MINI DGA

Study Program in Public Administration, Digital Governance & Innovation

Third Round Weekly Curriculum

Coordinator: Athens University of Economics and Business, Center for Life Long Learning

Acacemic Co-ordinator Prof. : Angeliki Poulymenakou, Dean of the School of Business, Athens University of Economics and Business

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ΟΙΚΟΝΟΜΙΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ

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Weekly Program

1st week (19-23/1)	Introduction in Digital Government (3 h), Prof.Y.Charalabidis **Tuesday 20 January**	Public Sector Structure, Functions & Services – the Role of Digitalization (3 h), Prof.E.Loukis **Thursday 22 January**	
2nd week (26-30/1)	IS platforms in the Public Sector, Prof.E.Loukis **Tuesday 27 January**	Policies for the improvement of the digital maturity of the digital government ecosystem (3h), Nikos Vasilakis, GRNET **Thursday 29 January**	
3rd week (2-6/2)	Policies for the improvement of the digital maturity of the digital government ecosystem (3h), Nikos Vasilakis, GRNET **Tuesday 3 February**	Digital Innovation & Business Modelling in Public Sector (3 h), Dr.N.Mylonas, Prof.A.Pateli **Thursday 5 February**	Workshop 1: Capstone project setup #team building #innov #canvas **In-person Saturday 7 February**
4th week (9-13/2)	Modeling of Public Sector Processes & Digital Transformation (6 h), Prof.P.Kourouthanassis **Monday & Friday 9 & 13 February**		
5th week (16-20/2)	Managing open & public data (6 h), Ass.Prof.C.Alexopoulos, Dr.Z.Lachana **Tuesday & Thursday 17 & 19 February**		
6th week (23-27/2)	Big Data (3 h), Big Data (3 h), Dr. K.Doka, Research Associate, ECE, NTUA **Tuesday 24 February**	Introduction to Basic EU Standards & Tools for Public Administration: The case of EIF & CPSV-AP (3 h), Ass.Prof.V.Peristeras, Prof.E.Tambouris **Thursday 26 February**	
7th week (2-6/3)	Analytics of open government data (6 h), N.Tsionas/PhD candidate, Senior Researcher **Tuesday & Thursday 3 & 5 March**		
8th week (9-13/3)	Programming with Python for analytics- A Gentle Introduction (6 h), Prof.C.Sgouropoulou, Prof.I.Voyiatzis, Ass.Prof.C.Troussas, Ass.Prof.A.Krouska, E.Gkini & E.Fotopoulos, PhD candidates & Senior Researchers **Monday & Wednesday 10 & 12 March**		
9th week (16-20/3)	Personal branding & communication of innovative ideas for digital government services (3 h), Dr.M.Psiloutsikou **Tuesday 17 March**	HRM & Talent Development (3 h), Dr.E.Tsoni **Thursday 19 March**	Workshop 2: Capstone idea presentations, pivoting & calibration **online Saturday 21 March**
10th week (23-27/3)	Project & Portfolio Management in the public sector (3 h), E.Kountiou/GRNET **Tuesday 24 March**	From Needs to Functional Specifications: Modeling Public E-Services (3 h) Prof.P.Kourouthanassis **Friday 27 March**	
11th week (30/3 - 3/4)	LLMs on Practice: A hands-on Introduction with Krikri (3 h) **Tuesday 31 March**	Misinformation & News Literacy (3 h), Dr.I.Magnisalis **Wednesday 1 April**	
12th week (6-10/4)	Programming with R for analytics- A Gentle Introduction (6 h), N.Giallousi, Information Society **Monday & Tuesday 6 & 7 April**		
13th week (13-17/4)	The EU legal framework for digital economy - IPRs & patenting in Europe (6 h), Dr.V.Koniakou **Thursday & Friday 16 & 17 April**		
14th week (20-24/4)	Principles & action lines of ESG compliance frameworks (6 h), A.Kostaki/PhD candidate, Senior Researcher **Tuesday & Thursday 21 & 23 April**	Workshop 3: Techniques for pitching & presenting digital product or services proposals **online Saturday 24 April**	
15th week (27/4 -1/5)	Machine Learning & Government Transformation (6 h), Ass.Prof.E.Kalampokis **Tuesday & Thursday 28 & 30 April**		
16th week : Makeup week			

