

Agenda/Checklist



Learn
Grasshopper
Fundamentals
with Kris

00. INTRODUCTION [0:50:03]

- ☐ 00.00. Hello [07:16]
- ☐ 00.01. About the course [10:46]
- ☐ 00.02. About Author [04:43]
- ☐ 00.03. How to work with materials [16:00]
- ☐ 00.04. Discord Group [08:46]
- ☐ 00.05. First Exercise [02:33]

01. START [2:14:58]

- ☐ 01.00. Intro [01:29]
- ☐ 01.01. Why should engineers learn programming? [17:29]
- ☐ 01.02. Computational thinking [15:50]
- ☐ 01.03. Computer Programming [16:57]
- ☐ 01.04. Parametric Design [12:45]
- ☐ 01.05. Why Parametric Design? [15:15]
- ☐ 01.06. What is Rhino and Grasshopper? [16:01]
- ☐ 01.07. Grasshopper in Action [36:47]

02. INTRO RHINO [2:09:32]

- ☐ 02.00. Installation process [20:03]
- ☐ 02.01. Rhino Interface 1/2 [30:25]
- ☐ 02.02. Rhino Interface 2/2 [18:15]
- ☐ 02.03. Modelling in Rhino 1/2 [32:06]
- ☐ 02.04. Modelling in Rhino 2/2 [28:43]

03. INTRO GRASSHOPPER [1:33:05]

- ☐ 03.00. Intro [02:13]
- ☐ 03.01. Grasshopper interface 1/3 [20:52]
- ☐ 03.02. Grasshopper interface 2/3 [14:24]
- ☐ 03.03. Grasshopper interface 3/3 [09:15]
- ☐ 03.04. Rhino with Grasshopper 1/2 [23:26]
- ☐ 03.05. Rhino with Grasshopper 2/2 [19:53]
- ☐ 03.06. Intro Grasshopper -Homework [03:02]

04. SCRIPT DEFINITION [1:20:42]

- ☐ 04.00. Intro [04:15]
- ☐ 04.01. Grasshopper Parameters 1-2 [23:21]
- ☐ 04.02. Grasshopper Parameters 2-2 [28:43]
- ☐ 04.03. Wiring [11:01]
- ☐ 04.04. Grasshopper Components [13:22]

05. LISTS AND DATA [1:38:25]

- ☐ 05.00. Data [05:56]
- ☐ 05.01. List Creation [21:06]
- ☐ 05.02. List Management [19:26]
- ☐ 05.03. Working with lists [10:27]
- ☐ 05.04. Logic [18:02]
- ☐ 05.05. Mathematics [23:28]

06. GH ELEMENTS [1:29:28]

- ☐ 06.00. Intro [01:46]
- ☐ 06.01. Points [27:18]
- ☐ 06.02. Vector [32:00]
- ☐ 06.03. Planes [28:24]

07. TRANSFORMATION [1:16:59]

- ☐ 07.00. Intro [01:38]
- ☐ 07.01. Basic transformations [33:02]
- ☐ 07.02. Advanced transformations [36:39]
- ☐ 07.03. Homework [05:40]

08. DATA TREES [1:49:56]

- ☐ 08.00. Data tree [01:44]
- ☐ 08.01. Data tree structure [26:09]
- ☐ 08.02. Data tree generation [25:55]
- ☐ 08.03. Data tree matching [18:37]
- ☐ 08.04. Data tree operations [35:44]
- ☐ 08.05. Homework [01:47]

09. CURVES [2:23:12]

- ☐ 09.00. Intro [19:13]
- ☐ 09.01. Lines and polylines [20:48]
- ☐ 09.02. Modify polylines [43:04]
- ☐ 09.03. Curves division [19:12]
- ☐ 09.04. Curve operations [34:49]
- ☐ 09.05. Homework [06:06]

10. SURFACES [1:36:06]

- ☐ 10.00. Intro [11:37]
- ☐ 10.01. Primitives [10:14]
- ☐ 10.02. Free form [27:37]
- ☐ 10.03. Analysis [21:34]
- ☐ 10.04. Util [18:56]
- ☐ 10.05. Homework [06:08]

11. Extra [1:44:30]

- ☐ 11.00. Intro [01:02]
- ☐ 11.01. Text management [30:23]
- ☐ 11.02. Display [36:28]
- ☐ 11.03. Intersect [16:19]
- ☐ 11.04. Diverse [20:18]

12. BONUS [2:47:47]

- ☐ 12.01. Good habits while working with GH [39:59]
- ☐ 12.02. How to create clean GH scripts [01:11:08]
- ☐ 12.03. IFC Export from Rhino – VisualARQ [56:40]
- ☐ 12.04. Revit to FEM software workflow [26:58]
- ☐ 12.05. Extra exercises
- ☐ 12.06. Terrain in Grasshopper - Lands Design [59:05]
- ☐ 12.07. AI in Grasshopper [12:05]
- ☐ 12.08. Turn Rhino to BIM machine [02:57:28]

13. CERTIFICATE [02:43]