

# MINI DGA

## Study Program in Public Administration, Digital Governance & Innovation

Coordinator: AUEB, KEDIVIM



Powered by GR digiGOV-innoHUB



Co-funded by  
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## Weekly Program

|                                                                                 |                                                                                                                                    |                                                                                                                  |                                                                                                                           |
|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| 1st week<br>(13-17/10)                                                          | Intro in Digital Government (3h)<br>Tuesday                                                                                        | Public Sector structure and services (3h)<br>Wednesday                                                           |                                                                                                                           |
| 2nd week<br>(20-24/10)                                                          | IS platforms in the Public Sector (3h)<br>Wednesday                                                                                | Digital transformation in Public administration and Government 3.0 (3h)<br>Thursday                              |                                                                                                                           |
| 3rd week<br>(27- 31/10)                                                         | Digital Innovation and <u>Business</u> Modelling in Public Sector (3h)<br>Wednesday                                                | Policies for the improvement of the digital maturity of the digital government ecosystem (3h)<br>Thursday        | Workshop 1: Capstone project setup<br>In-person 1st November Saturday                                                     |
| 4th week<br>(3-7/11)                                                            | Modeling of Public Sector Processes and Digital Transformation (6 h)<br>Monday & Thursday                                          |                                                                                                                  |                                                                                                                           |
| 5th week<br>(10-14/11)                                                          | Managing open and public data (6 h)<br>Tuesday & Thursday                                                                          |                                                                                                                  |                                                                                                                           |
| 6th week<br>(17-21/11)                                                          | Big Data (3h)<br>Tuesday                                                                                                           | Introduction to Basic EU Standards & Tools for Public Administration: The case of EIF & CPSV-AP (3h)<br>Thursday | Workshop 2: Capstone idea presentations, pivoting and calibration, processes and data, designing mockups<br>In-person TBA |
| 7th week<br>(24-28/11)                                                          | Analytics of open government data (6h) (IHU)<br>Tuesday & Thursday                                                                 |                                                                                                                  |                                                                                                                           |
| 8th week<br>(1-5/12)                                                            | The EU legal framework for digital economy - IPRs and patenting in Europe (6h)<br>Monday & Wednesday                               |                                                                                                                  |                                                                                                                           |
| 9th week<br>(8-12/12)                                                           | Personal branding and communication of innovative ideas for digital government services (3h)<br>Tuesday                            | HRM and Talent Development (3h)<br>Wednesday                                                                     |                                                                                                                           |
| 10th week<br>(15-19/12)                                                         | Managing the lifecycle of a digital product or service (PDM) (3h)<br>Tuesday                                                       | Project and Program (portfolio) management (3h)<br>Wednesday                                                     | Start-uppers case studies (3h)<br>TBA                                                                                     |
| 11th week<br>(22-26/12)                                                         | LLMs in Practice: A Hands-On Introduction with <u>KriKri</u> and <u>Meltemi</u><br>Monday                                          |                                                                                                                  |                                                                                                                           |
| 12th week<br>(5-9/1)                                                            | Programming with Python for analytics- A Gentle Introduction (6h)<br>Programming with R for analytics - A Gentle Introduction (6h) | Thursday & Friday<br>Thursday & Friday                                                                           |                                                                                                                           |
| 13th week<br>(12-16/1)                                                          | Principles and action lines of ESG compliance frameworks (6 h)<br>Tuesday & Thursday                                               | Disinformation & News Literacy (3h)<br>Wednesday                                                                 | Start-uppers case studies (3h)<br>TBA                                                                                     |
| 14th week<br>(19-23/1)                                                          | Machine Learning and government transformation (6h)<br>Tuesday & Thursday                                                          | Workshop 3: Techniques for pitching & presenting digital product or services proposals<br>In-person TBA          |                                                                                                                           |
| 15th week : Makeup week                                                         |                                                                                                                                    |                                                                                                                  |                                                                                                                           |
| Workshop 4: Oral presentations of student in capstone projects<br>In-person TBA |                                                                                                                                    |                                                                                                                  |                                                                                                                           |

\* Core Courses (63 hours)

\* Elective Courses (30 hours – each participant selects at least 12 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 and 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 and 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:**

- Vassilios Peristeras (IHU)
- 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:**

- Katerina Doka, PhD, 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 (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 and patenting in Europe

## **Instructor(s) and their affiliation:**

- 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 and communication of innovative ideas for digital government services

## **Instructor(s) and their affiliation:**

- Marina Psiloutsikou, PhD. AUEB

## **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 and 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.

# Managing the lifecycle of a digital product or service (PDM)

## **Instructor(s) and their affiliation:**

- Poulymenakou Angeliki (AUEB)
- Katerina Pramataris (AUEB)

## **Module Duration:**

- One (1) session of 3 hours

# Project and portfolio management for innovation and digital transformation

## **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
- Assist. Prof. Christos Troussas, Department of Informatics and Computer Engineering, UniWA
- Assist. Prof. Akrivi Krouska, Department of Informatics and Computer Engineering, UniWA
- Evgenia Gkini, PhD Candidate, Department of Informatics and Computer Engineering, UniWA
- Evangelos Fotopoulos, PhD Candidate, 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:**

- 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.
- 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 and Meltemi

## **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 and action lines of ESG compliance frameworks

## **Instructor(s) and their affiliation:**

- Aggeliki Kostaki, MSc, IS-BPM-ORM consultant, certified ESG practitioner, SAP consultant

## **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:**

- 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 and Government Transformation

## **Instructor(s) and their affiliation:**

- 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.

# GR digiGOV-innoHUB

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