Join Radboud Summer School 2019!

Cognitive Neuroscience of Sleep

change perspective

Radboud University
Sleep is an enigma; we spend a third of our lives asleep, yet the functions sleep subserves are still unclear. In this course, we will explore in particular the cognitive functions of sleep. After a general overview, we will introduce advanced sleep research methodology including sleep spindle analyses, neuroimaging of sleep, and the new SleepTrip sleep analysis toolbox. We will focus on the association between sleep and memory processing, overviewing classical and current animal research on neural replay and memory systems consolidation. We will further investigate human research on sleep-related memory consolidation and then highlight the clinical value of sleep research, tapping into several topics of sleep medicine including sleep’s role in stress-related disorders such as major depression or post-traumatic stress disorders, or in neurological diseases such as Alzheimer’s disease. Finally, we will elucidate conscious cognitive processing during sleep, i.e. dreaming, target the neural mechanisms underlying dream generation, the neural simulations of novel behaviors as a potential biological function of dreaming; and the elusive phenomenon of lucid dreaming.

Taken together, this course will provide a comprehensive overview of the current state of the art of the cognitive neuroscience of sleep. The programme will target both participants who joined the field just recently as well as more advanced sleep researchers. Interactive lectures by international leaders in the field will be complemented by hands-on sessions at the facilities of the Donders Institute.

After this course you are able to
• Evaluate and apply basic and advanced sleep research methodology
• Evaluate and design experiments testing sleep-related processing of memories and emotions
• Understand and explain the neural mechanisms and biological function of dreaming
• Understand and explain the role of sleep in the genesis of psychiatric and neurological disorders

Number of EC
2 ECTS credits

Course leader
Martin Dresler, Assistant Professor
Cognitive Neuroscience, Radboudumc
Donders Institute for Brain, Cognition and Behaviour, Radboud University
Admission documents
Brief description of previous experience and a brief overview of current/future research interests

Entry level
Master, PhD, Postdoc and Professional

This course is designed for
Advanced students and early career neuroscientists, biologists and psychologists who aim to develop sleep research skills and understand higher-level biological functions of sleep

You can find more details about this course on our website

Course date
Monday 8 July - Friday 12 July 2019

Course fee
€ 480

Apply now!

Deadline application
1 May 2019

Discounts
• 10% discount for early bird applicants. The early bird deadline is 1 March 2019.
• 15% discount for students and PhD candidates from partner universities. Please note that these discounts can be combined if you apply before 1 March 2019.
What is the RSS experience?

RSS is more than just a course!

Radboud Summer School offers you a unique opportunity to meet other students and researchers from all over the world with different cultural and academic backgrounds. You will also get to know Radboud University and the city of Nijmegen.

Our social programme includes a welcome reception, guest lecture and farewell drinks. And for a small fee you can join our BBQ, River Cruise on a pancake boat, a Pub Quiz, Sports Activities or a City Game.

Want to know more?
Have a look at what participants have said about their experience on our website!

Contact
T. +31-248187706
E: Radboudsummerschool@ru.nl
F: RadboudSummerSchool
I: Radboudsummerschool

www.ru.nl/radboudsummerschool