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COURSE GUIDE:  
**Production and printing  
techniques**

MULTIMEDIA Y ARTES DIGITALES  
Universidad Católica de Valencia

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Course 2023/24



## COURSE GUIDE Production and printing techniques

		ECTS
<b>SUBJET::</b> Production and printing techniques		6
<b>Matter:</b> Publications Design		12
<b>Module:</b> Graphic development		30
<b>Type of Learning</b> <sup>1</sup> : Compulsory	<b>YEAR:</b> 4 <sup>o</sup> <b>Semester:</b> 1 <sup>o</sup>	
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## SUBJECT ORGANIZATION

GRAPHIC DEVELOPMENT				Nº ECTS 30
<b>Duration and temporal location within the curriculum:</b>				
<b>Subjects and Courses</b>				
Subject	ECTS	COURSES	ECTS	Course/ semester
<b>Graphic Creativity</b>	6	Fundamentals of Creativity	6	2/2
<b>Publishing Layout</b>	12	Typography and Layout of publications	6	2/1
		Production and printing techniques	6	4/1
<b>Corporate Identity</b>	12	Corporate Identity	6	3/1
		Concept and creation of packaging	6	3/2

<sup>1</sup> 1 Basic Training (ordinary matter), compulsory, optional, external Practices, Final Project.

**Teaching guide matter / subject:**

Publication Design / Production and Printing Techniques

**Prerequisites:** Having passed the subject of Typography and Layout of Publications.**GENERAL OBJECTIVES**

1. Master the language and concepts of graphic production and printing.
2. Know the historical and theoretical principles of the printing processes.
3. Devise, conceptualize, create and produce graphic projects with a high aesthetic and functional criteria from its conception to its printed or electronic dissemination.
4. Be able to analyze society, the target audience and market trends to find the appropriate responses to the demands and resources of a specific context.
5. Direct or carry out graphic projects. Being able to understand the processes of graphic production and carrying out briefings and design plans, in which the needs, deadlines, etc., of a project are raised.
6. Identify, classify and assimilate any type of print through its structure and composition, whether printed or virtual.
7. Generate designs and final arts adapted to new technologies and representation systems that respond to the current and future needs of companies.
8. Manage, classify and prepare the content of a publication for its correct reproduction and electronic or printed distribution.
9. Acquire the fundamental notions about the production and printing processes.
10. Acquire the ability to art to finish a job in order to send it to the printer.
11. Know the different tools and materials that exist in the field of printing.
12. Acquire the ability to carry out your own project from the first sketches to its completion and output both to print and digital media.



BASIC SKILLS	Weighting of competition			
	1	2	3	4
<b>CB. 1</b> That students have demonstrated possession and understanding of knowledge in an area of study that starts from the base of general secondary education, and is usually found at a level that, although supported by advanced textbooks, also includes some aspects that imply knowledge coming from the forefront of their field of study.				x
<b>CB. 2</b> That students know how to apply their knowledge to their work or vocation in a professional way and possess the skills that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study.			x	
<b>CB. 3</b> That students have the ability to gather and interpret relevant data (normally within their area of study) to make judgments that include a reflection on relevant issues of a social, scientific or ethical nature.				x
<b>CB. 4</b> That students can transmit information, ideas, problems and solutions to both specialized and non-specialized audiences				x
<b>C.B. 5</b> That students have developed those learning skills necessary to undertake further studies with a high degree of autonomy.			x	

GENERAL COMPETENCIES	Weighting of competition			
	1	2	3	4
CG.01 Capacity for analysis and synthesis			x	
CG.02 Capacity for organization and planning			x	
CG.05 Computer skills related to the field of study				x
CG.07 Troubleshooting			x	
CG.08 Ability to adequately present a curriculum vitae, a sample of one's own work, such as a portfolio and a professional presentation.				x
CG.09 Decision making		x		
CG.10 Teamwork	x			
CG.11 Work in an interdisciplinary team		x		
CG.14 Critical reasoning		x		
CG.16 Ability to assume responsibilities			x	
CG.17 Capacity for self-criticism				x



CG.18 Autonomous learning and motivation for training throughout their professional life		x		
CG.19 Adaptation to new situations		x		
CG.20 Creativity				x
CG.22 Ability to collaborate with other professions and especially with professionals from other fields. Identify the right professionals to properly develop creative work.		x		
CG.25 Motivation for quality				x
CG.28 Sensitivity towards cultural heritage			x	
CG.32 Teaching at basic levels, dissemination, etc. Opt for teaching positions at different educational levels. Design, preparation and delivery of courses related to Multimedia and Digital Arts, aimed at professionals, companies and administrations.			x	

