



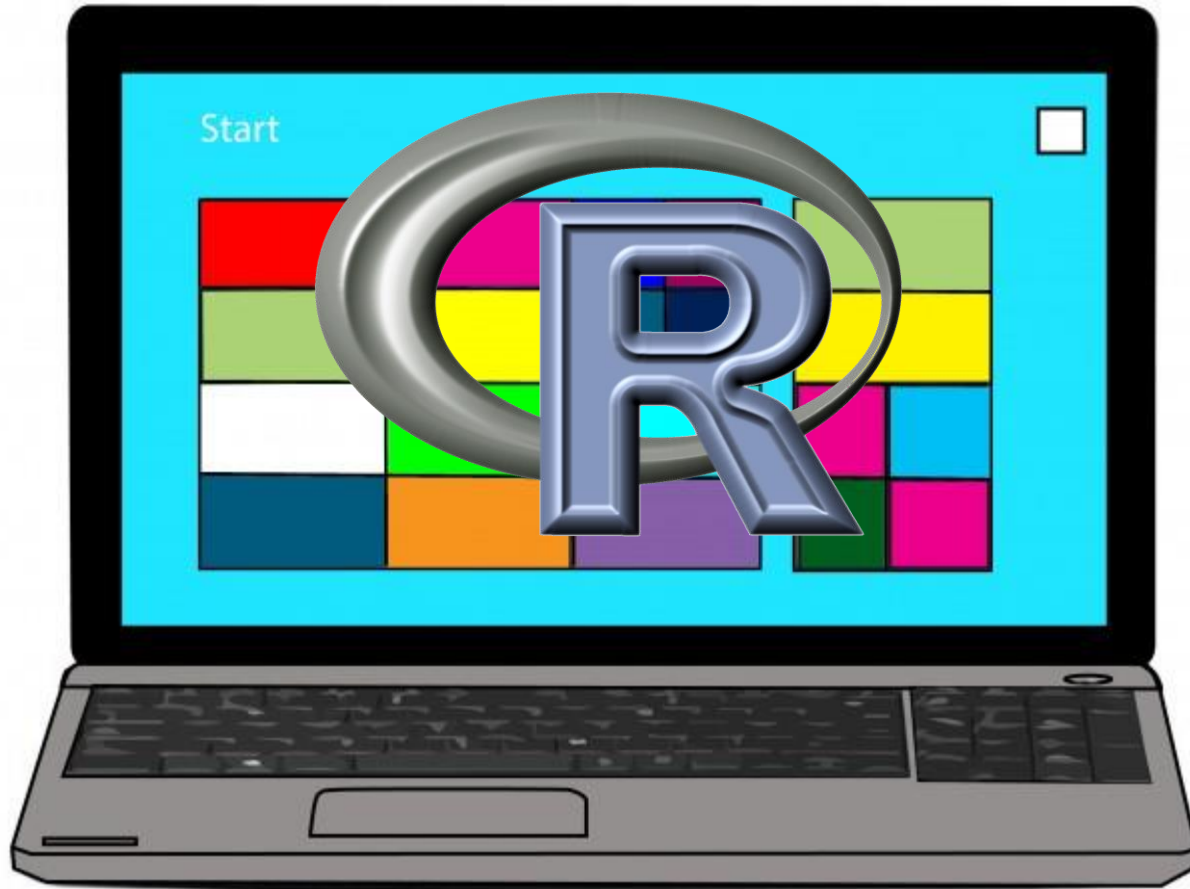
# Advanced STATS and R

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**Bring your laptop or use Network.**



*The University of Oklahoma*

# Who is this suitable for?

- Those who are ready to move on in their stats.
- Those who want more R.
- Those who need to perform more advanced analyses.
- Those who are involved with data and need more:
  - Classical methods
  - Bayesian methods

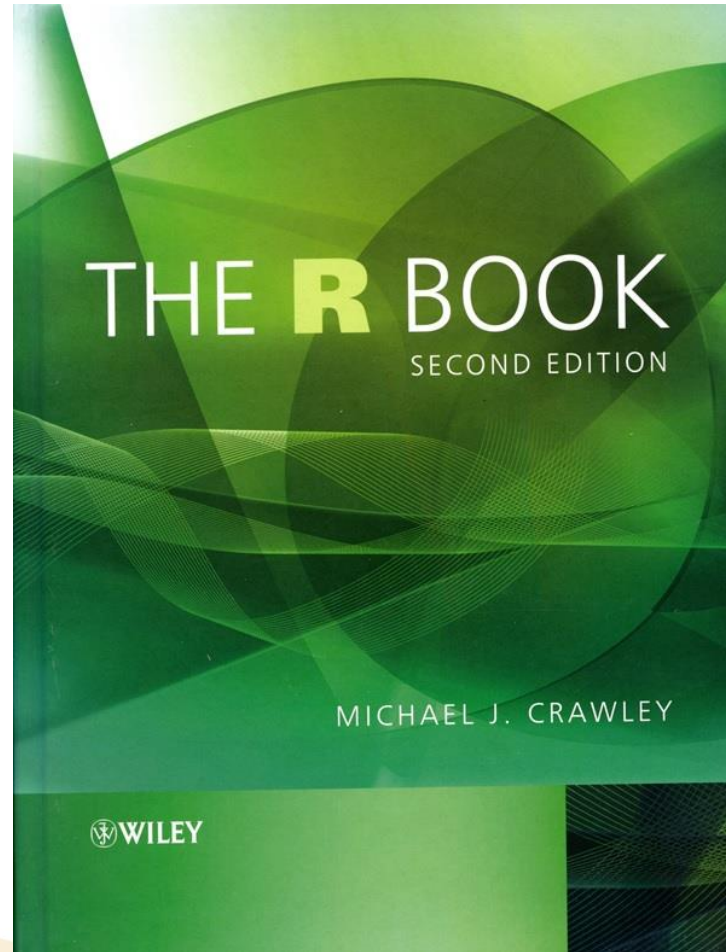


# The Series

- Advanced STATS and R will look at:
  - More advanced regression models (classical)
  - More advanced methods of programming R
  - Bayesian Models
    - Ground up
    - More advanced



# We will Use the Library (Free)



# Regression

- linear regression (the simplest, and much the most frequently used);
- polynomial regression (often used to test for non-linearity in a relationship);
- piecewise regression (two or more adjacent straight lines);
- robust regression (models that are less sensitive to outliers);
- multiple regression (where there are numerous explanatory variables);
- non-linear regression (to fit a specified non-linear model to data);
- non-parametric regression (used when there is no obvious functional form).



# Get the Data and Book

- Link below:
- [statsandr.oucreate.com](https://statsandr.oucreate.com)



# Courses

- **Bayesian Stats MATH 4803/5803**
- Advanced Applied STATS MATH 4793/5793
- **Applied Statistical Methods MATH 4753**





**Next time bring your laptop (if you want to).**

