



ESCUELA UNIVERSITARIA
DE ARTES. MADRID

3D Animation

COURSE GUIDE

BACHELOR'S IN FILMMAKING

COURSE 2026/2027



Universidad
Rey Juan Carlos

Course data

<i>Duration</i>	1 st semester
<i>Credits</i>	3 ECTS
<i>Modality</i>	In-person
<i>Language</i>	English
<i>Faculty</i>	Filmmaking
<i>Teacher</i>	Javier Herreros

Course presentation

Basic concepts for creating and modeling characters, objects, and backgrounds, as well as the physical parameters used to animate them. Workflow and project phases in 3D animation projects.

Student competencies

CG01	Utilize different historical, sociologic, cultural and/or artistic sources in the creation of audiovisual projects.
CG03	Know the codes of ethics and deontology applicable to the audiovisual industry.
CG04	Know the various applications of the technological resources from the field of audiovisual creation.
CG05	Understand the concepts of photography, the creation of the film image and audiovisual language from an artistic and technical perspective.
CG07	Know the different study and research methodologies that enable the continuous development and innovation of an activity within the audiovisual industry.
CE02	Understand the essentials and specificities of an audiovisual project in its different formats, genres and typologies.
CE03	Know the production workflows of the audiovisual industry.
CE04	Understand filmmaking in an open, multi-directional manner, from the forms and formats that are intrinsically related to the entertainment industry, to more expressive manifestations that explore avant-garde aesthetics and/or auteur philosophies.
CE15	Compose images by integrating elements that are filmed and/or generated in postproduction processes.

Learning outcomes

Upon completion of this course, each student must be able to:

1. Work with the composition and VFX software and technologies that are most widely used in advertising.
2. Design with VFX with attention to proposed requirements and objectives.

3. Advise production on the requirements during filming in order to optimize composition/VFX processes.
4. Understand the visual objectives of audiovisual advertising.

Teaching methodology

<i>MD1</i>	Participatory masterclass.
<i>MD2</i>	Case studies and discussion.
<i>MD3</i>	Problem resolution and discussion of results.
<i>MD5</i>	Cooperative and collaborative learning.
<i>MD6</i>	Academic tutoring.

Course content

<i>Content</i>	1. Software: the work environment, processes and tools. 2. VFX Conceptualization and design for advertising. 3. Provision of technical advice during filming. 4. 3D Composition and creation of backgrounds: - the workspace. - matte painting. - workflow. - External geometries and integrations. - Modify nodes. - Creation of 2D and 3D elements. - Camera Tracking and application of movements.
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Learning activities

AF1	Theoretical and theoretical-practical classes.	6 hours
AF3	Design and implementation of artistic creation projects (individual or group).	15 hours
AF4	Art appreciation activities: attendance at seminars, visits to exhibitions or viewing of visual/audiovisual works.	6 hours
AF5	Search and selection of documentation, reading of supporting material and bibliographic and visual references.	30 hours
AF7	Evaluation.	3 hours
AF8	Autonomous study of theoretical content and autonomous preparation of practical work and activities.	30 hours

* The hours assigned to the different learning activities may vary depending on the academic needs of the course, the group or the teaching team.

Assessment

GENERAL ASSESSMENT CRITERIA

ATTENDANCE

The classes are in-person, and attendance is mandatory, as it is a determining factor in the continuous assessment system, as well as in class attitude and participation. However, in exceptional cases due to health situations or family reconciliation, students may request online access as a methodological adaptation (for more information, please contact the student department).

MARKS

Continuous Assessment is a comprehensive assessment of each student's results judged on the assessment criteria described in the following section, on a scale of 0 to 10 as provided in current legislation.

Students wishing to bring up their grade in the extraordinary/re-assessment period must first contact the Registrar's Office to expressly waive in writing all of the marks they obtained in the regular assessment period. Their final assessment mark will be the mark obtained in re-assessment.

SPELLING AND EXPRESSION

The grading of written examinations and assignments will consider spelling, grammar, and clarity of expression. Errors in spelling, punctuation, and writing style may negatively affect the final grade, depending on their nature, frequency, and severity.

UNIVERSITY WRITTEN REPORTS

These must have a title page, table of contents and bibliography listing at least 4 sources. These works must be original. Excerpts from other authors must be properly cited. Demonstrable plagiarism is an academic offense. If one student copies the work of another student, both shall be held accountable.

