

Rhinoceros®

Version 5 **grasshopper**

Advanced Course in Rhinoceros

Aims of the "3D Design" courses

The Metallo Nobile school organises a series of computer graphics courses for three-dimensional modelling, rendering and prototyping, starting from Rhinoceros V5.

The aim of these courses is to train professionals with an adequate degree of competence in the design and modelling of complex forms in the field of jewellery design, so as to boost their chances of satisfactory integration in the professional world.

The **courses are organised by ascending level of specialisation** and by argument, so as to satisfy all types of training requirement, perfectly tailored to the needs of each individual pupil.

Advanced module

The **Advanced Course in Rhino (32 hours a month - 8 hours a week)** is aimed at those who have already mastered a basic knowledge of the programme and want to refine their jewellery modelling techniques.

During the course, concepts of **NURBS geometry** are explored, such as degree, control points, knots and so on, leading to mastery of the use of advanced tools on points, curves, surfaces and solids.

Other aspects covered include the use of analysis tools, the approach to parametric design using **Grasshopper** and the use of cellular patterns exploiting the **Panelling Tool** plug-in.

The **objective of the course** is to overcome the limitations of a superficial use of Rhinoceros and the geometry of objects in general, to reach the point of being able to model any form whatsoever that may be necessary for the development of a project.

Main topics of the course

- NURBS geometry – Elements of theory
- Properties of the objects
- Geometry of complex forms: surfaces and solids
- Free-forms - Loft – Network of curves
- Editing of points – Curves from objects – Surface tools – Editing of solids
- UDT
- Analysis tools – Edge editing
- Elements of mesh geometry
- Introduction to the use of Panelling Tools
- Elements of Grasshopper

