



Module name: **Neurobiology of drug dependence**

Academic year: **2017/2018** Code: **CIM-2-321-FM-s** ECTS credits: **3**

Faculty of: **Materials Science and Ceramics**

Field of study: **Materials Science** Specialty: **Functional Materials**

Study level: **Second-cycle studies** Form and type of study: **Full-time studies**

Lecture language: **English** Profile of education: **Academic (A)** Semester: **3**

Course homepage: **—**

Responsible teacher: **dr hab. Suder Piotr (psuder@agh.edu.pl)**

Academic teachers:

### Module summary

Students will receive basic knowledge about methods used for animal testing of various substances, pharmacology of selected drugs of abuse, treatment methods, and basics of human brain reactivity.

### Description of learning outcomes for module

MLO code	Student after module completion has the knowledge/ knows how to/is able to	Connections with FLO	Method of learning outcomes verification (form of completion)
Social competence			
M_K001	Student is aware of importance of non technical aspects of the human organism activity		
M_K002	Student understands some processes occurring in living organisms and selected tissues.		
M_K003	Students receive knowledge about brain-drugs of addiction interactions	IM2A_K08	
M_K004	Student receives info about modern laboratory tests applied in pharmacological sciences		Activity during classes

### FLO matrix in relation to forms of classes

MLO code	Student after module completion has the knowledge/ knows how to/is able to	Form of classes
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		Lectures	Auditorium classes	Laboratory classes	Project classes	Conversation seminar	Seminar classes	Practical classes	Fieldwork classes	Workshops	Others	E-learning
Social competence												
M_K001	Student is aware of importance of non technical aspects of the human organism activity	-	-	-	-	-	-	-	-	-	-	-
M_K002	Student understands some processes occurring in living organisms and selected tissues.	-	-	-	-	-	+	-	-	-	-	-
M_K003	Students receive knowledge about brain-drugs of addiction interactions	-	-	-	-	-	-	-	-	-	-	-
M_K004	Student receives info about modern laboratory tests applied in pharmacological sciences	-	-	-	-	-	-	-	-	-	-	-

## Module content

### Seminar classes

During seminars students will be introduced into basic neurobiology topics.

During the seminars students will receive basic knowledge about methods used for animal testing of various substances (including pharmacological tests), pharmacology of selected substances of abuse, treatment methods, along with basics of human brain reactivity towards drugs of addiction.

The main topics discussed during seminars will be as follows:

1. Cell culturing
2. Human brain under the influence of drugs of addiction
3. Cellular and animal models used in life sciences
4. Opioids as a pain relieving drugs with addictive properties
5. Alcohol and nicotine as not prohibited substances of addiction
6. Cocaine, psychostimulants, hallucinogens, psychodelics
7. Cannabinoids and their modifications (so called designer drugs)
8. Drug addiction treatment methods

### Method of calculating the final grade

Final grade will be calculated based on the final test including 20-30 questions taken from the topics discussed during the lectures and seminars.

### Prerequisites and additional requirements

There is no additional requirements

### Recommended literature and teaching resources

Any handbook of pharmacology published in year 2000 or later.

**Scientific publications of module course instructors related to the topic of the module**

Additional scientific publications not specified

**Additional information**

None

**Student workload (ECTS credits balance)**

Student activity form	Student workload
Participation in seminar classes	30 h
Preparation for classes	20 h
Examination or Final test	20 h
Contact hours	5 h
Summary student workload	75 h
Module ECTS credits	3 ECTS