Course Outlines of the
Transnational Inter-Institutional Postgraduate Program
"Digital Governance of Educational Institutions"

of the Department of Educational Sciences and Early Childhood Education (coordinating department) of the School of Humanities and Social Sciences of the University of Patras,

in collaboration with the Department of Education Studies of the School of Education Sciences of the University of Nicosia, and the Department of Digital Innovation of the School of Business Administration of the University of Nicosia.

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Digital Governance and Emerging Technologies

COURSE SYLLABUS

1. GENERAL

SCHOOL	School of Humanities and Social Sciences		
DEPARTMENT	Department of Educational Sciences and Early Childhood Education		
POSTGRADUATE PROGRAM: TITLE:	Digital Governance of Educational Institutions		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	**DGEI_100**	**SEMESTER**	**1st**
COURSE TITLE	**Digital Governance and Emerging Technologies**		

INDEPENDENT TEACHING ACTIVITIES *In cases where ECTS credits are awarded to distinct parts of the course (e.g., Lectures, Laboratory Exercises, etc.), specify them accordingly. If credits are awarded as a whole for the entire course, indicate the weekly teaching hours and the total number of ECTS credits.*	**HOURS**	**CREDITS**
19-20 weekly hours of workload x 13 weeks	250	10

COURSE TYPE *Background, General Knowledge, Scientific Field, Skills Development*	Background, Skills Development
PREREQUISITES	No
LANGUAGE OF INSTRUCTION AND EXAMINATION	Greek
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No
COURSE URL	https://ecedulms.upatras.gr/enrol/index.php?id=55

2. LEARNING OUTCOMES

Learning Outcomes

The learning outcomes of the course are described, including the specific knowledge, skills, and competencies at the appropriate level that students will acquire upon successful completion of the course.

Refer to Appendix A (separate file sent via email) for:

- *A description of the level of learning outcomes for each cycle of studies according to the Qualifications Framework of the European Higher Education Area*
- *Descriptive Indicators for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning*

Also refer to Appendix B:

- *Concise Guide for Writing Learning Outcomes*

The purpose of this course is to provide an in-depth analysis of the core principles of digital governance and to familiarize students with emerging technologies that are transforming educational administration and the learning experience. Through theoretical exploration and practical applications, students will gain the knowledge and skills necessary to understand, evaluate, and integrate these technologies into the governance of educational institutions, enhancing decision-making, transparency, efficiency, and educational impact. The course focuses on data management, interoperability, privacy protection, and the evaluation of emerging technologies (AI, blockchain, IoT, XR) for transparent, secure, and sustainable public services.

Upon successful completion, students will be able to:

- Understand digital transformation in education and its impact on administrative and teaching practices.
- Identify and evaluate emerging technologies such as blockchain, metaverse, artificial intelligence, IoT, and XR, and understand their fundamental principles.

- Analyze practical applications of blockchain in educational administration and assessment, including credential management and smart contracts.
- Apply artificial intelligence tools for process automation, data analysis, and personalized learning.
- Evaluate IoT solutions for smart school infrastructures and understand data governance principles.
- Recognize cybersecurity threats and apply basic data protection and system security practices.
- Calculate and assess the energy footprint of technological choices in education, with an emphasis on sustainability.
- Explore future trends and innovations in educational technology and develop critical thinking around their implications.
- Present final solutions and policy proposals that combine technological and administrative approaches.

General Skills

Taking into account the general competencies that a graduate should have acquired (as listed in the Diploma Supplement and outlined below), which of these does the course aim to develop?

Searching, analyzing, and synthesizing data and information using appropriate technologies
Adaptation to new situations
Decision-making
Independent work
Teamwork
Working in an international environment
Working in an interdisciplinary environment
Generation of new research ideas
Project planning and management
Respect for diversity and multiculturalism
Respect for the natural environment
Demonstration of social, professional, and ethical responsibility and sensitivity to gender issues
Critical thinking and self-reflection
Promotion of free, creative, and inductive thinking

- Searching, analyzing, and synthesizing data and information using appropriate technologies
- Project planning and management
- Independent work
- Teamwork
- Respect for the natural environment
- Working in an interdisciplinary environment
- Critical thinking and self-reflection
- Decision-making
- Promotion of free, creative, and inductive thinking
- Generation of new research ideas

3. COURSE CONTENT

1. Course Introduction, learning contract, and fundamental concepts of educational research
2. The Role of Digital Transformation in Education
3. Advanced Technologies in Education
   a. Decentralized systems and their impact on traditional education models
   b. Basic principles and functions of blockchain
   c. Digital worlds (metaverse), supporting technologies (e.g., AR/VR/XR, IoT, Blockchain), and their applications in education
   d. Artificial intelligence and its application in education
4. Blockchain Use Cases in Education
   a. Management of certificates and records
   b. Digital student identities
   c. Use of smart contracts
   d. Security and fraud prevention
   e. NFT-gated applications
   f. Soulbound Tokens in education
5. Artificial Intelligence in Education -A
   a. AI applications for data analysis and decision-making
   b. Process automation and efficiency improvement through AI

c. Chatbots
6. Artificial Intelligence in Education - B
   d. Training learning models
   e. AI for personalized learning
   f. AI and new student assessment practices
   g. Ethical and legal aspects of AI use in education
7. Metaverse and XR in Education
   a. Virtual campuses
   b. Digital twins
   c. Standards (OpenXR)
   d. Creation of virtual classrooms
8. Internet of Things in Smart School Infrastructure
   a. CO_2 sensors, smart lighting, edge computing
   b. IoT sensors for classroom monitoring
   c. IoT data governance
9. Cybersecurity
   a. Its importance for educational institutions and digital learning platforms
   b. Threats in the educational space
   c. Student data and privacy protection
   d. Security of emerging technologies in education
10. Sustainability and Energy Footprint
    a. Green IT KPIs
    b. Blockchain energy metrics
    c. IoT power budgets
    d. CO_2 calculation for cloud vs. on-premises options
11. Future Trends and Innovations
    a. Exploring the future of education with advancements in AI, virtual and augmented reality
12. Final Project Presentations
    i. Solution demo + policy brief
13. Revision and preparation for the final exam.

4. TEACHING AND LEARNING METHODS – ASSESSMENT

MODE OF DELIVERY Face-to-face, distance learning, etc.	Synchronous distance learning Distance learning (asynchronous activities)
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) Use of ICT in teaching, laboratory training, and communication with students	Continuous and systematic use of ICT through an online management learning system (e-class & Moodle). All approaches, collaboration between students and the instructor, are mediated by the digital system. Digital tools such as artificial intelligence, blockchain, metaverse, simulators, etc. will also be utilized. To check for plagiarism, the TurnItIn originality check system, provided by the University of Patras, will be used.
TEACHING ORGANIZATION *This section provides a detailed description of the teaching methods and approaches used in the course. These may include:* *Lectures, Seminars, Laboratory exercises, Fieldwork, Study and analysis of literature, Tutorials, Internships (placements), Clinical practice, Artistic workshops, Interactive teaching, Educational*	

Activity	***Semester Workload***
Lectures (3 synchronous distance learning x 4 hours)	12 hours
Graded educational activities (12 x 4 hours)	48 hours
Individual study with feedback from the instructor	190 hours
Course total	250 hours

visits, Project development, Writing assignments, Artistic creation, etc. *It also includes the number of study hours allocated to each learning activity, as well as hours of independent study, ensuring that the total workload per semester aligns with ECTS standards.*	
STUDENT EVALUATION *Description of the Assessment Process* *Language of Assessment: Greek* *Assessment Methods:* *Formative and summative assessment, Multiple-choice tests, Short-answer questions, Essay-type questions, Problem-solving, Written assignments Reports, Oral examinations, Public presentations, Laboratory, work Clinical patient examination, Artistic interpretation, Other methods (if applicable)*	The language of assessment is Greek Assessment is both formative and summative. Assessment is based on • the twelve assignments (40% of the final grade). These may include multiple-choice questionnaires, short-answer questions, essay questions, problem-solving exercises, short written assignments, public presentations, etc. • the final written or oral exam (60% of the final grade)

5. RECOMMENDED BIBLIOGRAPHY

- Themistocleous, M., (2025), Handbook of Blockchain Technology, Edward Elgar Publishing, ISBN: 978 1 80392 279 Rowe, C.P. and Louca, S., 2025. Exploring the Metaverse: An AI-assisted systematic literature review of Cryptocurrency and NFT. Handbook of Blockchain Technology, pp.26-55.
- 9, Handbook of Blockchain Technology (ref)#
- Louca, S. and Chavan, S., 2023, December. Pros and Cons of Integrating the Metaverse into Education: A Comprehensive Analysis. In European, Mediterranean, and Middle Eastern Conference on Information Systems (pp. 3-17). Cham: Springer Nature Switzerland.
- Parveen, S. and Ramzan, S.I., 2024. The role of digital technologies in education: Benefits and challenges. Int. Res. J. Adv. Eng. Manag, 2(06), pp.2029-2037.
- Sharma, R. and Singh, A., 2024. Use of digital technology in improving quality education: A global perspectives and trends. Implementing Sustainable Development Goals in the Service Sector, pp.14-26.
- Eden, C.A., Chisom, O.N. and Adeniyi, I.S., 2024. Integrating AI in education: Opportunities, challenges, and ethical considerations. Magna Scientia Advanced Research and Reviews, 10(2), pp.006-013.
- Giannakos, M., Azevedo, R., Brusilovsky, P., Cukurova, M., Dimitriadis, Y., Hernandez-Leo, D., Järvelä, S., Mavrikis, M. and Rienties, B., 2025. The promise and challenges of generative AI in education. Behaviour & Information Technology, 44(11), pp.2518-2544.
- Ahmed, S.M. and Mubarak, M.A., 2025. The Impact of Knowledge Sharing on Virtual Communities of Higher Education Sector. Journal of Information & Knowledge Management, p.2550038.
- Larsen, E., 2025, June. Democratic Accountability in the Digital Governance of Education: A Review of Tensions and Challenges. In Conference Proceedings. The Future of Education 2025.

COURSE OUTLINE

1. GENERAL

SCHOOL	School of Humanities and Social Sciences		
ACADEMIC UNIT	Department of Educational Sciences and Early Childhood Education		
POSTGRADUATE PROGRAMME: TITLE OF POSTGRADUATE PROGRAMME	Digital Governance of Educational Institutions		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	**DGEI_101**	**SEMESTER**	1st
COURSE TITLE	**Learning Technologies and Education**		
INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits.*		**HOURS**	**CREDITS**
19-20 weekly hours of workload x 13 weeks		250	10
COURSE TYPE *general background, special background, specialised general knowledge, skills development*	General background and skills development		
PREREQUISITE COURSES	Without prerequisite courses		
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://ecedulms.upatras.gr/course/view.php?id=56		

2. LEARNING OUTCOMES

Learning outcomes

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

Consult Appendix A

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

The aim of this course is to provide a systematic introduction to the interdisciplinary field of Learning Technologies and to delve into the theoretical, methodological, and applied issues concerning the pedagogical utilization of Digital Technologies in the teaching and learning process.

