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| <b>SCHOOL</b>   | APPLIED ARTS & CULTURE  |                 |          |
| <b>DEPARTMENT</b>   | GRAPHIC AND VISUAL COMMUNICATION DESIGN   |                 |          |
| <b>LEVEL OF STUDIES</b>   | Undergraduate   |                 |          |
| <b>COURSE CODE</b>  | <b>N1-4070</b>  | <b>SEMESTER</b> | <b>4</b> |
| <b>COURSE TITLE</b>   | <b>SCIENCE OF LITHOGRAPHY PRINTING AND DIGITAL PRINTING</b>                                 |                 |          |
| <b>INDEPENDENT TEACHING ACTIVITIES</b><br><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> | <b>WEEKLY TEACHING HOURS</b>  | <b>CREDITS</b>  |          |
| Lectures  | 2   | 4               |          |
| 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   | 6               |          |
| <b>COURSE TYPE</b><br><i>general background, special background, specialized general knowledge, skills development</i>  | Specialisation course   |                 |          |
| <b>PREREQUISITE COURSES:</b>  |   |                 |          |
| <b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>  | GREEK   |                 |          |
| <b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>  | YES   |                 |          |
| <b>COURSE WEBSITE (URL)</b>   | <a href="https://eclass.uniwa.gr/courses/GD211/">https://eclass.uniwa.gr/courses/GD211/</a> |                 |          |

### (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 offset (lithography) and digital printing principles
- The student will be able to understand how offset printing machines work and to evaluate the comparative advantage of offset printing over other methods of commercial printing
- The student will be able to understand how digital printing machines work and evaluate the comparative advantage of digital printing over other methods of commercial printing
- The student will be able to understand the potential for hybridisation in modern printing presses in order to meet the economic challenges of competition
- The student will be able to operate offset and digital printing presses to produce simple commercial printing
- The student will be able to organise production processes involving offset and digital printing machines in order to produce simple commercial forms (letterheads, cards, envelopes, books, magazines)

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

- Research, analysis and synthesis of data and information, using the required technologies
- **Adaptation to new situations**
- Decision-making
- Independent work
- Working in an interdisciplinary environment
- Project planning and management
- Promoting free, creative and deductive thinking

## (2) SYLLABUS

- Principles of offset lithography
- Offset machine mechanics - Offset machine settings
- Offset printing process chemistry - adjustment of factors affecting the printing result
- Offset plate making and plate making systems
- Printing of monochrome and two-colour projects with offset machines
- Finding measures on machines
- Principles of digital printing (spray method, thermal method, organic photoconductor, electrostatic, electrophotography, etc.)
- Print quality control elements
- Printing on various substrates

## (3) TEACHING and LEARNING METHODS - EVALUATION

|   |   |                          |
|---|---|--------------------------|
| <b>DELIVERY</b><br>Face-to-face, Distance learning, etc   | Face-to-face, laboratory exercise, industrial visits, written examination   |                          |
| <b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b><br>Use of ICT in teaching, laboratory education, communication with students  | <b>Use of computers for:</b><br><b>The teaching of the theoretical part,</b><br><b>The conduct of the laboratory projects and</b><br><b>The communication with the students</b> |                          |
| <b>TEACHING METHODS</b><br>The manner and methods of teaching are described in detail.<br>Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art | <b>Activity</b>   | <b>Semester workload</b> |
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|--|---|------------|
| <p>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>  |   |            |
|  |   |            |
|  |   |            |
|  | <b>Course total</b>   | <b>150</b> |
| <p><b>STUDENT PERFORMANCE EVALUATION</b><br/>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 exams on offset machines and on the submitted project files (practical part), Assessment criteria on the electronic platform of the course.</p> |            |

#### **(4) ATTACHED BIBLIOGRAPHY**

*Suggested bibliography:*

1. Helmut Kipphan: Handbook of Print Media
2. Dennis Erwin, Odesina Olusegun, Wilson Daniel: Σύγχρονη Λιθογραφία II

*Σημειώσεις μαθήματος: Λιθογραφία όφσσετ II Δ. Στανγκανέλης*

*Related academic journals:*

*Visual Communication Journal*

*Acta Graphica*

*IARIGAI Journal*