Topological materials transcend our traditional classification of matter into insulators and conductors in that they are insulating in the bulk and conductive on the surface. Not only that, the direction in which the electrons flow on the surface is dictated by the spin of the electrons. In this talk, I will introduce these topological materials that have taken the condensed matter community by storm, and show how we learn about the quantum rules of these exotic materials using the tool of angle-resolved photoemission spectroscopy.