc Secretariat to be forwarded to the moderator, who in turn proposes any comments one week before the examination).
The duties and obligations of lecturers, students and invigilators in the conduct of examinations are defined as follows:

Preparation of the exams

- The examination periods are set by the Senate. Modification - which is made in due time and if there are reasons of necessity - can only be made by decision of the Department Assembly and approval of the Senate.
- The examination schedule is drawn up by the Department's Secretariat after consultation with the lecturers and is announced at least two weeks before the start of the examinations.
- The detailed schedule of the September examination period is announced at least three weeks before the beginning of the examination period.

Lecturers are required to be present at the examinations. If, for exceptional reasons, the lecturer in charge is absent, the examinations of a course may be held only if the President of the Department has taken a decision to this effect and another lecturer of the Department has been appointed as the person responsible for the examination procedure.

START OF THE EXAMS

The examiner in charge of the course must:

- Receive in good time from the secretariat the relevant file for the examination. The envelope shall include examination slips, list of examinees, mark table, etc. for each examination room of the course.
- To regulate the arrangement or rearrangement of the examinees in the rooms.
- To be present at the examination site throughout the examination.
- Before the distribution of the question papers, candidates must remove any aids other than those expressly provided for in the examination timetable.

CONDUCT OF THE EXAMINATIONS

The method of the examinations is determined in time by the examiner in charge of the course (written, oral, presentation of papers). At the beginning of the examination and immediately after the delivery of the subjects, candidates may, if they so wish, ask the examiner in charge of the course clarifying questions.

Students who have submitted in time a relevant document for a compulsory oral examination to the Secretariat, are examined by the responsible examiner during the written examination period of the course in another room within the same building where the examinations are held. The Secretariat must inform the examiners in writing in good time of the number of students being examined orally.

During the examination, the invigilators shall carry out their duties discreetly. Leaving the room during the examination and returning to continue the examination are generally prohibited. In exceptional circumstances, however, it may be permitted, at the discretion of the invigilators and under their supervision.

Tampering with the authenticity of the tests by collaborating between examinees or using methods of intercepting or copying answers is prohibited. In such cases, the invigilator must initial the candidates' papers, making a note of his/her observations on the first page of the test booklet and inform the examiner responsible. The student must leave the room by handing in his/her paper, which in such cases will be reset to zero.

- Fifteen (15) minutes before the expiry of the time allowed for the examination, candidates will be notified that the time limit is about to expire.
- During the examination, it is not allowed to have less than two students in the room.
- As soon as the time limit set for the examination has expired, the invigilators must stop the examination and collect the papers.

When handing in the paper, each examinee signs the attendance sheet, after having his/her student identity card details checked by the invigilator.

The invigilators, in the presence of the examinee, shall cross out all gaps in the paper and initial the paper. After counting the papers, they shall countersign the attendance sheet and hand it to the invigilator together with the examinees' papers.

TERMINATION OF THE EXAMINATION

The examination may be interrupted only for reasons of force majeure that make it technically impossible for candidates to process their answers to the questions. Such an interruption is the responsibility of the examiner in charge.

In this case, the examination is cancelled and a re-examination is scheduled by the examiner in charge in cooperation with the secretariat immediately after the end of the current examination period.

An examination which is discontinued in accordance with the above shall be awarded to candidates who have handed in their papers.

CANCELLATION OF THE EXAMINATION

Cancellation of the examination may be decided by the examiner in charge and in case of proven leakage of the subjects after the decision of the Director of the MSc who sets the date and time for a new examination.

RESULTS OF THE EXAMS

The score is submitted electronically by the examiner in charge within an exclusive period of twenty (20) days from the examination.

Within a period of seven (7) days from the date of the announcement of the results of the course, each student who participated in the examination may request clarification of his/her performance by submitting a reasoned request to the examiner in charge.

The papers and questions are kept by the examiner for the next two years.

OBLIGATIONS OF THE EXAMINEES

Students-examinees are required to have their student ID card with them.

- During the written examination, each student is obliged to respect the conditions for the smooth conduct of the examination, avoiding any disturbances to the other examinees.
- Each student must follow the instructions of the supervisors.
- In case the examinee is found guilty of cheating, his/her paper will be zeroed and the Course Supervisor may bring the matter to the Departmental Assembly for discussion.
- Any mobile electronic device must be switched off, otherwise it will be confiscated by the invigilators and returned at the end of the test.

STUDENT ISSUES

STUDENT STATUS

- Student status is acquired upon enrolment at the University and is automatically lost upon receiving the degree.
- During their studies, students are entitled to a range of student care benefits and facilities, as listed in the next subsection "Student care benefits".
- The student has the right to request a suspension of his/her studies for the period of time allowed by the legislation.
- The period of suspension of studies is not counted in the total time of study, neither as part of the calculation of the minimum time required to obtain the degree nor as part of the calculation of the maximum time required to maintain student care rights.

STUDENT CARE BENEFITS

- The University operates a Student Restaurant
- The University provides housing subsidies to students, in accordance with the applicable legislation.
- The University operates a Student Residence with accommodation for students with low financial participation.
- Students are issued a Special Ticket (pass) for their travel by public transport.
- Students are provided with free health care in accordance with current legislation.

More information is provided by the Student Affairs Department of the University of Thessaly: https://www.uth.gr/zoi/foititiki-merimna

OPERATION OF COMPUTER LABORATORIES

RIGHT OF USE

- The use of the laboratories is only allowed to persons related to the academic community of the Department of Business Administration (students, faculty, doctoral candidates, adjunct faculty, and administrative staff). Persons not belonging to the above categories may exceptionally use the laboratories only with the permission of the person in charge of the laboratories.
- Laboratory equipment may not be used for commercial purposes or for anything that brings financial gain to the user.
- Access to the Laboratory's computers is granted by the users with the use of a personal password (username, password).
- Student codes are deleted after one (1) month from the date of their swearing in. If for some students it is necessary to keep their code, this is possible upon request.
- The consumables (CDs, etc.) related to the use of the computer are not provided by the laboratory, but are the responsibility of each student.
- The laboratory provides permanent data storage space but it is recommended that you use memory sticks to store and transfer your data and work results. Data on the PC's local disks may be deleted without warning by the network administrator and/or accidentally and/or maliciously by someone else.

ACCESS TO THE SYSTEM - PASSWORDS

Each user uses the username and password assigned to him/her by the Laboratory Manager to log in to the system.

The username and password are strictly personal and must not be disclosed to third parties. The reason is that someone knowing them may have access to our personal data and, in particular, may impersonate us in order to cause serious damage to the computer infrastructure and/or the services provided through it. The damage will unfortunately be charged to the user name and not to the natural person who caused it.

COMPUTER USE

- Users are not allowed to prevent the use of a PC they have used by setting a password ("terminal lock").
- After finishing their work, each user must shut down the computer in a normal way.
- Each user must ensure that the workstation is left clean and free of personal belongings and papers.
- No equipment may be moved to any other location within the laboratories, much less outside the laboratories.

Software installation - Computer configuration changes

- It is not allowed to install any software (applications, utilities, games, etc.) on the lab computers.
- It is not allowed to uninstall software or delete - move files present on the computers.
- You are allowed to change any settings on the computers, including changes to the position of icons, screen colours and desktop background, only in the interface of each user's password.
- Only the administrator of the Labs has the right to install or uninstall software and change settings, delete - move files and users should contact him/her if there is a need.

