

## Course Description

### Drugs and Behavior

Leading Lecturer: Zsolt Demetrovics

#### Aim of the course

##### **Aim of the course:**

Aim of the course on the one hand is to introduce and analyze effects of psychoactive drugs (prescription drugs, legal and illicit psychoactive substances) on human organism and behavior, and on the other hand is to discuss addictive behaviors not connected to the use of psychoactive substances (i.e., behavioral addictions). The complex analysis on the interaction between psychoactive substances and humans includes introducing neuroanatomy and neurobiology of human central nervous system, discussion on neurotransmitter systems and their functions, and introduction the effects of different psychoactive substances on these systems. During the course the neurobiological background of mental disorders are comprehensively discussed, including psychopharmacological characteristics, practice, indications, effects, side-effects of used medications and other features of psychopharmacological treatments. The course expansively deals with current issues and results of addictions, introducing characteristics and ways of classification of each psychoactive substances (alcohol, caffeine, cannabis, inhalants, opiates, amphetamines, cocaine, ecstasy and other entactogens, hallucinogens and new psychoactive substances), international data from epidemiological studies, etiological and prevention models of addictive behaviors, and psychological and pharmacological treatment of addictions. Beside chemical addictions the course discusses behavioral addictions in detail, including gaming disorder, internet addiction, gambling disorder, compulsive buying, work addiction, exercise addiction.

##### **Learning outcome, competences**

knowledge:

- knowledge of scientific conception and terminology of addiction studies
- knowledge of characteristics and effect mechanisms of different psychoactive substances
- knowledge of most important behavioral addictions
- knowledge of etiology of addictive disorders
- knowledge of most important models of prevention related to addictions
- knowledge of ways and methods of psychotherapy and pharmacological treatment of addictive disorders
- knowledge of neurobiology and neuroanatomy of human nervous system
- knowledge of neurochemistry of neural functions and of neurotransmitters
- knowledge of fundamental principles, conceptions and rules of psychopharmacology and pharmacotherapy
- knowledge of medications (their biochemistry, indications and other features) used for mental disorders
- knowledge of pharmacotherapy for mental disorders
- knowledge of relations between psychotherapy and pharmacotherapy

attitude:

- learn and work in frame of biopsychosocial model
- open-minded attitude to addictive disorders and to understand addicted people
- open-minded and critical attitude to etiological models and different kind of treatment methods for mental and addictive disorders
- open-minded and critical attitude to different paradigms of pharmacology
- showing interest and openness to relations between psychotherapy and pharmacotherapy and to understand advantages and disadvantages of both methods

skills:

- ability to understand and use scientific literature of addictions, neurobiology and psychopharmacology
- ability to expertly use the terminology of addictions, neurobiology and psychopharmacology
- ability to accept and use different treatment approaches of addictive disorders and mental disorders

## Content of the course

### Topics of the course

- neurobiology and neuroanatomy of the nervous system
- neurochemistry of neural functions and neurotransmitters
- biological factors in etiology of mental disorders
- neuroanatomic and neurochemical associations of mental disorders
- terminology and basic rules of pharmacotherapy, pharmacokinetics and pharmacodynamics
- methods, protocols and frontiers of pharmacological treatments in mental disorders
- biochemistry, effects and indications of medications for mental disorders
- relations between psychotherapy and pharmacotherapy
- terminology of addictions and classification psychoactive substances
- epidemiology of drug use
- etiological models of chemical addictions
- prevention of addictive disorders, theories of prevention
- therapy of addictive disorders
- behavioral addictions

### Learning activities, learning methods

Frontal education with the possibility to have lot of interactions. Guest lecturers invited; case studies and short films help to illustrate each topics.

## Evaluation of outcomes

### Learning requirements, mode of evaluation, criteria of evaluation:

requirements:

- being familiar with the content of presentations
- knowledge of compulsory readings

mode of evaluation: written exam. 5 degree scale

criteria of evaluation:

- depth of knowledge of learning requirements

## Reading list

### Compulsory reading list

- Ruiz, P., Strain, E., (Eds.). (2011). *Lowinson and Ruiz's Substance Abuse. A Comprehensive Textbook*. New York: Lippincott Williams & Wilkins.
- Rosenberg, K. P., Feder, L. C., (Eds.). (2014). *Behavioral Addictions. Criteria, Evidence, and Treatment*. New York: Elsevier.
- Schatzberg, A.F., Nemeroff, C.B. (Eds.) (2009). *The American Psychiatric Publishing Textbook of Psychopharmacology, Fourth Edition*. American Psychiatric Press Inc.

### Recommended reading list

- Aboujaoude, E., Starcevic, V. (Eds.), (2015). *Mental Health in the Digital Age: Grave Dangers, Great Promise*. New York: Oxford University Press
- Parrott, A., Morinana, A., Moss, M., Scholey, A. (2004) *Understanding Drugs and Behaviour*. John Wiley & Sons Ltd, Chichester.