

# Making 3D Virtual Animats

## 3D 虛擬創意動物 - Blender 共創工作坊

Pr Chu-Yin CHEN 陳珠櫻 教授 & Mr. Swann Martinez

5 days: 2023/2/7(二) ~ 10(五), 6:00pm-9:00pm; 11(六)10:00am-6:00pm



*Le Défilé*, Celine Mougel, Freddy Clément, Sophie Garrigues, master students of ATI department, Paris 8 University  
<https://vimeo.com/groups/ati/videos/43393070> (pictures are for reference only)

### Workshop description:

The objective of this workshop is to teach students 3D modeling and basic animation on Blender. Blender is an open-source software used in many industries from animation to medical to create and process synthetic images.

This workshop will have an important collaborative dimension, as the learners will be in the same virtual space and will work together to create a collective work. They will use a real-time collaboration solution for digital creation in Blender. By connecting to an online session, they can build and interact in the same 3D scene and in the same temporality.

Applied to industry, this method makes artists aware of the work in progress on the stage and parallelizes the creation of the different stages of fabrication.

Applied to computer graphics teaching, real-time collaboration puts students and teachers in the same virtual space. This proximity favors mutual aid and allows the teacher to efficiently detect students in difficulty and help them.

### Teaching Objectives & Outcome:

This 5 day's workshop grounds on an innovative pedagogy centered around a shared learning and shared creation approach. Students, whose abilities may range over different levels will discover benefits of complementarity in team working. This will also be encouraged to carry out an interdisciplinary work around the creation of digital artistic content.

It aims at developing students' ability to learn, in a short time and autonomously, the fundamental of an Open-Source 3D Content Creation Software like Blender by giving them a structured logic for learning by an professional expert in reel-time digital R&D and 3D animation.

A collaborative project will end the session and resulting creations will be exposed at the *Recto-VRso* exhibition, held during the *Laval Virtual 2023 Festival* (2023/04/12-16), in Laval, France.

**Keywords:** Blender, 3D Modeling, Rendering & animation, Real-Time Collaboration Workflow.

**Reference:** Martinez, Swan; Chen, Chu-Yin. « A Framework Enabling Real-time Multi-user Collaborative Workflow in 3D Digital Content Creation Software », Published online in *Computer Science Research Notes [CSRN]* within the WSCG 2021 papers, <http://wscg.zcu.cz/WSCG2021/FULL/I07.pdf>

**Class size : 20 students; Requirements & Program:**

This workshop is open to any students having a computer science, technology or artistic profile, even those that never used Blender, provided they show a strong motivation for digital art, technology and science.

Course will be delivered in English. Student's personal Laptop will be used.

**Course credit: 1; this workshop program is as follows:**

The workshop will last 20 hours (6 sessions) split into 5 days

2023/2/7(二) ~ 10(五), 6:00-9:00pm; 11(六)10:00am-6:00pm

1. Introduction to the Blender interface, familiarization with the 3D viewport (Theory).
2. Introduction to 3D procedural modeling tools, individual modeling of a simple object (Practice).
3. Introduction to animation tools for simple objects (Theory + Practice).
4. Introduction to the real-time collaboration workflow in Blender and start of the collective project (Theoretical + Practical).
5. Collaborative project, creation and animation of a 3D scene (Practice).
6. Collaborative project, creation and animation of a 3D scene (Practice).

**Performance Assessment:**

**Class attendance: 30%**

Attendance is required for the entire session, if one class is missed, the 30% will not be awarded.

**Group creative project: 50%**

On the last day's group creation results will be graded according to the degree of completion and creativity of the works.

**Writing your thoughts and feelings: 20%**

Workshop experience feedback and report assignments, mainly in Chinese. Foreign students can write in English; Please use A4 paper, font size 12 characters, at least 1000 words per page in Chinese, at least 2 pages.

**成績評量:**

**上課出席狀況: 30%** 必須全程出席，只要有一堂缺席，即無法取得這 30%的分數。

**分組創作計畫: 50%** 最後一天的分組創作成果，評分依據作品的完成度與創意。

**心得感想撰寫: 20%** 工作坊的經驗回饋與報告作業，以中文為主，外籍學生可寫英文；請以 A4 紙，字體大小 12 號字，中文每頁至少 1000 字左右，至少 2 頁。