NETWORK USE

Sending a group e-mail to all users of the University or to a group of students of a certain year is only allowed after the relevant instructions of the Labs administrator. Sending a group e-mail to all users of another institution or organisation may be considered as an action aimed at the malfunctioning of the system.

Any attempt to gain access to the computing resources of our university or any other institution or organization is not allowed without the relevant permission (unauthorized access).

No attempt to monitor the data traffic and network parameters of any system (operator or user) is allowed. Transmission over the network of software that may cause damage to the university's system, another entity, or another user is not permitted.

You may not use software that is intended to overload, malfunction or destroy other systems.

THE LABORATORY SOFTWARE

If necessary, for educational use, the installation of additional software is carried out after approval by the Laboratory Manager and under the care of the Administrator.

The support of the software for teaching is the responsibility of the faculty member or instructor in charge of the course in which the software is used.

It is forbidden to install any software package (even if provided free of charge) by any user! The contents of the disks of each machine are constantly checked and if files/programs created by the user are found, not only are they deleted without warning, but sanctions (such as locking the password) may be imposed on users! Violation of this restriction in particular can result in up to permanent loss of the lab password.

CURRICULUM

The curriculum per semester is as follows:

First Semester

	CODE	TYPE (Core/ Optional	COURSES	ECTS
1	M01	C	Government in the Digital Age	7,5
2	M02	C	Information systems in Government	7,5
3	M03	C	Data-centric Governance	7,5
4	M04	C	Public sector innovation and Strategy	7,5
			Total ECTS	30

Second Semester

	CODE	TYPE (Core/ Optional	COURSES	ECTS
7	M07	C	Data Analytics	7,5
8	M08	C	Sustainable Management of Projects in Government	7,5
9	M09	C	Citizen engagement and New Media	7,5
10	M10	C	Research Methods and Skills	7,5
			Total ECTS	30

Third Semester

	CODE	TYPE (Core/ Optional	COURSES	ECTS
11	M11	C	Thesis	30

In addition to the teaching of courses of the MSc, parallel educational and research activities may be carried out, such as workshops, conferences, lectures, book and special study publications, research projects, study visits and preparatory introductory courses.

Upon obtaining the MSc, students can continue their studies for the preparation of a PhD Thesis.

SHORT COURSE DESCRIPTION

GOVERNMENT IN THE DIGITAL AGE

(1) General Information

Faculty	Economic and Management Sciences		
Department	Business Administration		
Level	Postgraduate		
Code	M01	Semester	*1st*

Module Title	Government in the Digital Age		
Independent Teaching Activities		**Hours/week**	**ECTS**
		4	7.5
Module Type:	Compulsory		
Teaching Language:	English		
Module Website (URL)	eclass.uth.gr		

(2) Learning Outcomes

Module Objectives and Learning Outcomes
This subject introduces the topic of digital technologies and government and explores the tools and method of digital government and regulation, and the ethical, legal and policy tensions of government increasingly shifting to the digital realm. More broadly this subject will explore ideas of digital governance, which has applications beyond government, as many private sector organizations implement data governance strategies, and as public-private partnerships on digital projects come under greater scrutiny. Learning outcomes: • Define and describe the concept of digital government and other related terms • Describe and critique a range of real-world example of digital government around the world • Demonstrate an understanding of why digital government is occurring and how it is situated in a social and historical context of modernity and rationality • Articulate the different types of technologies and processes being used by government and the opportunities and risk they present • Demonstrate the ability to translate academic knowledge into policy recommendations.
General Skills
Promoting free, creative and inductive thinking. Adaptation to new situations. Search, analysis and synthesis of data and information, using the necessary technologies. Project design and management.

(3) Indicative Content

- Internet-based government
- Digital public services and life-events
- Openness in government
- Data-driven government
- Interoperability in government
- Government information systems
- Barriers and drivers in digital government
- Smart government and smart governance

(4) Teaching Methods - Evaluation

Teaching Method	Face - to face / Remotely
Teaching Technologies	Presentation Software use [with multimedia content] and software collaborative environments and dashboards, which increase student engagement and satisfaction. Teaching material and interaction between students and tutors will be supported with LMS (eClass and blackboard).
Teaching Structure	***Activity*** / ***Effort (hours)*** Tutoring, 4 hours/week: 13 * 4=52 Study: 30 Literature study: 11 Exams' preparation: 30 Final examination: 2 Total (25 effort hours / ECTS): 25*5=125
Student Evaluation	Students' evaluation is performed with: 1. A personal/team assignment. (A). 2. Examinations (E) The final degree is calculated with the following formula: TB = 0,7*E + 0,3*A Where A takes a value 1-10. Successful students must gain: (i) E > 5 and (ii) (ii) TB > 5

(5) BIBLIOGRAPHY

- Huntgeburth, J. (2014). Foundations of Digital Government: Leading and Managing in the Digital Era (Springer Texts in Business and Economics) 2014th Edition. Springer.
- Lips, M. (2019). Digital Government: Managing Public Sector Reform in the Digital Era. Routledge.
- West, D. (2005). Digital Government: Technology and Public Sector Performance.
- Sikkut, S. (2022). Digital Government Excellence: Lessons from Effective Digital Leaders. Wiley CIO.
- OECD (2020). OECD Digital Government Studies The Path to Becoming a Data-Driven Public Sector.
- Anthopoulos, L. (2017). Understanding Smart Cities: A Tool for Smart Government or an Industrial Trick? Springer.
- Bolivar, M. P. B. (2017). Smart Technologies for Smart Governments: Transparency, Efficiency and Organizational Issues. Springer.

- Indicative Journals:

- Government Information Quarterly
- ACM Digital Government: Research and Practice
- Information Polity
- International Journal of Electronic Government Research
- International Journal of Public Administration in the Digital Age
- Journal of e-Government

INFORMATION SYSTEMS IN GOVERNMENT

(1) GENERAL

Faculty	Economic and Management Sciences		
Department	Business Administration		
Level	Postgraduate		
COURSE CODE	M02	**SEMESTER OF STUDY**	1st
COURSE TITLE	Information systems in Government		

INDEPENDENT TEACHING ACTIVITIES *In case ECTS credits are awarded in distinct parts of the course e.g. Lectures, Laboratory Exercises, etc. If the credits are awarded uniformly for the entire course, indicate the weekly teaching hours and the total number of credits*	WEEKLY CONTACT HOURS	ECTS
	4	7,5
Add rows if needed. The organization of teaching and the teaching methods used are described in detail in (d).		

