



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Toxicologic, health and social aspects of drug addiction

### Course

Field of study

Chemical and process engineering

Area of study (specialization)

Bioprocesses and biomaterials engineering

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

2/3

Profile of study

general academic

Course offered in

Polish

Requirements

elective

### Number of hours

Lecture

15

Laboratory classes

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Other (e.g. online)

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Tutorials

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Projects/seminars

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### Number of credit points

1

### Lecturers

Responsible for the course/lecturer:

dr hab. Michał Moritz

Responsible for the course/lecturer:

### Prerequisites

Issues concerning the chemical structure and properties of organic compounds. Basic knowledge in the field of biochemistry, cell biology and human physiology.

### Course objective

Become familiar with kinds of addiction, types of addiction substance and health effects arising from their usage.

### Course-related learning outcomes

Knowledge

Student possesses expanded knowledge in the field of chemistry and related fields of knowledge.

Student possesses knowledge concerning the properties of bioactive compounds. Student knows the relationships between the chemical structure and biological activity of compounds (**K\_W03**).

Skills

Student possesses the ability to acquire and to critically assess the knowledge both, from the literature and from the databases (**K\_U01**).



### Social competences

Student understands the need of learning and acquiring the knowledge from professional sources (K\_K01).

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Written test (90 min.) containing open and closed questions (about 7-10 open questions and about 15-20 test questions). 50% of questions have to be answered correctly to pass. The subject matter required for the test will be transmitted to students during the course.

### Programme content

1. Discussion of basic definitions (addiction, types of addictions, toxicity of drugs, drugs' metabolism).
2. Elaboration of receptor mechanisms related to the activity of addiction substances.
3. Discussion of addiction substances' types regarding their chemical structure and pharmacological activity (sleep-inducing drugs, tranquilizers, anti-depressants, opioid analgesic drugs, ethyl alcohol).
4. "Afterburners" as the new psychoactive drugs, toxicity, rules of conduct in case of poisoning, social aspects of using new psychoactive substances.

### Teaching methods

Classical lecture supported by multimedia presentation.

### Bibliography

#### Basic

1. Patrick Graham, Chemia Medyczna, PWN, Warszawa 2019.
2. Anna Krakowiak, Aleksander Rutkiewicz (red. ), Dopalacze-od teorii do praktyki klinicznej,  $\alpha$ -medica press, 2019.

#### Additional

Scientific papers concerning biological activity and toxicity of new drugs and addiction substances.

### Breakdown of average student's workload

	Hours	ECTS
Total workload	25	1
Classes requiring direct contact with the teacher	15	0,5
Student's own work (literature studies), preparation for the tests <sup>1</sup>	10	0,5

<sup>1</sup> delete or add other activities as appropriate