

SCHOOL	APPLIED ARTS & CULTURE		
DEPARTMENT	GRAPHIC AND VISUAL COMMUNICATION DESIGN		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	N1-5130	SEMESTER	5
COURSE TITLE	SCIENCE PRINTING - FLEXOGRAPHY AND ROTOGRAVURE		
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	
Lectures	2	3	
Workshop	2	2	
<i>Add rows if necessary. The organization of teaching and the teaching methods used are described in detail at (d).</i>	4	5	
COURSE TYPE <i>general background, special background, specialized general knowledge, skills development</i>	Specialisation course		
PREREQUISITE COURSES:			
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES		
COURSE WEBSITE (URL)	https://eclass.uniwa.gr/courses/GD195/		

(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

- The student will be familiar with the basic principles of flexography and rotogravure printing methods
- The student will be able to understand the operation of flexographic printing machines
- The student will be able to understand the operation of rotogravure printing machines
- The student will be able to evaluate the comparative advantage of flexographic and rotogravure printing especially on large and very large substrate formats and especially on flexible polymer and multi-layer substrates
- The student will be able to know the methods of engraving printing rollers and to operate flexographic and rotogravure printing machines in order to produce simple forms.
- The student will be able to organise production processes involving flexographic and rotogravure printing machines.
- The student will be able to understand the mechanics and systems required in an industrial production involving these two methods.
- The student will be able to understand the environmental, health and safety and hygiene parameters that result from the industrial application of flexography and gravure printing.

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...

Research, analysis and synthesis of data and information, using the necessary technologies

- Adaptation to new situations
- Decision-making
- Autonomous work
- Working in an interdisciplinary environment
- Project planning and management
- Respect for the environmental issues
- Demonstrating social, professional and ethical responsibility in the workplace
- Promoting free, creative and deductive thinking

(2) SYLLABUS

- Principles of flexographic printing
- Principles of rotogravure printing
- Mechanical engineering of flexographic and rotogravure printing machines - machine systems and set-ups
- Chemistry of flexographic and rotogravure printing processes - adjustment of the factors affecting the printing result
- Manufacture of printing rollers - engraving of printing roller and anilox roller
- Printing of monochrome and two-colour jobs with flexographic machines
- Finding machine measurements
- Quality control in printing
- Printing on various substrates

(3) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY Face-to-face, Distance learning, etc	Face-to-face, laboratory exercise, industrial visits, written examination	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY Use of ICT in teaching, laboratory education, communication with students	Use of computers for: The teaching of the theoretical part, The conduct of the laboratory projects and The communication with the students	
TEACHING METHODS The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography,	Activity	Semester workload

<p>tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</p> <p>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</p>		
	Course total	125
<p>STUDENT PERFORMANCE EVALUATION Description of the evaluation procedure</p> <p>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</p> <p>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</p>	<p>In Greek language,</p> <p>A. Problem solving - Short answer questions written exam - (theoretical part),</p> <p>B. Reports on the workshop subject, Oral and Practical exams on flexographic and rotogravure machines and on the submitted project files, Assessment criteria on the electronic platform of the course.</p>	

(4) ATTACHED BIBLIOGRAPHY

Suggested bibliography:

1. Σημειώσεις μαθήματος: Βαθυτυπία: Ν. Τσιμή
2. Helmut Kipphan: Handbook of Print Media
3. Gravure Education Foundation: Gravure process and technology
4. Foundation of Flexographic Technical Association: Principles and practices 6.0

Related academic journals:

Visual Communication Journal

Acta Graphica

IARIGAI Journal