Upon completion of the course, postgraduate students should be able to:

- Describe and interpret the core models, theoretical frameworks, and approaches for the integration and implementation of Digital Technologies in the educational process.
- Develop awareness of the interdisciplinary field related to the integration of digital environments into teaching and learning.
- Identify and document the interdisciplinary nature of Learning Technologies, connecting pedagogical, technological, and sociological perspectives.
- Define and classify the key concepts, categories, and functions of digital educational environments.
- Critically analyze the technological and pedagogical affordances offered by the main categories of digital educational environments in relation to learning theories and instructional approaches.
- Delve into the theoretical and methodological issues arising from the use of digital environments across the full spectrum of educational practice.
- Explore and analyze the instructional and learning dimensions of computer-supported learning, utilizing research data and evidence-based practices.
- Evaluate and justify choices regarding the design, development, documentation, and assessment of digital environments for human learning.
- Assess and reflect on the implementation of instructional interventions using digital educational environments, adopting a critical, evidence-based, and ethically sensitive stance.

General Competences	
Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?	
Search for, analysis, and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Teamwork	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*……*
Production of new research ideas	*Others…*
	…….

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Adapting to new situations
- Decision-making
- Working independently (ή Autonomous work)
- Teamwork
- Working in an interdisciplinary environment
- Production of new research ideas
- Project design and management
- Criticism and self-criticism
- Promotion of free, creative and inductive thinking

3. SYLLABUS

1. Course Introduction, learning contract, and introduction to the fundamental concepts of Educational Technology and e-Learning
2. Models for the Integration of Digital Technologies in Education
3. Technological Pedagogical Content Knowledge (TPACK)
4. Learning Theories and Digital Technologies
5. Instructional Design with Digital Technologies
6. Digital Technologies as Cognitive Tools / The affordances of digital tools
7. Technology-Enhanced Learning (TEL) / Digital Educational Environments
8. Traditional e-Learning Environments (Drill and practice software, tutorial software, multimedia systems, xMOOCs)
9. Inquiry-based e-Learning Environments (Concept mapping, hypermedia, visualization, simulation, and modeling)
10. Collaborative e-Learning Environments with digital technologies, Learning Management Systems (LMS), cMOOCs
11. Programming, Educational Robotics, Automation Technologies in Education, and the Internet of Things (IoT)
12. Emerging Technologies and Education (Virtual, Augmented, and Mixed Reality environments - VR/AR/MR, Artificial Intelligence)
13. Revision and preparation for the final exam

4. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Synchronous distance learning Distance learning (asynchronous activities)
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Continuous and systematic use of ICT through an online management learning system (e-class & Moodle). All approaches, collaboration between students and the instructor, are mediated by the digital system. To check for plagiarism, the TurnItIn originality check system, provided by the University of Patras, will be used.
TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements,*	

Activity	***Semester workload***
Lectures (3 synchronous distance learning x 4 hours)	12 hours

clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc. *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	Graded educational activities (12 x 4 hours) — 48 hours Individual study with feedback from the instructor — 190 hours **Course total** — **250** hours
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	The language of assessment is Greek. Assessment is both formative and summative. Assessment is based on • the twelve assignments (40% of the final grade). These may include multiple-choice questionnaires, short-answer questions, essay questions, problem-solving exercises, short written assignments, public presentations, etc. • the final written or oral exam (60% of the final grade)

5. RECOMMENDED BIBLIOGRAPHY

- *Recommended Bibliography*

Κόμης Β. (2019). Εισαγωγή στις Εκπαιδευτικές Εφαρμογές των Τεχνολογιών της Πληροφορίας και των Επικοινωνιών, Β' έκδοση, Αθήνα: Εκδόσεις Νέων Τεχνολογιών.
Depover, C., Karsenti, T, Κόμης, Β, (2010). Διδασκαλία με χρήση της τεχνολογίας, Προώθηση της μάθησης, ανάπτυξη ικανοτήτων, Αθήνα: Εκδόσεις Κλειδάριθμος.
T. Newby, D. Stepich, J. Lehman, J. Russell (2009). Εκπαιδευτική Τεχνολογία για Διδασκαλία και Μάθηση, Αθήνα: ΕΠΙΚΕΝΤΡΟ.
Αβούρης, Ν., Καραγιαννίδης, Χ., Κόμης, Β. (2009). Συνεργατική Τεχνολογία, Συστήματα και μοντέλα συνεργασίας για εργασία, μάθηση, κοινότητες πρακτικής και δημιουργία γνώσης, Αθήνα: Εκδόσεις Κλειδάριθμος.
Κόμης Β. (2005), Εισαγωγή στη Διδακτική της Πληροφορικής, Αθήνα: Εκδόσεις Κλειδάριθμος.
Μικρόπουλος, Α., Μπέλλου, Ι. (2010). Σενάρια διδασκαλίας με υπολογιστή, Αθήνα: Εκδόσεις Κλειδάριθμος.
Τζιμογιάννης, Α. (2019). Ηλεκτρονική Μάθηση, θεωρητικές προσεγγίσεις και εκπαιδευτικοί σχεδιασμοί, Αθήνα: Κριτική

- *Related Academic and Scientific Journals*

Computers and Education
Education and Information Technologies
British Journal of Educational Technology
Journal of Computer Assisted Learning
Educational Technology Research and Development
Themes in e-Learning

Education 4.0 and Digital Technology Project Management

COURSE OUTLINE

1. GENERAL

SCHOOL	School of Humanities and Social Sciences		
ACADEMIC UNIT	Department of Educational Sciences and Early Childhood Education		
POSTGRADUATE PROGRAMME: TITLE OF POSTGRADUATE PROGRAMME	Digital Governance of Educational Institutions		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	**DGEI_105**	**SEMESTER**	1st
COURSE TITLE	**Education 4.0 and Digital Technology Project Management**		
INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course e.g. lectures,*		**HOURS**	**CREDITS**

laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits.		
19-20 weekly hours of workload x 13 weeks	250	10

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	General background and skills development
PREREQUISITE COURSES	Without prerequisite courses
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	https://ecedulms.upatras.gr/enrol/index.php?id=60

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 familiarize postgraduate students with the fundamental principles, tools, and methodologies of Education 4.0 and the management of digital technology projects in educational and organizational contexts. It emphasizes innovation, digital transformation, and the integration of new technologies into educational systems.

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

- Describe the fundamental principles and pillars of Education 4.0.
- Link emerging technological developments (AI, IoT, AR/VR) with modern educational practices.
- Apply basic project management methods within the context of educational institutions.
- Design and organize digital projects based on contemporary frameworks (e.g., Agile, Scrum).
- Use digital collaboration tools and project management software.
- Analyze and evaluate the impact of digital transformation on education.

General Competences

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

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

The course contributes to the development of the following general competencies:

- *Searching, analyzing, and synthesizing data and information.*
- *Adapting to new situations.*
- *Decision-making.*
- *Independent and collaborative work.*
- *Project planning and management.*
- *Working in an interdisciplinary environment.*
- *Fostering creative and innovative thinking.*

3. SYLLABUS

1. Course introduction, learning contract, definition, objectives, and core principles of Education 4.0, and its connection to the broader framework of digital governance in education.
2. Foundations of Education 4.0: Historical evolution from Education 1.0 to 4.0. Key pillars: Personalized learning, collaboration, innovation.
3. Digital Technologies in Education 4.0: Automation and Artificial Intelligence (AI). Augmented and Virtual Reality (AR/VR). Use of IoT (Internet of Things) in education.

4. Best Practices and International Approaches: Infrastructure and policies for digital transformation in education. Study of international educational systems implementing Education 4.0.
5. Introduction to Digital Technology Project Management: Definition and purpose of Project Management. Project life cycle in digital technology.
6. Project Management Methodologies: Traditional and modern project management methodologies. Comparison and selection of methodology for educational projects.
7. Project Management Tools and Platforms: Overview of the most popular project management tools and platforms.
8. Educational Projects: Design and Implementation Phases: Needs analysis and goal-setting. Specifications design for digital projects.
9. Collaborative Environments and Project Teams: Team roles and dynamics. Digital collaboration tools (Google Workspace, Microsoft Teams).
10. Risk Assessment and Quality Assurance: Techniques for identifying and addressing risks. Quality assurance in digital educational projects.
11. Ethics, Security, and Regulatory Framework: Ethical issues in Education 4.0. GDPR and data security in educational projects.
12. Presentation of Successful Case Studies: Analysis of real-life examples from Greece and abroad.
13. Revision and preparation for the final exam.

4. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Synchronous distance learning Distance learning (asynchronous activities)
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Continuous and systematic use of ICT through an online management learning system (e-class & Moodle). All approaches, collaboration between students and the instructor, are mediated by the digital system. Additionally, project management software (MS Project, Trello, Asana) will be used to support the design, monitoring, and evaluation of digital education projects. To check for plagiarism, the TurnItIn originality check system, provided by the University of Patras, will be used.
TEACHING METHODS *The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	The language of assessment is Greek. Assessment is both formative and summative. Assessment is based on • the twelve assignments (40% of the final grade). These may include multiple-choice questionnaires, short-answer questions, short written assignments, public presentations, etc. • the final written or oral exam (60% of the final grade)

Activity	***Semester workload***
Lectures (3 synchronous distance learning x 4 hours)	12 hours
Graded educational activities (12 x 4 hours)	48 hours
Individual study with feedback from the instructor	190 hours
Course total	**250** hours

5. RECOMMENDED BIBLIOGRAPHY

- RECOMMENDED BIBLIOGRAPHY

- Industry 4.0 Technologies for Education Transformative, Technologies and Applications, Edited By P. Kaliraj, T. Devi ISBN 9781032331416, Published March 13, 2025 by Auerbach Publications
- Project Management: A Systems Approach to Planning, Scheduling, and Controlling, 13th Edition, Harold Kerzner, ISBN: 978-1-119-80537-3, Wiley
- Innovative Pedagogical Practices for Higher Education 4.0: Solutions and Demands of the Modern Classroom Edited By Muhammad Mujtaba Asad, Prathamesh Padmakar Churi, Fahad Sherwani, Razali Bin Hassan ISBN 9781003400691 CRC Press

- Related Academic and Scientific Journals

- International Journal of Project Management: https://www.sciencedirect.com/journal/international-journal-of-project-management
- Computers & Education: https://www.sciencedirect.com/journal/computers-and-education
- Journal of Digital Learning in Teacher Education: https://www.tandfonline.com/toc/ujdl20/current

Legal and Ethical Issues in Digital Governance

COURSE SYLLABUS

1. GENERAL

SCHOOL	School of Humanities and Social Sciences		
DEPARTMENT	Department of Educational Sciences and Early Childhood Education		
POSTGRADUATE PROGRAM: TITLE:	Digital Governance of Educational Institutions		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	**DGEI_106**	**SEMESTER**	**1st**
COURSE TITLE	**Legal and Ethical Issues in Digital Governance**		
INDEPENDENT TEACHING ACTIVITIES *In cases where ECTS credits are awarded to distinct parts of the course (e.g., Lectures, Laboratory Exercises, etc.), specify them accordingly. If credits are awarded as a whole for the entire course, indicate the weekly teaching hours and the total number of ECTS credits.*		**HOURS**	**CREDITS**
19-20 weekly hours of workload x 13 weeks		250	10
COURSE TYPE *Background, General Knowledge, Scientific Field, Skills Development*	General Knowledge		
PREREQUISITES	No		
LANGUAGE OF INSTRUCTION AND EXAMINATION	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE URL	https://ecedulms.upatras.gr/enrol/index.php?id=61		

2. LEARNING OUTCOMES

Learning Outcomes

The learning outcomes of the course are described, including the specific knowledge, skills, and competencies at the appropriate level that students will acquire upon successful completion of the course.