Workshop 4: Oral presentations of student in capstone projects [Final Presentations] **In-person TBA**

*Core Courses (60 hours)
*Elective Courses (30 hours – each participant selects at least 15 hours)
*Workshops (12 hours, not including the Capstone Final Presentations)

Brief Module Descriptions

Introduction to Digital Governance

Instructor(s) and their affiliation:

- Prof. Yannis Charalabidis, University of the Aegean, Department of Information and Communication Systems Engineering

Module Duration:

- One (1) session of 3 hours

Learning objectives:

- Upon participating in this module, learners will:

- Understand the historical context and the evolution path leading to Digital Governance.

- Become familiar with the different generations and paradigms of Digital Governance development.

- Identify key topics, frameworks, and technologies in the field of Digital Governance.

- Appreciate the relationship between Digital Governance and public innovation, societal impact, and policy making.

- Recognize contemporary challenges and opportunities emerging from the digital transformation of the public sector.

Public Sector Structure, Functions & Services – the Role of Digitalization

Instructor(s) and their affiliation:

- Dr Euripidis Loukis, Professor, Department of Information and Communication Systems Engineering, University of Aegean, Director of the Postgraduate Program 'Electronic Governance'

Module Duration:

- One (1) session of 3 hours

Learning objectives:

- Gain knowledge about the main functions of the public sector, its importance for modern societies and economies, and the main objectives of it (i.e. public values to be generated/promoted), as well as its structure. – example case: the Greek public sector.

- Understand the role of the public sector in the 'Triple Helix Model'.

- Understand the traditional Weberian model of public sector operation, as well as the main public sector reform paradigms (new public management, open participative governance), and the 'digital' implications of them.

- Gain knowledge about the main functions, processes and organizational structures of public sector organizations

- Understand the role and the importance of the use of digital technologies for the above.

IS Platforms in the Public Sector

Instructor(s) and their affiliation:

- Dr Euripidis Loukis, Professor, Department of Information and Communication Systems Engineering, University of Aegean, Director of the Postgraduate Program 'Electronic Governance'

Module Duration:

- One (1) session of 3 hours

Learnings objectives:

- Gain knowledge about the main kinds of IS that can be developed in a public sector organization, as well as their required interconnections.

- Understand the structure and the main capabilities of the internal IS of public organizations.

- Understand the main characteristics of the e-transaction services provided by public organizations and the IS supporting them.

- Understand the structure and the main capabilities of the e-procurement IS of public organizations.

- Understand the critical success factors of a public sector IS, as well as the characteristics of it that determine the level of its acceptance, and the main acceptance models.

Policies for the improvement of the digital maturity of the digital government ecosystem

Instructor(s) and their affiliation:

- Nikos Vasilakis, Head of Digital Innovation, Transformation & Services Unit, Directorate for Digital Transformation & Competencies, GRNET

Module Duration:

- Two (2) sessions of 3 hours

Learnings objectives:

- Understand the Greece's digital transformation journey and the landscape in recent years, mainly the 'ecosystem of public procedures'

- Understand alternative approaches in designing digital public services and systems and their applicability in different contexts

- Analyze and evaluate interventions at different levels (e.g. at user level and in the background, or quick wins and long-term establishments)

- Realize the value of public procedures on digital public services and the efficient operation of public administration

- Get familiar with European and national initiatives for fostering innovation where public sector stands as facilitator

Digital Innovation & Business Modelling in Public Sector

Instructor(s) and their affiliation:

- Prof. Adamantia Pateli, Professor, Department of Informatics, Ionian University

- Dr. Naoum Mylonas, Assistant Professor Department of Tourism, Ionian University

Module Duration:

- One (1) session of 3 hours

Learning objectives:

- Understand the concept of digital innovation and its transformative potential within public sector organisations.

