



Information about the course

Degree: Degree in Design and Narration in Animation and Video games

Faculty: Faculty of Legal, Economic and Social Sciences

Code: 2050105 **Name:** Digital image processing

Credits: 6,00 ECTS **Year:** 1 **Semester:** 1

Module: EXPRESIÓN GRÁFICA Y DIBUJO.

Subject Matter: IMAGEN DIGITAL. **Type:** Obligatoria

Branch of knowledge:

Department: Multimedia and Digital Arts

Type of learning: Classroom-based learning

Language/-s in which it is given: Spanish

Teachers:

2051A Jose Maria Lajara Romance (Profesor responsable)

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Module organization

EXPRESIÓN GRÁFICA Y DIBUJO.

Subject Matter	ECTS	Subject	ECTS	Year/semester
EXPRESIÓN ARTÍSTICA.	18	Anatomical Drawing	6	1/2
		Concept Artist	6	2/1
		Fundamentals of Drawing and Graphic Expression	6	1/1
IMAGEN DIGITAL.	18	Digital image processing	6	1/1
		Digital Painting. Matte Painting	6	2/1
		Graphic user interface design GFX	6	1/2

Other types of requirements

Es recomendable haber superado la asignatura de Fundamentos del dibujo y expresión gráfica, para poder cursar la asignatura de Pintura digital. Matte Painting.



Learning outcomes

At the end of the course, the student must demonstrate having acquired the following learning outcomes:

R1 - Produce work that demonstrates creative development in digital image processing. 9.6

Learning outcomes of the specified title

Type of AR: Competencias

- Develop original and innovative ideas and proposals in the area of animation and video game design and storytelling, in the work required for a project, combining conceptual and technical aspects.

R2 - Identifies new trends in the field of animation and video games and incorporates them into his digital image processing work. 9.7

Learning outcomes of the specified title

Type of AR: Competencias

- Develop original and innovative ideas and proposals in the area of animation and video game design and storytelling, in the work required for a project, combining conceptual and technical aspects.

R3 - Use digital image processing for the creation and development of existing or imaginary realities, taking into account the sincere search for the whole truth and the integration of all dimensions of the human being in the face of life's big questions, applying the principles derived from the concept of integral ecology and respecting and implementing the ethical principles and proposals for action derived from the sustainable development goals. RA12.16 / RA2.4 / RA6.8 / RA7.8 / RA8.10

Learning outcomes of the specified title

Type of AR: Habilidades o Destrezas



- Illustrate and generate specific animation and video game projects using traditional procedures and digital techniques

Type of AR: Competencias

- Apply the principles derived from the concept of integral ecology to their proposals or actions, regardless of their scope, area of knowledge, and the contexts in which they are presented.
- Correctly apply their knowledge to their work or vocation in a professional manner and be able to develop and defend arguments and solve problems within their area of study.
- Develop theoretical and practical responses based on the sincere search for the full truth and the integration of all dimensions of the human being in response to life's major questions.
- Respect and implement the ethical principles and action proposals derived from the Sustainable Development Goals, applying them to all academic and professional activities.



Assessment system

In-person modality

Assessed learning outcomes	Granted percentage	Assessment tool
R1, R2	50,00%	SE6 – Practical exams.
R2, R3	50,00%	SE8 – Project development.

Observations

The use of mobile phones in class, disrespectful behavior, or inappropriate attitudes toward the teacher or other students will result in the immediate expulsion of the student from the class. A minimum passing grade (50% of the grade on the final exam) must be obtained on the first or second attempt in order to be counted and averaged with the grades for practical work and attendance. To pass the exam, it is necessary to achieve 50% of the grade in both the theoretical and practical parts of the exam. If a student repeats the course, they will not be able to submit the assignments and projects from the failed course as practical work.

Second exam session: if students do not pass the first exam session, the grades obtained for attendance/participation and practical activities in the first exam session will be retained in the second exam session to be averaged with the exam. Students may choose to voluntarily submit a special assignment or project prepared by the professor for the second exam session. The grade for the first assignment (corresponding to that project) will be canceled and replaced by the grade obtained in this new assignment. Assignments may not be submitted after the date and time established on the UCV Campus (platform) for each one. The format of the assignments submitted will be determined in each assignment statement. Submission in a format other than that specified will result in the assignment being failed without a possible grade.

Copying or falsification in the submission of an assignment will result in immediate failure of the entire course in both the first and second exam sessions. Late arrival to the exam will prevent the student from taking it. Copying during the exam will result in immediate failure and the application of current UCV regulations. Honors: The distinction of "Honors" may be awarded to students who have obtained a grade of 9.0 or higher. The number of students receiving this distinction may not exceed five percent of the students enrolled in a group in the corresponding academic year, unless the



number of students enrolled is lower.

Single assessment: In accordance with Article 9 of the General Regulations for Assessment and Grading of Official Courses and UCV Degrees, single assessment is linked to the inability of students enrolled in a face-to-face degree program to attend classes. It is, therefore, an extraordinary and exceptional assessment system available to students who, for justified and accredited reasons, are unable to undergo the continuous assessment system and who request it from the professor responsible for the course, who will expressly decide on the admission of the student's request for single assessment and will notify them of its acceptance or rejection.

