Computational Design with Grasshopper3D



When professors at schools and design companies worldwide had to immediately transition to remote learning this past spring, numerous professors, students, and work-at-home employees reached out to us. They have been trying to learn how to use Rhino's computational design features to enhance their modeling process. While some had a moderate understanding of our tools, most were looking for materials to learn or extend their current knowledge.

If you are looking to acquire skills in Grasshopper, we would like you to join our new learning platform and take our **Computational Design with Grasshopper** class. This course is for design professionals looking to learn the concepts and features of Grasshopper that are easy to follow at your own pace.

The purpose of this course is to explore forms and design possibilities with Grasshopper's tools and understand their relationship to Rhino. The class should help you improve your workflow by covering modeling geometry, data structure, general concepts, data types, data matching, lists, trees and of course, tons of creativity. It will provide you with a functional understanding of Grasshopper and parametric design thinking. The advantages of using Grasshopper in preliminary design and concept development come to life in numerous real-life examples throughout the course.

The class is intended for beginners in Grasshopper and Computational Design, but basic knowledge of **Rhino is required.**



We offer these Rhino introductory courses free of charge to introduce you to the world of Rhino in English and Spanish. Here are the direct links to these two courses: Intro to Rhino in English and Introduction to Rhino in Spanish.





The chart below serves as a suggestion for faculty members, **ART**s or independent teachers that may want to follow this timeframe with their students. The idea is to be able to cover all the material within **two months**, spending from 2 to 4 hours at most each week.

A bit more about the timeframe:

Each chapter has more or less twelve lessons, one to five quizzes, and once in a while, a homework assignment. Below is a realistic layout of the number of hours and weeks a student. could invest in this workshop at their own pace.

| Week # | Chapters: | Hours: | Coaching? |
|--------|---|-------------|-----------|
| 1 | 1) Win or Mac, 2) Files, 3) Interface, 4) Intro to Params | From 2 to 3 | *** |
| 2 | 5) Lists and 6) Curves | ~ 3 | |
| 3 | 7) Math | < 3 | |
| 4 | 8) Sets | ~ 3 | |
| 5 | 9) Vectors and 10) Surfaces | 4 +/- | |
| 6 | 11) Transform | 3 | |
| 7 | 12) Trees | 3 | |
| 8 | 13) Display and 14) Intersections | ~ 3 | |
| 9 | 15) Bonus Pack, if you have the extra time | ~ 3 | |

Time Frame

The teacher or student will be able to **download** all the material for the corresponding lesson right before they start.

The material may be in the form of 3DM-files, Grasshopper Definitions, bitmaps or text files. Everyone should download this material and compare it with the code that they write. These are very small files and **100% compatible with Rhino 6, 7 and soon Rhino 8!**







Many learners are afraid of taking **quizzes**, tests and questionaries. But in our course, we are using this tool as a reinforcement to repeat and practice the same concept over and over until you master the basic and fundamental workflows. The **quizzes** are all multiple choice and if you choose the wrong answer, don't panic! We will reveal the right answer to promote learning.

At the end of each chapter, the user will have a chance to write and **communicate** any doubts about a specific lesson, parameter or component with our team. They can even request to share a few pictures of their progress if they like!

Every student has to take the material in this course in order. In other words, the users may not skip one lesson or a whole chapter in order to finish the course. More than 90% of each video has to be watched in order to continue to the next lesson. If a student completes all the materials in this course, they will receive a certificate of completion from McNeel, and this proof of

> instructor to give some extra credit to the student.

completion can be used by the



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Few samples of the projects you will be able to create upon completion of this course:





Few samples of the projects you will be able to create upon completion of this course:





Few samples of the projects you will be able to create upon completion of this course:





This is one of the projects you will be able to create upon completion of this course:





ideas strike unexpectedly

count on Rhino3D to hammer them out





Enjoy 20% OFF with coupon code: RHINO3DEDUCATION20 at checkout! After purchase, this course will be available for two years!



