

- Time domain analysis with various time-series models (AR, MA, ARMA, ARIMA, ARCH, GARCH)
- Model fitting and parameters estimation
- Model diagnostics
- Forecasting
- Comparing Box-Jenkin's algorithm with other algorithms
- Basic concepts of frequency domain analysis

Some important dates are provided below:

Classes begin	Reading week	Classes end	Exam period
January 9, 2023	February 18 – 26, 2023	April 10, 2023	April 13 – 30, 2023

Classes will be in-person interactive in nature. Students are encouraged to engage in discussion for any topic scheduled for lecture.

Although the time of the topics might be changed depending on the situation, complete list of topics along with tentative time table are as follows:

Week

Presentation: Grad students are required to make a presentation on selected articles. The
date for the presentation is 4th April. Students will choose from a list of articles and will
present the topic in 10 minutes. There will be question-answer session for each
presentation. For the students taking STAT 4861B, the attendance in the grad
presentation carries marks weighing 2%.

The overall course grade will be calculated as listed below:

STAT 4861B		STAT 9861B		
Assignments: (3 out of 4)	30%	Assignments: (3 out of 4)	25%	
Midterm test	20%	Midterm test	20%	
Project	13%	Project	10%	
Attendance during grad	2%	Presentation	10%	
presentation		Final Exam	35%	
Final Exam	35%			

Accommodated Evaluations

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8. Academic Policies