

Chindlers

Rhino 6

Program: Rhino 6

Prerequisites: Basic Computer

Certifications Upon Completion: Certificate of completion

Length of Course: 75 Hours / 141 lessons

COURSE OBJECTIVE:

The purpose of this course is to prepare individuals to obtain CAD modeling, drafting, engineering, manufacturing position.

PROGRAM DESCRIPTION:

Rhinoceros, also known as **Rhino** or **Rhino3D**, is a **3D** CAD modeling software package that enables you to accurately model your designs ready for rendering, animation, drafting, engineering, analysis, and manufacturing. **Rhino** is a free-form NURBS surface modeler.

Rhino is a free-form NURBS surface modeler. With Rhino, you can create, edit, analyze, and translate NURBS curves, surfaces, and solids in Windows or Mac environments. There are no limitations on complexity, degree, or size of the model you design.

INSTRUCTIONAL STRATEGIES:

Our institution has developed its own e-learning platform (www.tutoracademy.org) together with a combination of class lectures, hands on with a computer, one on one demonstrations, and in-house lab experiences applicants can accomplish certification.

PROGRAM LENGTH

The following hours are recommended program lengths. It is understood, however, each student learns at his or her individual pace and there will be students who successfully complete the program in fewer or more hours than what is recommended.

METHOD OF EVALUATION

Our onsite testing program through(Pearson Vue) will evaluate and certify each candidate, reports will be produce to assist candidates in becoming certified.

GRADING

The following point totals correspond to the following grades:

POINTS	GRADE
100-90	A
89-80	B
79-70	C
65-69	D Below 65 F

TEXTBOOK

RHINOCEROS SURFACING TECHNIQUES: NURBS MODELLING

by [Sim Pern Chong](#) (Author)

Requirements

- You should have Rhino V5 or v6 version available, either as demo or purchased. Mac or PC.
- Check rhino 3D website for downloading a demo version, fully functional. It's available for Mac and Windows
 - Even though I will make my tutorials on a windows platform those using Rhino for Mac can follow easily.
- This course starts from the very beginning. We build it up little by little and we'll explore all the tools that will help you in your surfacing work.
- Even if you want to use Rhino V6 you will be able to follow all the explanations.

Description

In the first couple of weeks I will show you step by step on how to get around in Rhino 3D and use basic 2D and 3D tools.

From then on, I will share with you how you can edit and modify surfaces to add a greater level of details. As we progress through the lessons you will then learn on how to render with the basic Rhino render followed by quick examples using industry standard rendering plugins like Maxwell Render.

Course content

141 lectures

Week 01 Rhino 3D Beginner Level

01:13:24

[Promo Video](#)

[Preview](#)

01:10

[Alexandre Galin, Welcome](#)

[Preview](#)

01:15

[Rhino V5 vs Rhino V6](#)

[Preview](#)

02:10

[P](#)

[Lesson1_1 Getting around in Rhino 3D](#)

[Preview](#)

13:48

Lesson1_2_The Snapping
Toolbar

07:54

Lesson1_3_The Layer window

08:37

Lesson1_4_Setting Up the Grid
and Units

05:49

Lesson1_5_Demo 1

12:58

Week 02 Rhino 3D Beginner Level

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Lesson 02 Terminologies

06:01

Lesson 2.1 Learning Basic
Curves

25:38

Lesson 2.2 the Smarttrack and
the Tab key

09:03

Lesson 2.3 Fillet, Chamfer and
Offset Curves

12:39

Lesson 2.4 Extend Curves

10:23

Lesson 2.5 Trim & Split

13:24

Lesson 2.6 Absolute, Relative and Polar Coordinates	07:14
Lesson 2.7 The Rotate Function	03:46
Lesson 2.8 Basic Lines and Angle Drawings	09:29
Lesson 2.9 Demo 2 Conveyor Belt 2D Drawing	10:07
Lesson 2.10 Demo 3 Practising Drawing Arcs	06:26
Lesson 2.11 Demo 4	26:43
<u>– Week 03 Rhino 3D Beginner Level</u>	<u>02:25:03</u>
Lesson3_0 Adjustable Curve Blend G0, G1 and G2	06:12
Lesson3_1 Differences between Adjustable Curve Blend and Match Curve	05:51
Lesson3_2 Intersect, Project and Pull Functions.	12:28
Lesson3_3 Rectangular and Polar Array	05:14
Lesson3_4 Scale 3D, 2D and 1D	06:50
Lesson3_5 Set Auxiliary Planes	13:49
Lesson3_6 Boolean Operations	06:36
Lesson3_7 Picture Frame	14:38
Lesson3_8 Demo 1 Sprocket Design	11:51
Lesson3_9 Extrude	11:57
Lesson3_10 Project and Planar functions	09:07