SPECIFIC COMPETENCES	Weighting of competition			
	1	2	3	4
EC.02. artistic sensibility. Develop the ability to perceive beauty in different forms and artistic creations, applying aesthetic principles and promoting creativity and multidisciplinary innovation.			x	
CE.03. Knowledge of specific methods of production and digital artistic techniques especially to apply them to the world of communication, also looking for new media.				x
EC.04. Development of skills in traditional illustration techniques and procedures and in digital techniques for the creation and development of graphic elements, images, symbols, texts, layout of publications and product packaging.			x	
EC.05. Ability to organize, classify and index all the materials and files used in the development of the project, generating documents for their proper conservation or consultation. As well as capacity for subsequent search and recovery of information.		x		
EC.08. Ability to organize and process the information that will later be included in the project.	x			
EC.09. Ability to plan and direct projects and developments of technological content, particularly those related to art, multimedia design and communication.			x	
EC.10. Ability to translate creative ideas so that they can be transmitted in digital format.				x
EC.12. Sensitivity to assess the importance of design in the formulation of messages and in the impact of their transmission in the different communicative fields.		x		
EC.13. Ability to contribute to the contemporary debate on digital and multimedia arts and practices.	x			
EC.17. Understanding of the characteristics of the digital production sector and its operation and the trends that mark its current and future evolution.				x
EC.19. Global understanding of artistic and multimedia practices and the importance of their relationship with their socioeconomic and cultural context.				x



LEARNING OUTCOMES <sup>2</sup>	COMPETENCIES
R2 - Knowledge of the editorial process and types of publications.	<b>CB:</b> 1,2,3,4,5 <b>CG:</b> 1,2,5,7,8,9,10,11,14,16,17,18,19,20,22,25,28,32 <b>CE:</b> 2,3,4,5,8,9,10,12,13,17,19
R3 - Command of computer applications related to layout.	<b>CB:</b> 1,2,3,4,5 <b>CG:</b> 1,2,5,7,8,9,10,11,14,16,17,18,19,20,22,25,28,32 <b>CE:</b> 2,3,4,5,8,9,10,12,13,17,19
R6 - Command of printing techniques and their suitability for printed or electronic output	<b>CB:</b> 1,2,3,4,5 <b>CG:</b> 1,2,5,7,8,9,10,11,14,16,17,18,19,20,22,25,28,32 <b>CE:</b> 2,3,4,5,8,9,10,12,13,17,19
R7 - Appropriate selection of materials, possibilities and printing supports.	<b>CB:</b> 1,2,3,4,5 <b>CG:</b> 1,2,5,7,8,9,10,11,14,16,17,18,19,20,22,25,28,32 <b>CE:</b> 2,3,4,5,8,9,10,12,13,17,19
R8 - Originality and proposal of creative solutions to problems of support, printing, materials and digital creationl.	<b>CB:</b> 1,2,3,4,5 <b>CG:</b> 1,2,5,7,8,9,10,11,14,16,17,18,19,20,22,25,28,32 <b>CE:</b> 2,3,4,5,8,9,10,12,13,17,19

<sup>2</sup> List the learning outcomes consecutively following the proposed nomenclature.

**Important note:** The competencies are expressed in a generic sense, so it is necessary to include the learning outcomes in the teaching guide. These results constitute a specification of one or several competencies, making explicit the degree of mastery or performance that the student must acquire and contain in their formulation the criteria with which they are going to be evaluated. The learning outcomes show what the student will be able to demonstrate at the end of the course or subject and also reflect the degree of acquisition of the competence or set of competences.



CLASRRROM WORK TRAINING ACTIVITIES			
ACTIVITY	Teaching-Learning Methodology	Relationship With Learning Outcomes for the subject	ECTS
CLASS ATTENDANCE	Introductory presentation of each topic by the teacher. Definition of the objectives of knowledge and skills to be achieved; explanation of the activities to be carried out and the methodology to be followed, as well as the instruments and evaluation criteria. Specific instructions about group and individual work on each topic.	R2, R3, R6, R7, R8	1
PRACTICAL CLASSES	Activities aimed at developing skills and related to the contents of each topic: bibliographic search in the library, critical analysis of materials about the contents of the topic, critical analysis of models of communication and artistic creation, elaboration of an outline of the contents of each subject, searches on the Internet, use of information technology for the use of digital tools and realization of the proposed contents.	R2, R3, R6, R7, R8	1
GROUP WORK EXHIBITION	Application of interdisciplinary knowledge in oral presentation by groups of the work carried out.		0
OFFICE ASSISTANCE	Apersonalized attention and in a small group. Period of instruction and/or orientation carried out by a tutor in order to review and discuss the materials and topics presented in classes, seminars, readings, work, etc.	R2, R3, R6, R7, R8	0,25
EVALUATION	Set of oral and/or written and/or practical tests used in the initial, formative or summative evaluation of the student.	R2, R3, R6, R7, R8	0,15
Total			(2,4*)



