Session:
March 2023

Institution:
Politecnico di Milano

Course location:
Politecnico di Milano
Laboratorio LaborA

Course address:
Politecnico di Milano, campus Leonardo, p.zza Leonardo Da Vinci 32,
Milano
Milan

Course takes place:
on-site

Will switch to 'online' if necessary: (to be confirmed)
No

Course title:
Create your own Avatar

Type of course:
Application workshop on digital environments for building one's own digital
twin. Introduction and practice of digital surveying applied to the person;
digital modeling for representation and mesh sculpting; optimization and
simplification systems; embedding in virtual reality environments and use of
immersive instrumentation; embedding in motion applications.

Course code:
POLI37

Minimum year of study:
Bachelor or higher years

Language of tuition:
English

Prerequisites:
A minimum of confidence in 3D modeling is required. The course will offer
tools and workflow for all levels, however those who have practiced
photogrammetry techniques for 3D surveying and 3D modeling already will benefit more.

Objectives:
Acquisition of digital skills, practice in modeling, knowledge of digital duplication workflows, in-depth study of VR techniques, in-depth study of ethical issues related to the metaverse
Programme to be followed:

Draft of daily schedule:
Day 3. Wednesday: What is a mesh, simplification techniques, mesh geometry, processing for placement on the substrate. Creating your own skeleton for motion.
Day 4. Thursday: Application of meshes to the skeleton and base movement. Design of use in VR; possibilities in different modeling environments. Preparing the storyboard for the final video presentation
Day 5. Friday: Final video preparation and presentation

Debates:

Bibliography:
https://docs.blender.org/manual/it/dev/modeling/meshes/index.html
https://www.agisoft.com/
to be updated

Course exam: Video presentation and and short final report

Professor responsible: Cecilia Bolognesi
Participating professors: to be updated

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