**3D MODELLING AND ANIMATION**

MSc Degree in Illustration and Animation

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Code: 21811

Main Scientific Area: Audiovisuais

Lecturer: Ricardo Sá Carneiro Megre

Language of Instruction: Portuguese

Regime: S2

Contact Hours: 50h Total Workload: 160h

ECTS: 8,0

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**Objectives**

The 3D Modeling and Animation curricular unit introduces students to three-dimensional drawing and animation tools, in a technical and aesthetic design aspect, mainly exploring issues related to the design of virtual characters and backgrounds, presented in the development of animation and digital illustration projects.

**Learning Outcomes**

1. To explore the technical and creative principles of modeling, texturing and 3D lighting.

2. Provide students with technical and creative skills that support the construction of 3D virtual characters and sets, adapting them to the context of an illustration and animation project.

3. It is intended that the student can develop skills and responsiveness when conditioned by their stylistic choices.

4. It is intended that the student are able to manage the creative component and the limits imposed in the production of the intrinsic dynamics of creation in the area of 3D animation.

5. To focus on the semiotics and grammar of character animation and audiovisual composition, and on the subjective and expressive issues of this artistic field.

6. To be able to manipulate and compose a 3D universe, to move characters, backgrounds, cameras and lights in order to create animatics and visual narratives.

**Course Contents**

1. Theoretical concepts. Resorting to three-dimensional representation as a means of artistic expression and communication, in the current context of animation cinema and digital illustration.

2. Practical concepts. Provide the student with technical and creative skills that support computer-aided design as a tool of high creative potential in the context of illustration and animation, serving as a stimulus to the creation of characters and virtual environments.

**Recommended Bibliography**

Autodesk Maya 2020 Basics Guide.Kelly Murdock.SDC Publishers2020.ISBN 10: 1630572551

Autodesk Maya 2020: A Comprehensive Guide, 12th Edition Sham Tickoo
Purdue University2020.ISBN 10: 164057090X

**Learning and Teaching Methods**

Students will be able to reconcile the knowledge acquired about modeling and animation of scenarios and characters with the theoretical/practical premises in the development of 3D illustrations or a short animated sequence.

**Assessment Methods**

Operating Regime:
Students must consult the Academic Regulation (Regulamento Académico - RA) of IPCA and the Regulation of Assessment of Knowledge and Competencies (Regulamento de Avaliação de Conhecimentos e Competências - RACC) of ESD.
The curricular unit works on a face-to-face basis.

Learning Assessment:
Evaluation is continuous and follows the calendar schedule (according to point 1 of article 3 of the RACC-ESD).

It provides the objectives of the discipline, as well as the methods and strategies used for their development and implementation.
It also assesses the ability of organization and systematization, the conceptual and the interest component in the search for theoretical and technical steps such as support for the work.
There will also be important factors in assessing attendance, compliance with the proposed deadlines, the student's participation to the requests made by the teacher during class, and the resolution of small exercises that can be launched during the semester.

Assessment based on:

1. Work developed in class = 40%

2. Final assessment of practical work = 40%

3. Participation and Attendance* = 20%

*Attendance and participation is understood as the student's effort to evolved in the curricular unit through requests made by the teacher as well as through autonomous work developed at home, from class to class.

Continuous evaluation foresees the attendance of the student in at least 75% of the classes (according to point 2 of article 3 of the RACC-ESD).

All the work should be accompanied by the teacher in the classroom.

Evaluation by exam (2nd semester):
Given the discipline's objectives, practical work and continuous evaluation, this curricular unit does not allow the exam period of the 2nd semester (according to point 4 of article 4 of the RACC-ESD).

Special period exam:
Only students who are under a special frequency regime have access to this period (as described in section I, article 135.º and in point 5, article 209.º, of the RA-IPCA). The assessment in this special season includes a set of exercises, over several days, in statements provided on the first day of the exam.

Grade improvement:
Classification improvements are made by continuous evaluation (according to point 2 of article 6 of the RACC-ESD).
In order to improve the classification the student must attend the course again, following the assessment provided for in the curricular unit program.