COURSE TYPE	Specific background, skills development, general knowledge.
PREREQUISITE COURSES:	
LANGUAGE OF INSTRUCTION AND EXAMINATIONS:	English
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No
ONLINE COURSE PAGE (URL)	eclass.uth.gr

(2) LEARNING OUTCOMES

Learning Outcomes

The course aims to equip students with knowledge and skills on how information systems are applied within government settings to enhance efficiency, transparency, and service delivery. Upon completion, students will have developed:
 	
• **Understanding of Information Systems**:
  ○ Gain in-depth knowledge of the role of information systems in public sector organizations, particularly in government operations and decision-making processes.
• **Strategic Applications**:
  ○ Understand how governments use information systems strategically for policymaking, citizen engagement, and improving public services. Study real-world cases to critically evaluate the challenges and successes of these systems.
• **Technical and Operational Skills**:

- Acquire technical skills related to the design, implementation, and management of information systems for government. These skills include knowledge of e-government systems, database management, and public sector-specific software.
- Understand the DevOps approach

- **Focus on Emerging Technologies**
  - How AI and ML can be used for predictive analytics, automation, and personalized services.
  - Understand the potential of blockchain technology for enhancing transparency, security, and efficiency in government processes.
  - Acquire knowledge and explore the applications of IoT in areas like smart cities, public safety, and environmental monitoring.
- **Strengthen Citizen Engagement**
  - Understand the concept Digital Participation and how information systems in facilitating citizen participation, including online consultations, e-petitioning, and digital democracy platforms.
- **Open Government Data**
  - Understand the importance of open data initiatives and how they can empower citizens and promote transparency.
  - Discuss the challenges and benefits of sharing data between governments, including issues of privacy, security, and interoperability.
- **Sustainability and Environmental Concerns**
  - Learn on Green IT and mphasize the importance of sustainable IT practices in government, such as energy-efficient data centers and electronic waste management.
  - Explore how information systems can be used to monitor environmental conditions, track sustainability goals, and support climate action.
- **Problem-Solving and Decision-Making**:
  - Develop skills in analyzing and solving problems related to the deployment and management of information systems in government, particularly in areas like interoperability, scalability, and user adoption.
- **Project-Based Learning**
  - **Capstone Project:** Require students to work on a real-world project related to information systems in government, such as designing a new e-government service or conducting a cybersecurity risk assessment.

General Skills

The course will foster the following competencies:

1. **Search and analysis of data** using tools.
2. **Adapting to new technological and operational environments** within public institutions.
3. **Decision-making** in complex organizational environments, particularly related to information system management.
4. **Autonomous and team-working abilities** in the design and implementation of government IT solutions.

5. **Critical thinking and self-assessment** regarding the effectiveness of current information systems in government settings.

(3) COURSE CONTENT

Based on the provided learning objectives, the **course content** for the "Information Systems in Government" module can be structured as follows:

1. Introduction to Information Systems in Government

- Overview of information systems in the public sector.
- Importance of information systems for government operations, decision-making, and service delivery.
- Historical context and evolution of information systems in governance.

2. Strategic Applications of Information Systems in Government

- How governments use information systems for policymaking and citizen engagement.
- Case studies of successful and unsuccessful implementations of information systems.
- Role of information systems in improving public services (e-government services, online portals, etc.).

3. Technical and Operational Aspects of Government Information Systems

- **E-Government Systems**: Design and architecture of e-government platforms, including security, scalability, and user interfaces.
- **Database Management**: Public sector-specific data management techniques, relational databases, and big data in government.
- **DevOps in Government**: Understanding the DevOps methodology and its application in managing government IT systems for continuous improvement.

4. Emerging Technologies in Government Information Systems

- **Artificial Intelligence (AI) and Machine Learning (ML)**: Applications for predictive analytics, automation of processes, and personalized public services.
- **Blockchain Technology**: Use of blockchain to enhance transparency, security, and efficiency in governmental processes (e.g., land registry, secure voting, contract management).
- **Internet of Things (IoT)**: How IoT is applied to smart cities, public safety, and environmental monitoring (e.g., traffic control, waste management, air quality monitoring).

5. Citizen Engagement and Digital Participation

- **Digital Participation Platforms**: Online consultations, e-petitioning, and platforms for digital democracy.
- Case studies on how information systems facilitate citizen engagement and feedback loops between government and the public.

6. Open Government Data

- Importance of open data initiatives in empowering citizens and promoting transparency.
- **Data Sharing**: Challenges and benefits of data sharing across government bodies, with discussions on privacy, security, and interoperability issues.
- Real-world examples of open data projects and their societal impact.

7. Sustainability and Environmental Concerns in Government Information Systems

- **Green IT Practices**: Focus on energy-efficient data centers, e-waste management, and sustainable IT policies in the public sector.
- **Information Systems for Environmental Monitoring**: Systems for tracking sustainability goals, monitoring climate change impacts, and supporting environmental protection policies.

8. Problem-Solving and Decision-Making in Government IT

- Techniques for solving common challenges in government IT systems, such as ensuring interoperability between legacy systems, managing system scalability, and addressing user adoption barriers.
- Case studies of government IT projects with a focus on troubleshooting and risk management.

9. Project-Based Learning and Capstone Project

- **Capstone Project**: Students work on a real-world project involving government information systems. Examples of potential projects include:
  - Designing a new e-government service.
  - Conducting a cybersecurity risk assessment for a public sector organization.
  - Developing a proposal for a smart city infrastructure system.
- The project will require students to apply problem-solving, technical, and strategic skills learned throughout the course.

(4) TEACHING AND LEARNING METHODS - ASSESSMENT

<table>
<tr><td>HOW TO DELIVER
Face-to-face, Distance learning, etc.</td><td>Distance Learning</td></tr>
<tr><td>USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES
Use of ICT in Teaching, Laboratory Education, Communication with students</td><td>Use of Moodle, eclass LMS</td></tr>
<tr><td>TEACHING ORGANIZATION

The way and methods of teaching are described in details</td><td>
<table>
<tr><th>Activity</th><th>Semester Workload</th></tr>
<tr><td>Online lectures – webinars</td><td>26</td></tr>
<tr><td>Study hours</td><td>50</td></tr>
<tr><td>Assignments</td><td>50</td></tr>
<tr><td>Course Total</td><td>126</td></tr>
</table>
</td></tr>
<tr><td>STUDENT EVALUATION

Description of the evaluation process</td><td>Written assignment. The work includes, among others, the following:

• Studying a real case from the domain of electronic government
• Evaluate alternatives and problems presented and propose a feasible solution.</td></tr>
</table>

	• Study of literature in order to understand the challenges, problems, risks, etc. resulting from the application of technology. Presentation of the assignment at the classroom

(5) RECOMMENDED-BIBLIOGRAPHY

- Suggested Bibliography:

- Pearlson, K.E., Saunders, C.S. and Galletta, D.F. (2019). Managing and Using Information Systems: A Strategic Approach. Wiley.
- Laudon, K. and Laudon, J. (2019). Management Information Systems: Managing the Digital Firm 16th Edition. Pearson Publishing.
- Fitsilis, P. (Ed.). (2022). *Building on Smart Cities Skills and Competences: Human factors affecting smart cities development*. Springer Nature.
- Anthopoulos, L. G. (2017). *Understanding smart cities: A tool for smart government or an industrial trick?* (Vol. 22, p. 293). Cham, Switzerland: Springer International Publishing.
- Dameri, R. P. (2017). Smart City Implementation: creating economic and public value in innovative urban systems . Cham: Springer International Publishing. *Imprint*.

- Related scientific journals:

Government Information Quarterly (GIQ)

- Publisher: Elsevier
- Focus: E-government, digital transformation, open data, and IT in public administration.
- https://www.sciencedirect.com/journal/government-information-quarterly

Information Polity

- Publisher: IOS Press
- Focus: Digital government, public sector innovation, and governance.
- https://informationpolity.com

Electronic Government, an International Journal (EGIJ)

- Publisher: Inderscience
- Focus: E-government applications, digital public services, and policy-making
- https://www.inderscience.com/jhome.php?jcode=eg.

