



ACADEMIC PROGRAM

HUMAN AND ANIMAL ANATOMY

B.F.A. IN ANIMATION

MODALITY: ON CAMPUS

ACADEMIC YEAR: 2023-2024

Name of the course:	Human and Animal Anatomy
Degree :	Animation
Location:	Centro Universitario de Tecnología y Arte Digital
Area:	Form and body
Year:	1º
Teaching period:	2
Type:	B
ECTS credits:	6
Teaching modality:	On campus
Language:	English
Lecturer / Email	Justin williams / justin.williams@u-tad.com
Web page:	http://www.u-tad.com/

SUBJECT DESCRIPTION

Area description

The drawing, analysis and knowledge of anatomy and human gesture is the base for the conception and development of digital animated characters. This subject, as part of the overall group of artistic techniques of the degree, has as an objective to achieve comprehension of the human anatomy for its artistic interpretation through the sculpture, painting and drawing.

Subject description

The subject "Human and animal anatomy" aims to foster in the student the skills and competences related to obtaining an adequate representation of this type of figures, by means of traditional analogical drawing techniques, as a previous step to its later representation and interpretation in other media. The importance of this subject lies in its transversality and in the effective application of the knowledge acquired during this course in other subjects taken throughout the curriculum, since the knowledge of the characteristics of the representation of the human or animal figure is a fundamental axis for the artistic practice in the field of animation. It is of vital importance for the animation professional to have a basic knowledge of the structures that make up the figures with which he or she is working. Drawing, as an instrument of analysis of reality, is presented here as a key tool that allows to know and assimilate these morphological structures, which make possible the adequate representation of a human or animal character.

COMPETENCIES AND LEARNING OUTCOMES

Competencies

BASIC AND GENERAL

CB1 - That students have demonstrated possession and understanding of knowledge in an area of study that builds on the foundation of general secondary education, and is usually at a level that, while relying on advanced textbooks, also includes some aspects that involve knowledge from the cutting edge of their field of study.

CB2 - That students know how to apply their knowledge to their work or vocation in a professional manner and possess the skills that are usually demonstrated through the development and defense of arguments and problem solving within their field of study.

CB3 - That students have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include reflection on relevant social, scientific or ethical issues.

CB4 - Students should be able to convey information, ideas, problems and solutions to both specialized and non-specialized audiences.

CB5 - That students have developed those learning skills necessary to undertake further studies with a high degree of autonomy.

TRANSVERSALS

CT5 - Demonstrate versatility, flexibility and creativity in the development of projects, activities and works.

SPECIFIC

CE1 - Execute drawing with traditional and digital techniques of artistic creation both for ideation and for the representation of images.

CE3 - Know and represent the anatomy, shape and proportion of the human body.

CE4 - Represent three-dimensional forms and spaces using the essential techniques of traditional and digital modeling.

Learning outcomes

At the end of the degree, the graduate will be able to:

- Represent the human figure in different visual styles through analog and digital drawing techniques.
- Represent the physical environment, natural figures and objects through drawing with traditional or digital techniques.
- Apply the laws of representation systems for the visualization of objects, figures and spaces.
- Model objects or figures with digital or traditional techniques.
- Apply knowledge of human and animal anatomy to the animation and rigging of human and animal figures in 2D and 3D.
- Use digital or physical references to draw the anatomy of the human figure in animation projects.

CONTENTS

- Anatomy foundations
- Study of the body, muscles and skeleton
- Study of movement: cinematics
- Main body axes
- Masculine and feminine proportions
- Turn Around
- Sketches and Roughs

SUBJECT SYLLABUS

Topic 0. Presentation of the subject, materials and evaluation criteria. Schedule.

-Topic 1. The artistic representation of the body.

-1.1. Introduction to Artistic Anatomy.

-1.2. Brief historical review: canons, proportions, conventions.

-1.3. Comparative anatomy.

-Topic 2. Representation techniques and processes.

-2.1. Graphic schemes of action and representation.

-2.2. Relationship and proportions.

-2.3. Joints and "Rigging".

-2.4. The line as an element of representation.

-2.5. The volume in the anatomical representation.

-2.6. Sketches and analytical drawings with models.

-2.7. Sketches in movement sequences.

-Topic 3. Basic osteology.

-3.1. The skeleton as a supporting structure.

-3.2. The skull and face.

-3.3. Spinal column.

-3.4. The rib cage.

-3.5. Upper limb: shoulder, arms, hand and fingers.

-3.6. Lower limb: pelvis, sacrum, coccyx, thigh, leg, feet and fingers.

-Topic 4. Basic myology.

