

Department of Mathematics & Statistics
University of Regina
AcSc/Stat 418 and Stat 818: Econometric Models & Forecasts
Fall 2025

Instructor: Andrei Volodin, CW 307.27, email: andrei@uregina.ca or andrei.stat@gmail.com, tel: 306- 585-4771 (office), 306-581 4053 (mobile).

Class Schedule: TR 2:30 p.m. – 3:45 p.m., Education Building 388 and remotely
Join Zoom Meeting

<https://uregina-ca.zoom.us/j/94810647841?pwd=OU50QWNFTm0rUkVBdFJJJa0VWbGZUUT09>

Office Hours: Wednesday 8:30 a.m. – 12:00 p.m., or by appointment. Just in case, could you send me a text message or email that you are coming, please? Mobile number is above. There maybe some pop up silly administrative meetings on Wednesdays.

Textbooks:

- Cowpertwait, P.S.P. and Metcalfe, A.V., *Introductory Time Series with R*, Springer, Ch.1–7. The electronic version of the textbook is freely available through the University of Regina library system.
- **Optional Textbook 1:** Pindyck, R.S. and Rubinfeld, D.L., *Econometric Models and Economic Forecasts*, Fourth Edition, Irwin McGraw-Hill, Boston, Part 4 Time-Series Models (Ch.15 – 19).
- **Optional Textbook 2:** Brockwell, P.J. and Davis, R.A., *Introduction to Time series and Forecasting*, Second Edition, Springer, Ch. 1 – 6.
- **Supplementary study material:** McLeod, A.I., Yu, H. and Mahdi, E., *Time Series Analysis with R*, *The Handbook of Statistics*, Vol. 30, Elsevier.
- All textbooks should be available though our library. Do not hesitate to ask me, if you need a PDF copy (just send me an email); do not spend your money, please!

Course Description: This course covers materials for Time series/forecasting part of SOA Validation by Educational Experience (VEE)-Applied Statistics.

Main Topics: (a) Deterministic time series: Trends, Seasonality (b) Stationary time series and Random walk models (c) Autocorrelations and Autoregressive Models (d) Estimation, data analysis and forecasting with various time series models (e) R programming for Time Series Analysis

Grading:

- Assignments 15%, Term project 15%, Midterm 20%, Final 50%.
- There will be five assignments or so, one midterm (October 16). The final exam will be held on Dec. 9 (2 p.m. – 4 p.m.).
- The midterm exam will be held at the normal class time and location.
- There will be no makeup midterm under any circumstances. If you will miss the midterm, the corresponding weight will be transferred to the final exam.

- Term Project: Students will work in groups of two (or individually) to carry out one term project involving applications of the time series models and methods covered in this course. The project report is due on the 2nd of December. A more detailed guideline will be handed out later.

Other:

- Course attendance: Students are responsible for all material covered in the lectures.
- Any notifications and course materials such as lecture notes, assignments and solutions, will be posted at UR Courses.
- The minimum final grade to receive the SOA VEE-Applied Statistics credit is 70%.
- Plagiarism: Students must write their assignments and project report (as a team or individual) in their own words. Whenever students take an idea or a passage from another author, they must acknowledge their debt both by using quotation marks and by proper referencing such as footnotes or citations.
- Regarding **academic misconducts**, see 5.13.2 of University of Regina Undergraduate Calendar at http://www.uregina.ca/genca1/ugcal/attendanceEvaluation/ugcal_77.shtml.