Digital Government: Research and Practice (DGOV)

- Publisher: ACM
- Focus: Computational approaches to digital government and AI in governance.
- https://dl.acm.org/journal/dgov

Public Administration Review (PAR)

- Publisher: Wiley
- Focus: Government IT policy, digital transformation in public administration.
- https://onlinelibrary.wiley.com/journal/15406210

Information Systems Journal (ISJ)

- Publisher: Wiley
- Focus: Broader IS research but includes governance and policy implications.
- https://onlinelibrary.wiley.com/journal/13652575
-

Journal of E-Governance

- Publisher: IGI Global
- Focus: Policy, governance models, and e-government solutions.
- https://content.iospress.com/journals/journal-of-e-governance/36/4
-

Transforming Government: People, Process, and Policy

- Publisher: Emerald
- Focus: Public sector digital transformation and citizen-centric services.
- https://www.emeraldgrouppublishing.com/journal/tg

DATA-CENTRIC GOVERNANCE

(1) GENERAL

Faculty	Economic and Management Sciences		
Department	Business Administration		
Level	Postgraduate		
COURSE CODE	M03	**SEMESTER OF STUDY**	1st
COURSE TITLE	Data Centric Governance		

INDEPENDENT TEACHING ACTIVITIES *In case ECTS credits are awarded in distinct parts of the course e.g. Lectures, Laboratory Exercises, etc. If the credits are awarded uniformly*	**WEEKLY CONTACT HOURS**	**ECTS**

for the entire course, indicate the weekly teaching hours and the total number of credits		
	4x13=52	7.5
Add rows if needed. The organization of teaching and the teaching methods used are described in detail in (d).		

COURSE TYPE	Compulsory
PREREQUISITE COURSES:	No
LANGUAGE OF INSTRUCTION AND EXAMINATIONS:	English
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No
ONLINE COURSE PAGE (URL)	eclass.uth.gr

(2) LEARNING OUTCOMES

Learning Outcomes
The learning outcomes include: • Understand the fundamental concepts and principles of data-centric governance including their goals, challenges and technologies • Familiarity of basic concepts and definitions of data-centric governance • Understand why data-centric governance is important • Identify the roles and responsibilities of groups involved within data-centric governance • Understand how data-centric governance can improve the use of data • Identify the challenges of data-centric governance • Identify the problems concerning data-centric governance • Understand the government and its branches • Knowledge of what the government provides and the benefits • Understand the implementation of the government

- Understand the definitions of the e-government
- Identify the benefits and limitations of e-government
- Present the timeline of the e-government
- Understand the types and models of e-government
- Explain the architectures of e-government
- Identify the e-government in Greece
- Understand the definitions concerning open data
- Identify the benefits and quality of open data
- Learn why license of open data is needed
- Understand the concept of platforms for open data
- Identify the different formats of open data
- Learn about “cleaning” the data
- Provide an introduction to business models for data-driven public services.
- Highlight the key role of open data in creating public value.
- Highlight the importance of a business-driven approach to open data utilization.
- Explore different business models and opportunities for services based on public data resources.
- Identify the definitions and concepts of AI and machine learning
- Understand the connection of AI and open data
- Understand the implications of the use of open data
- Explain the security and privacy issues when using personal data
- Understand the term of "open" from a legal perspective
- Understand the concept and definitions of data management
- Learn the definitions of linked data
- Understand data management
- Understand the definitions and terminology of AI and machine learning
- Explain what AI and ML can and cannot do
- Explain how an AI project and an AI company are built
- Identify the roles of an AI team
- Understand AI and society

- Understand the definitions of generative AI
- Understand the concepts of LLMs
- Explore the genAI applications
- Identify the lifecycle of an AI project
- Understand the definitions and concepts of machine learning
- Identify the machine learning paradigms
- Learn the models and metrics of machine learning
- Understand parameter learning
- Understand the definitions and concept of clustering
- Learn about non-hierarchical clustering
- Learn about hierarchical clustering
- Understand the fundamental concepts and principles of R
- Understand how data are handled in R
- Learn how to import data in R
- Understand how to work with datasets
- Learn how to create complex variable in R
- Understand how variables can be sorted
- Learn how to deal with duplicated data
- Learn how to export data from R
- Learn how to merge and join data
- Identify functions concerning the graphics, reporting and analytics in R
- Learn how to define new functions

General Skills

The "Innovative software development methods for smart cities" module may develop a range of skills, including:

1. Programming skills (introductory): Students may learn how to write code in programming languages.
2. Software engineering skills: Students may learn how to design, develop, and maintain software systems using modern software engineering practices and tools.
3. Project management skills: Students may learn how to plan, manage, and execute software development projects using agile methodologies and project management tools.
4. Communication and collaboration skills: Students may learn how to work in a team, communicate

effectively, and collaborate with stakeholders from different backgrounds such as government officials, urban planners, and community groups.

5. Innovation and entrepreneurship skills: Students may learn how to identify innovative ideas, develop prototypes, and commercialize software products and services for data-centric governance.

(3) COURSE CONTENT

The following is the lecture plan for "Data centric governance" module:

1. Fundamentals of data-centric governance
    a. Definitions
    b. Benefits
    c. Challenges
2. Government digital transformation
    a. Government
    b. E-Government
    c. Government in Greece
3. Open data
    a. Introducing open data
    b. New business models for data-driven services
    c. Artificial intelligence and open data
    d. Data management for open data
4. Artificial Intelligence
    a. Introducing artificial intelligence
    b. Generative artificial intelligence
    c. Machine learning
    d. Clustering
5. Using R in data-centric governance
    a. Fundamentals in R
    b. Data structures in R
    c. Supplementary material in R

(4) TEACHING AND LEARNING METHODS - ASSESSMENT

HOW TO DELIVER *Face-to-face, Distance learning, etc.*	Distance Learning		
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	**Use of Moodle, eclass LMS**		
TEACHING ORGANIZATION	***Activity***	***Semester Workload***	

	Online lectures – webinars	52	
	Study hours	50	
	Assignments	50	
	Course Total	***152***	
STUDENT EVALUATION	Written assignment. The work includes, among others, the following: • Studying a real case from the domain of data-centric governance • Evaluate alternatives and problems presented and propose a feasible solution. • Study of literature in order to understand the challenges, problems, risks, etc. resulting from the application of technology. Presentation of the assignment at the classroom		

(5) RECOMMENDED-BIBLIOGRAPHY

- Suggested Bibliography:

In lectures

- Related scientific journals:

PUBLIC SECTOR INNOVATION AND STRATEGY

(1) GENERAL INFORMATION

Faculty	Economic and Management Sciences		
Department	Business Administration		
Level	Postgraduate		
COURSE CODE	M04	**SEMESTER**	1st

COURSE TITLE	**Public sector innovation and Strategy**	
INDEPENDENT TEACHING ACTIVITIES *in case the credits are awarded in separate parts of the course e.g. Lectures, Laboratory Exercises, etc. If the credits are awarded uniformly for the whole course, indicate the weekly teaching hours and the total number of credits.*	**WEEKLY TEACHING HOURS**	**CREDIT UNITS**
	4	7.5
Add rows if needed. The teaching organization and teaching methods used are described in detail in (d).		
COURSE TYPE	Compulsory	
PREREQUISITE COURSES:	NO	
LANGUAGE OF TEACHING and EXAMS:	English	
IS THE COURSE OFFERED TO ERASMUS STUDENTS	NO	
ELECTRONIC COURSE PAGE (URL)	eclass.uth.gr	

(2) LEARNING OUTCOMES

Learning Outcomes
Digital innovation is the use of digital technology during the process of innovating. Digital innovation can also be used to describe, fully or partly, the outcome of innovation. Digital innovation has radically changed the nature and structure of new products and services, spawned novel value creation and value appropriation pathways, enabled innovation collectives that involve dynamic sets of actors with diverse goals and capabilities, produced a new breed of innovation processes, and, more broadly, transformed entire industries in its wake. This transition from innovation to digital innovation comes as a golden opportunity to be seized upon by information systems (IS) researchers. This module addresses current issues in digital innovation, planning and management in government. It discusses the fundamentals in innovation and its management under the lens of digital technologies. It uses techniques for proper innovation definition, the estimation of its success, the selection of innovation and their strategic alignment. Moreover, it presents methods for ideation and design thinking in government, innovation management and sustainable innovation planning in accordance with government strategy.

