COURSE OUTLINE

(1) GENERAL

SCHOOL	Business
ACADEMIC UNIT	Management
LEVEL OF STUDIES	1st Cycle
COURSE CODE	MIS-155 **SEMESTER** Fall/Spring
COURSE TITLE	Introduction to Transformative Technologies

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
	2.5	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialised general knowledge
PREREQUISITE COURSES:	None
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	English
IS THE COURSE OFFERED TO ERASMUS STUDENTS	
COURSE WEBSITE (URL)	

(2) LEARNING OUTCOMES

Learning outcomes
The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described. *Consult Appendix A* • *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area* • *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B* • *Guidelines for writing Learning Outcomes*

After completion of the course students are expected to be able to:
- Demonstrate the importance and impact of technology in society discuss ethical computing issues
- Evaluate and implement ways to use the web for an effective communication, collaboration and sharing in a 'business environment''
- Discuss the benefits of UGC for businesses to build trust and grow
- Explore Cloud Computing service categories and the effect on the enterprise
- Analyze the Digital Data and Devices Protection and practice GDPR General Data
- Protection Regulation issues

- Discuss the key theoretical concept of Networking technologies and Security for businesses
- Demonstrate the importance of Database development for Businesses
- Discuss the importance of Enterprise Computing and how involves the development, deployment and maintenance of the information systems required for success in today's businesses/organizations' environment.
- Discuss the application of AR/VR technologies in the business sector

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*
Team work	*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 situation
Working independently
Working in an interdisciplinary environment
Production of new research ideas

(3) SYLLABUS

I. Introduction to Transformative Technologies
- Define Transformative Technologies
- Evolution of Transformative Technologies
- Impact of Transformative Technologies
- Ethical Implications of Transformative Technologies
- Key Considerations for Organizations
- Examples of today's Transformative Technologies

II. Artificial Intelligence (AI) and Machine Learning (ML)
- Introduction to AI and ML
- Types of AI and ML algorithms
- Applications of AI and ML in business (e.g., customer service, fraud detection, predictive maintenance)
- Ethical considerations in AI and ML

III. Cloud computing
- Cloud Computing Fundamentals (IaaS, PaaS, SaaS)
- Benefits of Cloud Computing (e.g., scalability, cost-effectiveness, flexibility)
- Cloud Security and Data Privacy
- Choosing the Right Cloud Provider

IV. Internet of Things (IoT)
- IoT Fundamentals and Architecture

- Applications of IoT in Business (e.g., smart factories, supply chain management, smart cities)
- IoT Security and Privacy Challenges

V. Quantum Computing
- What is Quantum Computing?
- How Quantum Computing Solves Problems
- Keeping Data Safe in a Quantum World
- The Future of Quantum Computing

VI. Augmented Reality (AR) and Virtual Reality (VR) in Business
- Defining AR and VR
- Technologies Enabling AR and VR
- Applications of AR and VR in Business
- Challenges and considerations
- Future Trends in AR and VR

VII. Robotic Process Automation (RPA)
- RPA Fundamentals and Concepts
- RPA Tools and Technologies
- Applications of RPA in Business (e.g., automating repetitive tasks, improving efficiency)
- Implementing and Managing RP

VIII. Blockchain
- Blockchain Basics and Concepts
- Applications of Blockchain in Business (e.g., supply chain transparency, cryptocurrency, smart contracts)
- Challenges and Limitations of Blockchain

IX. Societal, ethical, and economic implications of technological change.
- Social Implications
  - The Digital Divide
  - The Impact of Technology on Social Structures
  - Technology and the Transformation of Work
- Ethical Implications
  - The Ethics of Artificial Intelligence
  - Data Privacy and Security
  - The Ethical Use of Technology in Healthcare

- Economic Implications
  - The Economics of Innovation
  - The Impact of Technology on Economic Growth:
  - The Economic Inequality and Technological Change:

X. Personal perspectives regarding technology's role in shaping the future.
- The Evolving Human-Technology Relationship
- Exploring Personal Perspectives
- Tools and Techniques for Personal Reflection

XI. Future Visions and Emerging Trends
- The Rise of AI and the Future of Work
- The Metaverse and Virtual Reality (VR)
- Sustainability and the Digital Economy
- Preparing for the Future: Continuous Learning and Adaptation

XII.	Spotlight Hands-on: The Evolving Landscape of E-commerce: Mastering WordPress for Dynamic Websites

- Introduction: WordPress Beyond Blogging
- Advanced WordPress Techniques

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face-to-face	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	*Use of ICT in teaching / Χρήση ΤΠΕ* *Communication with students / Επικοινωνία με Φοιτητές*	
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/Seminars	35
	Laboratory work	25
	Directed and Secondary Reading Case-Studies	30
	In-class Exercises	20
	Student-led Presentations	20
	Exam preparation	20
	Course total	*150*
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.*	Participation/Attendance, Project, Assignments, Final Exam	

(5) ATTACHED BIBLIOGRAPHY

Required Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
Technology in Action, Global Edition 18th Ed.	Alan Evans, Kendall Martin, Mary Anne Poatsy	Prentice Hall	2003	978-1-29 272820-9

Web Sources:

• What is GDPR? Everything you need to know about the new general data protection regulations (General Data Protection Regulation, or GDPR, is coming. Here's what it means, how it'll impact individuals and businesses - and how to prepare for it). By Danny Palmer (May 23, 2018)
Website: https://www.zdnet.com/article/gdpr-an-executive-guide-to-what-you-need-to-know/

Recommended Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
Introduction to Digital Transformation: and its impact on society	Abbas Strømmen-Bakhtiar	Informing Science Press	2019	13 : 978-1681100500
Digital Transformation using Emerging Technologies: A CxO's Guide to Transform your Organization	Fawad A. Khan, Jason M. Anderson	Independently published	2021	13 : 979-8711292517
The Fourth Industrial Revolution	Klaus Schwab	Crown Currency	2017	978-15247588