Refer to Appendix A (separate file sent via email) for:

- *A description of the level of learning outcomes for each cycle of studies according to the Qualifications Framework of the European Higher Education Area*
- *Descriptive Indicators for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning*

Also refer to Appendix B:

- *Concise Guide for Writing Learning Outcomes*

This course explores the legal frameworks and ethical dilemmas arising from the use of digital technologies in public and educational administration. It focuses on compliance with European and Greek legislation, risk analysis for individuals and society, and the development of responsible governance strategies for data, AI, and digital services.

Upon successful completion, students will be able to:

- Describe key legal texts regulating digital governance (GDPR, eIDAS 2.0, AI Act, Digital Services Act, NIS 2, PSI Directive, etc.).
- Conduct Data Protection Impact Assessments (DPIA) and document technical and organizational compliance measures.
- Identify intellectual property issues in digital educational content and apply Creative Commons licenses.
- Evaluate ethical implications of algorithmic systems, including bias, transparency, and accountability.
- Analyze legal boundaries and potentials of technologies like blockchain, IoT, metaverse, and cloud in public services.
- Draft well-supported policy proposals balancing innovation, citizen rights, and societal benefit.

General Skills

Taking into account the general competencies that a graduate should have acquired (as listed in the Diploma Supplement and outlined below), which of these does the course aim to develop?

Searching, analyzing, and synthesizing data and information using appropriate technologies	*Project planning and management*
Adaptation to new situations	*Respect for diversity and multiculturalism*
Decision-making	*Respect for the natural environment*
Independent work	*Demonstration of social, professional, and ethical responsibility and sensitivity to gender issues*
Teamwork	*Critical thinking and self-reflection*
Working in an international environment	*Promotion of free, creative, and inductive thinking*
Working in an interdisciplinary environment	
Generation of new research ideas	

Searching, analyzing, and synthesizing data and information using appropriate technologies
Adaptation to new situations
Decision-making
Independent work
Teamwork
Working in an international environment
Demonstration of social, professional, and ethical responsibility and sensitivity
Working in an interdisciplinary environment
Generation of new research ideas

3. COURSE CONTENT

1. Course Introduction, learning contract, and fundamental concepts of educational research
2. Legal and Ethical Dimensions of Digital Governance
   a. Principles of legality, accountability, reliability
3. Data Protection and Privacy
   a. GDPR
   b. Processing principles, data subject rights
4. Information Security and the Directive on Security of Network and Information Systems (NIS 2)
   a. Secure infrastructures
   b. Incident notification, sanctions
5. Open Public Data and the Public Sector Information (PSI) Directive
   a. Licensing
   b. Interoperability
   c. Value of use
6. Digital Identities and Trust (eIDAS 2.0)
   a. EU Digital Wallet, Qualified Trust Services
7. Intellectual Property and Education
   a. Copyright
   b. Creative Commons
8. Artificial Intelligence Regulation
   a. AI Act

b. Risk-based approach
c. Ethical guidelines (OECD/UNESCO)
9. Blockchain, Smart Contracts & Legal Validity
a. Privacy
b. Cryptocurrencies
c. Tax aspects
10. Internet of Things and Environmental Regulations
a. Processing of sensory data, traceability
11. Regulation of Digital Platforms and Content
a. Digital Services Act
b. Content moderation
c. ePrivacy
12. Accessibility and Digital Equity
a. Web Content Accessibility Guidelines (WCAG 2.2)
b. European standard "Accessibility requirements for ICT products and services" (EN 301 549)
c. Digital divide
13.Revision and preparation for the final exam.

4. TEACHING AND LEARNING METHODS – ASSESSMENT

MODE OF DELIVERY Face-to-face, distance learning, etc.	Synchronous distance learning Distance learning (asynchronous activities)
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) Use of ICT in teaching, laboratory training, and communication with students	Continuous and systematic use of ICT through an online management learning system (e-class & Moodle). All approaches, collaboration between students and the instructor, are mediated by the digital system. To check for plagiarism, the TurnItIn originality check system, provided by the University of Patras, will be used.
TEACHING ORGANIZATION *This section provides a detailed description of the teaching methods and approaches used in the course. These may include:* *Lectures, Seminars, Laboratory exercises, Fieldwork, Study and analysis of literature, Tutorials, Internships (placements), Clinical practice, Artistic workshops, Interactive teaching, Educational visits, Project development, Writing assignments, Artistic creation, etc.* *It also includes the number of study hours allocated to each learning activity, as well as hours of independent study, ensuring that the total workload per semester aligns with ECTS standards.*	
STUDENT EVALUATION *Description of the Assessment Process* *Language of Assessment: Greek* *Assessment Methods:* *Formative and summative assessment, Multiple-choice tests, Short-answer questions, Essay-type questions, Problem-solving, Written assignments* *Reports, Oral examinations, Public presentations, Laboratory, work Clinical patient examination, Artistic interpretation, Other methods (if applicable)*	The language of assessment is Greek. Assessment is both formative and summative. Assessment is based on • the twelve assignments (40% of the final grade). These may include multiple-choice questionnaires, short-answer questions, essay questions, problem-solving exercises, short written assignments, public presentations, etc. • the final written or oral exam (60% of the final grade)

Activity	***Semester Workload***
Lectures (3 synchronous distance learning x 4 hours)	12 hours
Graded educational activities (12 x 4 hours)	48 hours
Individual study with feedback from the instructor	190 hours
Course Total	250 hours

5. RECOMMENDED BIBLIOGRAPHY

- Οδηγία για την ασφάλεια δικτύων και συστημάτων πληροφοριών (NIS 2), https://eur-lex.europa.eu/eli/dir/2022/2555/oj
- NIS2 Directive: securing network and information systems, https://digital-strategy.ec.europa.eu/en/policies/nis2-directive
- Ελληνική πύλη δεδομένων: https://data.gov.gr
- FAIR Guidelines (EN): https://www.go-fair.org/fair-principles/
- Accessibility Conformance Testing (ACT) Overview, https://www.w3.org/WAI/standards-guidelines/act/
- Κανονισμός eIDAS, https://digital-strategy.ec.europa.eu/el/policies/eidas-regulation
- eIDAS - ηλεκτρονική ταυτοποίηση και υπηρεσίες εμπιστοσύνης, https://digital-strategy.ec.europa.eu/el/policies/discover-eidas
- Li, Z. and Zhang, W., 2025. Technology in education: Addressing legal and governance challenges in the digital era. Education and Information Technologies, 30(7), pp.8413-8443.
- Salloum, S.A. (2024). AI Perils in Education: Exploring Ethical Concerns. In: Al-Marzouqi, A., Salloum, S.A., Al-Saidat, M., Aburayya, A., Gupta, B. (eds) Artificial Intelligence in Education: The Power and Dangers of ChatGPT in the Classroom. Studies in Big Data, vol 144. Springer, Cham. https://doi.org/10.1007/978-3-031-52280-2_43
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- Mustafa, G., Rafiq, W., Jhamat, N., Arshad, Z. and Rana, F.A., 2025. Blockchain-based governance models in e-government: a comprehensive framework for legal, technical, ethical and security considerations. International Journal of Law and Management, 67(1), pp.37-55.

Strategies of Digital Communication, Governance and Quality Assurance

COURSE OUTLINE

1. GENERAL

SCHOOL	School of Humanities and Social Sciences		
ACADEMIC UNIT	Department of Educational Sciences and Early Childhood Education		
POSTGRADUATE PROGRAMME: TITLE OF POSTGRADUATE PROGRAMME	Digital Governance of Educational Institutions		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	**DGEI_102**	**SEMESTER**	2nd
COURSE TITLE	**Strategies of digital communication, governance and quality assurance**		
INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits.*		**HOURS**	**CREDITS**
19-20 weekly hours of workload x 13 weeks		250	10
COURSE TYPE *general background, special background, specialised general knowledge, skills development*	General background and skills development		
PREREQUISITE COURSES	No		
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://ecedulms.upatras.gr/enrol/index.php?id=57		

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 develop theoretical and practical knowledge for designing, implementing, and evaluating digital communication and governance strategies in educational and public administration organizations, with an emphasis on quality assurance, transparency, accessibility, and accountability.

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

- Explain the key theories and practices of digital communication and governance.
- Link communication strategies with quality assurance systems and organizational excellence.
- Analyze data and performance indicators to improve the quality of communication practices.
- Formulate and implement strategic digital communication plans based on an organization's needs.
- Select and evaluate digital tools and communication media using criteria of security, transparency, and accessibility.
- Manage digital communication projects with agile and collaborative methodologies.
- Integrate legal and ethical dimensions (GDPR, open governance, accountability) into communication practices.
- Promote participatory communication and the creation of communities of practice within the context of organizational governance.
- Evaluate the impact of communication strategies on reputation, trust, and service quality.
- Prepare professionally substantiated policy or strategy recommendations for improving digital communication and quality.