Upon successful completion of the course, students should be able to describe: • How do digital innovations form/evolve in government? • How should actors/entities organize for innovation? • How does the nature of innovation and the organization of innovation interact? • How can innovation be managed under the lens of a strategy? • The processes for ideation and design thinking for digital innovation development.
General Skills
Promoting free, creative and inductive thinking. Adaptation to new situations. Search, analysis and synthesis of data and information, using the necessary technologies. Project design and management.

(3) COURSE CONTENT

• Introduction to Innovation and digital innovation • Innovation drivers, barriers, and pre-requisites (Technology Affordances and Constraints) • Business model innovation • Innovation management • Defining strategy for innovation • Dynamic Problem–Solution Design Pairing • Design thinking

(4) TEACHING AND LEARNING METHODS - EVALUATION

TEACHING METHOD *Face to face, distance learning, etc..*	FACE TO FACE, LAB, Remote
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES *Use of ICT in Teaching, in Laboratory Education, in Communication with students*	USE OF ICT IN TEACHING, LABORATORY EDUCATION, ELECTRONIC COMMUNICATION WITH STUDENTS
TEACHING ORGANIZATION *The teaching methodologies are described in detail.*	

Activity	*Semester Workload*
Lectures	13
Practical Exercise	26
Publications study	84
Assignments	55
Exams' Preparation	2
Final Examination	

	Course Total Effort	***180***
STUDENT EVALUATION *Description of the evaluation process* .	Written Examination (GA) with a weight of 70% at the end of the semester, which includes multiple choice questions. The student can also implement an optional assignment (EP) with a weight of 30%. In order for the student's attendance to be considered successful, the Final Grade (TB) must be> = 5. TB is calculated as follows: TB = MAX (GA, 0.7xGA + 0.3xEP)	

(5) BIBLIOGRAPHY

Wittington, D. (2018). Digital Innovation and Entrepreneurship. Cambridge University Press.
Laudato, A. (2022). Fostering Innovation: How to Build an Amazing IT Team. Wiley.
Schilling, M. (2019). Strategic Management of Technological Innovation. McGraw Hill Education.
Lewrick, M., Link, P. and Leifer, L. (2020). The Design Thinking Toolbox: A Guide to Mastering the Most Popular and Valuable Innovation Methods. Wiley.
Saldanha, T. and McDonald, R.A. (2019). Why Digital Transformations Fail: The Surprising Disciplines of How to Take Off and Stay Ahead. Berrett-Koehler Publishers.

Journals
Technovation
Journal of Innovation & Knowledge
Journal of Engineering and Technology Management
Government Information Quarterly
Digital Business

DATA ANALYTICS

(1) GENERAL

Faculty	Economic and Management Sciences		
Department	Business Administration		
Level	Postgraduate		
COURSE CODE	M07	**SEMESTER OF STUDY**	2nd
COURSE TITLE	Data Analytics		

INDEPENDENT TEACHING ACTIVITIES *In case ECTS credits are awarded in distinct parts of the course e.g. Lectures, Laboratory Exercises, etc. If the credits are awarded uniformly for the entire course, indicate the weekly teaching hours and the total number of credits*	**WEEKLY CONTACT HOURS**	**ECTS**

		4	7,5
Add rows if needed. The organization of teaching and the teaching methods used are described in detail in (d).			
COURSE TYPE *general background, specific background, specialization, general knowledge, skills development*	Specialization		
PREREQUISITE COURSES:			
LANGUAGE OF INSTRUCTION AND EXAMINATIONS:	English		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
ONLINE COURSE PAGE (URL)			

(2) LEARNING OUTCOMES

Learning Outcomes

The learning outcomes include:

- Know the terminology of data analysis as it is applied in the field of government and business.
- Distinguish the main categories of data analysis models and their special features.
- Use statistical tools to successfully handle data analysis models.
- Know the basic use of at least one software tool for data analysis.

General Skills

The "Data Analytics" module may develop a range of skills, including:

- Problem-solving skills: In this module, students will learn how to identify problems and develop solutions that can help cities become more efficient.
- Communication skills: Students will learn how to communicate complex ideas to a wide range of stakeholders, including city officials, community groups, and technology vendors.
- Collaborative skills: This module will provide opportunities for students to work collaboratively on projects and assignments, developing their ability to work effectively in teams.
- Technical skills: Students will gain a deep understanding of the technical platforms and tools used in smart cities, including IoT devices, cloud computing, and contextual data.
- Overall, this module will help students develop a range of transversal skills that are highly valued by employers in a range of industries. These skills will enable students to be adaptable and versatile, able to work effectively in a rapidly changing technological landscape.

(3) COURSE CONTENT

The course attempts to lay the foundations for Data Analysis in government and business. It introduces students to the basic concepts of data analysis, business intelligence, and machine learning, while encouraging a critical understanding of the hypotheses underpinning these methodologies and the ethical and legal implications of data analysis.
Introduction to Data Analysis, Data Analysis Models, Introduction to Business Intelligence, Statistical Tools, Data Visualization, Introduction to Machine Learning, Regression Use, Discrimination and Trade-Discrimination / Overfitting, introduction to R for performing data analytics.

The following is the lecture plan for " Data Analytics" module:

1. Introduction to Data Science
2. Business Problems and Solutions
3. Supervised Segmentation
4. Model Fitting
5. Overfitting
6. Similarity
7. Introduction to R Language
8. Tidy Data Using R Language
9. Graphs Using R Language I
10. Graphs Using R Language II
11. A Predictive Model Using R Language
12. K- means and Cluster Using R Language
13. A Simple Project Using R Language

(4) TEACHING AND LEARNING METHODS - ASSESSMENT

HOW TO DELIVER *Face-to-face, Distance learning, etc.*	Distance Learning
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES *Use of ICT in Teaching, Laboratory Education, Communication with students*	Use of Moodle, eclass LMS
TEACHING ORGANIZATION *The way and methods of teaching are described in detail.*	
STUDENT EVALUATION *Description of the evaluation process*	Written assignment and code. The objective of this assignment is to design and create a model using open data and R language. Presentation of the assignment at the classroom

Activity	*Semester Workload*
Online lectures – webinars	26
Study hours	50
Assignments	50
Course Total	***126***

(5) RECOMMENDED-BIBLIOGRAPHY

- Suggested Bibliography:

Provost, Foster, Fawcett, Tom. (2013). Data Science for Business: What You Need to Know about Data Mining and Data-Analytic Thinking. Sebastopol, Calif., O'Reilly Media.

