Time Series Analysis (STAT 503)

Time Tuesday and Thursday, 9:30 – 10:50 in the Winter Term 2018

Location T B 38 (Basement of Tory Building) at the University of Alberta

Instructor Christoph Frei, cfrei@ualberta.ca, CAB 621

Contents This course gives an introduction to the theory and applications of time series modelling. The following topics will be covered:

- stationarity and autocorrelation
- different models: autoregressive, moving average, ARMA and ARIMA
- forecasting and estimation
- spectral analysis
- computational implementation in R

Prerequisite STAT 372 and 378.
Consent of the instructor is needed.

Textbook There is no required textbook, but the main material can be found in

Robert Shumway and David Stoffer: Time Series Analysis and its Applications, with R Examples. Third Edition. 2011

An electronic copy of the book is available at the *University of Alberta Library*, which you can access by using your CCID.

Grading Assignments: 30%, Midterm exam: 30%, Final exam: 40%

If you have any questions, please contact Christoph Frei at cfrei@ualberta.ca.