

# Math 362: Mathematical Statistics II

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# Chapter 13. Randomized Block Designs

§ 13.1 Introduction

§ 13.2 The  $F$  Test for a Randomized Block Design

§ 13.A Appendix: Some Discussions and Extensions

# Chapter 13. Randomized Block Designs

## § 13.1 Introduction

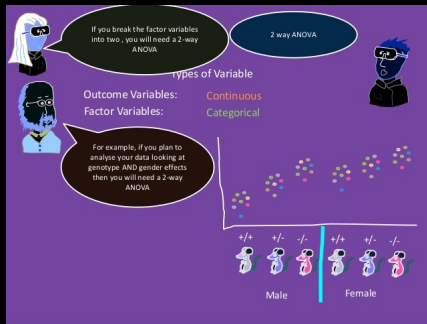
## § 13.2 The $F$ Test for a Randomized Block Design

## § 13.A Appendix: Some Discussions and Extensions

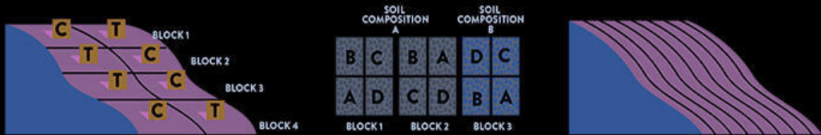
## Rationale:

Reducing variability by blocking<sup>†</sup>

<sup>†</sup> *Blocking* is the arranging of experimental units in groups (blocks) that are similar to one another.



<https://www.slideshare.net/KevinHamill2/experimental-design-cartoon-part-5-sample-size>



Goal Reducing variability caused by

a *elevation.*

b *soil types.*

v.s.

c *complete randomized design*

} One-way ANOVA

Two-way ANOVA

<https://www.sare.org/Learning-Center/Bulletins/How-to-Conduct-Research-on-Your-Farm-or-Ranch/Text-Version/Basics-of-Experimental-Design>