

# Faculty\_Instructor\_Notes

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The lecture provides an overview of randomization tests as a way of testing hypotheses in ecology. Randomization tests are common in many disciplines and ecology and evolutionary biology is no different. The lecture begins by introducing randomization tests as an alternative to traditional parametric tests. It then briefly describes the process of simulating data in R since data simulation forms the backbone of randomization tests. This is followed by a walkthrough of a randomization tests on simulated data and the lecture ends with its application to real ecological data, using plant presence/absence data from the NEON network.

This module assumes that students have taken an introductory ecology course that has touched on topics in community ecology (e.g. community assembly). Some knowledge of the R programming language would be helpful, although it is not required. An introductory course in statistics that covered parametric hypothesis testing would additionally be helpful.

The lesson outline and learning objectives can be found the the lesson preamble in the lecture pdf.