GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2018-2019

General Toxicology (J000397)

Course size (nominal values; actual values may depend on programme)

Credits	5.0	Study time	150 h	Contact hrs	30.0 h

Course offerings and teaching methods in academic year 2018-2019

A (semester 2)	Dutch	lecture	30.0 h

Lecturers in academic year 2018-2019

Stove, Christophe	FW03	lecturer-in-charge

Offered in the following programmes in 2018-2019	crdts	offering
Bachelor of Science in Pharmaceutical Sciences	5	A

Teaching languages

Dutch

Keywords

Metabolism, bio-activation, toxicity of medications, illegal drugs and volatiles. Dose reponse curve.

Position of the course

In this course effects of a number of compounds (drugs, illegal drugs, volatiles) on the human body are highlighted. This is situated in a medical-pharmaceutical context with emphasis on the working mechanisms and on the treatment of overdoses. Other courses in the pharmacy curriculum are not directly focussed on toxicology. However, some aspects of other courses (biochemistry, analytical techniques, organic chemistry) are also covered in the course of toxicology.

Contents

Starting from and overview of different reactions of metabolism the course explicitly highlights on bioactivation processes. In a similar way toxicity and the treatment of eventual overdoses of a high number of medications, illegal drugs and volatile compounds are also explained. Special attention is given to the interpretation of dose response curves and the metabolism and determination of ethanol.

Initial competences

Having completed the course Medical biochemistry. Having successfully completed courses in organic chemistry, biochemistry and biophysics I and II, general analytical chemistry and instrumental analytical chemistry, or having acquired the corresponding competences in another way.
If this course is taken as part of a "GIT" program, the course on "Hands-on bio-analysis" must also be chosen.

Final competences

1 -To integrate the knowledge of the working mechanism, analysis, effects and the treatment of certain effects of medications, illegal drugs and volatiles.
2 -To have insight in the relationship between working mechanisms and the treatment of eventual overdoses.
3 -To put aspects of the toxicity of individual medications, illegal drugs, and volatiles in a pharmaceutical context.
4 -To master the basic skills and techniques applied in a toxicology laboratory.
5 -To make a distinction between effects of medications, illegal drugs and volatiles and life threatening intoxications with these compounds.
6 -To advise patients on toxicological problems.
7 -To critically interpret actual toxicological problems.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Lecture

Learning materials and price

Syllabus: text (in Dutch) and figures (in English): 12 Euros
Sold at the start of the first class.

References

Medical Toxicology 3rd Edition, Ed. R. Dart, 2004 (ISBN: 0-7817-2845-2)
Toxicological Emergencies 8th Edition, Ed. Goldfrank, 2006 (ISBN: 0-07-147914-7)
Reichl & Ritter, Illustrated Handbook of Toxicology (2011)
Shannon: Haddad and Winchester's clinical management of poisoning and drug overdose: 4th edition (2007)

Course content-related study coaching

Students have different possibilities to ask questions: individually or in group, before or after the class, on appointment. Questions can also be sent by e-mail.

Evaluation methods

end-of-term evaluation

Examination methods in case of periodic evaluation during the first examination period

Written examination

Examination methods in case of periodic evaluation during the second examination period

Written examination

Examination methods in case of permanent evaluation

Possibilities of retake in case of permanent evaluation

not applicable

Calculation of the examination mark