**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)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **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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