ENG-640

Motion Design for Science

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Cursus	Sem.	Type
EDOC General and external courses		Opt.

Language of teaching	English
Credits	1
Session	
Exam	Oral presentation
Workload	30h
Hours	**30**
Courses	10
Exercises	12
TP	8
Number of positions	**20**

Frequency

Every year

Remark

This is an introductory course to motion design for science. You do not need to have experience in the software, except for the tasks listed under Learning Prerequisites.

Summary

This course is designed to empower students with skills in motion design, allowing them to breathe life into their ideas & scientific figures. We will work on exercises to animate scientific images, build towards animating a figure, then each student will design & animate their own work.

Content

Motion graphics can be thought of a little like 2D animation. One creates 2D images and moves them around the screen to bring the images to life. It is simple at its core, and yet with it, you can create artistic masterpieces! For science, 2D animation can be a great tool for delivering information in an accessible, entertaining and, importantly, attractive way. Delivering information in this way gives us a greater chance of communicating successfully.

This three-day course is designed to empower students with skills in motion design that will allow them to breathe life into their ideas and scientific figures. We will begin with an introduction to motion design in After Effects using simple pre-designed exercises that bring life to plots, figures and scientific ideas. Alongside this, we will discover the principles of animation. We will move on to another project that the students will follow and customize, beginning to experiment with color and movement. With their new skills the students can begin to prepare an animation based on their own work. This will be designed on paper, with each step planned carefully, before they begin building and animating their work. By the end of the final day, participants will present their personal projects and the class will offer feedback. I will be available during set times for two weeks after the class to provide online support and feedback to ensure that students are in a strong place for continuing to use motion design to communicate their work.

Students do not need experience in animation or After Effects before the course but will be asked to watch an intro video and complete a simple animation before the first class.

Keywords

Science communication, motion design, 2D animation

Learning Prerequisites

Important concepts to start the course

What you will need for the course:
- Laptop with (at least) 16Gb of Ram
Before day 1:
- Install Adobe After Effects, Adobe Illustrator and Adobe Media Encoder
- Watch introductory video (to be disseminated 3 weeks before the class)
- Complete intro exercise (around 1 hour of work) (to be disseminated to all students 3 weeks before the class)

Learning Outcomes

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

- Demonstrate the fundamentals of animation
- Use After Effects to support communication of complex ideas
- Present a short animation based on participant's science for use in presentations and share online

Resources

Websites

- https://moodle.epfl.ch/enrol/index.php?id=18578