

# Welcome to the BIOL 0278 Biostatistics

Summer I, 2019



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**Instructor:** Dr. Mao-Lun Weng  
**Email:** [mweng@westfield.ma.edu](mailto:mweng@westfield.ma.edu)

## **Purpose and content of the course**

The course will introduce and train students in the analysis of biological data. Students will learn about data types, univariate and multivariate data analyses, and parametric versus non-parametric statistical tests using biological examples. Students will be expected to analyze data mathematically and display the results graphically. An open source software (R) will be taught throughout the course. The course is designed to give you enough information so you can properly analyze scientific data and continue the your lifelong application of the material.

## **Course objectives**

- Apply quantitative reasoning to biological data.
- Describe common biostatistical tests.
- Complete the appropriate statistical test to address a specific research question.
- Properly interpret the results of a statistical test.
- Properly report statistical results (both graphically and in sentence format) in a report.

## **Required textbook**

Whitlock and Schluter 2014. The Analysis of Biological Data. 2nd Ed. W. H. Freeman.  
ISBN-10: 9781936221486

## **Course Requirements**

- Homework assignments - homework assignments will be given weekly.
- Exams - There will be two exams throughout the course.
- Laptop - A computer of either Window or Mac is required.

If you have any questions about this course, please email me at [mweng@westfield.ma.edu](mailto:mweng@westfield.ma.edu)