A detailed list of the material covered in the Proseminar in January 2017

Students should be familiar with the following topics and be able to generate, interpret and use these statistics and tests in a well written paper.

- Populations vs. samples
- Descriptive versus inferential statistics
- Univariate measures
  - Descriptive statistics
  - Central tendency
    - mean
    - median
    - mode
  - Dispersion
    - variance
    - standard deviation
    - range (min, max)
    - skewness
    - kurtosis
  - Normal curves
    - The Standard Normal Curve
    - Z-tests
    - confidence intervals
    - Statistical significance
- Bivariate measures
  - Correlation (covariance)
  - t-tests
  - F-tests
  - Oneway ANOVA
  - Chisquare
- Ordinary Least Squares Regression (OLS) and extension to multiple linear regression
  - Derivation of ‘least squares’
  - Interpretation of output
    - Coefficients
    - SE of Coefficient
    - T-tests
    - Confidence intervals
    - R-square