



EXCEL FOR TEACHERS: ONE-DAY WORKSHOP

Lesson 1: Data cleaning and randomization

Lesson 2: Conditional logic, counting and aggregation

Lesson 3: Data visualization

Lesson 4: Descriptive statistics

Recommended preparation: Introductory Excel, one day workshop

Learning Objectives

- Student can clean strings and randomize data
- Student can create conditional criteria across one or more records using one or more criteria
- Student can create basic data visualizations in line with best practices in information design
- Student can derive and interpret basic descriptive statistics

Lesson plan developed by George Mount.
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Lesson 1: Data cleaning and randomization

Objective: Student can clean strings and randomize data

Description:

- Delimiting columns
- Removing duplicates
- Randomizing records
- Generating random numbers

Functions/tools used:

- ``RAND()`,`RANDARRAY()``

Time: 90 minutes

Assets needed: Student roster

Lesson 2: Conditional logic, counting and aggregation

Objective: Student can create conditional criteria across one or more criteria

Description:

- Deriving which records meet some criteria
- More complex conditions with nested conditional logic
- Aggregating conditional logic

Functions/tools used:

- ``IF()`,`AND()`,`OR()``
- ``IFS()`` family

Time: 90 minutes

Assets needed: Student grades

Lesson 3: Data visualization

Objective: Student can create basic data visualizations in line with best practices in information design

Description:

- Why visualize and when?
- A primer on information design
- Visualizing frequencies with bar charts
- Visualizing trends with line charts
- Visualizing distributions with histograms

Functions/tools used:

- Excel charts

Time: 90 minutes

Assets needed: Student records, student grades

Lesson 4: Descriptive statistics

Objective: Student can derive basic descriptive statistics

- Frequencies
- Central tendency: mean, median, mode
- Deviation: range, variance, standard deviation

Functions/tools used:

- Statistical functions
- Data Analysis ToolPak

Time: 90 minutes

Assets needed: Student grades



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