COURSE OUTLINE

(1) GENERAL

SCHOOL	SCHOOL OF APPLIED ARTS & CULTURE		
ACADEMIC UNIT	DEPARTMENT OF GRAPHIC AND VISUAL COMMUNICATION DESIGN		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	**N1-8130**	SEMESTER	8
COURSE TITLE	Digital Workflow and Management Systems		

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
Lectures	1	
Workshop	2	-
		4
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*	Special Background Courses
PREREQUISITE COURSES:	
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK (Teaching and exam)
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES (in English - Teaching and Exam)
COURSE WEBSITE (URL)	

(1) 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*

- Οι φοιτητές/τριες είναι σε θέση να κατανοήσουν ειδικά θέματα πάνω στη διοίκηση, με έμφαση σε θέματα επιχειρηματικότητας, νέων τεχνολογιών και επιχειρησιακών λειτουργιών.
- Οι φοιτητές/τριες είναι σε θέση να αναλύουν θέματα επιχειρηματικότητας και λειτουργικότητας της επιχείρησης.
- Οι φοιτητές/τριες είναι σε θέση να αναλύουν θέματα και να μελετάνε περιπτώσεις επιχειρηματικού κινδύνου, βιοτεχνικής ανάπτυξης και βιομηχανικής μετεγκατάστασης.
- Οι φοιτητές/τριες είναι σε θέση να αντιλαμβάνονται τη σημασία της ροής και του κύκλου εργασιών, μέσα από την ανάθεση στόχων.
- Οι φοιτητές/τριες είναι σε θέση να κατανοούν εμπράκτως τον κύκλο ζωής προϊόντος, περιέκτη και περιεχομένου.
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• Students are able to understand specific issues in management, with an emphasis on entrepreneurship, new technologies and business operations.
• Students are able to analyze issues of entrepreneurship and business functionality.
• Students are able to analyze issues and study cases of business risk, craft development and industrial relocation.
• Students are able to understand the importance of workflow and turnover, through the assignment of goals.
• Students are able to understand the product (container and content) life cycle in practice.

General Competences

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

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

• Search, analysis and synthesis of data and information, using the necessary technologies
• Decision making
• Working individually
• Work in an interdisciplinary environment
• Project design and management
• Respect for the environment
• Social, professional and moral responsibility in the workplace
• Promoting of free, creative and inductive thinking
• Technical thinking and offering of applied proposals and solutions in the production process

(2) SYLLABUS

Theoretical part

Rapid prototyping & fictitious prototypes.

- Administrative procedures: Planning, organization, management and control.
- Business operating systems. Production systems management. Discussion of practical examples and current trends and developments
- The modern factory - The Industry 4.0 model. and its application in graphic arts
- Analysis of Print 4.0, Paper 4.0, Finishing 4.0, Packaging 4.0 models
- Lean Manufacturing Systems
- Models and applications of Internet of Things, Cycle Production and Big data management in the graphic arts and packaging industry
- Introduction - stock models with static demand, models with dynamic demand, stocks with quantity discounts, production planning, product mixing, production size problems, forecasting systems, moving average, minimum middle square method.
- Programming -n tasks, 1 machine -n tasks, 2 machines, programming to minimize preparation costs, required sequences of tasks.

Lab syllabus

The laboratorial part of the course includes training in the laboratory with

• Reference and demonstration of modules of the field systems

• Creation and processing of integrated projects, with the theme: Graphic Arts workflow management systems / MIS Management Information Systems, (with application, among others, of new Internet technologies - Cloud computing technologies), Web-to Print Systems, Structure of digital workflow systems and management.

(3) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	In Class (auditorium and laboratory). Written examination.
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Use of Computers for: A) The teaching of the theoretical part B) The execution of the necessary exercises C) Communication with students and the use of the electronic platform E-Class
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* Course total: *100*
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.*	Greek, A. Written examination with short questions response and short development - resolution problems (theoretical part), B. References on the subject of the exercises, Multiple choice questions test and short topic development Lab Creation and processing of integrated projects

(4) ATTACHED BIBLIOGRAPHY

- *Suggested bibliography:*

ΕΛΛΗΝΙΚΗ

1. Murphy Michael: Μάνατζμεντ Μικρών & Μεσαίων Επιχειρήσεων (Small Business Management), ΚΛΕΙΔΑΡΙΘΜΟΣ, Αθήνα.
2. Παπαλεξανδρή Νάνσυ, Μπουραντάς Δημήτρης (2016). Διοίκηση Ανθρωπίνων Πόρων (Human Resource Management), Εκδόσεις Μπένου Γ., Αθήνα.
3. Σημειώσεις Διδάσκοντα (Instructor Notes)

ΞΕΝΟΓΛΩΣΣΗ

1. Bateman Th., Scott Snell Sc., and Konopaske R. (2020). Management, Mcgraw-Hill Education
2. Klaus Schwab (2017):The Fourth Industrial Revolution, New York, US
3. Heidelberg USA (2016): “Industry 4.0: The New Age of Prosperity for Printing”
4. i-scoop (2016):The fourth industrial revolution – guide to Industrie 4.0
5. Drexler, S.(2016): The 5 Factors of Industry 4.0, On digitizing Industry and Infrastructure, Industrial
6. IoT/Industrie 4.0

- *Related academic journals:*

IARIGAI Journal