Instructor: Leo Goldmakher

Williams College
Department of Mathematics and Statistics

MATH 374 : TOPOLOGY

Final Project

Deadline: Friday, December 16th, 4pm

Create a course skeleton, i.e. a visualization capturing the logical dependencies among all the definitions and results of this course. For example, the theorem that $\pi_1(S^1) \simeq \mathbb{Z}$ depends on the definition of fundamental group, the result that the fundamental group is independent of the base point, the definition of S^1, the notion of path homotopy, the notion of loop, the notion of homeomorphism, etc.

Note that your skeleton shouldn't double-count dependencies: if Proposition B is used in the proof of Theorem A, and Definition C is used in the proof of both Theorem A and Proposition B, your skeleton shouldn't connect Definition C to Theorem A directly. In short, don't include redundant ingredients.

Your course skeleton should include all important definitions and results of the course, but you don't need to write out the statements in full. No proofs should appear in your course skeleton.

The precise format of your visualization I leave up to you, but there should be some geometric flavor; it shouldn't be just a bunch of bullet points and text. Your project may be drawn by hand or by computer, and you may freely use any online tools to create it. That said, once you're done, please upload a hard copy of your skeleton to Glow.

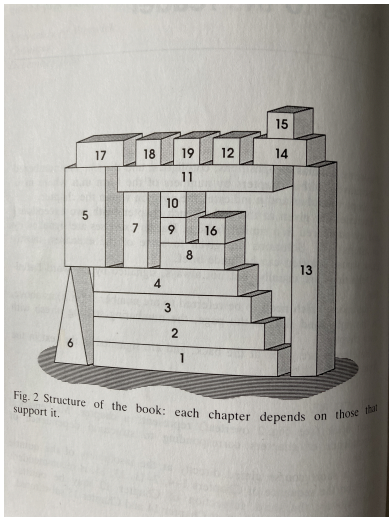

Fig. 2 Structure of the book: each chapter depends on those that support it.

An example of a chapter skeleton from a textbook (Galois Theory, by Ian Stewart)