

COURSE OUTLINE

(1) GENERAL

SCHOOL	SCHOOL OF APPLIED ARTS & CULTURE		
ACADEMIC UNIT	DEPARTMENT OF GRAPHIC DESIGN & VISUAL COMMUNICATION		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	N1-6140	SEMESTER	6th
COURSE TITLE	GRAPHIC ARTS MANUFACTURING FACILITIES, DESIGN AND SAFETY AT WORK		
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>		WEEKLY TEACHING HOURS	CREDITS
		4	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Special background and skills development		
PREREQUISITE COURSES:			
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES (in English)		
COURSE WEBSITE (URL)	https://eclass.uniwa.gr/courses/TGT139/		

(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 the completion of the course the students will be able:

- to understand the importance of the organization of space, the provisions of production equipment, facilities and related work, a Graphic Arts unit, for its effective and efficient operation, by examining the various standard systems, procedures and regulations that govern the operation of these units and the health and safety of employees.

General Competences

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

Search for, analysis and synthesis of data and information, with the use of the necessary technology
Adapting to new situations
Decision-making
Working independently
Team work
Working in an international environment
Working in an interdisciplinary environment
Production of new research ideas

Project planning and management
Respect for difference and multiculturalism
Respect for the natural environment
Showing social, professional and ethical responsibility and sensitivity to gender issues
Criticism and self-criticism
Production of free, creative and inductive thinking
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Others...
.....

- Creative, analytical and inductive thinking.
- Required for the creation of new scientific ideas.
- Working independently.
- Working in groups.
- Decision making
Respect for the natural environment

(3) SYLLABUS

Theoretical Part of the Course

The concept and importance of the organization of the facilities of the Graphic Arts units. Parameters that affect the quality and efficiency of the organization and the efficient operation of a graphic arts production unit.

Structural elements of a graphic arts production unit. The choice of the location of the unit. Outdoor requirements. Accessibility issues. The machines. Dimensions, free space around them, and special installation and operation requirements. Ergonomics issues. Production provisions, aimed at optimizing the production process. Work and workflow diagrams. Determination of the spaces that are needed for the operation of the unit (production spaces, administration spaces, support spaces, etc). Main and secondary spaces. Warehouse. Free spaces. Relationship between functionality and form. Systems and structures for the layout of the unit spaces (plant and facility layout). The spaces as cells of the production process (cellular manufacturing). The importance of the ability to adapt the unit to long-term technological changes. Factors that facilitate the rapid change of production (change over). The materials of the building shell. The human factor and its importance. Special requirements. Sound insulation. Passive and active treatment of sound insulation problems. Lighting, natural and artificial. Lighting systems. Heating, air conditioning and ventilation. Systems and regulations. Fire safety issues. Flammable materials, fire detection and fire extinguishing systems. Specially protected areas. Electrical installations. Relevant regulations. Plumbing. Waste and materials management for recycling. Hygiene issues. Pharmacy and doctor's office. The great importance of cleanliness (the seven wastes). The materials of visible surfaces. The colors of visible surfaces. Emergency exits. Special staff safety issues. Marking. Marking regulations. The current legislation and the facilities of a Graphic Arts unit. Examples of related installations. Facilities of large publishing companies. The impact of new technologies on the organization of the premises of a Graphic Arts unit.

Also regarding the Hygiene and Safety in the workplace the following are analyzed:

- i. Safety rules - Cleanliness and order at work
- ii. Concepts Occupational accident, Safety, Hygiene, Accident indicators
- iii. Physical-Chemical-Biological hazards in the workplace
- iv. Legislation
- v. Obligations of employers-employees
- vi. Occupational risk assessment

- vii. Obligations of an Occupational Physician
- viii. Safety Technician Obligations
- ix. Qualifications of Security Technician
- x. Risk protection
- xi. Means of personal protection
- xii. Safety and health marking
- xiii. Dangers of electricity
- xiv. Fire hazards and fire protection

Laboratory Part

- Visit to a Graphic Arts unit.
- Recording and documentation of the existing situation.
- Identification of positive and negative elements.
- Suggestions for eliminating the negative elements and improving the operation of the unit.
- Study of specific issues: accessibility, sound insulation, fire safety, lighting, systems of space organization and production devices.
- Study for the creation of a new Graphic Arts unit (data collection).
- Suggestions for design alternatives of the new unit.
- Design of the new graphic arts unit.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Face-to-face	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	Presentations and lectures using audiovisual media.	
TEACHING METHODS <i>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</i>	Activity	Semester workload
	Lectures	70
	Lab projects	80
	Course total	150
STUDENT PERFORMANCE EVALUATION <i>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.</i>	<p>Theoretical part Written Three hours final exam (100%) that includes: - Critical questions on issues related to course theoretical content.</p> <p>Laboratory part</p> <ul style="list-style-type: none"> • Design of the new graphic arts production unit. • Writing a technical report per assignment and student, with a presentation of the assignment and its presentation in the examination of the laboratory part <p><i>The evaluation criteria and the time schedule are posted from the start of the course at the UNIWA e-class website. All relevant information is explained in detail at the beginning, as well as, throughout the semester, during the weekly lectures. Upon request, all the information is provided using email.</i></p>	

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Related academic journals:

1. «FIRE SAFETY IN PRINTING INDUSTRY», HSC (Health and Safety Commission), London, 1992
2. «Fundamentals of Industrial Hygiene», Julian B. Olishifski, P.E., C.S.P. Editor-in-Chief, National Safety Council, 1982
3. Philips, E., Manufacturing Plant Layout, Society of Manufacturing Engineers, 1997.
4. Meyers & Matthew, Manufacturing Facilities Design and Material Handling, Pearson Education, 2004
5. Gavin Stamp, Industrial Architecture, Twentieth Century Architecture, 1994
6. «Υγιεινή – Ασφάλεια Εργασίας και Προστασία Περιβάλλοντος», Καρακασίδης Ν.Γ. – Θεοδωράτος Π.Χ. , Εκδ. ΙΩΝ, 2001.
7. Κ. Μαρχαβίλας Π. , Διαχείριση ασφαλείας και υγιεινής της εργασίας Εκδόσεις Τζιόλα 2016.
8. Neufert E., Les Elements des construction des projets. Ed. DUNOD, Paris, 1969. Ελληνική έκδοση: Εκδότης Γκιούρδας, Αθήνα, 1981.

