Suggestions for the Instructor

The textbook and the slides can be used in various ways for several different courses.

A one semester introduction to category theory can be taught in many ways. The type of course depends on the background of the students. If the students had a precalculus or discrete structures mathematics course, then Section 1.5 can be omitted. If they had a course in linear algebra, then section 2.4 can be omitted. A nice course can then be Chapters 2-5 and the beginnings of Chapter 6. If the students need Section 1.5 and/or Section 2.4, then one can omit the latter part of Chapter 5 and all of Chapter 6.

A full year-long course in category theory and monoidal category theory should contain most of Chapters 2-7 and then some sections of Chapters 8 and 9 depending on the student’s and instructor’s preferences.

A class that assumes that the student saw basic category theory can start with Chapter 5 and progress to the many topics of Chapter 9. The mini-courses can be presented at many levels of detail or be left for the student to cover.

The mini-courses can be taught by the instructor. Another way is to let the students pick the mini-courses or some of the Sections in Chapters 8 and 9. Then the students make presentations of these mini-courses and advanced sections. This way each student gets to see one topic in-depth and see many other topics from their classmates.

The slides have more information than can be covered in the time of a course. The instructor should choose what to skip. As of now, only slides for Chapters 1-6 are available. With enough time and demand, there will be slides for the rest of the text.

There will be on-line YouTube videos available for each section of the text. Links to such videos will be available on the author’s web page.