Level: Master academic studies of chemistry

Course title: Chemistry of Art (IHA-508)

Status: Elective

#### **ECTS**: 5

# Requirements: None

#### Learning objectives

- Acquiring knowledge of the possibilities to apply concepts of analytical, inorganic and organic chemistry to art and media.
- Enabling students to apply analytical methods and techniques in analysis of artefacts.
- Acquiring knowledge of methods and procedures of artwork restoration.

# Learning outcomes

Students should be able to:

- demonstrate knowledge on materials used in painting, architecture and applied art;
- list and explain standard methods for dating the artwork;
- independently choose, modify and apply methods of qualitative and quantitative analysis in respect to the type of material used in architecture, painting and sculpture;
- independently choose suitable methods for confirming authenticity of the artwork;
- competently communicate with experts from art institutions (museums, galleries, archaeological localities etc.).

# Syllabus

# Theoretical instructions

The Chemistry of Art is an innovative, laboratory-based, non-major course that covers many of the basic concepts of general chemistry, as well as aspects of analytical and organic chemistry. In this course, students will be introduced to many of the basic concepts of general chemistry and organic chemistry as we explore the chemistry of art media (painting, fresco, dyes, ceramics, metals, glass, plastics, photography), the scientific examination of works of art, and the role of chemistry in the conservation of art objects and artefacts.

# Practical instructions

The experiments are designed to illustrate the concepts discussed in lecture and to familiarize students with materials, tools, and techniques used by chemists and artists. The lab is considered an integral part of the course.

Weekly teaching load				Other: /
Lectures:	Exercises:	Other forms of	Student research: /	
2	2	teaching: /		