Wickham, H., Cetinkaya-Rundel M., Grolemund, G., (2023). R for Data Science, 2nd edition. Sebastopol, Calif., O'Reilly Media.

Winston, W.L., (2021). Analytics Stories: Using Sata to Make Good Things Happen. Indianapolis, Indiana, Wiley.

Lantz, B., (2023). Machine Learning with R, 4th edition. Packt Publishing.

SUSTAINABLE MANAGEMENT OF PROJECTS IN GOVERNMENT

(1) GENERAL INFORMATION

Program	Economic and Management Sciences		
DEPARTMENT	Business Administration		
LEVEL OF STUDY (BSc/MSc)	Postgraduate		
COURSE CODE	M08	**SEMESTER**	2nd
COURSE TITLE	Sustainable Management of Projects in Government		

INDEPENDENT TEACHING ACTIVITIES *in case the credits are awarded in separate parts of the course e.g. Lectures, Laboratory Exercises, etc. If the credits are awarded uniformly for the whole course, indicate the weekly teaching hours and the total number of credits.*	**WEEKLY TEACHING HOURS**	**CREDIT UNITS**
	4	7.5
Add rows if needed. The teaching organization and teaching methods used are described in detail in (d).		

COURSE TYPE	Compulsory
PREREQUISITE COURSES:	NO
LANGUAGE OF TEACHING and EXAMS:	English
IS THE COURSE OFFERED TO ERASMUS STUDENTS	NO
ELECTRONIC COURSE PAGE (URL)	eclass.uth.gr

(2) LEARNING OUTCOMES

Learning Outcomes
The course has a double objective: first to offer the theoretical background and the technical skills regarding project management and second, to make students understand how they can manage projects and change in government. In order to serve these aspirations, the learning objectives are defined in a rigorous manner. Learning outcomes: • To be able to define project and project management • To be able to understand and explain project management standards • To enhance their ability to apply project management techniques in practice • To understand how to handle change and coalitions • To be able to describe organizational change
General Skills
Promoting free, creative and inductive thinking. Adaptation to new situations. Search, analysis and synthesis of data and information, using the necessary technologies. Work in an interdisciplinary environment. Project design and management.

(3) COURSE CONTENT

Organizations and Projects • Basic Function of an Organization • Functional Elements <History of PM> • Society – Economy – Technology - Politics <Why and How the Project is Born> • Limitations – Mechanisms – Dimensions -Definitions <Stakeholders> • Historical elements of stakeholders' theory • Main points of stakeholders' theory • Stakeholders' analysis <Participatory Design> • Identification - Analysis models • Extensions, participation and design • Advantages & Disadvantages • Classification of methods <Project Life Cycle> • What it is • Its phases and management • Its necessity in planning

- Organization, project, program, operation
- Scope of the project and its place in the methodology
- Review of PM[2]

<Network Analysis>

- Precedence Relationship - Sequences
- Types of Activity Constraints

<Resource Analysis>

- Types of Resources
- Critical Path/Critical Chain
- Linking Resources and Activities

<Time - Cost Relationship>

- What is the problem and when does it occur
- The linear relationship between duration and cost
- The logic of the unit's shortening cost table
- The algorithmic approach to incremental shortening in the most economical way

<Basic Concepts>

- The Logic of Activity and Project Monitoring
- Key Terms

<Measuring Project Progress>

- What We Do in Planning
- How We Implement It in Practice
- Methods
- Example

<Earned Value Management>

- Generating Duration and Cost Estimates
- Evaluating Results
- Advantages and Disadvantages

(4) TEACHING AND LEARNING METHODS - EVALUATION

TEACHING METHOD..	FACE TO FACE, LAB, Remote
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES *Use of ICT in Teaching, in Laboratory Education, in Communication with students*	USE OF ICT IN TEACHING, LABORATORY EDUCATION, ELECTRONIC COMMUNICATION WITH STUDENTS
TEACHING ORGANIZATION *The teaching methodologies are described in detail.*	

Activity	***Semester Workload***
Lectures	13
Practical Exercise	26
Publications study	84
Assignments	55
Exams' Preparation	2
Final Examination	
Course Total Effort	***180***

STUDENT EVALUATION *Description of the evaluation process* .	To successfully complete the course, the following requirements need to be fulfilled: Written Examination (GA) with a weight of 70% at the end of the semester, which includes multiple choice questions. The student can also implement an optional assignment (EP) with a weight of 30%. In order for the student's attendance to be considered successful, the Final Grade (TB) must be> = 5. TB is calculated as follows: TB = MAX (GA, 0.7xGA + 0.3xEP)

(5) BIBLIOGRAPHY

PMI (2021). A Guide to the Project Management Body of Knowledge (PMBOK Guide) and The Standard for Project Management (PMBOK® Guide)

Schwalbe, K. (2021). An Introduction to Project Management, Seventh Edition: Predictive, Agile, and Hybrid Approaches. Schwalbe Publishing.

Heagney, J. (2016). Fundamentals of Project Management. AMACOM

Kotter, J. P. (2012). Leading Change. Harvard Business Review Press.

Cameron, E. and Green, M. (2019). Making Sense of Change Management: A Complete Guide to the Models, Tools and Techniques of Organizational Change. CPI Group Publishing.

Journals
International Journal of Project Management
Project Leadership and Society
Government Information Quarterly

CITIZEN ENGAGEMENT AND NEW MEDIA

(1) GENERAL

Faculty	Economic and Management Sciences		
Department	Business Administration		
Level	Postgraduate		
COURSE CODE	M09	**SEMESTER OF STUDY**	2nd
COURSE TITLE	Citizen engagement and New Media		

INDEPENDENT TEACHING ACTIVITIES *In case ECTS credits are awarded in distinct parts of the course e.g. Lectures, Laboratory Exercises, etc. If the credits are awarded uniformly for the entire course, indicate the weekly teaching hours and the total number of credits*	WEEKLY CONTACT HOURS	ECTS
	4	7,5
Add rows if needed. The organization of teaching and the teaching methods used are described in detail in (d).		

COURSE TYPE	Compulsory
PREREQUISITE COURSES:	No
LANGUAGE OF INSTRUCTION AND EXAMINATIONS:	English
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No
ONLINE COURSE PAGE (URL)	eclass.uth.gr

(2) LEARNING OUTCOMES

Learning Outcomes
The learning outcomes include: • Understand the basic concepts, principles, architectures, and challenges of citizen engagement and the new media as tool for communication and networking. • Knowledge of the key components and technologies involved in creating new media networks. • Develop an understanding of new media capabilities in enhancing citizen engagement and how to harvest the benefits from these capabilities. • Understanding of the role of groups, individuals and media intermediators in achieving their goals. • Awareness of the latest trends, challenges and opportunities in citizen journalism and citizen activism for achieving local, regional, country level and worldwide change.
General Skills
The " Citizen engagement and New Media " module may develop a range of skills, including: +++

- Problem-solving skills: In this module, students will learn how to identify problems and develop solutions that can help them create and navigate through the new media more efficiently and enhance their participation in policy and opinion formulation .
- Communication skills: Students will learn how to communicate complex ideas to a wide range of stakeholders, including city officials, community groups, and technology vendors.
- Collaborative skills: This module will provide opportunities for students to work collaboratively on projects and assignments, developing their ability to work effectively in teams.
- Leadership skills: Students will have opportunities to lead projects and initiatives, developing their ability to inspire and motivate others.
- Technical skills: Students will gain a deep understanding of the technical platforms and tools used in new media.
- Business skills: This module will provide an understanding of the business models and strategies used in the new media industry, as well as the legal and ethical considerations that must be taken into account.
- Overall, this module will help students develop a range of transversal skills that are highly valued by employers in a range of industries. These skills will enable students to be adaptable and versatile, able to work effectively in a rapidly changing technological landscape.