- Identify and analyze business models tailored to public administration and digital public sector services.

- Apply key frameworks such as the Business Model Canvas and Public Value framework in designing innovative public sector services.

- Evaluate the challenges and opportunities of implementing digital innovation in the public sector (e.g., governance, citizen engagement, data ethics).

- Develop a basic digital transformation roadmap for a public organization using real-world case studies.

Modeling of Public Sector Processes & Digital Transformation

Instructor(s) and their affiliation:

- Panos Kourouthanassis, Professor, Department of Informatics, Ionian University

Module Duration:

- Two (2) sessions of 3 hours

Learning objectives:

- Describe the relationship and significance of the knowledge and skills covered by the module for digital government and innovation.

- Understand the nature and structure of processes within public sector organizations and their significance in digital transformation.

- Apply the fundamentals of Business Process Model and Notation (BPMN) to visualize and document public sector workflows.

- Design effective BPMN diagrams for real-world public sector processes.

- Analyze and evaluate public sector processes using simulation tools to enhance performance and efficiency.

- Utilize the MITOS registry to access standardized public sector processes, facilitating the development of innovative digital services.

Managing open & public data

Instructor(s) and their affiliation:

- Ass. Prof. Charalampos Alexopoulos, University of the Aegean, Department of Information and Communication Systems Engineering

- Dr. Zoi Lachana University of the Aegean, Department of Information and Communication Systems Engineering

Module Duration:

- Two (2) sessions of 3 hours

Learning objectives:

- Upon participating in this module, learners will:

- Understand the evolution path leading to Open Data Economy and Governance.

- Become familiar with the different innovation scenarios, management paradigms and obligations about open data including EU legislation on open data (DGA, DA, PSI, DSA).

- Understand different open data business models and the dynamics of an open data ecosystem and its driving powers.

- Become familiar with strategic approaches in open data governance towards sustainable open data ecosystems.

- Recognize contemporary challenges and opportunities emerging from the advent of AI (Data4AI & AI4Data).

Introduction to Basic EU Standards & Tools for Public Administration: The case of EIF & CPSV-AP

Instructor(s) and their affiliation:

- Ass.Prof.Vassilios Peristeras (IHU)

- Prof.Efthimios Tambouris (UOM)

Module Duration:

- One (1) session of 3 hours

Learning objectives:

- Describe the relationship and significance of the knowledge and skills covered by the module for digital government and innovation.

- Understand the core components of the European Interoperability Framework (EIF)

- Recognize the role of EIF in achieving integrated digital public services

- Apply EIF principles and components in real-world public sector scenarios

- Understand the core components of Greek Interoperability Framework

- Understand the role and main concepts the of the EU Core Vocabularies such as CPSV-AP

Big Data

Instructor(s) and their affiliation:

- Dr. Katerina Doka, Research Associate, ECE, NTUA

Module Duration:

- One (1) session of 3 hours

Learning objectives:

- Understand the key characteristics and importance of Big Data in the context of public service organizations.

- Describe typical Big Data architectures and explain their relevance and applications in real-world scenarios.

- Understand the components of a Big Data pipeline, including data ingestion, processing, and storage, and how they facilitate workflow management.

- Present the essential technologies and tools used in Big Data management, including data storage solutions, processing frameworks, and visualization tools.

- Understand the principles of data governance, data quality, and compliance, as well as the importance of data lifecycle management.

- Recognize common challenges related to Big Data implementation in public service organizations and discuss strategies for overcoming these challenges.

Analytics of Open Government Data

Instructor(s) and their affiliation:

- Athanasios Tsionas, PhD candidate, senior researcher (IHU)

Module Duration:

- Two (2) sessions of 3 hours

Learning objectives:

- Learn to efficiently use the program Power BI

- Learn Basic concepts of data preparation

- Introduction to cleaning data techniques

- Plot Graphs from real word data

- Understand good practices in creating a data analysis pip line

The EU Legal Framework for Digital Economy - IPRs & patenting in Europe

Instructor(s) and their affiliation:

- Dr.Vasiliki Koniakou, Athens University of Economics and Business, Department of Management Science and Technology

Module Duration:

- Two (2) sessions of 3 hours

Learning objectives:

- By the end of this module, students will be able to:

- Describe the EU legal framework shaping the digital economy, e-government and innovation.

