

# **Statistical Techniques I**

**EXST7005**

**Randomized Block Designs**



# The Randomized Block Design

- Similar in many ways to a "two-way" ANOVA
  - ➔ The CRD is defined by the linear model

$$\text{➔ } Y_{ij} = \mu + \tau_i + \varepsilon_{ij}$$

- The version above has one treatment and one error term

# The Randomized Block Design (*continued*)

- The factorial treatment arrangement we saw occurred within a CRD, and it had a subdivided treatment.

$$\Rightarrow Y_{ijk} = \mu + \tau_i + \tau_j + \tau_i\tau_j + \varepsilon_{ij}$$

- ➔ This model has two treatments and one error. It could have many more treatments, and it would still be a factorial design. This is a treatment arrangement.