**Universidade de São Paulo**

**Faculdade de Filosofia, Letras e Ciências Humanas**

**Departamento de Ciência Política**

**FLS-6183 & FLP-468**

**Métodos Quantitativos de Pesquisa II**

**2º semestre / 2019**

**Key Concepts Review**

**(Stock and Watson Chapters 2-7 and 18)**

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| **Class 1 - Introduction** |
| **Concept** | **Math Formula** | **Definition** |
| Efficiency |  |  |
| Bias |  |  |
| Mean  |  |  |
| Difference of Means Test |  |  |
| Variance |  |  |
| Standard Error |  |  |
| Normal Distribution |  |  |
| Expected Value |  |  |
| Uncertainty  |  |  |
| **Class 2 – Bivariate Regression** |
| **Concept** | **Math Formula** | **Definition** |
| Population Regression Function |  |  |
| Sample Regression Function |  |  |
| Intercept |  |  |
| Slope Parameter |  |  |
| Error |  |  |
| Residual |  |  |
| One-sided hypothesis test(testing as example) |  |  |
| Two-sided hypothesis test(testing as example) |  |  |
| t-statistic(testing as example) |  |  |
| t critical value |  |  |
| Alpha parameter  |  |  |
| p-value |  |  |
| Confidence interval |  |  |
| Point Estimate |  |  |
| Observed Values |  |  |
| Predicted or Fitted Values |  |  |
| **Class 3 – Multivariate Regression** |
| **Concept** | **Math Formula** | **Definition** |
| Population Regression Function |  |  |
| Sample Regression Function |  |  |
| Joint Hypothesis test |  |  |
| R-squared |  |  |
| Adjusted R-square |  |  |
| RMSE |  |  |
| Statistical Significance |  |  |
| Substantive Significance |  |  |
| **Class 4 - OLS Using Matrix Algebra** |
| **Concept** | **Matrix Formula** | **Definition** |
| Covariance Matrix |  |  |
| Regression Parameters in Scalar Notation |  |  |
| Regression Parameters in Matrix Notation  |  |  |
| Correlation Matrix |  |  |
| **Class 5 - Multicollinearity** |
| **Concept** | **Math Formula** | **Definition** |
| VIF |  |  |
|  |  |  |
| Correlation  |  |  |
| Cov |  |  |
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