

Psychophysiology of sleep and circadian rhythms - Course 2017-2018 (A31)

Objectives: Mechanisms and functions of sleep and of circadian rhythms. Modification of sleep patterns due to mental illness. Circadian and seasonal rhythms. Sleep and dreaming.

Sleep : Theories on sleep function. Sleep duration: short and long sleepers.

Sleep Assessment Methodologies : Polysomnography, sleep stages (stage scoring and analysis methods)

Delta sleep : restorative function, homeostasis, delta sleep significance for mental processes.

REM sleep: Hypothesis on REM sleep function, REM regulation: circadian and homeostatic hypotheses.

Sleep regulation models. Homeostatic and restorative hypotheses, circadian factors, REM regulation, tonic and phasic aspects.

Biological Rhythms: Classification of rhythms (Ultradian, circadian, seasonal) and their role on psychological functions; circadian pacemaker . suprachiasmatic nuclei .

Melatonina. Regulation of melatonin secretion. Seasonal Rhythm. Seasonal Affective Disorder.

Dreaming : theories on dreaming functions. Sigmund Freud and psychoanalytic theory of dreaming, Bion, consciousness and dreaming.

Dreaming Psychophysiology. Hobson and McCarley activation synthesis model. Dreaming, the neuropsychological approach.

Drug effects on sleep and dreaming.

Mental processes and sleep. Memory, cognition and sleep: Experimental models and theories.

Sleep Disorders

Sleep and psychiatric illnesses: REM sleep and depression; Sleep and circadian rhythm in schizophrenia; Sleep and anxiety disorders. Sleep and Alzheimer.

Textbook :

A manual of standardized terminology, techniques and scoring system for sleep stages of human subjects: A. Rechtschaffen and A. Kales (Editors). (Public Health Service, U.S. Government Printing Office, Washington

[The Rhythms Of Life: The Biological Clocks That Control the Daily Lives of Every Living Thing](#)

30 set. 2011 | eBook Kindle

di Leon Kreitzman e Russell Foster, Profile Books, 2011

Rapid Eye Movement Sleep di [Birendra N. Mallick](#) (a cura di), [S. R. Pandi-Perumal](#) (a cura di), [Robert W. McCarley](#) (a cura di), [Adrian R. Morrison](#), Cambridge, 2011.

I programmi d' esame del corso di laurea A31 di Psicofisiologia del sonno e di Psicobiologia nonché i programmi relativi ad anni precedenti sono organizzati in argomenti e sono questi a costituire la materia d' esame. I testi consigliati sono indicati come possibili, e non esclusive, fonti per approfondire gli argomenti di cui sopra.

Metodi didattici: Lezioni frontali.

Modalità di verifica dell'apprendimento: la verifica avverrà attraverso esame orale