MAYMESTER in COGNITIVE NEUROSCIENCE
University of Texas cultural exchange

Organizers: Prof. Franco Pestilli, The University of Texas
Prof. Ilaria Sani, University of Geneva

Thank you for your interest in attending our course, please see the information about the course below

COURSE DESCRIPTION

Cognitive neuroscience is an interdisciplinary field investigating human cognition's neural mechanisms, including perception, attention, memory, language, decision-making, and consciousness. It bridges psychology, neuroscience, biology, engineering, and computer science disciplines. This course offers an in-depth examination of cognitive neuroscience principles, methods, and findings. Students will understand how brain structure and function relate to cognitive processes, integrating insights from neuroscience, psychology, biology, and related fields. Through lectures, discussions, readings, and hands-on activities, students will explore key topics such as brain imaging and analysis techniques, neural networks, neuroplasticity, brain development, and cognitive disorders. Emphasis will be placed on critical thinking, experimental design, and interpreting empirical research in cognitive neuroscience.

LEARNING GOALS

1. Learn about cognitive neuroscience techniques and the pros/cons of different methods
2. Gain exposure to current theories and debates in cognitive neuroscience
3. Become a critical consumer of scientific research through the evaluation of research articles
4. Develop writing skills that complement generative artificial intelligence tools like ChatGPT
5. Communicate your knowledge through writing, class participation, and examination

SUGGESTED TEXT

Essentials of Cognitive Neuroscience, *Bradley R. Postle*, 2nd Edition, John Wiley & Sons. It is available for rent or purchase on Wiley, Amazon, and other sources. Content covered by exams will focus on information presented in class. Students are also likely to benefit from studying the textbook.

PRACTICAL INFO

The course will take place from May 7th to June 2nd, 2026, with plans for an annual repetition. Classes will be held from **9:15 AM to 12:00** PM at Campus Biotech (Building H8, Room H8-01-F) and will feature lectures by Prof. Pestilli, along with guest lectures from PIs at UNIGE, EPFL, or Campus Biotech.

The Maymester aims to provide UT and Geneva students with a valuable international experience while fostering academic exchange. To support this, 8–12 seats will be reserved for our students. Participants may attend one or multiple classes. Seats will be allocated on a first-come, first-served basis, with priority given to students from labs involved in lecturing or offering research opportunities as part of the program.

Upon successful participation (signature sheet can be found at the end of the document) credits will be awarded as follows:

- **Neuromaster students**: **15 neuroscience-related seminars =** 12 ECTS, as per Master's program guide.
- **LNSD students**: Please put entries about attending the talks on your seminar sheet; 12 entries = 1 ECTS.

For interested students, at the end of the course, a quiz-based exam (US typical format) may be conducted (questions with multiple choice responses). Taking the exam will grant additional credits. Students are expected to answer questions related to the classes they attended.

REGISTRATION IS NOW OPEN at the following link:

https://forms.gle/79AzCjk3DYF19jV69

PLANNED CLASSES & LECTURES

		Date	Room	Time	avail. seats	Speaker & Lecture title	Organizers	Signature
week 1	1	2026-05-07	Building H8, H8-01-F (1)	09:15	5	Pestilli: 'The brain'	Sani-Pestilli	
				10:45		Nina Kazanina: language communication syntax		
	2	2026-05-08	Building H8, H8-01-F (1)	09:15	5	Pestilli: Cognitive Neuroscience Methods	Sani-Pestilli	
				10:45		Olivier Reynaud: presentation and visit of the facilities		
						welcome brunch		
week 2	3	2026-05-11	Auditorium H8-01D	09:15	30	Pestilli: Vision	Sani-Pestilli	
				10:45		David Pascucci: The role of context in visual processing		
	4	2026-05-12	Auditorium H8-01D	09:15	30	Pestilli: Beyond neurons, white matter, and cognition	Sani-Pestilli	
				10:45		Dimitri Van de Ville: Brain Connectivity		
	5	2026-05-13	Auditorium H8-01D	09:15	30	Pestilli: Attention	Sani-Pestilli	
				10:45		Eva Pool: 'Emotion, reward, and decision making'		
week 3	6	2026-05-18	Mesencephalon	09:15	10	Pestilli: object recognition	Sani-Pestilli	
				10:45		Monika Riegel: 'The effects of emotion and stress on episodic memory'		
	7	2026-05-19	Mesencephalon	09:15	10	Pestilli: declarative memory	Sani-Pestilli	
				10:45		Lina Teichmann: 'Rapid emegence of Category respobses to AI-generated visual angragms'		
	8	2026-05-20	Mesencephalon	09:15	10	Pestilli: semantic memory	Sani-Pestilli	
				10:45		Ilaria Sani: When objects define space: neural correlates of spatial vision		
	9	2026-05-21	Mesencephafalon	09:15	10	Pestilli: working memory	Sani-Pestilli	
				10:45		Daphne Bavelier: Brain Plasticity, Learning and Video games		
week 4	10	2026-05-26	Auditorium H8-01D	09:15	30	Pestilli: Methods to study white matter	Sani-Pestilli	
				10:45		Alex Pouget: 'Neural basis of compositionality'		
	11	2026-05-27	Auditorium H8-01D	09:15	30	Pestilli: Open Science	Sani-Pestilli	
				10:45		Roberta Ronchi: Altered awareness in neurological patients: symptoms, mechanisms, and neural correlates		
	12	2026-05-28	Auditorium H8-01D	09:15	30	Patrik Vuilleumier: Real-time imaging for neurofeedback and self regulation of brain activity: methods & free time	Sani-Pestilli	
week 5	13	2026-06-01	Building H8, H8-01-F	09:15	5	Pestilli: The visual white matter	Sani-Pestilli	
				10:45		Friedhelm Hummel - 'Orchestrated non-invasive brain stimulation to enhance cognitive functions in health and disease''		
	14	2026-06-02	Building H8, H8-01-F	09:15	5	Pestilli: scientific rigor and transparency	Sani-Pestilli	
				10:45		Patric Hagmann: 'Imaging the human connectome and related network neural dynamics'		