(3) COURSE CONTENT

The following is the lecture plan for "Citizen engagement and New Media" module:

1. The Changing Media – The Changing World

2. Media and Society

3. Types of Media and their impact

    - Books
    - Prin and e-Newspaper
    - Magazines
    - Recorded Music
    - Radio
    - Film and Video
    - Television
    - Social Media
    - Video Games
    - Public Relations

4. Media Issues and Ethics

    - Advertising
    - Media Uses and Impacts
    - Media Policy and Law
    - Media Ethics

- Global Communications Media

5. Citizen Engagement

   a. Youth
   b. Women
   c. Elderly
   d. Social and political change through engagement (opportunities and challenges)

(4) TEACHING AND LEARNING METHODS - ASSESSMENT

HOW TO DELIVER *Face-to-face, Distance learning, etc.*	Distance Learning
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of Moodle, eclass LMS
TEACHING ORGANIZATION *The way and methods of teaching are described in detail.*	***Activity*** | ***Semester Workload*** Online lectures – webinars | 26 Study hours | 50 Assignments | 50 **Course Total** | ***126***
STUDENT EVALUATION *Description of the evaluation process*	Written assignment. The objective of this assignment is to design a smart city platform that addresses the needs of a specific city or a smart city set of services. The platform should leverage open-source technologies and adhere to principles of good software engineering, data privacy, and security. In addition, the design should consider the unique challenges and opportunities of the target city, and how the platform can support the city's smart city goals. Presentation of the assignment at the classroom

(5) RECOMMENDED-BIBLIOGRAPHY

- *Suggested Bibliography:*

Straubhaar J., Larose R. & Davenport L. (2025), Media Now, Understanding Media, Culture and Technology, 11th Edition. Cengage.

Adria M., Mao Y. (2017), Handbook of Research on Citizen Engagement and Public Participation in the Era of New Media, IGI Global.

Marino, V. and Lo Presti, L. (2018), "From citizens to partners: the role of social media content in fostering citizen engagement", Transforming Government: People, Process and Policy, Vol. 12 No. 1, pp. 39-60. https://doi.org/10.1108/TG-07-2017-0041

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Bellström, P., Magnusson, M., Pettersson, S.J. and Thorén, C. (2016), “Facebook usage in a local government: a content analysis of page owner posts”, Transforming Government: People, Process and Policy, Vol. 10 No. 4, pp. 548-567.

Bonsón, E., Royo, S. and Ratkai, M. (2015), “Citizen’s engagement on local governments’ Facebook sites: an empirical analysis: the impact of different media and content types in Western Europe”, Government Information Quarterly, Vol. 32 No. 1, pp. 52-62.

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Campbell, D.A., Lambright, K.T. and Wells, C.J. (2014), “Looking for friends, fans, and followers? Social media use in public and nonprofit human services”, Public Administration Review, Vol. 74 No. 5, pp. 655-663.

Cho, M., Schweickart, T. and Haase, A. (2014), “Public engagement with nonprofit organizations on facebook”, Public Relations Review, Vol. 40 No. 3, pp. 565-567.

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Hambrick, M.E., Simmons, J.M., Greenhalgh, G.P. and Greenwell, T.C. (2010), "Understanding professional Athletes'. Use of Twitter: a content analysis of Athlete Tweets", International Journal of Sport Communication, Vol. 3 No. 4, pp. 454-471.

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Kim, Y., Hsu, S.H. and De Zúñiga, H.G. (2013), "Influence of social media use on discussion network heterogeneity and civic engagement: the moderating role of personality traits", Journal of Communication, Vol. 63 No. 3, pp. 498-516.

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- *Related scientific journals:*

RESEARCH METHODS AND SKILLS

(1) GENERAL INFORMATION

FACULTY	Economic and Management Sciences		
DEPARTMENT	Business Administration		
LEVEL OF STUDY (BSc/MSc)	Postgraduate		
COURSE CODE	M10	**SEMESTER**	2nd

COURSE TITLE	**Business Research Methods**	
INDEPENDENT TEACHING ACTIVITIES *in case the credits are awarded in separate parts of the course e.g. Lectures, Laboratory Exercises, etc. If the credits are awarded uniformly for the whole course, indicate the weekly teaching hours and the total number of credits.*	**WEEKLY TEACHING HOURS**	**CREDIT UNITS**
	4	7.5
Add rows if needed. The teaching organization and teaching methods used are described in detail in (d).		
COURSE TYPE	Compulsory	
PREREQUISITE COURSES:	NO	
LANGUAGE OF TEACHING and EXAMS:	English	
IS THE COURSE OFFERED TO ERASMUS STUDENTS	NO	
ELECTRONIC COURSE PAGE (URL)	eclass.uth.gr	

(2) LEARNING OUTCOMES

Learning Outcomes
Research has become an indispensable component of all academic programs. Although the educational programs in universities may vary in content, practically there is always some requirement for producing research in all such programs. The module starts with an analytical introduction to the concept of scientific research and what it entails, along with an overview of all the appropriate and systematic methodologies to accomplish research objectives in various kinds of business problems. Next, the basic types of research designs, strategies and methods are discussed aiming to equip students with the knowledge of the realm of all known business research approaches developed to address a variety of problems and pertinent research questions. Furthermore, the attributes of quality in research, as well as the ethics which need to be incorporated in any kind of research undertaken are discussed. In addition, analysis of peer-reviewed publications will be conducted and determination of all aspects in the researching process will be highlighted attempting to link theory with practical examples and case studies. Learning outcomes: • Demonstrate knowledge of the concept of research in general and its aspects in the business domain

- Realize the reasons for conducting research
- Understand how it is done
- Acquire information and knowledge about relevant terminology and methods of qualitative, quantitative and combined research, as well as the ability to interpret and evaluate various types of published research studies
- Understand the systematic process of transforming a research idea into specific scientific objectives and content, as well as the limitations that come with the development of each kind of research approach
- Develop the skills to adequately address the design, preparation and carrying out of research studies appropriate at the Master's level of education and useful for following graduate-level dissertations
- Familiarize with different research designs, strategies and methods
- Become aware of the attributes of quality research and ethics in conducting scientific research
- Be able to properly apply business research methodologies, the adequate tools and techniques for addressing a variety of problems and specific research questions aiming to accomplish pertinent goals

General Skills

Promoting free, creative and inductive thinking.

Exercise criticism and self-criticism.

Adaptation to new situations.

Autonomous work.

Demonstration of social, professional and moral responsibility and sensitivity in gender issues.

Search, analysis and synthesis of data and information, using the necessary methodologies.

Possible production of new research ideas.

Research project design, management and execution.