General Competences

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

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

- Searching, analyzing, and synthesizing data and information, using the necessary technologies
- Adaptation to new situations
- Decision making
- Independent work
- Teamwork
- Working in an interdisciplinary environment
- Generating new research ideas
- Respect for diversity and multiculturalism
- Respect for the natural environment
- Demonstrating social, professional, and ethical responsibility and sensitivity to gender issues
- Practicing critical thinking and self-critique

- Promoting free, creative, and inductive thinking

3. SYLLABUS

1. Course Introduction, learning contract, and fundamental concepts of the course
2. Theoretical Models and Frameworks of Digital Communication
3. Digital Governance: Principles, Policies, and International Frameworks
4. Legal and Ethical Dimensions of Digital Governance
5. Quality Assurance in Digital Communication and Governance
6. Strategic Planning for Digital Communication
7. Digital Tools and Communication Platforms
8. Data, Indicators, and Analytical Tools (Data Analytics)
9. Leadership and Organizational Culture in Digital Governance
10. Agile Methodologies for Communication Strategies
11. Culture of Transparency, Accountability, and Participation
12. Innovation and Continuous Improvement in Digital Communication
13. Revision and preparation for the final exam

4. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Synchronous distance learning Distance learning (asynchronous activities)
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Continuous and systematic use of ICT through an online management learning system (e-class & Moodle). All approaches, collaboration between students and the instructor, are mediated by the digital system. To check for plagiarism, the TurnItIn originality check system, provided by the University of Patras, will be used.
TEACHING METHODS *The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	The language of assessment is Greek. Assessment is both formative and summative. Assessment is based on • the twelve assignments (40% of the final grade). These may include multiple-choice questionnaires, short-answer questions, essay questions, problem-solving exercises, short written assignments, public presentations, etc. • the final written or oral exam (60% of the final grade).

Activity	***Semester workload***
Lectures (3 synchronous distance learning x 4 hours)	12 hours
Graded educational activities (12 x 4 hours)	48 hours
Individual study with feedback from the instructor	190 hours
Course total	**250** hours

5. RECOMMENDED BIBLIOGRAPHY

Suggested bibliography

1. European Commission. (2023). *High-quality, inclusive and trusted digital education and training*. Publications Office of the European Union.

2. Bryson, J. M., Crosby, B. C., & Bloomberg, L. (2020). *Public value governance: Moving beyond traditional public administration and the New Public Management*. *Public Administration Review*, 80(4), 665–674.
3. Zawacki-Richter, O., Kerres, M., Bedenlier, S., Bond, M., & Buntins, K. (Eds.). (2020). *Systematic reviews in educational research: Methodology, perspectives and application*. Springer.
4. Alawadhi, S., & Scholl, H. J. (2016). Smart governance: A cross-case analysis of smart city initiatives. *Proceedings of the 49th Hawaii International Conference on System Sciences (HICSS)*, 2953–2963.
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6. Kettunen, J. (2017). *Strategic management for higher education institutions: Approaches to institutional quality management*. Springer.
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8. Dron, J., & Anderson, T. (2019). *Teaching crowds: Learning and social media* (2nd ed.). Springer.
9. Costanza-Chock, S. (2020). *Design justice: Community-led practices to build the worlds we need*. MIT Press.
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Research Methodology with Digital Tools

COURSE OUTLINE

1. GENERAL

SCHOOL	School of Humanities and Social Sciences		
ACADEMIC UNIT	Department of Educational Sciences and Early Childhood Education		
POSTGRADUATE PROGRAMME: TITLE OF POSTGRADUATE PROGRAMME	Digital Governance of Educational Institutions		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	**DGEI_103**	**SEMESTER**	2nd
COURSE TITLE	**Research Methodology with Digital Tools**		
INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits.*		**HOURS**	**CREDITS**
19-20 weekly hours of workload x 13 weeks		250	10
COURSE TYPE *general background, special background, specialised general knowledge, skills development*	General background and skills development		
PREREQUISITE COURSES	No		
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://ecedulms.upatras.gr/enrol/index.php?id=58		

2. LEARNING OUTCOMES

Learning outcomes

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

Consult Appendix A

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

The aim of the course is for postgraduate students to become familiar with and understand methods for analyzing research data collected during the investigation of social phenomena, using quantitative, qualitative, or mixed methods approaches. Upon successful completion of the course, the postgraduate student will be able to:

- Select the appropriate strategy, design, and method for conducting educational research.
- Choose the appropriate sampling technique for constructing a research sample.
- Formulate suitable research hypotheses and/or research questions according to the research problem.
- Identify and apply the basic process of hypothesis testing in inferential statistics.
- Perform basic inferential data analysis procedures in a digital environment.
- Perform basic multivariate data analysis procedures in a digital environment.
- Perform basic qualitative data analysis procedures in a digital environment.
- Present analysis results by linking them to the research problem.
- Critically approach contemporary issues in educational research.

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
Teamwork
Working in an international environment
Working in an interdisciplinary environment
Production of new research ideas
Project planning and management
Respect for difference and multiculturalism
Respect for the natural environment
Showing social, professional and ethical responsibility and sensitivity to gender issues
Criticism and self-criticism
Production of free, creative and inductive thinking
……
Others…
…….

- Adapting to new situations
- Search for, analysis, and synthesis of data and information, with the use of the necessary technology
- Decision-making
- Working independently
- Teamwork
- Working in an interdisciplinary environment
- Criticism and self-criticism
- Project planning and management
- Production of free, creative and inductive thinking
- Production of new research ideas

3. SYLLABUS

1. Course Introduction, learning contract, and Quantitative, Qualitative, and Mixed Research Strategies in Educational Research
2. Experimental and Non-Experimental research Designs in quantitative research strategy
3. Basic research designs in qualitative research strategy
4. Utilization of Digital Tools for literature search and review
5. Research problem and formulation of research objectives, questions or/and hypotheses
6. Data Collection Methods in Educational Research
7. Ethical Issues in Educational Research
8. Reliability and Validity in Educational Research
9. Quantitative Data Analysis (Descriptive Statistics) in a computational data analysis environment
10. Quantitative Data Analysis (Inferential Statistics) in a digital environment: Design involving two independent or dependent samples
11. Quantitative Data Analysis (Inferential Statistics) in a digital environment: Design involving three or more independent or dependent samples

12. Quantitative Data Analysis (Inferential Statistics) in a digital environment: Relationship between two qualitative and two quantitative variables
13. Revision and preparation for the final exam

4. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Synchronous distance learning Distance learning (asynchronous activities)
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Continuous and systematic use of ICT through an online management learning system (e-class & Moodle). All approaches, collaboration between students and the instructor, are mediated by the digital system. Additionally, data analysis tools such as SPSS, PSPP, as well as artificial intelligence tools, will be utilized. To check for plagiarism, the TurnItIn originality check system, provided by the University of Patras, will be used.
TEACHING METHODS *The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	The language of assessment is Greek. Assessment is both formative and summative. Assessment is based on • the twelve assignments (40% of the final grade). These may include multiple-choice questionnaires, short-answer questions, essay questions, problem-solving exercises, short written assignments, public presentations, etc. • the final written or oral exam (60% of the final grade)

Activity	***Semester workload***
Lectures (3 synchronous distance learning x 4 hours)	12 hours
Graded educational activities (12 x 4 hours)	48 hours
Individual study with feedback from the instructor	190 hours
Course total	**250** hours

5. RECOMMENDED BIBLIOGRAPHY

- Suggested Bibliography

- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed). Pearson.
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. Sage.
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- Issari, P., & Pourkos, M. (2015). *Qualitative research methodology [Undergraduate textbook]*. Kallipos, Open Academic Editions. https://dx.doi.org/10.57713/kallipos-473
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- *Relative Scientific Journals*
  - Quality & Quantity. International Journal of Methodology, https://www.springer.com/journal/11135
  - Journal of Education Policy, https://www.tandfonline.com/toc/tedp20/current
  - Digital Government: Research and Practice, https://dl.acm.org/loi/dgov

Special Issues in Digital Governance of Educational Institutions

COURSE OUTLINE

1. GENERAL

SCHOOL	School of Humanities and Social Sciences		
ACADEMIC UNIT	Department of Educational Sciences and Early Childhood Education		
POSTGRADUATE PROGRAMME: TITLE OF POSTGRADUATE PROGRAMME	Digital Governance of Educational Institutions		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	**DGEI_107**	**SEMESTER**	2nd
COURSE TITLE	**Special Issues in Digital Governance of Educational Institutions**		
INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits.*		**WEEKLY TEACHING HOURS**	**CREDITS**
19-20 weekly hours of workload x 13 weeks		250	10
COURSE TYPE *general background, special background, specialised general knowledge, skills development*	General background and skills development		
PREREQUISITE COURSES	No		
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://ecedulms.upatras.gr/enrol/index.php?id=62		

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 provide in-depth knowledge and critical understanding of the principles, policies, tools, and strategies of digital governance within the educational environment. It examines the challenges, opportunities, and ethical dimensions of digital transformation, focusing on administration, leadership, human resource policies, data security, artificial intelligence, and participatory governance. The course bridges theory and practice through policy analysis, case studies, and the design of strategic interventions, preparing students to actively and responsibly contribute to the digital transformation of educational institutions.

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

- Interpret the key principles and theories of digital governance and relate them to the educational context.

- Analyze international and national policies on digital transformation in education and evaluate their impact.
- Utilize data, technological tools, and information systems to make evidence-based decisions in the management of educational institutions.
- Become familiar with strategies and policies for human resource development, innovation, and digital literacy.
- Critically understand the ethical, social, and legal dimensions of the use of artificial intelligence, automation, and data in education.
- Develop leadership skills for managing change, strengthening collaborative practices, and fostering a participatory digital culture.
- Apply the principles of equality, inclusion, and sustainable development in the practice of digital governance.

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
Teamwork
Working in an international environment
Working in an interdisciplinary environment
Production of new research ideas
Project planning and management
Respect for difference and multiculturalism
Respect for the natural environment
Showing social, professional and ethical responsibility and sensitivity to gender issues
Criticism and self-criticism
Production of free, creative and inductive thinking
……
Others…
…….

- Adapting to new situations
- Search for, analysis, and synthesis of data and information, with the use of the necessary technology
- Decision-making
- Working independently
- Teamwork
- Working in an interdisciplinary environment
- Criticism and self-criticism
- Project planning and management
- Production of free, creative and inductive thinking
- Production of new research ideas

3. SYLLABUS

1. Course Introduction and fundamental concepts of Administration and Digital Governance in Education
2. Policies and Institutional Framework of Digital Governance
3. Human Resource Policies for Digital Education
4. Leadership and Digital Transformation in Education
5. Innovation, Digital Strategies, and Change Management
6. Cybersecurity and Resilience of Educational Institutions
7. Artificial Intelligence and Automation in Educational Administration
8. Decision-Making Supported by Artificial Intelligence
9. Digital Participation and Active Citizenship
10. Innovative Practices and International Case Studies
11. Equality, Access, and Digital Inclusion
12. Sustainable Development and Digital Governance
13. Revision and preparation for the final exam

4. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Synchronous distance learning Distance learning (asynchronous activities)
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Continuous and systematic use of ICT through an online management learning system (e-class & Moodle). All approaches, collaboration between students and the instructor, are mediated by the digital system.

