

From: Michele Giugliano
Subject: 931SV - Principles of Computational Neuroscience - kickoff and briefing 2023/24
Date: September 2023



Dear Students,

My name is [Michele GIUGLIANO](#), I am Physiology professor at [SISSA](#) and have been guest lecturer at UniTs since 2022. You registered to the [931SV](#) course on "[Principles of Computational Neuroscience](#)" and I look forward to meeting you and telling you about my favorite research field within the Neurosciences!

Here is a 3 min a "video teaser" to offer you a glimpse of what we are going to talk about in this course:
<https://youtube.com/watch?v=qh4tWq68I9Q>

Please read the rest of this email carefully and until its end.

Our course will be "**blended**", i.e., combining self-paced online materials with In-Real-Life classroom lectures. Before we start, here are some key information:

- our first "in person" class is scheduled for **Friday, September 29th, starting at 9:00am (sharp)**;
- Lectures will be always given in Room "ex CLA", 5th floor, [Building "C1" \(Tutankhamon\)](#);
- their timetable will be: **9:00-9:50, 10:00-10:50, 11:00-11:45** (when starting at 9am; see the schedule online)

- **All classes will be recorded and available (for a limited time) at https://www.youtube.com/@michele_giugliano**
- an [online module \(~3h\)](#) on math preliminaries should be taken at your pace, before the start of the course.

Summarising the key points so far:

- classes always start on time and then break up for 10-15 min every 45-50 min.
- **the online content on math is a prerequisite and it MUST be completed prior to our in person lectures.**

Here is again the link to the online module: <https://mgiugliano.github.io/PrinciplesCompNeurosciencesCourse/module1.html>

The first class will be an informal and "light" general introduction to the course topic. For the subsequent classes, I will post on the course website one or two ~1h online lectures (almost every week, on Mondays). These extra videos (n = 7) - will contain foundational elements to prepare you for our subsequent "in person" classes. Some content will be a refresher of elementary physics, and some other part will something new. Some will be theory, some will be an invitation to hands-on practical activities.

The course has a website (<https://www.giugliano.info/course>) as well as a Discord chat server you should join via an invite link ([see the website](#)). All the information, schedule, office-hours, overheads, and materials for our course are posted there.

Again, let me summarise the key points:

The **website**

- hosts the online module;
- lists the updated "in person" lectures schedule;
- contains a list of the course topics, additional links, overheads, references, and study material.

The **Discord** server

- may favour bonding, discussions, and mutual help;
- serves as a communication channel, alternative to emails (I can't get the list of the students registered, let alone the emails)

Once again, **the (upfront) online module** is a prerequisite to refresh, review, consolidate, and acquire new mathematical knowledge for this course. There are videos, overheads, and demos online as 14 self-paced short video units (<3h in total).

As clearly stated on the website of our course, I am always available for you (upon email appointment) to provide clarifications and explanations. Note, however, **I won't offer assistance via email**. Informally, you may also "catch me" shortly before or after each class, and during the breaks.

The Discord server is also the best place to post your question publicly and to help your peers answering to their questions. No private instant messages on Discord, as the others won't benefit from it.

Initial recommendations

I hope that, by your active collaboration, the atmosphere and style of the course can be informal, interactive, and “two-ways”.

Do not be shy to ask “I didn't understand it, can you explain it again?”. Be curious, be inquisitive!

Use it an opportunity to improve and widen your knowledge and logic thinking, and to make progress in your training.

For the course, I do require a certain intellectual effort from you. This goes beyond memorizing things by heart. Ultimately, I invite you to attend each class and to study the online material in depth, with a desire to acquire multidisciplinary skills (particularly relevant in modern Neurosciences).

Do not be intimidated by the perceived quantitative character of the course. Even the module on math, as well as the new concept on elementary numerical simulations by computers you will learn about, will be useful no matter which next step in career you will take. Think about this: gone are the days where Chemists, Biologists, Engineers, and Physicists were talking different languages, both in academia and in the private sector.

My job is to be there for you and help with the course material, so it is of utmost importance that you (explicitly) communicate with me, in case of difficulties: I can't read your thoughts.

See you very soon.

Yours sincerely,
Michele GIUGLIANO