

Supplements in Toxicology (J000199)

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

Credits	3.0	Study time	90 h	Contact hrs	15.0 h
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Course offerings and teaching methods in academic year 2018-2019

A (semester 1)	Dutch	lecture	15.0 h
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Lecturers in academic year 2018-2019

Stove, Christophe	FW03	lecturer-in-charge
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Offered in the following programmes in 2018-2019

Master of Science in Laboratory Medicine	crdts	offering
	3	A

Teaching languages

Dutch

Keywords

Therapeutic drug monitoring, immunology and mass spectrometry-based screening, method validation

Position of the course

Within the curriculum of Clinical Biology this course highlights a number of tests / parameters / items relevant for the coming practical training of the student. From this point of view the course should be seen as a theoretical support of this practical training.

Contents

The course starts with the explanation of the difference between forensic and clinical toxicology. Thereafter, therapeutic drug monitoring (TDM) of a number of drugs or classes of drugs is highlighted. The relevance of toxicity mechanisms and of pharmacokinetic parameters for TDM is explained. In a second part of the course new evolutions in the field are covered with attention to method validation in a clinical laboratory setting

Initial competences

Final competences of Master of Pharmaceutical Care or Master of Drug Development or having acquired the corresponding competences in another way.

Final competences

- 1 -To integrate the knowledge of the biochemistry, toxicology and the analysis of a number of drugs or classes of drugs.
- 2 To understand the strategy followed in TDM of a number of drugs or classes of drugs based on the biochemistry, toxicology and pharmacokinetics of these compounds.
- 3 Being capable of formulating advice on certain drugs or drug classes with relation to TDM, organ toxicity, or reason of usage
- 4 Being able to point out what methodologies are recommended for certain clinical-toxicological determinations in a certain setting, with the associated advantages and disadvantages
- 5 Being capable of setting up and/or evaluating a method validation

Conditions for credit contract

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

Conditions for exam contract

Access to this course unit via an exam contract is unrestricted

Teaching methods

Lecture, microteaching, self-reliant study activities

Extra information on the teaching methods

The lessons are given in a 'roundtable' format, in which the different topics are addressed via reference works, while pointing out the relevance (non-classical format of 'classical' teaching). The students will be asked to prepare some lessons (independent work). These preparations will be used by the students, to address a certain topic (microteaching format). The lessons will be built around these presentations.

Learning materials and price

Syllabus (text and figures).
Offered for free.

References

Recommended books:
N.W. Tietz, Fundamentals of Clinical Chemistry, Saunders
Lothar Thomas, Clinical Laboratory Diagnostics, TH Books
R.C. Dart, Medical Toxicology, Lippincott Williams & Wilkins
Recommended scientific journal:
Clinical Chemistry (AACC Journal)

Course content-related study coaching

Students have different possibilities to ask questions, both individually as well as in group, during the classes or before or after the classes. Asking questions by e-mail is also possible.

Evaluation methods

end-of-term evaluation and continuous assessment

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

Oral examination

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

Oral examination

Examination methods in case of permanent evaluation

Participation, report

Possibilities of retake in case of permanent evaluation

not applicable

Extra information on the examination methods

Written preparation, with oral explanation.

Calculation of the examination mark

NPE: 3
PE: 17