207 Xavier Hall Annex seating arrangement

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| --- | --- | --- | --- | --- |
| Tahani Al-Rajeh | Yit Mui Khoo | Nathan House | Laura Gardner | Diana Ramirez |
| Joe Fetter | X | Malcolm Townes | Darren O’Brien | X |
| James Tillis | X | Ashley | Destiny Brooks | Courtney |
| Renee Jonas | Saeed Asiri | X | X | X |

Recommend text: SPSS Survival Manual

Data for final project

* The data set for the project must include nominal, ordinal, and ratio variables and a minimum sample size of n=100.
* Clean the data before using it.

Article review assignment

* The article for the article review assignment must use regression analysis.
* Pair up for the article review assignment and presentation.
* Decide on pairs in the next couple of weeks.

Nominal and ordinal data are both referred to as categorical data.

Mean, median, and mode

* Three moments in statistics
* Measures of central tendency
* We’re not concerned with outliers in statistical analysis

Confidence interval is the level of confidence that the real mean falls between two points.

It’s a good practice to include descriptive statistics in data analysis.

This course is concerned with Type 1 errors; Type 2 errors concern Bayesian statistics.

Significance levels are 0.05 (\*), 0.01 (\*\*), and 0.001 (\*\*\*)

Degrees of freedom = sample size - number of variables

Chi-Square Test

* Useful for nominal variables
* Requires a minimum count of 5 for each variable

Standard coefficient is equivalent to the Pearson correlation only in simple regression

Data set requirements for final project

* Minimum of 5 variables
* Minimum of 3 ratio variables
* Cross-sectional data is fine (i.e., longitudinal data is not necessary)

Options for identifying a group for the journal article review and presentation assignment

* Work with other students in the Public and Social Policy (PSP) program
* Work with Nathan House and Saeed Asiri \*

Technically ordinal data should not be used for regression analysis but is sometime acceptable.

General Social Survey (GSS) is conducted by the National Opinion Research Center (NORC)

Residual is the difference from the target value (e.g., mean value)

Null hypothesis: The percent of male in the sample is the same as the percent of female in the sample

Alternative hypothesis: The pct of male in the sample is NOT the same as the pct of female in the sample

H0: pM - pF and HA = pM ≠ pF

Null hypothesis: The percent of each race in the sample is the same as the percent of each race in the population

Alternative hypothesis: The percent of each race in the sample is the same as the percent of each race in the population H0: white = pwhite , etc. and HA = white ≠ pwhite , etc.

Degrees of freedom for two variables = (n1-1)( n2-1)

Generally, hypotheses are structured as follows

* H0: There is NOT an association
* HA: There is an association

H0: μM = μF 🡪 The population mean of males is the same as the population mean of females

HA1: μM ≠ μF 🡪 The population mean of males is NOT the same as the pop. mean of females (2-tail test)

HA2: μM > μF 🡪 The population mean of males is greater than the pop. mean of females (1-tail test)

To use T-test, the test variable must be a ratio variable and there must only be a total of two variables.

ANOVA is used for testing 3 or more variables

Paired T-test is used for comparing two sets of observations on the same unit of analysis (i.e., before and after tests, twins, married couples, etc.)