Course Logistics

EC 361–001

Prof. Santetti
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Hello!

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Motivation

Warning

Learning this course's material may **irreversibly** change the way you approach your own interests, and this fact may make it impossible to maintain your *current beliefs*.

The learning journey may be very *stressful*, especially if you are not used to being *frustrated*.

Computer stuff

About R

This course will use **R** for its applied lectures.

No previous knowledge in **R** is required.

- But in case you have **no** experience with it, there is a **learning curve** ahead.
- Make sure to have the most **up-do-date** version of **R** (`4.2.2` or above).

Therefore, be *humble* and *patient* with yourself.

The next slide brings some **useful resources**.

About R

- `R for Data Science (2e)`, by H. Wickham, M. Çetinkaya-Rundel, and G. Grolemund
  - Work through its first section (chapters 1—8) to familiarize yourself with the `tidyverse`.

- `Playlist with video lectures on R and the tidyverse`, by yours truly, Prof. Santetti
  - Take your time and watch the videos at your own pace.

As a final word of **advice**, if you are not willing to go over the **discomfort** of learning new things, this course may *not* be compatible with your goals.

What can be forecast?

What can be forecast?

Some "forecasts" made in the past:

- "*I think there is a world market for maybe five computers.*" (Chairman of IBM, 1943);
- "*Computers in the future may weigh no more than 1.5 tons.*" (Popular Mechanics, 1949);
- "*There is no reason anyone would want a computer in their home.*" (President, DEC, 1977).

Despite the *difficulties* inherent to forecasting, this course will focus on the **most reliable** methods for producing forecasts.

Our interest is on methods that:

1. Are *testable*;
2. Are *reproducible*;
3. Have been *shown to work*.

What can be forecast?

As a mental exercise, think about the following events:

- Maximum temperature tomorrow;
- Time of sunset this day next year;
- Daily electricity demand in 3 days;
- Apple stock price tomorrow;
- The US/Euro exchange rate in 6 months.

Try to order these events in terms of **forecasting difficulty** (from *easiest* to *hardest*).

What can be forecast?

Some events are easier to forecast than others.

What determines such "easiness" depends on a few **factors**:

1. How *well* we understand the factors that contribute to it;

2. How much data is *available*;

3. How *similar* the future is to the past;

4. Whether the forecasts can *affect* the thing we are trying to forecast.

What isn't forecasting?

What isn't forecasting?

Many times, someone may say they are forecasting something, but in fact they are not.

At this time, it is important to distinguish between **forecasting**, **setting goals**, and **planning** activities.

- **Forecasting** involves predicting the future as *accurately* as possible, given all of the information available.
  - That includes using *historical data* and *knowledge* of any future events that might impact the forecasts.

- **Setting goals** involve thinking about what you *would like* to have happened.
  - Too often, goals are set *without* any plan for how to achieve them.

- **Planning** is a *response* to forecasts and goals.
  - It involves determining the appropriate actions that are required to make your forecasts match your goals.

Final words

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Now that we have touched on basic course logistics and basic concepts, a few **final words**:

- Take this course *seriously* and with *patience*;
- Accept the inherent *discomfort* that learning new things entails;
- Be *organized* with your course materials and, especially, with data files and R scripts;
- The skills learned in this course can be *directly applied* in your future job(s) after graduating.

...and **have fun**!

Next time: Forecasting methods and steps