SPECIFIC ASSESSMENT CRITERIA

REGULAR ASSESSMENT PERIOD

In this course, absence to more than 20% of class sessions and activities will lead to failure of the course and disqualification from the regular assessment period.

The teaching team will provide the details/specifications on the content or submission of assessment tasks; this information will be given in class or in a document made available to the student on the Virtual Course Space (in Spanish, *Aula Virtual*).

Assignments not submitted by the deadlines set by the teaching team will receive an assessment mark of 0.

<i>Assessment task (*)</i>	<i>Revaluable/non-revaluable</i>	<i>Minimum mark yes/no</i>	<i>% of final mark</i>
SE1	Revaluable	No	20%

In-class tests and examinations (oral and/or written)			
SE2 Assignments and projects.	Revaluable	Yes	30%
SE3 Continuous assessment: weekly tasks and homework, periodical reports, problem resolution.	Revaluable	Yes	40%
SE5 Attitude and participation.	Non-revaluable	No	10%
			100%

(*) Records and evidence of all of the assessment tasks (writings, recordings, etc.) listed in this table will be kept and filed in the Registrar's Office.

EXTRAORDINARY/RE-ASSESSMENT PERIOD

Students who have not passed the course during the regular assessment period may choose one of the following extraordinary assessment options:

- **Option 1: Criterion-based reassessment.** Assessment will be limited exclusively to the reassessable criteria that were not passed during the regular assessment period. The reassessment activity will be of the same nature as the original one (exam, assignment, etc.). The grades obtained in the ordinary assessment period for non-reassessable criteria (provided the minimum passing grade was achieved) will be retained and included in the weighted calculation of the final extraordinary assessment grade.
- **Option 2: Comprehensive reassessment.** Students may complete a single assessment activity accounting for 100% of the extraordinary assessment. The nature of this activity will be determined by the instructor and may include an oral or written examination, submission of a portfolio, theoretical and/or practical assignments, or other equivalent forms of assessment.

The instructor must communicate both Option 1 and Option 2 for the extraordinary assessment through the course notice board on the virtual campus at least 10 days prior to the extraordinary assessment date.

Students must respond to this communication via the virtual campus notice board, indicating their choice of Option 1 or Option 2, at least 3 days prior to the extraordinary assessment date. If a student does not respond, the instructor will automatically apply Option 2 (a single assessment activity accounting for 100% of the extraordinary assessment).

REVIEW OF ASSESSMENT MARKS

As set out in the TAI School of the Arts Student Handbook.

Resources

RECOMMENDED BIBLIOGRAPHY

Williams, R. (2001). *The Animator's Survival Kit*. Faber and Faber.
Chandramouli, S. (2015). *3D Modeling & Animation*. Mercury Learning & Information.
Rogers, S. (2018). *Digital Cinematography: Techniques and Tools*. CRC Press.
Murch, W. (2001). *In the Blink of an Eye: A Perspective on Film Editing* (2.^a ed.). Silman-James Press.

RECOMMENDED FILMOGRAPHY

Aronofsky, D. (Director). (2006). *The fountain* [Film]. Protozoa Pictures; Warner Bros. Pictures.
Cameron, J. (Director). (2009). *Avatar* [Film]. 20th Century Fox; Lightstorm Entertainment.
Lasseter, J. (Director). (1995). *Toy story* [Film]. Pixar Animation Studios; Walt Disney Pictures.
Lisberger, S. (Director). (1982). *Tron* [Film]. Walt Disney Productions; Lisberger-Kushner.
Miyazaki, H. (Director). (2001). *Spirited away* [Film]. Studio Ghibli.

RECOMMENDED WEBSITES

Animation Resources. (s.f.). *Animation Resources*. <https://animationresources.org/>
Aniworx. (s.f.). *Department: Animation*. Production Journey.
<https://www.aniworx.eu/insights/production-journey/departament/animation>
Seymour, M. (s.f.). *VFX breakdowns*. Before & Afters.
<https://beforeandafters.com/category/vfx-breakdowns/page/17/>

REQUIRED MATERIALS FOR THE COURSE

In the required materials section, it will be indicated that students will be able to download the Autodesk Maya license for free, thanks to their enrollment in the course. In addition, the use of Substance Painter is recommended for creating and texturing materials. Both programs are essential for the development of 3D work and animation within the course.

VISITS, MASTER CLASSES, EVENTS AND ADDITIONAL WORKSHOPS

Additional events and workshops will be scheduled throughout the academic calendar and will be communicated through in-app messages. This way, students can keep track of the dates and stay informed about extra opportunities.