ECON 460: ECONOMIC FORECASTING, SPRING 2021

Credits: 3
Course attributes:
   Level – Advanced
   L&S Credit – Counts as Liberal Arts and Science credit in L&S
   Grad 50% - Counts towards 50% graduate coursework requirement
Website: https://canvas.wisc.edu/courses/244096
Meeting time and location: Tue, Th 4.00pm-5.15pm. Online (Zoom on Canvas).
Instructional mode: Online Classroom. This class meets for two 75-minute class periods each week over the Spring semester and carries the expectation that students will work on course learning activities (reading, writing, problem sets, etc.) for about 3 hours out of classroom for every class period.

Instructor: Anna Bykhovskaya (anna.bykhovskaya@wisc.edu)
Office hours: Tue 5.15pm-6.30pm or by appointment (Zoom on Canvas, lecture room).

Course description: Introduction to econometric time series analysis, forecasting methods, and forecast evaluation. The course will cover theoretical, methodological and applied topics, and will involve hands-on data analysis.

Prerequisites: Econ 400 or 410 must have already been taken or can be concurrently enrolled.

Learning outcomes:

- Learn linear time-series econometric models.
- Learn about economic time-series data and data sources.
- Learn how to formulate, estimate, and evaluate models for economic forecasting.
- Learn how to make point forecasts, interval forecasts and fan charts.
- Learn how to select and use conditioning information.
- Learn how to use model selection and combination methods.
- Produce a high-quality forecast report.

Grading: The final grade is based on homeworks (20%), reading assignments (10%), two midterms (each 25%), and the forecasting project (20%). The grades are not curved.

Labs and discussion sessions: none.
Textbooks and course materials:

- *Forecasting in Economics, Business, Finance and Beyond*, by Francis X. Diebold
- The Signal and the Noise, by Nate Silver
- Stata software (available through Campus Software Library)

Exam policy: No collaboration or outside assistance is allowed for Midterms. Online exams are open book. Forecasting project can be done individually or in teams of two.

Midterm #1: Thursday, March 11th
Midterm #2: Thursday, April 22nd

Forecasting project due: Friday, March 19th (1st part), Friday, April 30th (2nd part), Thursday, May 6th (3rd part)

Homework policy: For problem sets you are allowed to collaborate and use any sources except for those where the solutions to exactly the same problems are written. However, all your collaborators and used outside sources should be clearly indicated on your homework when you hand it in (otherwise, it will be treated as a plagiarism). Each person should write down the solutions individually.

Neatness and clarity are essential. You have to write enough to show that you understand the flow of ideas and that you are not jumping to unjustified conclusions. You are encouraged to use LaTeX to typeset your solutions, however, this is not required.

For the reading assignments you need to read a chapter from Silver’s book. You are then asked to write a short one paragraph on something you learned, something you found different than in the primary textbook, something you agree with, or something you disagree with.

At the date when the homeworks or reading assignments are due, they should be submitted either online on canvas before the start of the lecture or on paper at the beginning of the lecture. No late submissions will be accepted. We will have homeworks approximately every week.

Piazza. An online forum is accessible through the class canvas page. Please, ask and answer questions theirs. I will also be answering questions there regularly (if something stays unanswered for several days, please, follow up by e-mail). You are allowed to either sign with your name or to post anonymously.

Usage of Audio Recorded Lectures: Lecture materials and recordings for Econ 460 are protected intellectual property at UW-Madison. Students in this course may use the materials and recordings for their personal use related to participation in this class. Students may also take notes solely for their personal use. If a lecture is not already recorded, you are not
authorized to record my lectures without my permission unless you are considered by the university to be a qualified student with a disability requiring accommodation. [Regent Policy Document 4-1] Students may not copy or have lecture materials and recordings outside of class, including posting on internet sites or selling to commercial entities. Students are also prohibited from providing or selling their personal notes to anyone else or being paid for taking notes by any person or commercial firm without the instructor’s express written permission. Unauthorized use of these copyrighted lecture materials and recordings constitutes copyright infringement and may be addressed under the university’s policies, UWS Chapters 14 and 17, governing student academic and non-academic misconduct.

**Academic Integrity:** By enrolling in this course, each student assumes the responsibilities of an active participant in UW-Madison’s community of scholars in which everyone’s academic work and behavior are held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. This includes but is not limited to failure on the assignment/course, disciplinary probation, or suspension. Substantial or repeated cases of misconduct will be forwarded to the Office of Student Conduct & Community Standards for additional review. For more information, refer to [studentconduct.wiscweb.wisc.edu/academic-integrity/](studentconduct.wiscweb.wisc.edu/academic-integrity/).

**Grievance Procedure:** The Department of Economics has developed a grievance procedure through which you may register comments or complaints about a course, an instructor, or a teaching assistant. The Department continues to provide a course evaluation each semester in every class. If you wish to make anonymous complaints to an instructor or teaching assistant, the appropriate vehicle is the course evaluation. If you have a disagreement with an instructor or a teaching assistant, we strongly encourage you to try to resolve the dispute with him or her directly. The grievance procedure is designed for situations where neither of these channels is appropriate.

If you wish to file a grievance, you should contact our department administrator, Tammy Herbst-Koel ([therbst@wisc.edu](mailto:therbst@wisc.edu)). When completing the comment sheet, you will need to provide a detailed statement that describes what aspects of the course you find unsatisfactory. You will need to sign the sheet and provide your student identification number, your address, and a phone where you can be reached. The Department plans to investigate comments fully and will respond in writing to complaints.

Your name, address, phone number, and student ID number will not be revealed to the instructor or teaching assistant involved and will be treated as confidential. The Department
needs this information, because it may become necessary for a commenting student to have a meeting with the department chair or a nominee to gather additional information. A name and address are necessary for providing a written response.

Accommodations for students with disabilities: The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform me of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. I will work either directly with you or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student’s educational record, is confidential and protected under FERPA.

Diversity and inclusion: Diversity is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals.

The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world. [https://diversity.wisc.edu/](https://diversity.wisc.edu/)