

DESCRIPTION OF THE COLLEGE

GENERAL INFORMATION		
Course leader	Associate Professor, Ph.D. Robert Kopal	
Name of the course	Digital Economy	
Study program	Professional Short Study Entrepreneurship	
Course status	Optional	
Year	Second year	
Point value and method of teaching	ECTS student load coefficient	4
	Number of hours (L+E+S)	(30+15+0)

DESCRIPTION OF THE COLLEGE
1.1. Objectives of the college
<i>From students, the following is expected:</i> <i>a) General Competencies:</i> <i>Understanding the disruptive impact of digital technologies.</i> <i>Grasping the meaning and significance of the digital economy for individuals and society as a whole, as well as for markets and businesses.</i> <i>Differentiating between micro and macroeconomic implications on business when implementing digital strategies.</i> <i>Applying ethical principles when planning digital transformations.</i> <i>b) Specific Competencies:</i> <i>Understanding the evolution of digital technologies: artificial intelligence (AI), mobile technologies, social networks and communication platforms, cloud computing, sensors and the Internet of Things (IoT), big data analytics, drones, robotics, augmented and virtual realities (AR and VR).</i> <i>Evaluating game-changing scenarios of digital technology application in various industries and identifying key characteristics of digital business models.</i> <i>Assessing the impact of risks on business during digital transformation.</i> <i>Critically evaluating relationships between criteria and predictor variables in risk assessment and recognizing the importance of controlling designated variables in the measurement process.</i> <i>Identifying positive and negative factors of selected information and information asset management strategies.</i> <i>Applying acquired knowledge and skills to improve and implement information security management systems in addressing business challenges.</i>

1.2. Conditions for course enrollment		
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1.3. Expected learning outcomes for the course		
Students should be able to: 1. Explain the impact of digital technologies and scenarios of their application across different industries. 2. Elaborate on the significance of fundamental principles of the digital economy and their interrelation. 3. Argue the dynamics of introducing digital transformation and information security management systems according to their developmental phases. 4. Assess risks related to information assets and evaluate their impact on business operations. 5. Propose valid and reliable risk assessment (measurement) tools for the needs of a specific business organization. 6. Prepare guidelines for business improvement using international norms and standards related to quality management, information, and information security.		
1.4. Course content		
Digital Technologies and Application Scenarios Introduction to the Digital Economy Concept of the Digital Economy and Digital Technologies Micro- and Macroeconomic Aspects of the Digital Economy Digital Economy in the Context of Money, Labor, and Productivity Digital Business Transformation and Digital Business Platforms Disruptive Innovations and Concepts Related to Business Digitalization Ethics and Digital Policies Business Management in the Digital Economy Digital Business Model Management of Information Assets, Informatics, and Business Digitalization Corporate Governance of Informatics, Responsibilities, and Authorities Competencies of CIO and CISO Strategic Management of Information Assets Strategies for the Application of Digital Technologies and Information Security Risks of Digitalization and Information Security Risk Analysis and Impact Assessment on Information Security Systems Strategic, Financial, and Technological Feasibility of Investments in Informatics and Information Security International Standards and Norms for Quality Management Systems and Information Security Information Systems Audit		
1.5. Types of teaching	☒ lectures ☐ seminars and workshops ☒ exercises ☐ distance education ☐ field work	☒ independent tasks ☐ multimedia and network ☐ laboratory ☐ mentoring work ☐ the rest -
1.6. Obligations of students		

The obligations of students are prescribed in detail in the Statute, the Rules of Study and the Instructions on Student Obligations. The key obligations of students are:

ATTENDANCE AT CLASSES: students have an obligation to attend classes, actively monitor lectures and exercises, and participate constructively in classes, and in order to acquire the right to sit for the exam, it is necessary to attend classes in the percentages prescribed by the Study Regulations. For each student, his attendance at classes is recorded through the Infoeduk digital attendance system. The minimum obligations are;

- Full-time students must attend at least 70% of the total number of hours of classes in order to exercise the right to sign.
- Part-time students must attend at least 50% of the total number of hours of classes in order to exercise the right to sign.

EXAMINATION: in order to obtain a positive grade in the subject, it is necessary to obtain at least 54 points from the subject, but also at least 50% points for each learning outcome. The method of taking the exam is described in more detail in the section Assessment and evaluation of students' work during classes and on the final exam.

LESSON ACTIVITY: Discussion and interactivity, group work, solving practical tasks

1.7. Monitoring of students' work (add X next to the appropriate form of monitoring)

Class attendance	X	Class activity	X	Seminar work		Experimental work	
Written exam	X	Oral exam		Essay		Research	
Project		Continuous verification of knowledge	X	Report		Practical work	X
Portfolio							

1.8. Assessment and evaluation of student work during classes and at the final exam

Assessment and evaluation of students' work during classes and at the final exam is carried out based on the Study Regulations of the EFFECTUS University.

In order to improve students' progress in classes, lectures, exercises, continuous testing of knowledge (interim exams and activity in classes) and exams are conducted. In this way, students adopt smaller teaching units and master the course material more easily.

The total number of points is distributed through the following activities:

Assessment Structure and Student Activities

The course evaluation consists of class attendance, midterm exams, in-class activities, and a final exam. The total ECTS credits are 4, and the maximum number of assessment points students can achieve is 100.

