- 1. Different types of data [Practical Time series analysis]
 - Cross-sectional data [p.8]
 - o Time series data [p.16-18]
 - o Panel data [p.19-21]
- 2. Time series components [Practical Time series analysis pp.21-32]
- 3. Time series statistics
 - Autocorrelation [post]
 - Stationary process[<u>post1</u>, <u>post2</u>]
- 4. Time series manipulation [Practical Time series analysis pp.48-54]
- 5. Time series smoothing and stable components
 - Types of components dependencies and time series decomposition [post]
 - MA [<u>Practical Time series analysis</u> p.69-78, <u>post</u>]
 - Exponential Smoothing [post, post]
- 6. ARIMA (only application) [post]
- 7. Time based cross validation [post]
- 8. Time series regression model [e-book: 5.1, 5.3, 5.6]
- 9. Feature extraction [post]
- 10. Example of end-to-end ts forecasting [post]

Additional

- Time Series in Python Exponential Smoothing and ARIMA processes [link]
- 7 methods to perform Time Series forecasting (with Python codes) [link]
- Coursera <u>course</u>, which cover all basic theoretical aspects of ARIMA models (weeks 2-4)
- Coursera <u>course</u>, which covers basic application of NN to time series.
- Automatic extraction of relevant features from time series paper and python package
- Time series forecasting based on trend and multiple personalities [python package Facebook prophet]
- Time series SOTA papers