- Understand and be able to apply and follow key provisions of the General Data Protection Regulation (GDPR).

- Understand the role of intellectual property rights (IPR) in promoting innovation and protecting creativity within the digital economy.

- Evaluate current and emerging EU legal initiatives aimed at supporting trustworthy digital transformation in both the public and private sectors.

- Critically assess how legal knowledge and regulatory compliance contribute to building resilient, rights-respecting and innovation-friendly digital infrastructures.

Personal branding & communication of innovative ideas for digital government services

Instructor(s) and their affiliation:

- Dr.Marina Psiloutsikou, Athens University of Economics and Business

Module Duration:

- One (1) session of 3 hours

Learning objectives:

- Understand the role and importance of Personal Branding in today's digital government work environment.

- Become aware of the tools available to build a strong personal brand.

- Link personal branding with career advancement and promotion of innovative ideas for digital government services.

HRM & Talent Development

Instructor(s) and their affiliation:

- Dr. Evdokia Tsoni , BA (Hons), MBA (iB), MSc, MBA (HR), PhD, PostDoc, PhD in Human Resource Management and Organizational Behavior, Department of Management Science and Technology | School of Business Athens University of Economics and Business (AUEB)

Module Duration:

- One (1) session of 3 hours

Learning objectives:

- Understand the strategic role of Human Resource Management (HRM) and talent development in enhancing organizational effectiveness within digital government and innovation contexts.

- Identify and critically analyze key HRM practices (such as recruitment, development, and retention) that support talent attraction and organizational growth in the public sector.

- Design basic talent development strategies aligned with digital transformation goals to foster continuous innovation.

- Evaluate the impact of leadership development, upskilling, and reskilling initiatives on organizational agility and adaptability in the public sector.

From Needs to Functional Specifications: Modeling Public E-Service

Instructor(s) and their affiliation:

- Panos Kourouthanassis, Professor, Department of Informatics, Ionian University

Module Duration:

- One (1) session of 3 hours

Learning objectives:

- Ability to specify functional requirements for public sector digital services using structured methods grounded in service design principles.

- Proficiency in creating UML use case diagrams that accurately capture system interactions, actors, and expected functionalities of e-services.

- Skill in developing user journey maps that articulate citizen experiences, touchpoints, and needs across a service lifecycle.

- Capacity to connect user journeys with UML use cases, ensuring requirements reflect both technical and citizen-centric perspectives.

- Improved communication and collaboration skills for conveying functional specifications between public sector teams and IT development professionals.

Project & Portfolio Management in the public sector

Instructor(s) and their affiliation:

- Effrossini Kountiou / GRNET

Module Duration:

- One (1) session of 3 hours

Learning objectives:

- By the end of this module, participants will be able to:

- Understand key concepts of project and portfolio management in the context of innovation.

- Analyse and visualise an innovation project portfolio, identifying interconnections and strategic value.

- Recognise the life cycle and phases of an innovation project, from initiation to implementation and closure.

- Apprehend the value of agile methodologies in GovTech projects to support monitoring, adaptability, and continuous improvement.

- Engage stakeholders effectively, aligning their needs with project priorities and fostering ownership.

- Introduce principles of change management as a critical success factor for implementing innovation-driven initiatives.