EDUCATIONAL ACTIVITIES INDEPENDENT STUDENT WORK			
ACTIVITY	Teaching-Learning Methodology	Relationship of Course with Learning Outcomes	ECTS
GROUP WORK	Group preparation of readings, essays, problem solving, seminars, papers, reports, etc. to expose or deliver in the theoretical classes, practical classes and/or small group tutorials.	R2, R3, R6, R7, R8	0
INDEPENDENT WORK	Individual preparation of readings, resolution of cases, works, reports, etc. to expose or deliver in the theoretical classes, practical classes and/or small group tutorials. Work done on the platform or other virtual spaces.	R2, R3, R6, R7, R8	3,6
Total			(3,6*)
SYSTEM FOR ASSESSING THE ACQUISITION OF THE COMPETENCES AND ASSESSMENT SYSTEM			
Evaluation instrument <sup>3</sup>	ASSESSED LEARNING OUTCOMES	Percentage awarded	
Delivery of individual works. (It will be essential to deliver it on the agreed date and time to average with the rest)	R2, R3, R6, R7, R8	30%	
Attendance and active participation in class (Attendance, participation, theoretical and practical sessions)	R2, R3, R6, R7, R8	10%	
Test (It will be essential to pass these tests to average the rest of the evaluation instruments)	R2, R3, R6, R7, R8	60%	

<sup>3</sup> Assessment techniques and instruments: oral exam-exposition, written tests (objective tests, development tests, concept maps...), supervised work, projects, case studies, observation notebooks, portfolio, etc.





- The attendance of the Production and Printing Techniques subject will have a percentage of 10% of the final grade. Each lack of attendance will subtract 1% from the final grade, up to a maximum of 10%.
  - The practical content will have a percentage of 30% of the final grade (it will consist of three projects with a value of 10% each).
  - The exam will have a percentage of 60% of the final grade. This percentage is obtained by completing a written test that will consist of a series of theoretical and practical questions (40%) and a final paper that will be presented individually (20%). It is essential to present and pass the final practice to sit the exam.
  - If the exam is not passed, the call will be suspended, and the note obtained in the exam will appear in the reflected record, a rule that will be applied both in the first and second calls.
  - In order to compute and average the grades for the practical content and the attendance obtained during the course, both the final project and the final exam of the 1st and 2nd calls must be passed.
  - The final written test will consist of a theoretical part and a practical part, being mandatory to pass both parts to make the average. The failure of the theoretical or practical part will suppose the complete failure of the exam, as well as the failure of the final work or the non-presentation of said work.
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- The student's presence in the classroom at the beginning of the exam will lead to its evaluation, without the possibility of being able to claim as not presented, even if the student is absent as soon as the exam begins.
  - Once the first call has been approved, it will not be possible to present papers to raise the grade obtained in it.
  - If the exam is failed on the first call, the student must take and pass the second call exam to pass the subject.
  - In the event of failing the first call, a paper may be submitted for the second call at the discretion of the teacher, which will replace one not delivered or with a low grade from the first call; the qualification of the first work would be annulled and will be replaced by the one obtained in this new work.
  - Notes for attendance and practices can only be obtained in the first call and will be saved for the second call exam to average with it, in case of not passing the first call.
  - The delivery of practices outside the date and time established on the platform for each one will not be allowed. The delivery of practices can only be done through the platform.
  - The format of the practices delivered will be determined in each statement of the same. The delivery in a format different from the one specified will suppose the suspense of the practice without possible qualification.
  - Copying or falsifying designs or works taken from the internet, other media or a classmate will lead to immediate failure of the subject both in the first and second calls.



### Attendance and participation:

By virtue of the regulations governing the evaluation and grading of UCV subjects in its **article 8.1**, it is established that **the student who has not attended at least 50% of the classes of this subject will not be able to take the exam in First call. Both excused and unexcused absences will be considered non-attendance.**

Excluded from this regulation will be those students who, previously and after informing the teacher of their personal situation, receive permission from the teacher to take the exam on the first call if the teacher considers the absence to be justified, whether for work reasons, coincidences of subjects, second tuition, serious illness, etc. To benefit from this exemption, it is absolutely essential to have discussed it with the professor at the beginning of the course and to have accepted the evaluation procedure that the professor deems most appropriate. In no case may appeal by default or at the end of the subject to these situations to break the rule.

