MATH 204: PRINCIPLES OF STATISTICS 2

Instructor :	David A. Stephens (Burnside 1235)
Email :	d.stephens@math.mcgill.ca
Office Hours :	Monday 15:00-17:00
Tutorial :	TBA
Teaching Assistant :	Geva Maimon
Textbook :	*Statistics* (10th Edition) by J. T. McClave and T. Sincich.
Web Site :	http://www.math.mcgill.ca/∼dstephens/204/

TARGET SYLLABUS

1. **ANALYSIS OF VARIANCE: COMPARING MORE THAN TWO MEANS**
   - 1.1 Designed Experiments
   - 1.2 Randomized Designs
   - 1.3 Multiple Comparison of Means
   - 1.4 Randomized Block Designs
   - 1.5 Factorial Experiments

2. **LINEAR REGRESSION MODELLING**
   - 2.1 Simple Linear Regression
     - 2.1.1 Probability Models
     - 2.1.2 Least-Squares Fitting
     - 2.1.3 Model Assumptions
     - 2.1.4 Parameter Estimation and Testing
     - 2.1.5 The Correlation Coefficient
     - 2.1.6 Prediction
     - 2.1.7 Polynomial Regression
   - 2.2 Multiple Linear Regression
     - 2.2.1 Multiple Regression Models
     - 2.2.2 Model Building and Checking
     - 2.2.3 Stepwise Model Selection
     - 2.2.4 Residual Analysis
     - 2.2.5 Pitfalls of Regression Modelling

3. **NON-PARAMETRIC STATISTICS**
   - 3.1 Distribution-Free Tests
   - 3.2 Single Population Tests
   - 3.3 Comparing Two Populations: Independent Samples
   - 3.4 Comparing Two Populations: Dependent Samples
   - 3.5 Comparing Three or More Populations
   - 3.6 Rank Correlation
   - 3.7 Simulation-based Testing: Permutation Tests

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