Programming with Python for Analytics – A Gentle Introduction

Instructor(s) and their affiliation:

- Prof. Cleo Sgouropoulou, Department of Informatics and Computer Engineering, UniWA
- Prof. Ioannis Voyiatzis, Department of Informatics and Computer Engineering, UniWA
- Ass. Prof. Christos Troussas, Department of Informatics and Computer Engineering, UniWA
- Ass. Prof. Akrivi Krouska, Department of Informatics and Computer Engineering, UniWA
- Evgenia Gkini, PhD Candidate & senior researcher, Department of Informatics and Computer Engineering, UniWA
- Evangelos Fotopoulos, PhD Candidate & senior researcher, Department of Informatics and Computer Engineering, UniWA

Module Duration:

- Two (2) sessions of 3 hours

Learning objectives:

- Recognize basic Python syntax, data structures and control flow needed for analytics.
- Operate VS Code with a virtual environment and Jupyter notebooks for reproducible work.
- Transform and analyze open public-sector datasets with NumPy and pandas.
- Visualize and communicate insights that support data-driven policy decisions.

Programming with R for Analytics – A Gentle Introduction

Instructor(s) and their affiliation:

- Nina Giallousi, Information Society

Module Duration:

- Two (2) sessions of 3 hours

Learning objectives :

- Describe the relationship and significance of the knowledge and skills covered by the module for digital government and innovation.

- Familiarize with basic usage of the R programming language, and common tools for a wide range of data analysis activities.

- Understand computer programming concepts as encountered and implemented in the R programming language.

- Gain hands-on experience in data analysis and modeling with the R programming language.

- Manage, transform, and wrangle dataset with the R programming language, and use data from different sources: files, databases, the Web.

- Complete a project from start to finish, acquiring, transforming, combining, and visualizing publicly available data, using the R programming language.

LLMs in Practice:
A Hands-On Introduction with KriKri

Instructor(s) and their affiliation:

- George Paraskevopoulos, research associate, Athena R.C.

- Prokopis Prokopidis, research associate, Athena R.C.

- Dimitris Roussis, research associate, Athena R.C.

- Sokratis Sofianopoulos, research associate, Athena R.C.

- Leon Voukoutis, research associate, Athena R.C.

Module Duration:

- One (1) session of 3 hours

Learning objectives:

- Understand the architecture and function of Large Language Models (LLMs).

- Distinguish between foundational concepts like pretraining, fine-tuning, and prompt engineering.

- Explore the Greek initiatives Meltemi and Llama-Krikri in the context of LLM development.

- Evaluate the capabilities and applications of LLMs in multiple sectors.

- Gain hands-on familiarity with LLMs through practical exercises.

Principles & action lines of ESG compliance frameworks

Instructor(s) and their affiliation:

- Aggeliki Kostaki, PhD candidate & senior researcher, IS-BPM-ORM consultant, certified SAP consultant & ESG practitioner

Module Duration:

- Two (2) sessions of 3 hours

Learning objectives:

- Understand and apply the principles of ESG compliance frameworks in corporate contexts.

- Analyze and evaluate regulatory risks and opportunities related to ESG implementation.

- Design strategic priorities and measurable action plans that align with ESG goals.

- Interpret ESG ratings and funding options to integrate sustainability into corporate decision-making.

- Collaborate effectively to solve real-world ESG-related challenges.

Misinformation & News Literacy

Instructor(s) and their affiliation:

- Dr.Ioannis Magnisalis (IHU)

Module Duration:

- One (1) session of 3 hours

Learning objectives :

- Describe the relationship and significance of the knowledge and skills covered by the module for digital government and innovation.

- Provide a solid understanding of the significance of misinformation.

- Emphasize the importance of verifying information sources.

- Illustrate how easily one can be misled by misinformation.

- Show how misinformation can impact society, organizations, and individuals personally.

- Equip participants with tools to combat misinformation.

Machine Learning & Government Transformation

Instructor(s) and their affiliation:

- Ass.Prof.Evangelos Kalampokis, Assistant Professor, University of Macedonia

Module Duration:

- Two (2) sessions of 3 hours

Learning Objectives:

- Understand core concepts and types of Artificial Intelligence (AI), Machine Learning (ML) and Deep Learning (DL).

- Explore how data-driven ML solutions can support the public sector.

- Familiarize with the ML project lifecycle from data collection to model deployment.

- Apply ML tools to public sector problem-solving (e.g., python and/or Azure ML Studio).

- Identify key success factors and challenges in applying ML to real-world public administration contexts.

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