

# Course

## >Drug Analysis<

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<i>Lecturer</i>	<b><i>Oberacher H</i></b>
<i>Number</i>	<i>049510</i>
<i>Type / ECTS</i>	<i>VU 1 / 0,75 ECTS</i>
<i>Date/Time</i>	<i>tba</i>
<i>Location</i>	<i>Seminarraum (P007) GMI</i>
<i>Limitations</i>	<i>Min. of 4 participants; Max. of 6 participants</i>
<i>Registration</i>	<i>Register in i-med.inside (Deadline March 15)</i>

### Background

Forensic toxicology is the use of analytical chemistry, toxicology and pharmacology to aid medical or legal investigation of death, poisoning, and drug use.

The primary goal of forensic-toxicological analysis is the detection, confirmation and quantification of toxic substances and their metabolites in evidence.

The most frequently used biological samples are urine, blood and plasma.

The samples are usually processed with generic extraction procedures, including liquid-liquid extraction (LLE) and solid-phase extraction (SPE).

Mass spectrometry (MS) hyphenated with different kinds of separation techniques, such as liquid chromatography (LC) and gas chromatography (GC), is the most important analytical technique applied to detect and confirm exogenous compounds present in biological samples.

### Contents

The lecture will give an introduction into state-of-the-art forensic-toxicological analysis. The principles of analytical techniques, including chromatography and mass spectrometry, will be presented. Furthermore, possibilities and challenges will be discussed.

In the practical course, the concepts of qualitative and quantitative drug analysis will be learned by analyzing authentic casework samples.