

COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Sciences		
ACADEMIC UNIT	Department of Informatics		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	618SKOE	SEMESTER	6 th
COURSE TITLE	E-Government and Digital Services		
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>		WEEKLY TEACHING HOURS	CREDITS
Lectures		2	5
Tutorial Exercises		1	
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Specialized General Knowledge, Skills Development		
PREREQUISITE COURSES:	-		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	NO		
COURSE WEBSITE (URL)			

(2) LEARNING OUTCOMES

Learning outcomes

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

Consult Appendix A

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

The course aims to introduce students to the fundamental concepts, technologies, and architectures of e-Government and digital services. It examines how digital public services are designed, modelled, implemented, interconnected, and evaluated, with emphasis on administrative processes, maturity models, interoperability, APIs, registries, open and linked data, semantic technologies, and modern supporting infrastructures. The course also introduces key issues related to digital identity, trust services, security, and data protection, as well as emerging trends such as artificial intelligence, chatbots, cloud computing, and smart cities in the public sector.

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

- explain the main concepts, models, maturity levels, benefits, and challenges of e-Government and digital services;
- describe the basic institutional, strategic, and organisational framework for the development of digital public services in Greece and the European Union;
- analyse digital public services as combinations of administrative processes, information systems, data, and involved stakeholders;
- model basic administrative processes and public services using appropriate standards and techniques, such as BPMN and DMN;
- describe basic architectures for digital services, including multi-tier architectures, SOA, API-first design, cloud infrastructures, and introductory microservices concepts;
- explain the role of interoperability, APIs, registries, metadata, and common information models in interconnecting public sector information systems;
- apply basic concepts of open data, linked data, and semantic technologies, such as RDF, SPARQL, vocabularies, and ontologies;
- take into account basic requirements related to digital identity, trust services, security, and data protection when designing digital services;
- evaluate digital public services in terms of functionality, interoperability, usability, accessibility, quality, and user acceptance;
- identify current trends and challenges in e-Government, such as artificial intelligence, chatbots, cloud computing, open data, smart cities, and data-driven public administration.

General Competences

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

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

Adapting to new situations

Decision-making

Working independently

Team work

Working in an international environment

Working in an interdisciplinary environment

Production of new research ideas

Project planning and management

Respect for difference and multiculturalism

Respect for the natural environment

Showing social, professional and ethical responsibility and

sensitivity to gender issues

Criticism and self-criticism

Production of free, creative and inductive thinking

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Others...

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

Working independently

Team work

Generation of new research ideas

(3) SYLLABUS

1. Introduction to E-Government
2. Institutional and Strategic Framework
3. Digital Public Services
4. Process Modelling
5. Architectures and Cloud Infrastructures
6. Interoperability and APIs
7. Data, Registries and Metadata
8. Open and Linked Data
9. Digital Identity and Trust
10. Security and Data Protection
11. Service Evaluation and Quality
12. E-Participation and Emerging Technologies

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Face-to-face												
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	Learning process support through the moodle online platform (interaction, assignments, auxiliary material) Announcements via central department website Use email to communicate.												
TEACHING METHODS <i>The manner and methods of teaching are described in detail.</i> <i>Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</i> <i>The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i>	<table border="1"> <thead> <tr> <th>Activity</th><th>Semester workload</th></tr> </thead> <tbody> <tr> <td>Lectures</td><td>26x2=52</td></tr> <tr> <td>Tutorial Exercises</td><td>13x2=26</td></tr> <tr> <td>Team project</td><td>25</td></tr> <tr> <td>Independent Study</td><td>25</td></tr> <tr> <td>Course total</td><td>128</td></tr> </tbody> </table>	Activity	Semester workload	Lectures	26x2=52	Tutorial Exercises	13x2=26	Team project	25	Independent Study	25	Course total	128
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Lectures	26x2=52												
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Course total	128												
STUDENT PERFORMANCE EVALUATION <i>Description of the evaluation procedure</i> <i>Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i> <i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i>	Final Grade = Final Exam Grade (50%) + Team Project Presentation (50%)												

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Related academic journals:

- Tambouris, E., & Tarabanis, K. (2024). Electronic Government [Undergraduate textbook, in Greek]. Kallipos, Open Academic Editions. <http://dx.doi.org/10.57713/kallipos-420>
- Kapopoulos, D. G. (2024). Electronic Government: Social and Economic Digital Transformation (2nd enlarged ed., in Greek). Diavlos. Eudoxus Book Code: 122089970.
- Anthopoulos, L. (2022). Smart Cities and Intelligent Governance [in Greek]. Kritiki Publications. Eudoxus Book Code: 112691439.
- Lazakidou, A. (2021). Electronic Government and Electronic Services for Citizens and Businesses (3rd ed., in Greek). Disigma. Eudoxus Book Code: 102074646
- Urs, N., Špaček, D., & Nömmik, S. (Eds.). (2025). Digital Transformation in European Public Services: Complexities, Challenges, and Good Practices. Palgrave Macmillan. ISBN: 978-3-031-81424-2 · eBook ISBN: 978-3-031-81425-9
- Kang, K., & Li, L. (Eds.). (2025). E-Government Digital Frontiers: Transforming Public Administration through Technology. IntechOpen. ISBN: 978-1-83634-085-0 · Print ISBN: 978-1-83634-086-7 · eBook ISBN: 978-1-83634-087-4
- Wirtz, B. W. (2022). Digital Government: Strategy, Government Models and Technology. Springer. ISBN: 978-3-031-13085-4. eBook ISBN: 978-3-031-13086-1.
- Lips, M. (2019). Digital Government: Managing Public Sector Reform in the Digital Era. Routledge. ISBN: 978-1-138-65565-2. eBook ISBN: 978-1-315-62240-8.