EPFL

AR-419   **Constructing the view: in motion**

Schaerer Philipp

Cursus	Sem.	Type
Architecture	MA2, MA4	Opt.

Language of teaching	English
Credits	3
Session	Summer
Semester	Spring
Exam	During the semester
Workload	90h
Weeks	12
Hours	**2 weekly**
Lecture	2 weekly
Number of positions	

Summary

This course addresses the subject of moving images. It focuses on the field of 3D computer graphics and the animation of computer-generated images (CGI).

Content

The starting point for this module comprises the various spaces that we spend time in daily, along with their objects and the mobile everyday items that surround us. By means of short film and animation sequences, a subtle still life, an excerpt from everyday life, is to be poetically captured: an observed or arranged choreography of objects in a space, as affected by dynamically active influencing factors such as light and shadow, gravity, wind, temperature, sound, or those generated by mechanical forces. The module offered is divided into two main parts. In the first part, the participants observe or arrange individual dynamic still lifes from their daily environment and create a series of poetic close-ups on this basis, in the form of short film sequences that are captured with a camera or mobile phone. In the second part of the module, the real scenes are reconstructed three-dimensionally on a computer and conveyed as animation. The students are given a full introduction to the 3D program Cinema 4D, on which basis they create a series of expressive computer animations as their final project. The course encourages the use of digital instruments at the extreme limit of the interplay between reality and fiction.

Keywords

Video, film, moving images, stop-motion, animation, digital image technology, 3D computer graphics, rendering (CGI), Cinema 4D, the real and the imaginary

Learning Prerequisites

Important concepts to start the course

- basic knowledge of English
- basic knowledge of image-processing and 3D modelling techniques
- (laptop to work with during course days)
- (Cinema 4D software installed on computer)

Learning Outcomes

By the end of the course, the student must be able to:

- Investigate and interpret the visual environment
- Test visual faculties of perception and expression
- Prove analytical and critical thinking skills in examining image-based representations

- Describe the visual laws of photorealistic images
- Identify the concept, potential and limits of 3D computer graphics and propose analogue alternatives
- Perform 3D modelling, texturing, rendering and animating with the program Cinema 4D
- Take into consideration the basic principles and elements of image design
- Create professional computer-generated animations

Transversal skills

- Demonstrate the capacity for critical thinking
- Assess one's own level of skill acquisition, and plan their on-going learning goals.
- Plan and carry out activities in a way which makes optimal use of available time and other resources.
- Use a work methodology appropriate to the task.
- Demonstrate a capacity for creativity.

Teaching methods

- lectures and workshops
- practical work (individual): exercises and reviews of selected work

Expected student activities

- interest in (digital) image technologies
- personal commitment and active participation

Assessment methods

- based on practical work (intermediate exercises and final work)

Supervision

Office hours	No
Assistants	No
Forum	No

Resources

Bibliography

- Bibliography provided during the course

Websites

- http://www.constructingtheview.org
- http://www.philippschaerer.ch

Videos

- https://vimeo.com/290308570