### 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

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## Chapter 13. Randomized Block Designs

§ 13.1 Introduction

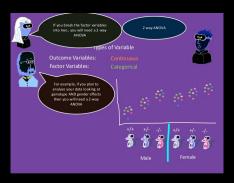
§ 13.2 The F Test for a Randomized Block Design

§ 13.A Appendix: Some Discussions and Extensions

#### Rationale:

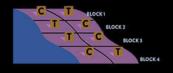
## Reducing variability by blocking<sup>†</sup>

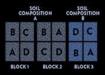
† Blocking is the arranging of experimental units in groups (blocks) that are similar to one another.

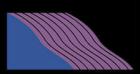


https://www.slideshare.net/KevinHamill2/ experimental-design-cartoon-part-5-sample-size

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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