

POP77014 — Social Forecasting

Module Information	
Module Code	POP77014
Module Title	Social Forecasting
Department	Political Science
Module Personnel	Thomas Chadeaux
Academic Year	2026-27
Credit Weighting	5 credits
Semester	Semester 2
Contact Hours	2 lectures per week

Module Content	
Module Description	This module will cover the fundamental techniques and approaches to forecasting. Students will in particular learn the main building blocks of a forecasting model, how to build their own, and how to evaluate their performance. Techniques ranging from ARIMA models to neural networks will be applied to both time series and panel data. Students will be able to apply the approaches covered in the module to forecast political, economic, and/or social outcomes in a research report.
Module Learning Aims	To introduce students to the theory and practice of social forecasting, equipping them with the conceptual understanding and hands-on technical skills to build, evaluate, and communicate predictive models applied to political, economic, and social phenomena.
Learning Outcomes	- Understand key concepts and challenges of forecasting in the social sciences, including the distinction between forecasting and causal explanation - Evaluate forecast performance using appropriate validation strategies and accuracy metrics - Apply smoothing methods and ARIMA models to time series and panel data

Module Content

	- Build and interpret neural network models, including LSTMs, for forecasting tasks - Implement forecasting workflows in R - Design and execute an independent forecasting project and communicate results effectively
Indicative Reading / Resources	Shmueli, G. & Lichtendahl, K.C. Practical Time Series Forecasting with R: A Hands-on Guide (2nd ed.). Axelrod Schnall Publishers, 2018.

Assessment

Assessment Components	Assignments (x2) 50%, Final Paper 50%
Assessment Details	Two take-home assignments (25% each), distributed in weeks 2 and 4, due in weeks 3 and 5 respectively. The final paper (50%) requires students to conduct an independent forecasting project demonstrating both technical skills and the ability to frame and communicate a social science problem and proposed solution. All work submitted via Turnitin/Blackboard. Any additional information about assessment

Additional Information

Prerequisites	None
Co-requisites	None
Any other information	