SCHOOL	APPLIED ARTS & CULTURE		
DEPARTMENT	GRAPHIC AND VISUAL COMMUNICATION DESIGN		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	**N1 -5140**	**SEMESTER**	**5**
COURSE TITLE	**PRINTING SCIENCE - SCREEN PRINTING I**		

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	2
Workshop	3	3
Add rows if necessary. The organization of teaching and the teaching methods used are described in detail at (d).	**4**	**5**

COURSE TYPE *general background, special background, specialized general knowledge, skills development*	Scientific Area
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*

Upon successful completion of the course the student will:

- have used the knowledge of physics, color, chemistry, materials, inks and image processing to implement prepress and printing tasks
- have a good understanding of the basic principles of screen printing technology
- have a good understanding of how color separation works, both manually and using appropriate image processing and separation softwares.
- has become familiar with the appropriate use of materials, tools and machinery involved in the design and workflow for the implementation of a screen printing project.
- has developed critical thinking about the correct flow of the individual production stages and tasks involved in the creation and completion of screen-printed works
- will be able to apply his/her knowledge to solve problems that will help to optimise the workflow, speed and reduction of production costs.

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,	*Project planning and management*
with the use of the necessary technology	*Respect for difference and multiculturalism*
Adapting to new situations	*Respect for the natural environment*
Decision-making	*Showing social, professional and ethical responsibility and*
Working independently	*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…*
	…….

- Ability to design and implement print jobs
- Ability to work independently and/or in a team
- Promotion of free, creative and deductive thinking
- Apply the acquired knowledge and make decisions for the correct implementation of production tasks
- Apply and observe health and safety procedures.

(2) SYLLABUS

Basic principles of the printing process printing materials. Color separations and pre-press procedures for the reproduction of linear subjects. Methods of creating subjects on screen printing plates, their phototransfer and the plate developing process for simple designs. Screen printing substrate materials and their properties. Types, properties and composition of screen printing inks. Use of appropriate solvents and solvent agents for the fluidity and thixotropy of screen printing inks and safety precautions in their use. Printing machines, their classification by automation and by materials and characteristics, their adjustment and maintenance.
Preparation of production stages for the application of the printing subject on paper, polyvinyl chloride (PVC), and cotton fabric substrates as projects for the completion of the laboratory part of the course.

- **TEACHING and LEARNING METHODS - EVALUATION**

DELIVERY Face-to-face, Distance learning, etc	In the classroom (auditorium and laboratory)
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY Use of ICT in teaching, laboratory education, communication with students	Presentation software (PowerPoint)
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.	

Activity	***Semester workload***

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	
	Course total: ***125***
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.	I. Written final exam (50%) including: - Multiple choice questions - Critical analysis questions (50%). - Comparative evaluation of theoretical elements II. Presentation of group or individual work (20%) III. Laboratory exercises (30%) The total grade is the sum of the above three individual assessments.

- **ATTACHED BIBLIOGRAPHY**

Suggested bibliography:

1. Kipphan, H., Color Measurement Methods and Systems in Printing Technology and Graphic Arts, SPIE, The International Society for Optical Engineering, Vol. 1912, Bellingham 1993
2. Screen Coating Techniques, Kiwoinc.
3. διαθέσιμο από: http://www.kiwo.com/s/Screen-Coating-Techniques.pdf
4. The Future of Screen Printing, FESPA, 2015, διαθέσιμο από:
5. http://www.fespa.com/news/industry-news/the-future-of-screen-printing.html
6. Brad Faine, The New Quide To Screen Printing, Simon & Schuster, Australia 1991
7. Dave Dennings, Understanding Mesh Geometry, Stencil Resolution, and Measuring Systems for Quality Control, SGIA Journal, April, 1998
8. Printcolor, Frequency-modulated halftones for screen printing, June 2007
9. FESPA Hellas, Διαχείριση Χρώματος και αναπαραγωγή, Τεχνικό εγχειρίδιο, 2020

Σημειώσεις του μαθήματος:

- *Μηλιώνης Νίκος, Μεταξοτυπία 1 και Μεταξοτυπία 2, Αθήνα 1997*
- *Αντώνης Τσιγώνιας, Συμπληρωματικές σημειώσεις στο μάθημα της Μεταξοτυπίας, Αιγάλεω 2014*