	Additionally, artificial intelligence tools, will be utilized. To check for plagiarism, the TurnItIn originality check system, provided by the University of Patras, will be used.
TEACHING METHODS *The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	<table><tr><th>*Activity*</th><th>*Semester workload*</th></tr><tr><td>Lectures (3 synchronous distance learning x 4 hours)</td><td>12 hours</td></tr><tr><td>Graded educational activities (12 x 4 hours)</td><td>48 hours</td></tr><tr><td>Individual study with feedback from the instructor</td><td>190 hours</td></tr><tr><td>**Course total**</td><td>**250** hours</td></tr></table>
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	The language of assessment is Greek. Assessment is both formative and summative. Assessment is based on • the twelve assignments (40% of the final grade). These may include multiple-choice questionnaires, short-answer questions, essay questions, problem-solving exercises, short written assignments, public presentations, etc. • the final written or oral exam (60% of the final grade)

5. RECOMMENDED BIBLIOGRAPHY

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- Burns, T., Köster, F., & Fuster, M. (2016). Education Governance in Action: Lessons from Case Studies, Educational Research and Innovation, OECD Publishing, Paris, https://doi.org/10.1787/9789264262829-en.
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Digital Data Management and Information Security

COURSE OUTLINE

1. GENERAL

SCHOOL	School of Humanities and Social Sciences		
ACADEMIC UNIT	Department of Educational Sciences and Early Childhood Education		
POSTGRADUATE PROGRAMME: TITLE OF POSTGRADUATE PROGRAMME	Digital Governance of Educational Institutions		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	**DGEI_108**	**SEMESTER**	2nd
COURSE TITLE	**Digital Data Management and Information Security**		
INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits.*		**HOURS**	**CREDITS**
19-20 weekly hours of workload x 13 weeks		250	10
COURSE TYPE *general background, special background, specialised general knowledge, skills development*	General background and skills development		
PREREQUISITE COURSES	Without prerequisite courses		
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://ecedulms.upatras.gr/enrol/index.php?id=63		

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 equip postgraduate students with theoretical and practical knowledge in the field of digital data management and information security, focusing on the secure handling, analysis, and protection of information within educational and organizational environments:

- Describe the fundamental principles of digital data management and the core concepts of information security.
- Identify and classify data according to sensitivity levels and protection policies.
- Apply secure methods for data processing, storage, and retrieval.
- Analyze potential security risks in educational and organizational contexts and propose appropriate mitigation strategies.
- Utilize data protection, encryption, and access control tools effectively.
- Document compliance procedures with data protection regulatory frameworks (e.g., GDPR - General Data Protection Regulation).
- Evaluate the security of digital systems and design basic incident response and security management protocols.
- Develop critical thinking and decision-making skills related to data protection and digital information security.

General Competences

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

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

The course contributes to the development of the following general competencies:

- Search for, analysis, and synthesis of data and information using the necessary digital technologies
- Adaptation to new situations and crisis management
- Decision-making and critical thinking
- Working independently and in teams
- Application of knowledge in real-world environments
- Respect for legal and ethical frameworks related to data protection
- Professional responsibility and ethical awareness in the use of digital data

3. SYLLABUS

1. Introduction to the Course, learning contract and Fundamental Concepts: Digital data and information systems, data life cycle, principles of information security.
2. Data Types, Metadata, and Storage Structures
   Database models, metadata, data formats, and organizational structures.
3. Legal and Regulatory Framework for Data Protection
   GDPR, national data protection legislation, and ethical principles.
4. Digital Tools for Data Retrieval, Management, and Documentation
   Introduction to data management tools, search and evaluation of information sources, and digital organization techniques.
5. Data Collection Methods and Ethical Considerations
   Data collection techniques, privacy protection, anonymization, and responsible data handling.
6. Fundamental Principles of Information Security
   The CIA triad (Confidentiality, Integrity, Availability), security policies, and system protection practices.
7. Cryptography and Data Protection Technologies
   Symmetric and asymmetric encryption, digital certificates, SSL/TLS protocols, and their applications.
8. Access Management and Authentication Control
   Role-based access control (RBAC), authentication, authorization, password management, and multi-factor authentication (MFA).
9. Cyber Threats and Defensive Techniques
   Malware, phishing, social engineering, cybersecurity awareness, and threat detection tools.
10. Risk Analysis and Incident Management
    Risk assessment methodologies, incident response processes, disaster recovery, and business continuity planning.
11. Security Analysis and Evaluation of Digital Data Sets
    Vulnerability assessment, penetration testing basics, and case study analysis.
12. Specialized Environments: Security in Educational Systems and Public Institutions
    Cybersecurity in e-learning platforms (e-Class, Moodle) and educational infrastructures.
13. Revision and preparation for the final exam

4. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Synchronous distance learning Distance learning (asynchronous activities)
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Continuous and systematic use of ICT through an online management learning system (e-class & Moodle). All approaches, collaboration between students and the instructor, are mediated by the digital system. Additionally, tools related to security will be utilized to enhance learning outcomes.

	To check for plagiarism, the TurnItIn originality check system, provided by the University of Patras, will be used.
TEACHING METHODS *The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	<table><tr><th>*Activity*</th><th>*Semester workload*</th></tr><tr><td>Lectures (3 synchronous distance learning x 4 hours)</td><td>12 hours</td></tr><tr><td>Graded educational activities (12 x 4 hours)</td><td>48 hours</td></tr><tr><td>Individual study with feedback from the instructor</td><td>190 hours</td></tr><tr><td>Course total</td><td>250 hours</td></tr></table>
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	The language of assessment is Greek. Assessment is both formative and summative. Assessment is based on • the twelve assignments (40% of the final grade). These may include multiple-choice questionnaires, short-answer questions, short written assignments, public presentations, etc. • the final written or oral exam (60% of the final grade)

5. RECOMMENDED BIBLIOGRAPHY

- *RECOMMENDED BIBLIOGRAPHY (Greek)*
- Georgiadis, K. (2020). Information Systems Security: Theory and Practical Applications. Athens: Klidarithmos.
- Karkazis, I. (2019). Cryptography and Network Security. Athens: Kritiki.
- Sfakianakis, M., & Liakopoulou, M. (2021). Digital Security and Cybercrime. Athens: Tziolas.
- Stamoulis, G. (2018). Personal Data Protection and GDPR in Education. Athens: Nomiki Vivliothiki.
- Manolopoulos, I. (2022). Data Management and Analysis. Thessaloniki: Ziti.

- *RECOMMENDED BIBLIOGRAPHY (English)*
- Stallings, W. (2023). Cryptography and Network Security (8th ed.). Pearson.
- Shon Harris & Fernando Maymi (2022). CISSP All-in-One Exam Guide (9th ed.). McGraw-Hill.
- Bishop, M. (2019). Computer Security: Art and Science (2nd ed.). Addison-Wesley.
- ISO/IEC 27001:2022 — Information Security Management Systems — Requirements. ISO Publishing.
- SANS Institute (2023). Cybersecurity Essentials & Best Practices. SANS Press.
- Kizza, J. M. (2020). Guide to Computer Network Security (5th ed.). Springer.
- Whitman, M., & Mattord, H. (2022). Principles of Information Security (7th ed.). Cengage Learning.

- *Online Resources / Standards / Frameworks*
- European Union: General Data Protection Regulation (GDPR) eur-lex.europa.eu
- European Union Agency for Cybersecurity (ENISA) enisa.europa.eu
- NIST Cybersecurity Framework — nist.gov/cyberframework
- OWASP Foundations — owasp.org
- Hellenic Data Protection Authority — dpa.gr

Traineeship – Design and Implementation of Digital Governance Interventions in a Virtual Environment

COURSE OUTLINE

1. GENERAL

SCHOOL	School of Humanities and Social Sciences
ACADEMIC UNIT	Department of Educational Sciences and Early Childhood Education

POSTGRADUATE PROGRAMME: TITLE OF POSTGRADUATE PROGRAMME	Digital Governance of Educational Institutions		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	**DGEI_104**	**SEMESTER**	3nd
COURSE TITLE	**Traineeship – Design and Implementation of Digital Governance Interventions in a Virtual Environment**		
INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits.*		**HOURS**	**CREDITS**
19-20 weekly hours of workload x 13 weeks		250	10
COURSE TYPE *general background, special background, specialised general knowledge, skills development*	General background and skills development		
PREREQUISITE COURSES	Without prerequisite courses		
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://ecedulms.upatras.gr/course/view.php?id=59		

2. LEARNING OUTCOMES

Learning outcomes

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

Consult Appendix A

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

The aim of the course is to offer postgraduate students the opportunity to apply, in a virtual context, the knowledge and skills they have acquired during the course, while developing reflective, organizational, and leadership skills in the digital governance of a school or education (related) setting or educational organisation. Upon successful completion of the course, the postgraduate student will be able to:

- Apply fundamental principles of digital governance in virtual work environments
- Utilize digital tools and platforms that facilitate decision-making and communication within educational settings.
- Respond effectively to contemporary challenges in education and the demands of school and teaching practice.
- Lead reforms, manage crises, and design digital strategies that promote academic excellence and social inclusion.
- Reflect on and evaluate practical experience through case studies and electronic portfolios.

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
Teamwork
Working in an international environment
Working in an interdisciplinary environment
Production of new research ideas
Project planning and management
Respect for difference and multiculturalism
Respect for the natural environment
Showing social, professional and ethical responsibility and sensitivity to gender issues
Criticism and self-criticism
Production of free, creative and inductive thinking
……
Others…
…….

- Search for, analysis, and synthesis of data using ICT
- Application of knowledge in practice
- Applying knowledge in practice
- Teamwork and collaborative learning
- Working independently and reflectively

- Project planning and management
- Leadership and decision-making
- Criticism and self-criticism
- Creative and inductive thinking

3. SYLLABUS

1. Course introduction. learning contract, and introduction to traineeship in a virtual environment
2. Design and organization of the traineeship in a virtual environment
3. Digital environments and tools for designing and organizing educational institutions
4. Theoretical framework and familiarization with digital tools for organizing and evaluating educational provision
5. Application of digital tools in administrative and evaluation scenarios in educational institutions
6. Digital communication, collaboration, and crisis management in educational settings
7. Analysis of case studies in digital governance of educational institutions
8. Simulation of digital governance scenarios in educational institutions.
9. Design of innovative digital governance initiatives
10. Development and organization of an e-Portfolio
11. Critical reflection and professional development through e-Portfolio
12. Dissemination and exchange of best practices
13. Revision and preparation for the final exam

4. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Synchronous distance learning Distance learning (asynchronous activities)
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Continuous and systematic use of ICT through an online management learning system (e-class & Moodle). All approaches, collaboration between students and the instructor, are mediated by the digital system. To check for plagiarism, the TurnItIn originality check system, provided by the University of Patras, will be used.
TEACHING METHODS *The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	The language of assessment is Greek. Assessment is both formative and summative. Assessment is based on • the twelve assignments (40% of the final grade). These may include multiple-choice questionnaires, short-answer questions, essay questions, problem-solving exercises, short written assignments, public presentations, etc. • the final written or oral exam (60% of the final grade)

Activity	***Semester workload***
Lectures (3 synchronous distance learning x 4 hours)	12 hours
Graded educational activities (12 x 4 hours)	48 hours
Individual study with feedback from the instructor	190 hours
Course total	**250** hours

5. RECOMMENDED BIBLIOGRAPHY

- *Recommended Bibliography*

- Landri, P. (2018). Digital governance of education.

