Title	Code
Atomic spectrometric techniques in environment	**1010702311010710731**
Field: **Technologie ochrony środowiska - stacjonarne II stopnia**	Year / Semester: **1 / 1**
Specialty: **Monitoring**	Course: **core**
Hours: Lectures: **2** Classes: **-** Laboratory: **2** Projects / seminars: **-**	Number of credits: **6**
	Language: **polish**

Lecturer:

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Status of the course in the study program:

-Basic course

Assumptions and objectives of the course:

-To give students knowledge, more detailed than in basic course (Instrumental Analysis), about atomic spectrometric techniques, particularly useful in environmental sciences.

Contents of the course (course description):

-Atomic absorption spectrometry (AAS): atomization techniques, absorption interferences, quantitative analysis, special techniques in AAS. Optical emission spectrometry (OES): theory of atomic spectra formation, modern excitation sources - inductively coupled plasma (ICP), microwave induced plasma (MIP), direct current plasma (DCP), quantitative analysis, qualitative and quantitative spectrographic technique. Absorption UV-Vis spectrophotometry: theory of molecular electronic transitions, instrumental design, quantitative spectrophotometric analysis.

Introductory courses and the required pre-knowledge:

-Basic knowledge of analytical chemistry and instrumental analysis

Courses form and teaching methods:

-Lectures, laboratory - individual work with students

Form and terms of complete the course - requirements and assessment methods:

-Periodical written tests and final oral or written examination

Basic Bibliography:

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Additional Bibliography:

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