Modulbezeichnung	Instrumental Analytical Chemistry/Environmental Analytics (Instrumentelle Analytik/Umweltanalytik)
Semester (Häufigkeit)	null (jedes Wintersemester)
ECTS-Punkte (Dauer)	5 (1 Semester)
Art	compulsory elective module
Studentische Arbeitsbelastung	60 h Kontaktzeit + 90 h Selbststudium
Voraussetzungen (laut BPO)	Allgemeine Chemie, Anorganische und Analytische Chemie, Instrumentelle Analytik
Empf. Voraussetzungen	
Verwendbarkeit	DEL
Prüfungsform und -dauer	theoretical part: written exam 1,5 h or oral exam (Prüfungsleistung) practical part: practical course (Studienleistung)
Lehr- und Lernmethoden	lecture, practical course
Modulverantwortliche(r)	G. Walker

Qualifikationsziele
At the end of the semester, students will be able to ...
determine heavy metals in soil and water samples by AAS, and take samples for the determination of pollutants in indoor air and analyze them.
by ...

- Understand and apply sampling techniques, digestion and incubation procedures, as well as AAS instrumentation and spectroscopic and microscopic techniques.
- prepare scientific reports

to .... select and apply appropriate techniques for soil analysis issues and for contaminants in buildings

- classify analytical results in the context of the method used and in relation to other characteristics (e.g. soil and contaminated site remediation; building remediation)

Lehrinhalte
Chromatography (HPLC, GC, GC-MS), UV/VIS spectroscopy, metal analysis by AAS and ICP-AES, microscopy

Literatur
Georg Schwedt: “The Essential Guide to Environmental Chemistry“ (2001), Wiley

Lehrveranstaltungen

Dozenten/-innen	Titel der Lehrveranstaltung	SWS
G. Walker	Instrumental Analytical Chemistry/Environmental Analytics (Instrumentelle Analytik/Umweltanalytik), lecture	2
G. Walker	Instrumental Analytical Chemistry/Environmental Analytics (Instrumentelle Analytik/Umweltanalytik), practical course	2