- OECD. (2023). Country Digital Education Ecosystems and Governance: A Companion to Digital Education Outlook 2023. OECD Publishing.
- Pereira, G. V., Ronzhyn, A., & Wimmer, M. A. (2022). Building Digital Governance Competencies: Baseline for a Curriculum and Master Programme. In Scientific Foundations of Digital Governance and Transformation (pp. 361-383). Springer, Cham.
- Williamson, B. (2016). Digital education governance: An introduction. European Educational Research Journal, 15(1), 3-13.
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- Filgueiras, F. (2023). Artificial intelligence and education governance. Education, Citizenship and Social Justice, 17461979231160674.
- Goel, S., Dwivedi, R., & Sherry, A. M. (2012). Critical factors for successful implementation of E-governance programs: a case study of HUDA. *Global Journal of Flexible Systems Management*, *13*, 233-244.
- Janowski, T. (2015). Digital government evolution: From transformation to contextualization. Government information quarterly, 32(3), 221-236.
- Williamson, B. (2016). Digital education governance: An introduction. *European Educational Research Journal*, *15*(1), 3-13.

- Related Academic and Scientific Journals

- Journal of Education Policy, https://www.tandfonline.com/toc/tedp20/current
- Digital Government: Research and Practice, https://dl.acm.org/loi/dgov

Digital Innovation in Education

COURSE SYLLABUS

1. GENERAL

SCHOOL	School of Humanities and Social Sciences		
DEPARTMENT	Department of Educational Sciences and Early Childhood Education		
POSTGRADUATE PROGRAM: TITLE:	Digital Governance of Educational Institutions		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	**DGEI_109**	**SEMESTER**	**3rd**
COURSE TITLE	**Digital Innovation in Education**		
INDEPENDENT TEACHING ACTIVITIES *In cases where ECTS credits are awarded to distinct parts of the course (e.g., Lectures, Laboratory Exercises, etc.), specify them accordingly. If credits are awarded as a whole for the entire course, indicate the weekly teaching hours and the total number of ECTS credits.*		**HOURS**	**ECTS**
19-20 weekly hours of workload x 13 weeks		250	10
COURSE TYPE *Background, General Knowledge, Scientific Field, Skills Development*	General Knowledge		
PREREQUISITES	No		
LANGUAGE OF INSTRUCTION AND EXAMINATION	Greek		
THE COURSE IS OFFRED TO ERASMUS STUDENTS	No		
COURSE URL	https://ecedulms.upatras.gr/enrol/index.php?id=64		

2. LEARNING OUTCOMES

Learning Outcomes

The learning outcomes of the course are described, including the specific knowledge, skills, and competencies at the appropriate level that students will acquire upon successful completion of the course.

Refer to Appendix A (separate file sent via email) for:

- *A description of the level of learning outcomes for each cycle of studies according to the Qualifications Framework of the European Higher Education Area*
- *Descriptive Indicators for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning*

Also refer to Appendix B:

- *Concise Guide for Writing Learning Outcomes*

The course explores theories, technological trends, and organizational strategies that support digital innovation in schools, universities, and lifelong learning institutions. Its aim is to develop competencies in designing, implementing, and evaluating digital interventions that enhance the learning experience, educational administration, and the social impact of institutions.

Upon successful completion, students will be able to:

Critically analyze emerging technologies (AI, learning analytics, AR/VR, blockchain) and assess their relevance to specific pedagogical and administrative challenges.

- Design a digital innovation strategy aligned with the educational vision and institutional framework (e.g., DigCompEdu, GDPR).
- Select and combine educational technologies to improve teaching quality, assessment, and student support.
- Apply change management and leadership methods to foster a culture of innovation among staff and students.
- Use quantitative and qualitative tools to evaluate the cost, efficiency, and learning impact of digital solutions.
- Produce a well-documented case study or pilot project that integrates technology, pedagogy, and governance.

General Skills

Taking into account the general competencies that a graduate should have acquired (as listed in the Diploma Supplement and outlined below), which of these does the course aim to develop?

Searching, analyzing, and synthesizing data and information using appropriate technologies
Adaptation to new situations
Decision-making
Independent work
Teamwork
Working in an international environment
Working in an interdisciplinary environment
Generation of new research ideas
Project planning and management
Respect for diversity and multiculturalism
Respect for the natural environment
Demonstration of social, professional, and ethical responsibility and sensitivity to gender issues
Critical thinking and self-reflection
Promotion of free, creative, and inductive thinking

- Searching, analyzing, and synthesizing data and information using appropriate technologies
- Adaptation to new situations
- Independent work
- Teamwork
- Working in an interdisciplinary environment
- Critical thinking and self-reflection
- Promotion of free, creative, and inductive thinking

3. COURSE CONTENT

1. Course Introduction, learning contract, and fundamental concepts of educational research
2. Introduction to Digital Innovation: Definitions, innovation lifecycle, global initiatives (UNESCO, OECD)
3. Digital Competence Frameworks: DigCompEdu, ISTE Standards, alignment with national policy
4. Technology Adoption Models: TAM, SAMR, TPACK, strategic planning
5. Emerging Technologies I: Artificial Intelligence & Learning Analytics – Adaptive systems, data literacy, ethical dimensions
6. Emerging Technologies II: AR/VR, gamification, micro-credentials – Experience design, hands-on tools
7. Blockchain & Digital Credential Management: Authentication, decentralization, regulatory framework
8. Open Educational Resources and MOOCs: Open access policies, sustainability models

9. Designing Innovative Learning Activities: Storyboarding, Universal Design for Learning, blended learning
10. Managing Digital Innovation Projects: Canvas, budgeting, risk management
11. Leadership and Cultural Change: Digital leadership, professional development for educators
12. Impact Evaluation: KPIs, ROI, qualitative methods, dashboard tools
13. Revision and preparation for the final exam

4. TEACHING AND LEARNING METHODS – ASSESSMENT

MODE OF DELIVERY Face-to-face, distance learning, etc.	Synchronous distance learning Distance learning (asynchronous activities)
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) Use of ICT in teaching, laboratory training, and communication with students	Continuous and systematic use of ICT through an online management learning system (e-class & Moodle). All approaches, collaboration between students and the instructor, are mediated by the digital system. Additionally, tools for project management, as well as artificial intelligence and virtual world technologies, will be utilized. To check for plagiarism, the TurnItIn originality check system, provided by the University of Patras, will be used.
TEACHING ORGANIZATION *This section provides a detailed description of the teaching methods and approaches used in the course. These may include:* *Lectures, Seminars, Laboratory exercises, Fieldwork, Study and analysis of literature, Tutorials, Internships (placements), Clinical practice, Artistic workshops, Interactive teaching, Educational visits, Project development, Writing assignments, Artistic creation, etc.* *It also includes the number of study hours allocated to each learning activity, as well as hours of independent study, ensuring that the total workload per semester aligns with ECTS standards.*	
STUDENT EVALUATION *Description of the Assessment Process* *Language of Assessment: Greek* *Assessment Methods:* *Formative and summative assessment, Multiple-choice tests, Short-answer questions, Essay-type questions, Problem-solving, Written assignments* *Reports, Oral examinations, Public presentations, Laboratory, work Clinical patient examination, Artistic interpretation, Other methods (if applicable)*	The language of assessment is Greek. Assessment is both formative and summative. Assessment is based on • the twelve assignments (40% of the final grade). These may include multiple-choice questionnaires, short-answer questions, essay questions, problem-solving exercises, short written assignments, public presentations, etc. • the final written or oral exam (60% of the final grade)

Activity	***Semester Workload***
Lectures (3 synchronous distance learning x 4 hours)	12 hours
Graded educational activities (12 x 4 hours)	48 hours
Individual study with feedback from the instructor	190 hours
Course Total	250 hours

5. RECOMMENDED BIBLIOGRAPHY

- Joanna Rosak-Szyrocka, Shashi Kant Gupta, Xin Zhao, Markus Launer, (2025), Digital Innovation and Sustainability in Education, Edward Elgar Publishing, ISBN: 978 1 03535 955 4
- Rogers, E. M. (2003). Diffusion of innovations (5th ed.), Ch. 1-3
- Louca, S. and Chavan, S., 2023, December. Pros and Cons of Integrating the Metaverse into Education: A Comprehensive Analysis. In European, Mediterranean, and Middle Eastern Conference on Information Systems (pp. 3-17). Cham: Springer Nature Switzerland;

- Spyros Makridakis, Antonis Polemitis, George Giaglis and Soulla Louca (2018) Blockchain: The Next Breakthrough in the Rapid Progress of AI, Robotics & Automation Engineering Journal, Vol. 2, No.4, pp. 73-84;
- Makda, F. Digital education: Mapping the landscape of virtual teaching in higher education – a bibliometric review. Educ Inf Technol 30, 2547–2575 (2025). https://doi.org/10.1007/s10639-024-12899-2

Digital Transformation and Educational Leadership

COURSE OUTLINE

1. GENERAL

SCHOOL	School of Humanities and Social Sciences		
ACADEMIC UNIT	Department of Educational Sciences and Early Childhood Education		
POSTGRADUATE PROGRAMME: TITLE OF POSTGRADUATE PROGRAMME	Digital Governance of Educational Institutions		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	**DGEI_110**	**SEMESTER**	3rd
COURSE TITLE	**Digital transformation and Educational Leadership**		
INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits.*		**HOURS**	**CREDITS**
19-20 weekly hours of workload x 13 weeks		250	10
COURSE TYPE *general background, special background, specialised general knowledge, skills development*	General background and skills development		
PREREQUISITE COURSES	Without prerequisite courses		
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://ecedulms.upatras.gr/enrol/index.php?id=65		

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 purpose of the course "Digital Transformation and Educational Leadership" is to empower students to strategically lead the digital transformation of educational organizations, combining pedagogy, technology, and management, with an emphasis on innovation, accessibility, ethical governance, and participatory, inclusive leadership.