Lesson3_11 Ex50 RHL1	13:46
Lesson3_12 Ex51 RHL1	09:44
Lesson3_13 Ex57 RHL1	17:00
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<u>Week 04 Rhino 3D Beginner Level</u>	<u>02:57:15</u>
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Lesson4_1 The Gumball	11:43
Lesson4_2 Loft	11:52
Lesson4_3 Sweep 1 rail	07:30
Lesson4_4 Sweep 2 rails	06:43
Lesson4_5 Curve Network	05:53
Lesson4_6 Surface From Planar Curves	06:39
Lesson4_7 Revolve and Rail Revolve	04:07
Lesson4_8 Patch	10:47
Lesson4_9 Demo Screwdriver	22:59
Lesson4_10 Demo Ikea Lamp	21:33
Lesson4_11 Demo 3D mouse	42:25
Lesson4_12 Demo Handle	13:00
Lesson4_13 Homeworks	02:37
Lesson4_14 Rebuilding links for Picture Frame	04:20

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Lesson 5_0_1 Demo Mug using Cplanes & Blend Surface	17:25
Lesson5_1 Pipe	07:48
Lesson5_2 Orient Perpendicular to Curve	06:40
Lesson5_3 Orient 2pts and 3 pts	09:58
Lesson5_4 Demo Toothpaste	38:17
Lesson5_5 Demo Ring	14:35
Lesson5_6 Demo RHL1 ex 67	21:28
Lesson5_7 History	07:20
Lesson5_8 Demo Pipe	23:05
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<u>– Week 06 Rhino 3D Beginner Level</u>	<u>02:24:15</u>
Lesson6_0 Rebuild Curves and Surfaces	23:00
Lesson 6.0.1 Demo Headphones	26:22
Lesson6_1 Orient 2 Points Demo and Orient on Surface	11:44
Lesson6_2 demo Orient on Surface	07:28
Lesson6_3 Array Along Curve and Surface	21:16

Lesson6_4 Demo Array Along Curve	07:27
Lesson6_5 Flow Along Surface	07:38
Lesson6_6 Demo Array Along Curve On Surface	05:34
Lesson6_7 Apply UV Curves	08:11
Lesson6_8 Demo Making a Bracelet	10:16
Lesson6_9 Bend, Taper, Twist	08:54
Lesson6_10 Cage Edit	06:25
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<u>– Week 07 Rhino 3D Intermediate Level</u>	<u>21:04:39</u>
Lesson7_0 Rhino for Graphic Design	13:19
Lesson7_1 Demo Wheel and Tire Modeling	06:03:09
Lesson7_2 Applying materials and adding an HDRI	13:28
Lesson7_3 Match Surface	10:48
Lesson7_4 Merge Surfaces	07:42
Lesson7_5 Advanced Filleting	15:40
Lesson7_6 Demo Rendering	6:27:41
Lesson7_7 Advanced Filleting part 2	14:24
Lesson 7_8 Advanced Filleting Part 3	6:18:28

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Lesson8_1 Demo Nacelle Material and Decals	17:03
Lesson8_2 Demo Nacelle Creating a Layout	23:43
Lesson 10_5 Boss and Rib	17:55
Lesson 10_6 Reverse engineer a	6:16:39
Lesson8_3 Texture Mapping	6:21:48
Lesson8_4 Demo Texture Mapping	13:56
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<u>– Week 09 Rhino 3D Intermediate Level</u>	<u>02:21:05</u>
Lesson9_0 UVW Unwrap	14:29
Lesson9_1 Demo Applying Textures	44:26
Lesson9_2 Demo Rendering with Maxwell Render	51:59
Lesson9_2 Demo Rendering with Maxwell Render02	07:33
Lesson9_3 Demo Adding Motion Blur	08:16
Lesson9_4 Inserting Blocks and	

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– Week 10 Rhino 3D Advanced Level **02:15:57**

Lesson 10_0 Analysing a Part 11:44

Lesson 10_1 Edge Analysis 07:14

Lesson 10_2 Surfacing for
Rendering vs Prototyping 07:33

Lesson 10_3 Demo Importing
and Fixing Surfaces 11:56

Lesson 10_4 Demo Importing and Fixing Surfaces part 2

Car Part 1

Lesson 10_7 Reverse engineer a
Car Part 2 23:51

Lesson 10_8 Using The
Contour Function 15:51

– Week 11 Rhino 3D Advanced Level **04:57:56**

Lesson 11.0 Layout out 2D
patterns 11:35

Lesson 11.2 Degrees of a Curve
and Single Span vs Multi Span 17:58

Lesson 11.2.2 Degrees of a
Curve and Single Span vs Multi
Span 15:57

Lesson 11.2.3 Surfacing
Approach 05:05

Lesson 11.3 Demo Single Span
vs Multi Span 12:27

Demo Glider Surfacing Part 1 13:06

Demo Glider Surfacing Part 2	06:20
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Demo Glider Surfacing Part 9	13:05
Demo Glider Surfacing Part 10	09:07
Demo Glider Surfacing Part 11	24:49
Demo Glider Surfacing Part 12	09:05
Demo Glider Surfacing Part 13	09:08
Demo Glider Surfacing Part 14	07:45
Demo Glider Surfacing Part 15	25:30
Demo Glider Surfacing Part 16	19:48
Demo Glider Surfacing Part 17	01:52
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<u>– Additional Exercises</u>	<u>00:01</u>
Model as per PDF documents	00:01
<u>– Rhino V6</u>	<u>01:01:52</u>
Rendering Lesson 1.0 Introduction	04:52

Lesson3_13 Ex57 RHL1	17:00
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