- 4.1. Muscles of the head, neck and face.
 - 4.2. Muscles of the trunk and abdomen.
 - 4.3. Muscles of the upper limbs, forearm and hand.
 - 4.4. Muscles of the lower limbs, the leg.
 - Topic 5. Joints.
 - 5.1.The spine.
 - 5.2.Thorax joints.
 - 5.3.Joints of the upper limb.
 - 5.4.Joints of the lower limb.
 - Topic 6. Representation of the human figure in movement.
 - 6.1.Tensions, balance.
 - 6.2.Basic lines of action and gestures.
 - 6.3.Motion sequences.
 - Topic 7. Fundamentals of animal anatomy.
 - 7.1.Introduction to Comparative Anatomy.
 - 7.2.Specific anatomy of some mammals: horses, canids and felines.
 - 7.3.Other animals (Birds and insects).
 - 7.4.Fantastic beasts.
 - Topic 8. Basic difference between drawing and design.
- Drawing as a capture of reality.
- Recognition of invariant and iconic features
- Drawing as conceptual design.

TRAINING ACTIVITIES AND TEACHING METHODOLOGIES

TRAINING ACTIVITIES

LEARNING ACTIVITIES	Total hours	Hours of presence
<i>Theoretical / Expository classes</i>	7,00	7,00
<i>Practical classes</i>	30,00	30,00

<i>Tutorials</i>	4,00	2,00
<i>Independent study and autonomous work of the student</i>	35,00	0,00
<i>Elaboration of work (group or individual)</i>	49,00	0,00
<i>Evaluation Activities</i>	5,00	5,00
<i>Synchronous virtual practice sessions with streaming model with teacher support</i>	20	20
TOTAL	150	64

Teaching methodologies

Expository method or master class

Case method

Problem-based learning

Cooperative or collaborative learning

Inquiry-based learning

Flipped classroom or inverted classroom methodology

Gamification

TEMPORAL DEVELOPMENT

Topic 1. 2 weeks

Topic 2. 2 weeks

Topic 3. 2 weeks

Topic 4. 2 weeks

Topic 5. 2 weeks

Topic 6. 2 weeks

Topic 7. 2 weeks

EVALUATION SYSTEM

ASSESSMENT SYSTEM	MINIMUM SCORE RESPECT TO THE FINAL ASSESSMENT (%)	MAXIMUM SCORE RESPECT TO THE FINAL ASSESSMENT (%)
<i>Assessment of participation in class, exercises or projects of the course</i>	10	25
<i>Assessment of assignments, projects, reports, memos</i>	30	60
<i>Objective test</i>	20	60

GRADING CRITERIA

ASSESSMENT SYSTEM	ORDINARY EVALUATION	EXTRAORDINARY EVALUATION
<i>Assessment of participation in class, exercises or projects of the course</i>	10	10
<i>Assessment of assignments, projects, reports, memos</i>	60	60
<i>Objective test</i>	30	30

General comments on the evaluations/assessments

At least 80% of the classes must be attended and at least 80% of the course work must be submitted and approved.

-The grades of the work done during the course will account for 45% of the final grade.

-The final exam will account for 30% of the final grade.

-Those students who do not pass a particular section, will have the opportunity to repeat that part in subsequent exam periods.

-A grade of 5 or more must be achieved in each section.

LIST OF REFERENCES (BOOKS, PUBLICATIONS, WEBSITES):

Basic: Valerie L. Winslow (2009). Classic Human Anatomy. Crown Publishing
Referencias recomendadas
Gottfried Bammes (2010). Complete Guide to Life Drawing. Search Press.
Figure Drawing Masterclass. Dan Gheno. North Light Books
Ellenberger, W (1966) An Atlas of Animal Anatomy for Artists. Dover
Anatomy for Artists.
Simblet, S. (2002). Anatomía para el artista. Barcelona: Blume.
Takashi Lijima (2004). Action Anatomy for Gamers, Animators and Digital Artists. HarperDesign.
Moreaux, A. (1988). Anatomía Artística

del hombre. Barcelona: Ediciones Norma. Civardi, G. (2004) Dibujo de anatomía y estudio de movimiento. Ed. Drac. Hogart, B. (1996). El dibujo anatómico a su alcance. Barcelona: Taschen. Hogart, B. (1996). El dibujo de la cabeza humana a su alcance. Barcelona: Taschen. Hultgen, K. (1993). The Art of Animal Drawing: construction, action, analysis, caricature. Dover Smith, S. (1996). Anatomía, perspectiva y composición para el artista. Barcelona: HermanBlume. VV.AA. (2002). Todo sobre la anatomía artística. Barcelona: Parramón. Eliot Goldfinger. (2004) Animal Anatomy for Artists: The Elements of Form. OxfordUniversity Press 3D Anatomy for the Artist (app.) Catfish Animation Studio 2015-19

REQUIRED MATERIALS, SOFTWARE AND TOOLS

Type of classroom

Classroom easels

Materials:

Graphite pencils (at least 2H, HB and 2B)

Software:

Power Point y software básico de Adobe.