On the other hand, the teacher can establish as non-attendance criteria the repeated delay, the lack of attention in the classroom (use of mobile phones without authorization, lack of participation, etc.) being able to add to the general calculation of non-attendance and consequently contributing to exceed the limit that prevents examination as well as affect the percentage established in the teaching guide for attendance and participation.

This rule is complementary to the evaluation percentages of non-attendance and participation, as well as the evaluation and completion of assignments or cases in the classroom or during the course, which will follow their own evaluation criteria. Both percentages are included in this teaching guide.

### CRITERIA FOR THE GRANTING OF HONORS: Specify criteria

specific ones indicated for the subject and faculty to which the title is ascribed and in accordance with the general regulations that indicate that only one honors degree can be given for every 20 students, not for a fraction of 20, with the exception of the case of groups of less than 20 students in total, in which a registration can be given.

DESCRIPTION OF CONTENTS	COMPETENCES
<b>Graphic production techniques</b>	
1. History of printing systems. 2. Graphic production, theory and phases 3. The color in the prepress process. Spot colors/CMYK 4. The final art and how to prepare the documents for printing. 5. The rasterization process. Resolution, plot and angle. 6. Profiles and calibration 7. Realization of projects	<b>CB:</b> 1,2,3,4,5 <b>CG:</b> 1,2,5,7,8,9,10,11,14,16,17,18,19,20,22,25,28,32 <b>CE:</b> 2,3,4,5,8,9,10,12,13,17,19
<b>Printing</b>	
8. Printing materials and media 9. Special and manipulated finishes. 10. Digital printing 11. The Binding 12. Printing systems: Offset, flexography, rotogravure and screen printing	<b>CB:</b> 1,2,3,4,5 <b>CG:</b> 1,2,5,7,8,9,10,11,14,16,17,18,19,20,22,25,28,32 <b>CE:</b> 2,3,4,5,8,9,10,12,13,17,19



## BIBLIOGRAPHY

- Manual de producción gráfica, Recetas. Kaj Johansson, Peter L y Robert R. Edit. GG
- Diseño y producción gráfica:... Rafael Pozo Puértolas. Edit.CPG
- La Imagen grafica y su reproducción. Josep Formenti (Autor), Sergio Reverte (Autor). Edit.CPG
- Guía completa de grabado e impresión: técnicas y materiales. John Dawson. Ed:Hermann Blume
- Manual de diseño gráfico digital. de Maggie Gordon, Bob Gordon. Edit: Gustavo Gili,
- Listo para imprenta "Cómo llevar los proyectos de la pantalla al papel" de Mark Gatter. Edit. Inex Book



<b>TEMPORARY LEARNING ORGANIZATION</b> (Students with first registration):	
<b>BLOCK CONTENT / TEACHING UNIT</b>	<b>NUMBER OF PRESENTIAL SESSIONS</b>
1. Presentation of the Subject. Teaching guide. Objectives. Normative.	1
2. History of printing systems	1
3. Graphic production. Theory and phases	1
4. Color in the prepress process	2
5. Final art and how to prepare documents for printing	4
6. The rasterization process. Resolution, halftone screens, angle...	2
7. Performing prepress exercises.	8
8. Printing materials and supports. Finished and handled.	2
9. Printing systems.	2
10. Final project.	5
11. Review of the subject. Conclusions. Learning.	1

**ADDITIONAL INFORMATION:****Teaching of the subject in second and successive registrations:**

There will be a specific group for students who are not first-time students and a teacher in charge of that group.

In this group there will be a number established by the UCV of monitoring and tutoring sessions (6 of 2 hours each) in which the work on the skills that the students of the group need to acquire to pass the subject will be reinforced.

TEMPORAL ORGANIZATION OF LEARNING		
	CONTENT BLOCK/DIDACTIC UNIT	NUMBER OF PRESENTIAL SESSIONS
1	Review of theoretical contents of UD. 1, 2,	1
2	Review of theoretical contents of UD. 3	1
3	Review of theoretical contents of UD. 4	1
4	Review of theoretical contents of UD. 5	1
5	Review of theoretical contents of UD. 6	1
6	Review of theoretical contents of UD. 8,9	1