

## STATS 531/631 W26. Provisional schedule

Wed Jan 07	Class 1. Chapter 1. Introduction
Sun Jan 11	Homework 0, due 11:59pm
Mon Jan 12	Class 2. Chapter 2. Trend and covariance
Wed Jan 14	Class 3. Chapter 3. White noise and basic time series models
Sun Jan 18	Homework 1 (needs chapter 2), due 11:59pm
Mon Jan 19	MLK
Wed Jan 21	Class 4. Finish Chapter 3, start Chapter 4. ARMA models
Mon Jan 26	Class 5. Chapter 4 continued. Start chapter 5.
Tue Jan 27	Homework 2 (needs chapter 3; chapter 4 to slide 15).
Wed Jan 28	Class 6. Chapter 5. Parameter estimation for ARMA
Mon Feb 02	Class 7. Chapter 5 continued. Start Chapter 6
Wed Feb 04	Class 8. Chapter 6. Seasonality and trend. Start Chapter 7
Sun Feb 08	Homework 3 (needs chapters 5 and 6), due 11:59pm
Mon Feb 09	Class 9. Chapter 7. Introduction to the frequency domain
Wed Feb 11	Class 10. Chapter 8. Smoothing in the time and frequency domain
Sun Feb 15	Homework 4 (needs chapter 7),
Mon Feb 16	Class 11. Midterm 1
Wed Feb 18	Class 12. Chapter 9. Health economics case study
Fri Feb 20	Midterm project, due 11:59pm
Mon Feb 23	Class 13. Chapter 10. Forecasting. Start Chapter 11
Wed Feb 25	Class 14. Chapter 11. Introduction to POMP models, continued
Fri Feb 27	Midterm peer review, due 11:59pm
Mon Mar 02	SPRING BREAK
Wed Mar 04	SPRING BREAK
Mon Mar 09	Class 15. Chapter 12. POMP models for ecology and epidemiology
Wed Mar 11	Class 16. Chapter 13. Simulation of stochastic models
Sun Mar 15	Homework 5 (needs chapter 10), due 11:59pm
Mon Mar 16	Class 17. Chapter 14. The particle filter
Wed Mar 18	Class 18. Chapter 14 continued
Sun Mar 22	Homework 6 (using pomp/pypomp, needs chapter 12),
Mon Mar 23	Class 19. Chapter 15. Parameter estimation by iterated filtering
Wed Mar 25	Class 20. Chapter 15 continued
Mon Mar 30	Class 21. Chapter 16. Polio case study
Tue Mar 31	Homework 7 (iterated filtering, needs chapter 15), due 11:59pm
Wed Apr 01	Class 22. Chapter 16 continued
Mon Apr 06	Class 23. Chapter 17. Stochastic volatility
Wed Apr 08	Class 24. Chapter 17 continued. Start of Chapter 18.
Mon Apr 13	Class 25. Chapter 18. Measles modeling and inference
Tue Apr 14	Homework 8 (POMP inference questions, needs chapter 16),
Wed Apr 15	Class 26. Midterm 2.
Mon Apr 20	Class 27. Chapter 19. Ebola, forecasting and diagnostics
Tue Apr 21	Final project, due 11:59pm
Wed Apr 29	Final peer review, due 11:59pm