As far as the Digital Image Processing course is concerned, the minimum attendance requirement is 70%, which is therefore the threshold to be taken into account for any potential request for a single assessment. If granted, this will be based on the following criteria in the first and second exam sessions: in addition to the activities and assignments submitted by students as part of the continuous assessment, they must complete additional exercises that will be specified in a statement published on the virtual campus and must be submitted the day before the exam. The grade obtained in these exercises will form part of the 10% corresponding to the practical part.

Likewise, the student will not take the objective test, so the final exam will have a value of 60%.

The use of artificial intelligence in digital assignments must always be supervised by the instructor, who will determine in each case which aspects can be worked on and developed with this technology. Its use, if permitted, will be described in the assignment instructions or specified by the instructor in class. Under no circumstances may work carried out entirely with this technique be submitted, nor may any assignment be submitted without prior consultation with the teacher. If this occurs, it will be considered a very serious offense and the current UCV regulations will be applied. AI will not be used unless the teacher has indicated this in the exercise.

MENTION OF DISTINCTION:

The mention of "Honors" may be awarded to students who have obtained a grade equal to or greater than 9.0. Their number may not exceed five percent of the students enrolled in a group in the corresponding academic year, unless the number of students enrolled is lower.

Training activities

The methodologies to be used so that the students reach the expected learning outcomes will be the following:

M2 MD2: Interactive lecture

M4 MD4: Problem-solving exercises

IN-CLASS TRAINING ACTIVITIES



ACTIVITY	RELATIONSHIP WITH THE COURSE LEARNING OUTCOMES	METHODOLOGY	HOURS	ECTS
AF2 – Active listening, elaboration and formulation of questions, summaries, concept maps and/or notes that organize the information received, and related work.	R2, R3	MD2: Interactive lecture	22,00	0,88
AF4 – Application of the theory learned in real or simulated situations.	R1, R2, R3	MD4: Problem-solving exercises	38,00	1,52
TOTAL			60,00	2,40

TRAINING ACTIVITIES OF AUTONOMOUS WORK

ACTIVITY	RELATIONSHIP WITH THE COURSE LEARNING OUTCOMES	METHODOLOGY	HOURS	ECTS
AF8 – Independent work. Study, memorization, exam preparation, practice of practical skills, preparation of assignments, essays, reflections, metacognitive activities, portfolio development, etc.	R1, R2, R3	MD4: Problem-solving exercises	14,00	0,56
AF4 – Application of the theory learned in real or simulated situations.	R1, R2, R3	MD4: Problem-solving exercises	76,00	3,04
TOTAL			90,00	3,60



Description of contents

Description of content necessary for the acquisition of learning outcomes.

Theoretical content:

Block of content	Contents
Introducción	-Evolución histórica del retoque de imágenes -Presentación de la herramienta Adobe Photoshop
Ajustes básicos de luz y color	Brillo y Contraste, Niveles de luz en el que se incluye ajuste de blancos e histograma. Ajustes automáticos.
Herramientas de selección	¿Qué es seleccionar? Uso de herramientas básicas de selección: rectángulo, óvalo y lazos. Modos de selección: suma, resta e intersección. La máscara rápida como alternativa o complemento a las anteriores.
Herramientas de retoque y reparación	Evolución de las herramientas de reparación. La mejora sustancial de la IA en este terreno.
Capas I	Definición, tipos y ventajas e inconvenientes. Manipulación de capas.
Capas II	Máscaras de capa, modo de fusión de capas, capas de ajuste y efectos de capa
Montaje y mezcla de imágenes	Desarrollo de ejercicios avanzados que implican el uso intensivo de capas.
Filtros	¿Qué son y qué permiten en Photoshop? Clasificación. Ejercicios de aplicación.
Aplicaciones de la IA en el retoque digital de imágenes	Definición y descripción de la IA en el entorno de las imágenes digitales. Ventajas e inconvenientes. Ejercicios de aplicación.
Resolución, formatos y exportación de imágenes digitales	Qué es la resolución y su importancia en el tratamiento digital de imágenes. Definición y aplicación de los diferentes formatos gráficos. Factores a tener en cuenta cuando se exporta una imagen digital.



Temporary organization of learning:

Block of content	Sessions	Hours
Introducción	1	2,00
Ajustes básicos de luz y color	1	2,00
Herramientas de selección	2	4,00
Herramientas de retoque y reparación	2	4,00
Capas I	3	6,00
Capas II	5	10,00
Montaje y mezcla de imágenes	7	14,00
Filtros	2	4,00
Aplicaciones de la IA en el retoque digital de imágenes	6	12,00
Resolución, formatos y exportación de imágenes digitales	1	2,00



References

Chavez, C. (2024). *Adobe Photoshop Classroom in a Book: 2025 release*. Adobe Press.

Stride, L. (2025). *Adobe Photoshop Made Simple: From 0 to Professional*.

Kelby, S. (2023). *How Do I Do That in Photoshop? The Quickest Ways to Do the Things You Want to Do, Right Now!* (2.^a ed.). Rocky Nook.