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

- Analyze key theoretical models of digital transformation in education, and connect them to principles of managing educational organizations.

- Explain the regulatory framework for digital governance (e.g., GDPR, national policies, EU strategies) that governs the collection, processing, and protection of educational data.
- Compare different leadership models (transformational, distributed, adaptive) with respect to their effectiveness in implementing digital innovations.
- Conduct a digital maturity assessment of an educational unit, using qualitative and quantitative data.
- Design a comprehensive strategic plan for digital transformation that integrates pedagogical, organizational, and technological pillars.
- Select and justify the suitability of digital tools and platforms using criteria of accessibility, security, cost, and pedagogical value.
- Apply flexible project management methodologies (Agile, Design Thinking) to guide teams in digital transition projects.
- Design and organize staff professional development programs that support digital skills and innovative teaching practices.
- Evaluate the impact of digital interventions through appropriate performance indicators, and propose improvement actions.
- Foster a culture of continuous improvement, open communication, and collaboration across the school community.
- Promote equitable access and inclusion in the selection and implementation of digital solutions, taking into account the different needs of students and educators.
- Demonstrate responsibility and ethical awareness in handling personal data and in the use of digital services.

General Competences

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

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

- Searching, analyzing, and synthesizing data and information, using the necessary technologies
- Adaptation to new situations
- Decision making
- Independent work
- Teamwork
- Working in an interdisciplinary environment
- Generating new research ideas
- Respect for diversity and multiculturalism
- Respect for the natural environment
- Demonstrating social, professional, and ethical responsibility and sensitivity to gender issues
- Practicing critical thinking and self-critique
- Promoting free, creative, and inductive thinking

3. SYLLABUS

1. Course Introduction, learning contract, and fundamental concepts of the course.
2. Learning theories and digital pedagogy

3. Models of educational leadership in the digital age
4. Strategic planning and prioritization
5. School culture and change leadership
6. Professional development and empowerment of educators
7. Curriculum design using digital approaches
8. Inclusion, equity, and ethical dimensions
9. Policies and governance in education
10. Partnerships with the community and partner organizations
11. Data for decision-making and school improvement
12. Professional development and staff support
13. Revision and preparation for the final exam

4. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Synchronous distance learning Distance learning (asynchronous activities)
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Continuous and systematic use of ICT through an online management learning system (e-class & Moodle). All approaches, collaboration between students and the instructor, are mediated by the digital system. To check for plagiarism, the TurnItIn originality check system, provided by the University of Patras, will be used.
TEACHING METHODS *The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	

Activity	***Semester workload***
Lectures (3 synchronous distance learning x 4 hours)	12 hours
Graded educational activities (12 x 4 hours)	48 hours
Individual study with feedback from the instructor	190 hours
Course total	**250** hours

STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	The language of assessment is Greek. Assessment is both formative and summative. Assessment is based on • the twelve assignments (40% of the final grade). These may include multiple-choice questionnaires, short-answer questions, essay questions, problem-solving exercises, short written assignments, public presentations, etc. • the final written or oral exam (60% of the final grade).

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Pedagogical Development, Digital Society and Human Rights

COURSE OUTLINE

1. GENERAL

SCHOOL	School of Humanities and Social Sciences		
ACADEMIC UNIT	Department of Educational Sciences and Early Childhood Education		
POSTGRADUATE PROGRAMME: TITLE OF POSTGRADUATE PROGRAMME	Digital Governance of Educational Institutions		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	**DGEI_111**	**SEMESTER**	3rd
COURSE TITLE	**Pedagogical Development, Digital Society and Human Rights**		
INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits.*		**HOURS**	**CREDITS**
19-20 weekly hours of workload x 13 weeks		250	10
COURSE TYPE *general background, special background, specialised general knowledge, skills development*	General background and skills development		
PREREQUISITE COURSES	No		
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://ecedulms.upatras.gr/enrol/index.php?id=66		

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 purpose of this course is to explore the ways in which pedagogical theory and practice intersect with the digital society and the framework of human rights. Its aim is to equip postgraduate students with critical, evidence-based, and ethically sensitive approaches to the design, implementation, and evaluation of educational programs in environments shaped by digital technologies, data governance, and artificial intelligence, as well as by contemporary human rights challenges such as equality, access, and privacy.

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

- Analyze the interaction between pedagogical theory, digital technologies, and human rights.
- Critically evaluate the impact of digitalization on the principles of equality, access, and democracy in education.
- Interpret international and European legal and policy frameworks safeguarding the right to education in the digital age.
- Design pedagogical approaches and digital practices that promote inclusion and the active participation of all learners.
- Apply critical pedagogical and ethical frameworks in the use of digital tools, data, and artificial intelligence.
- Foster and promote human rights and democracy through education.
- Reflect on their personal and professional development within the postgraduate program, connecting theoretical concepts, pedagogical practices, and values related to democracy, the digital society, and human rights.

General Competences

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

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

- Adapting to new situations
- Search for, analysis, and synthesis of data and information, with the use of the necessary technology
- Decision-making
- Working independently
- Teamwork
- Working in an interdisciplinary environment
- Criticism and self-criticism
- Project planning and management
- Production of free, creative and inductive thinking
- Production of new research ideas

3. SYLLABUS

1. Introduction to the Course Theme
2. Fundamental Pedagogical Theories and Practices (I)
3. Fundamental Pedagogical Theories and Practices (II)
4. Critical Pedagogy and Social Justice in Education
5. The International Human Rights Framework: Policies, Conventions, and Implementation
6. The Right to Education within the International Legal Framework
7. Digital Rights and Ethics in the Age of Data
8. Digital Citizenship, Social Movements, and Democracy
9. Inclusive Education and Diversity in the 21st Century
10. Differentiated Instruction
11. Differentiated Instruction and Digital Tools
12. The Role of the Educator: Professional Development, Autonomy, and Ethics
13. Revision and preparation for the final exam

4. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Synchronous distance learning Distance learning (asynchronous activities)
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Continuous and systematic use of ICT through an online management learning system (e-class & Moodle). All approaches, collaboration between students and the instructor, are mediated by the digital system. To check for plagiarism, the TurnItIn originality check system, provided by the University of Patras, will be used.
TEACHING METHODS *The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	
STUDENT PERFORMANCE EVALUATION	The language of assessment is Greek.

Activity	***Semester workload***
Lectures (3 synchronous distance learning x 4 hours)	12 hours
Graded educational activities (12 x 4 hours)	48 hours
Individual study with feedback from the instructor	190 hours
Course total	**250** hours

Description of the evaluation procedure *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	Assessment is both formative and summative. Assessment is based on • the twelve assignments (40% of the final grade). These may include multiple-choice questionnaires, short-answer questions, essay questions, problem-solving exercises, short written assignments, public presentations, etc. • the final written or oral exam (60% of the final grade)

5. RECOMMENDED BIBLIOGRAPHY

- Council of Europe. (2023). Digital Citizenship Education Handbook. Being online, Well-being online, Rights online. https://www.coe.int/en/web/education/-/digital-citizenship-education-handbook
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Distance Education and Adult Learning

COURSE OUTLINE

1. GENERAL

SCHOOL	School of Humanities and Social Sciences
ACADEMIC UNIT	Department of Educational Sciences and Early Childhood Education

POSTGRADUATE PROGRAMME: TITLE OF POSTGRADUATE PROGRAMME	Digital Governance of Educational Institutions		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	**DGEI_112**	**SEMESTER**	3rd
COURSE TITLE	**Distance Education and Adult Learning**		
INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits.*		**WEEKLY TEACHING HOURS**	**CREDITS**
19-20 weekly hours of workload X 13 weeks		250	10
COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized General Knowledge		
PREREQUISITE COURSES	No		
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://ecedulms.upatras.gr/enrol/index.php?id=67		

2. LEARNING OUTCOMES

Learning outcomes

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

Consult Appendix A

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

The aim of this course is to introduce students to the fundamental concepts and principles of distance education and adult learning, and to familiarize them with key digital environments for online learning and their educational applications. Upon completion, postgraduate students will be able to:

- Describe the reasons for the development of distance education and how it differs from traditional education.
- Analyze the basic conditions for effective learning of adult learners.
- Identify the structural components and operational models of distance education.
- Analyze the conditions for the use and educational application of online learning tools (such as Moodle, LAMS).
- Investigate the educational needs of potential target populations.
- Design e-learning and/or blended learning programs based on learner group needs.
- Develop and/or adapt educational materials for hybrid and e-learning programs.
- Apply the principles and techniques of educational assessment in hybrid and online learning environments.
- Integrate activities into their instructional design that promote critical reflection and thinking processes.

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
Teamwork
Working in an international environment
Working in an interdisciplinary environment
Production of new research ideas
Project planning and management
Respect for difference and multiculturalism
Respect for the natural environment
Showing social, professional and ethical responsibility and sensitivity to gender issues
Criticism and self-criticism
Production of free, creative and inductive thinking
……
Others…
…….

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

Teamwork
Working in interdisciplinary environments
Production of new research ideas
Project planning and management
Criticism and self-criticism
Production of free, creative and inductive thinking

3. SYLLABUS

Postgraduate students study the pedagogical, technological, and instructional prerequisites drawn from the fields of Distance Education and Adult Education, in order to creatively and holistically incorporate them into the design and evaluation of distance training programs.
Main Course Units

1. Course introduction, learning contract, and fundamental concepts of distance education and adult learning
2. Distance and online education: Definitions, historical background, developments
3. Adult education: Key principles and learning theories
4. Transformative learning theory and critical reflection processes
5. Characteristics and requirements of adult learner education
6. Online learning: Technological and pedagogical components and online education tools
7. Principles for designing online training programs
8. Identifying educational needs of specific target populations
9. Structuring the content of training programs and addressing educational needs
10. Designing and implementing MOOC-based programs
11. Flipped classroom: Applications in training processes
12. Evaluation of online training programs
13. Revision and preparation for the final exam

4. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Synchronous distance learning Distance learning (asynchronous activities)
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Continuous and systematic use of ICT through an online management learning system (e-class & Moodle). All approaches, collaboration between students and the instructor, are mediated by the digital system.To check for plagiarism, the TurnItIn originality check system, provided by the University of Patras, will be used.
TEACHING METHODS *The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	

Activity	***Semester workload***
Lectures (3 synchronous distance learning X 4 hours)	12 hours
Graded educational activities (12 X 4 hours)	48 hours
Individual study with feedback from the instructor	190hours
Course total	**250 hours**

STUDENT PERFORMANCE EVALUATION Description of the evaluation procedure Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other Specifically-defined evaluation criteria are given, and if and where they are accessible to students.	The language of assessment is Greek. Assessment is both formative and summative. Assessment is based on • the twelve assignments (40% of the final grade). These may include multiple-choice questionnaires, short-answer questions, essay questions, problem-solving exercises, short written assignments, public presentations, etc. • the final written or oral exam (60% of the final grade).

