

# **STA 3180 Statistical Modelling: Resampling**

Topic: Resampling

## **I. Introduction to Resampling**

### **A. Definition of Resampling**

### **B. Types of Resampling**

1. Bootstrapping
2. Jackknifing
3. Permutation Tests

## **II. Advantages and Disadvantages of Resampling**

### **A. Advantages**

1. Increased accuracy
2. Reduced computational cost
3. Improved understanding of data

### **B. Disadvantages**

1. Limited sample size
2. Potential for bias

## **III. Problem Solving Strategies**

- A. Understand the concept of resampling
- B. Identify the type of resampling needed
- C. Use appropriate software to perform the resampling
- D. Analyze the results of the resampling
- E. Interpret the results of the resampling

## **IV. Exam Preparation**

- A. Review the definition and types of resampling
- B. Practice problem solving strategies
- C. Utilize available resources (e.g. textbooks, online tutorials, etc.)
- D. Work through practice problems to gain familiarity with the material
- E. Develop a plan for tackling the exam questions

F. Take practice exams to assess your understanding of the material