

## Level 1: Rhino 4.0/Flamingo/TechGems/RhinoGold

4 day (32 hr. course) Sample syllabus

Instructor: Lauren J. Pipkorn

**Day 1:** Overview of Rhinoceros 4.0 software, how it can be used in all aspects of design/development/modeling/presentation/production. Getting familiar and comfortable using the Rhino interface.

Introduction to the Rhino 4.0 workspace, tools, and commands.

Learning to navigate the Rhino interface.

Basic commands, 2D tools

2D mechanical drafting: using lines, polylines, and curves

Draft a flexible bracelet in top and side views.

Draft a necklace in top and side views

Further drafting and 2D tools: tips for 2D design development/2D design presentations

Introduction to some 3D tools

**Day 2:** Reviewing 2D tools. Learning 3D tools.

Review of 2D tools

Draft a ring in 3 views

Scanning bitmap images of sketches or images to make 2D drawings to start creating 2D and 3D designs

Tools and commands to achieve surfaces and solids to create 3D designs/models

Create a 3D flexible bracelet design

Create a 3D ring design

More 3D design projects time permitting

**Day 3:** Using surfacing and solid tools learned to create 3D designs.

Learning more 3D tools and commands

Create a 3D necklace design

Create a 3D bangle design

Create a pair of 3D earrings (on-ear, drop, hoop variations)

Making 2D technical drawings of your 3D designs.

Draft and dimension your design/s with stone breakdowns

**Day 4:** Rendering for design development and presentations.

Demonstration/Discussion of the differences of using Rhino to create 3D designs used for development/presentation, and/or for creating 3D precision models for exporting to milling and/or rapid prototyping machines for production.

Learn to use TechGems and/or RhinoGold jewelry-specific plug-ins.

Rendering with Flamingo: utilizing other programs such as Photoshop/Illustrator for enhancing/special effects/graphics.

- Render a pendant and earring suite with pave' set stones

- Model and Render a collection of stack rings with gypsy-set diamonds and color stones

-Render a wrist watch

-Render a brooch with decorative back plate

-Render a cuff-link collection

\*\*This is just a sample syllabus. Projects completed will depend on how quickly students progress and/or wish to proceed. It is possible that class lessons can be modified to address students' current design projects \*\*