5. RECOMMENDED BIBLIOGRAPHY

- *Suggested Bibliography*

- Brookfield, S. D. (2022). Προς μια κριτικά στοχαστική διδασκαλία (επιμ.: Λ. Γιώτη & Θ.Καραλής). Gutenberg.
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- *Relative Scientific Journals*

- Adult Education: Critical Issues
- Journal of Transformative Education
- Journal of Adult and Continuing Education
- International Review of Research in Open and Distance Learning.

Digital Governance and Intercultural Communication

COURSE OUTLINE

1. GENERAL

SCHOOL	School of Humanities and Social Sciences		
ACADEMIC UNIT	Department of Educational Sciences and Early Childhood Education		
POSTGRADUATE PROGRAMME: TITLE OF POSTGRADUATE PROGRAMME	Digital Governance of Educational Institutions		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	**DGEI_113**	**SEMESTER**	3rd
COURSE TITLE	**Digital Governance and Intercultural Communication**		
INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits.*		**HOURS**	**CREDITS**
19-20 weekly hours of workload x 13 weeks		250	10
COURSE TYPE *general background, special background, specialised general knowledge, skills development*	General background and skills development		
PREREQUISITE COURSES	Without prerequisite courses		
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://ecedulms.upatras.gr/enrol/index.php?id=68		

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 purpose of the course "Digital Governance and Intercultural Communication" is to equip students with skills for developing culturally sensitive communication strategies in digital environments, promoting multilingualism, participation, and justice, and strengthening their capacity to lead change with an emphasis on collaboration and the ethical use of technologies.

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

- Define and distinguish the concepts of digital governance, responsibility, and intercultural communication in education.
- Analyze roles, structures, and processes of IT and data governance in an educational institution.
- Identify legal and ethical requirements for student and staff data, and propose compliance and security measures.
- Design a digital communication strategy with a multilingual and participatory orientation.
- Apply principles of intercultural competence in interactions via LMS, learning communities, and social networks.
- Develop basic policies and action plans for accessibility, information protection, and incident response.
- Select quality indicators and evaluation tools for services and communication in the digital organization.
- Develop a Digital Governance and Intercultural Communication Plan tailored to a specific educational institution.

General Competences

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

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

- Searching, analyzing, and synthesizing data and information, using the necessary technologies
- Adaptation to new situations
- Decision making
- Independent work
- Teamwork
- Working in an interdisciplinary environment
- Generating new research ideas
- Respect for diversity and multiculturalism
- Respect for the natural environment
- Demonstrating social, professional, and ethical responsibility and sensitivity to gender issues
- Practicing critical thinking and self-critique
- Promoting free, creative, and inductive thinking

3. SYLLABUS

1. Course Introduction, learning contract, and fundamental concepts of the course

2. Cultural Dimensions and the Discourse of Power
3. Language, Multilingualism, and Plain Language in Digital Channels
4. Digital Interaction, Politeness, and Norms of Dialogue
5. Inclusive Design and Accessibility
6. Trust, Privacy, and Communication About Data
7. Experience Mapping and Co-design with Communities
8. Participatory Digital Processes and Dialogue
9. Intercultural Mediation, Conflicts, and Crises
10. Change Leadership and Professional Learning
11. Measuring Quality and Equity in Communication
12. Integration of Strategies and Micropolitics
13. Revision and preparation for the final exam

4. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Synchronous distance learning Distance learning (asynchronous activities)
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Continuous and systematic use of ICT through an online management learning system (e-class & Moodle). All approaches, collaboration between students and the instructor, are mediated by the digital system. To check for plagiarism, the TurnItIn originality check system, provided by the University of Patras, will be used.
TEACHING METHODS *The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	The language of assessment is Greek. Assessment is both formative and summative. Assessment is based on • the twelve assignments (40% of the final grade). These may include multiple-choice questionnaires, short-answer questions, essay questions, problem-solving exercises, short written assignments, public presentations, etc. • the final written or oral exam (60% of the final grade).

Activity	***Semester workload***
Lectures (3 synchronous distance learning x 4 hours)	12 hours
Graded educational activities (12 x 4 hours)	48 hours
Individual study with feedback from the instructor	190 hours
Course total	**250** hours

5. RECOMMENDED BIBLIOGRAPHY

Suggested bibliography

- Castells, M. (2014). *Communication power*. Oxford University Press.
- Deuze, M. (2012). *Media life*. Polity Press.
- Dervin, F. (2015). *Intercultural communication and digital media: An introduction*. Routledge.
- Evans, R. (2013). *Digital governance: New technologies for public administration*. Routledge.

- Giddens, A. (2009). *Sociology* (6th ed.). Polity Press.
- Hall, S. (1997). *Representation: Cultural representations and signifying practices*. Sage Publications.
- Lievrouw, L. A. (2011). *Alternative and activist new media*. Polity Press.
- Neuliep, J. W. (2021). Intercultural Communication: A Contextual Approach. Sage. ISBN: 9781544348704
- Taylor, P. (2018). *The ethics of digital governance: Policy, politics, and the public sphere*. Springer.
- UNESCO. (2020). *The role of digital technologies in promoting cultural diversity and intercultural dialogue*. UNESCO.
- Van Dijk, J. (2012). *The network society* (3rd ed.). Sage Publications.

Master's Thesis

COURSE OUTLINE

1. GENERAL

SCHOOL	School of Humanities and Social Sciences		
ACADEMIC UNIT	Department of Educational Sciences and Early Childhood Education		
POSTGRADUATE PROGRAMME: TITLE OF POSTGRADUATE PROGRAMME	Digital Governance of Educational Institutions		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	**DGEI_114**	**SEMESTER**	3rd
COURSE TITLE	**Master's Thesis**		
INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits.*		**HOURS**	**CREDITS**
Weekly supervision meetings for the Thesis Project		500	20
COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specific scientific field and Skills Development		
PREREQUISITE COURSES	No		
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://ecedulms.upatras.gr/enrol/index.php?id=69		

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 deepen students' knowledge and develop cognitive and technical skills in Digital Governance of Educational Institutions. The dissertation marks the completion of the postgraduate student's journey, shaping them as a scientist and a well-trained professional.

Specifically, postgraduate students are expected to:
a) summarize existing scientific knowledge through a critical study of the literature related to the topic under investigation,

b) identify a problem to be solved,
c) utilize the appropriate methodology for solving the problem.

Upon completion of the course, postgraduate students will be able to:
• Seek out appropriate bibliographic sources for study
• Synthetically describe the existing documented knowledge
• Identify research gaps in the field under study
• Formulate research axes, questions, and/or hypotheses
• Select and apply the appropriate methodology for problem-solving
• Design and/or develop tools for studying the problem
• Record, process, and present data
• Draw conclusions
• Identify the limitations of their research
• Propose future research in the field
• Clearly communicate the results of their work.

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
Teamwork
Working in an international environment
Working in an interdisciplinary environment
Production of new research ideas
Project planning and management
Respect for difference and multiculturalism
Respect for the natural environment
Showing social, professional and ethical responsibility and sensitivity to gender issues
Criticism and self-criticism
Production of free, creative and inductive thinking
……
Others…
…….

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

3. SYLLABUS

The preparation of the Master's thesis takes place during the third semester of the postgraduate program.
The thesis can be either research-based:

1. Theoretical and/or developmental: focusing on the development or extension of a theoretical model and/or an “innovative” system or material
2. Research-based / empirical: focusing on the execution of an empirical study.

The content is structured as follows:

1. Abstract
2. Introduction – from the general topic to the specific subject under investigation
3. Literature review, methodology, results
4. Discussion of results, proposals, limitations, and conclusions
5. Bibliographic references
6. Appendices

In more detail, the 13 weekly sessions are organized as follows:

1. Presentation of the master’s thesis framework and the teaching contract. Content and organization of the scientific paper (master’s thesis)
2. Research, organization, and synthetic presentation of literature
3. Identification of the research gap, formulation of the research problem, objectives, research questions, and/or hypotheses
4. Methodological choices and design of the research protocol

5. Development and validation of research tools, and data collection and cleaning
6. Analysis of qualitative data using digital tools
7. Analysis of quantitative data using digital tools
8. Multivariate analysis
9. Writing of the research framework
10. Writing and presentation of research findings
11. Writing conclusions, identifying limitations, and proposing future research
12. Common errors during scientific writing
13. Presentation using digital tools and defense of the master's thesis

4. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Synchronous distance learning Distance learning (asynchronous activities)
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Continuous and systematic use of ICT through an online management learning system (e-class & Moodle). All approaches, collaboration between students and the instructor, are mediated by the digital system. Additionally, data analysis tools such as SPSS, PSPP, as well as artificial intelligence tools, will be utilized. To check for plagiarism, the TurnItIn originality check system, provided by the University of Patras, will be used.
TEACHING METHODS *The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	The language of assessment is Greek. Assessment is both formative and summative. Formative assessment involves the postgraduate student presenting their thesis progress to the supervising professor in a gradual manner. Summative assessment is conducted by a three-member examination committee consisting of faculty members or Special Teaching Staff (EDIP) from the same or a related academic field, following the student's oral examination.

Activity	***Semester workload***
Study and analysis of relevant literature with feedback from the instructor	100 hours
Project development: methodology and research with feedback from the instructor	180 hours
Thesis writing with feedback from the instructor	200 hours
Preparation and presentation of the thesis	20 hours
Course total	**500** hours

5. RECOMMENDED BIBLIOGRAPHY

- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed). Pearson.
- Glatthorn, A. A., & Joyner, R. L. (2005). *Writing the winning thesis or dissertation: A step-by-step guide*. Corwin Press.
- Gialamas, V., Lavidas, K., & Manesis, D. (2024). *Statistical methods and techniques in the social sciences using SPSS [Postgraduate textbook]*. Kallipos, Open Academic Editions. https://dx.doi.org/10.57713/kallipos-439

- Issari, P., & Pourkos, M. (2015). *Qualitative research methodology [Undergraduate textbook]*. Kallipos, Open Academic Editions. https://dx.doi.org/10.57713/kallipos-473
- Javeau, C. (1996). *Η έρευνα με ερωτηματολόγια*. Τυποθήτω
- Lavidas, K., Petropoulou, A., Papadakis, S., Apostolou, Z., Komis, V., Jimoyiannis, A., Gialamas, V. (2022). Factors Affecting Response Rates of The Web Survey with Teachers. Computers, 11(9), 127. https://doi.org/10.3390/computers11090127
- Relevant literature on the subject under study is recommended by the supervising professor, depending on the topic of the thesis.

- Relative scientific journals

- Recommended by the supervisor, depending on the topic of the thesis.