(3) COURSE CONTENT

- Introduction to Business Research Methodologies
- Designing your Research
- Literature Review
- Theoretical Framework, Research Questions and Hypotheses
- Secondary Data
- Sampling Techniques
- Variable Types and Data Visualization
- Observation
- Interview
- Processing and Analyzing Quantitative Data
- Processing and Analyzing Qualitative Data
- Writing a Research Proposal
- Research Ethics

Other educational activities that will take place during and after the course's lectures include:

- Homework problems offered at the end of each lecture for the students to become familiar with the course's content that will gradually evolve. These activities are optional and will not be graded.
- Case studies and research papers that will be discussed in class as per their content and their correlation to the course's learning materials
- Possible additional lectures given by researchers that used various methods to accomplish their research objectives

(4) TEACHING AND LEARNING METHODS - EVALUATION

TEACHING METHOD *Face to face, distance learning, etc..*	FACE TO FACE, LAB, Remote
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES *Use of ICT in Teaching, in Laboratory Education, in Communication with students*	USE OF ICT IN TEACHING, LABORATORY EDUCATION, ELECTRONIC COMMUNICATION WITH STUDENTS
TEACHING ORGANIZATION *The teaching methodologies are described in detail.*	

Activity	***Semester Workload***
Lectures	13
Practical Exercise	26
Publications study	84
Assignments	55
Exams' Preparation	2
Final Examination	
Course Total Effort	***180***

STUDENT EVALUATION

Description of the evaluation process

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To successfully complete the course, the following requirements need to be fulfilled:

1) A 1st written assignment which will refer to the identification of a particular research idea/problem that needs to be addressed, along with the specific research questions, objectives and possible methodological approaches. This assignment constitutes the first stage for developing the 2nd assignment
2) A 2nd written assignment in the form of a complete research dissertation proposal that needs to follow specific instructions given, and
3) A brief presentation of the dissertation proposal (2nd assignment)

The final grade for the course will be determined based on the evaluation of:

a. the written assignments submitted in due time (1st and 2nd assignments that will account for 20% and 50% of the final grade respectively)

	b. the final presentation of the dissertation proposal (in powerpoint) that will contribute 30% to the final grade

(5) BIBLIOGRAPHY

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Fisher, C. (2007) Researching and Writing a Dissertation: A Guidebook for Business Students, Pearson

DIPLOMA THESIS

1.GENERAL				
FACULTY	Economic and Management Sciences			
DEPARTMENT	Business Administration			
LEVEL OF STUDIES	Postgraduate			
COURSE CODE	M11	**SEMESTER OF STUDY**	3rd	
COURSE TITLE	Diploma Thesis			
INDEPENDENT TEACHING ACTIVITIES		**WEEKLY TEACHING HOURS**	**CREDIT UNITS**	
			30	
TYPE OF COURSE	REQUIRED			
PREREQUISITE COURSES:	None			
LANGUAGE OF TEACHING AND EXAMINATION:	English			

THE COURSE IS OFFERED TO ERASMUS STUDENTS	No
ELECTRONIC COURSE PAGE (URL)	eclass.uth.gr/eclass/courses

2. LEARNING OUTCOMES

The main learning objective to be achieved during the preparation of the thesis is for the student to develop the necessary knowledge background related to the critical reflection of the subject matter of the thesis and the systematic application of research methodologies and techniques. Specifically, upon completion of the Master's thesis, the student should demonstrate that:

- *understands, critically evaluates and applies techniques to identify and develop a research topic that is a research problem relevant to the field of Project and Programme Management.*
- *selects and clearly formulates specific research objectives and problems that present (to a degree of postgraduate level) scientific originality and practical interest,*
- *understands and evaluates the interrelationships between research objectives and problems, scientific literature, research methodologies, data collection and analysis techniques, inference, and ultimately management decision-making methods,*
- *applies search procedures and proceeds to the critical review of scientific literature relevant to the research topic,*
- *conducts research and draws conclusions that are understandable and lead to interesting results,*
- *understand the differences between quantitative research and qualitative research strategies, and apply them either independently or in combination, depending on the specific requirements of the research,*
- *understands the advantages and disadvantages of research techniques, systematically applies research techniques and documents the choices made,*
- *it shall be based on primary and/or secondary data which it shall check for adequacy, reliability and validity,*
- *formulate understandable and useful conclusions that demonstrate knowledge of the subject matter, and the ability to critically review other relevant published research results,*
- *understands and articulates limitations - weaknesses of the research work,*

- *identifies possible directions for future research in the specific area and in line with the initial research objectives, and finally*
- *generally enriches his/her cognitive background in order to enhance his/her further research and professional aspirations.*

General skills

The postgraduate thesis aims to prepare, through a process of mainly personal research and under the guidance of the supervising professor, a thesis on the topic - subject chosen and proposed after a relevant proposal. The above thesis should present:

- *a clearly defined contribution to Business Administration, either through conducting original research or through the testing and application of relevant theories and methodologies,*
- *adequately documented research methodology and systematic application and use of appropriate data collection, analysis and processing techniques,*
- *comprehensive knowledge of the research subject of the thesis, including the ability to critically review the relevant literature*

3. COURSE CONTENT

The research objectives and the content of each postgraduate thesis should be relevant to the subject matter of the MSc, and should fall within a knowledge area or areas of knowledge.

Research methods refer to techniques for collecting and processing reliable data, but also to their documentation with scientific methods (e.g. field research, literature review, statistical analysis, etc.).

4. TEACHING and LEARNING METHODS - EVALUATION

METHOD OF DELIVERY	During the semester of the dissertation, the supervisor supports the student by providing the best possible guidance, using his/her scientific knowledge and experience in the subject of the specific dissertation, in order to facilitate the student's gradual progress in writing the dissertation.
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Support for the learning process through the e-class platform
ORGANISATION OF TEACHING	More specifically, the course workload is broken down as follows:

Kind of	**Description**	**Load (hours)**

	Course attendance	It concerns the lectures and presentations that will take place in two-hour sessions.	2*6=12
	Preparation of a MPE proposal	It concerns the preparation of the proposal for the M.Sc.	20
	Study at home	It concerns the study time required independently by each student	22
	Preparation of work	This refers to the time required for case studies and the implementation of exercises, as mentioned above (Assessment Method)	550
	Final examination	It concerns the duration of the final examination	1
	Participation in other activities	Meetings with the Teacher to receive progress information (feedback)	3
		Total	**600**

STUDENT ASSESSMENT	*The thesis is presented at a public hearing by the student. The thesis is evaluated by the supervisor and two evaluators, who must jointly agree on the final grade of the thesis, which may be the average of their three grades.* *The evaluation criteria for the thesis include:* • *the importance of the contribution of the specific research to the subject matter of the MSc* • *the clear definition and importance of the research objectives* • *an understanding of the subject matter of the research and the ability to critically review and use the relevant literature* • *understanding of research methodology, proficiency in research methodology and systematic use of appropriate research techniques* • *the degree of completion of the research and the significance of the results - conclusions* • *the writing style of the thesis and the technical presentation of the work, which must be in accordance with citation style of references.* • *the presentation and public support of the thesis.*
5. RECOMMENDED-BIBLIOGRAPHY	
Suggested Bibliography:	• *Calabrese R. L. (2012), Getting It Right: The Essential Elements of a Dissertation, 2nd Edition, Rowman & Littlefield Education.*

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