1. Class Attendance

- ECTS Credits: 1
- Learning Outcomes: 1-6
- Student Activity: Participation in lectures and exercises
- Assessment Method: Attendance records
- Maximum Points: 0

2. Midterm Exams

- *ECTS Credits: 2.5*
- *Learning Outcomes: 1-6*
- *Student Activity:*
 - *Written exam with various question types:*
 - *Midterm 1 (MI1): Essay-based written exam on a given topic (Learning Outcomes 1, 2, and 3)*
 - *Midterm 2 (MI2): Individual practical assignments (Learning Outcomes 4, 5, and 6)*
- *Assessment Method: Evaluation of correct answers*
 - *Midterm 1: Maximum 48 points (16 points per outcome)*
 - *Midterm 2: Maximum 48 points (16 points per outcome)*
- *Total Possible Points: 96*

3. In-Class Activities

- *ECTS Credits: 0.5*
- *Learning Outcomes: 4 and 5*
- *Student Activity:*
 - *Discussions and interactive participation*
 - *Group work*
 - *Solving practical tasks*
- *Assessment Method: Evaluation of engagement*
 - *Maximum 4 points (2 points per outcome)*
- *Total Possible Points: 4*

4. Final Exam*

- *Learning Outcomes: 1-6*
- *Student Activity:*
 - *Participation in a written exam with various question types*
- *Assessment Method: Evaluation of correct answers*
- *Total Possible Points: 0-96**

**FINAL EXAM - a student who, during the continuous assessment of knowledge, did not meet the requirements for passing the exam (achieved a total of at least 54 points in the course and met the lower point threshold for acceptance of each learning outcome, i.e. a minimum of 50% points for each learning outcome), can take the learning outcomes of the course in the final exam. On the final exam, it is possible to get a maximum of 96 points (100 – class activity 4 points = 96 points). The student can get additional points on the Challenge learning outcome.*

NAME OF THE LEARNING OUTCOME	INTERMEDIATE EXAM/EXAM	CLASS ACTIVITY	TOTAL
OUTCOME 1	16	0	16
OUTCOME 2	16	0	16
OUTCOME 3	16	0	16
OUTCOME 4	16	2	18

OUTCOME 5	16	2	18
OUTCOME 6	16	0	16
TOTAL	96	4	100

ASSESSMENT:

To achieve a positive grade in the course, the student must cumulatively fulfill two conditions: achieve a total of at least 54 (fifty-four) points in the course and meet the lower point threshold for acceptance of each individual learning outcome, which is 50% of the total points of the learning outcome.

Grades are calculated based on the following distribution of points:

NUMBER OF POINTS	GRADE
0,00 – 53,90	Unsufficient (1)
54,00 – 64,90	Sufficient (2)
65,00 – 79,90	Good (3)
80,00 – 89,90	Very Good (4)
90,00 i više	Excellent (5)

The assessment is carried out in a transparent way by collecting points. The subject is evaluated with 100.00 points (with the possibility of obtaining an additional 8 points on the Challenge learning outcome).

CHALLENGE LEARNING OUTCOME - the student through the Challenge learning outcome has the opportunity to obtain an additional maximum of 8 points; the student independently chooses one of the activities proposed in the first lesson, and has the option to independently propose an activity with which he wants to increase the number of points and, with the consent of the subject holder, achieves them according to the criteria of the subject. The points for the Challenge learning outcome are not distributed according to the learning outcomes, but the number achieved constitutes an additional number of points to the total number of points achieved according to the learning outcomes.

Before taking the final written exam, each student must meet the prescribed conditions, which primarily means that they have attended the % of classes determined by the Study Regulations and that they have received an electronically coded permit to take the exam.

1.9. Mandatory literature and the number of copies in relation to the number of students currently attending classes in the course

Title	Number of copies	Number of students
<i>Ivanković, Ž. (2018) Free: An Introduction to the Political Economy of the Digital Age, Zagreb: Jesenski i Turk</i>	50	50
<i>Spremić, M. (2017): Digital transformation of business, Zagreb:</i>	50	50

University of Zagreb, Faculty of Economics.		
1.10. Supplementary literature		
<i>Humble, J.; Molesky, J.; O'Reilly, B. (2015) The Lean Enterprise, Sebastopol: O'Reilly Media</i> <i>Landoll, D.J. (2016) Information Security Policies, Procedures and Standards: A Practitioner's Reference, Boca Raton: Taylor and Francis Group</i> <i>Oswald, G.; Kleinemeier, M. (2017) Shaping the Digital Enterprise Trends and Use Cases in Digital Innovation and Transformation, Cham: Springer International Publishing Switzerland</i> <i>Perkin, N.; Abraham, P. (2017) Building the Agile Business through Digital Transformation, New York: Kogan Page</i> <i>Pfeffermann, N.; Gould, J. (2017) Strategy and Communication for Innovation: Integrative Perspectives on Innovation in the Digital Economy, 3rd ed., Cham: Springer International Publishing Switzerland</i> <i>Rogers, D.L. (2018) The Digital Transformation Playbook, New York: Columbia University Press</i> <i>Ustundag, A.; Cevikcan, E. (2018) Industry 4.0: Managing The Digital Transformation, Cham: Springer International Publishing Switzerland</i> <i>Vom Brocke, J.; Mendling, J. (2018) Business Process Management Cases: Digital Innovation and Business Transformation in Practice, Cham: Springer International Publishing Switzerland</i> <i>Westerman, G.; Bonnet, D.; McAfee, A. (2014) Leading Digital: Turning Technology Into Business Transformation, Boston, Massachusetts: Harvard Business Review Press</i>		
1.11. Methods of quality monitoring that ensure the acquisition of output knowledge, skills and competences		
• Statistical processing and analysis of exam results (checking for Gaussian curve/normal distribution of success, comparing and tracking exam results across different cohorts, analyzing understanding of individual modules/questions on the exam, etc.), • Conducting surveys among students, • Evaluation and self-assessment of instructors, • Achieved results and level of knowledge demonstrated during the preparation and defense of the final thesis (for students who choose a thesis in this subject), • Analysis of quality center manager reports, • Feedback from graduates on the usefulness of the content of this subject in their professional activities.		