

Dalhousie University
Department of Economics
Winter 2024.
ECON 5440/4440: Time Series in Economics.
Section 1, CRN: 23253/21016
TuTh 10.05am – 11.25am
MCCAIN ARTS&SS 2019

Instructor. Andrea Giusto.

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Textbooks. There is no required textbook for this class as I will pass along my lecture notes. These notes are a synthesis of the following sources,

- Hyndman, R.J., and Athanasopoulos, G. (2018) *Forecasting: principles and practice*, 2nd edition, OTexts: Melbourne, Australia. Accessed on Summer 2021.
- Hamilton, J.D (1994) *Time Series Analysis*. Princeton University Press, Princeton, NJ, USA.
- Clements, M.P., and Hendry D.H. (2000) *Forecasting Economic Time Series*, Cambridge University Press, Cambridge, UK.

Course Description & Learning Outcomes. The main topic of this class is forecasting economic time series. This is a vast subject and therefore we will not be able to cover all there is to know about it. Rather, our goal will be to provide a solid foundation of the key concepts that constitute the basis for more advanced techniques.

Class notes. I expect you to work mainly with two sources: your notes, and my notes. I will post my notes online *after* each class: they are the guideline I use for lectures and rest assured that all the tests will be based on them. As already mentioned the lecture notes are brief and they are supposed to be a reference rather than the main study tool: you are expected to take good notes in class. A sure way to have *really* good notes, is the following method: after having taken the notes in class, *during the same day* and possibly right after the lecture, you should rewrite the whole thing down, in clear English and filling in all the blanks you left during the first pass. It is

crucial to do this as early as possible, as your memory of the lecture is fresher! This approach is time consuming, but it will definitely fix in your memory the material. I will *not* post the lecture notes before the lecture, because this greatly decreases your incentives to write down your own material, and the class performance decreases noticeably.

Grading. The class grade will be based on three homework assignments (worth collectively 10% of your final score), two midterms, and a final project (30% each). Under no circumstances I will accept any homework after the answer key has been discussed. If you cannot make it to class when homework is due, you are expected to turn in the homework in person before the deadline, or to send it via email in **PDF format** or other format that cannot be inadvertently modified (such as jpeg or png). If you cannot turn in an homework assignment on time and you have a *valid* reason for this, you will have to provide a timely warning to me (via email is usually best) and any supporting documentation that I will request. Depending on the case, I may grant an exemption from that homework, assign a new one, or deny your petition and assign a grade of 0 to your missing homework.

If you miss the midterm for a valid reason the same guidelines will apply. You will be expected to let me know your issue as soon as possible and to be able to produce any supporting documentation. Depending on the case I may either grant an exception for that midterm, schedule an alternative examination on the relevant topics, or deny your petition and assign a grade of 0 to your midterm.

If you miss the final for a valid reason the same guidelines will apply. You will be expected to let me know your issue as soon as possible and to be able to produce any supporting documentation. Depending on the case I may either schedule an alternative examination on the relevant topics, or deny your petition and assign a grade of 0 to your final.

The tests will be conducted during normal class hours and the tentative schedule is the following:

- Midterm I: Thursday, February, 15th.
- Midterm II: Thursday, March, 21th.
- Final: Due one week after classes end.

This schedule is intended to give you a sense of the deadlines you will be facing during the midterm and it is not firm: we will change it as needed depending on the pace we will be able to keep during the class.

Grading Scale.

Final Weighted Score	Letter Grade
(90, 100]	A+
[85, 90]	A
[80, 85)	A-
[77, 80)	B+
[73, 76)	B
[70, 73)	B-
[65, 70)	C+
[60, 64)	C
[55, 60)	C-
[50, 55)	D
[0, 50)	F