

## **Thesis topics**

### **Department of Inorganic and Analytical Chemistry**

**2026/2027. academic year I. semester**

**Supervisor: Prof. Dr. Attila Gáspár**

**Analysis of cyanobacterial toxins using CE-MS**

chemistry BSc

**Supervisors: Prof. Dr. Attila Gáspár and Dr. Melinda Andrási**

**Analysis of glycated forms of hemoglobin using CE-MS**

chemistry MSc

**Supervisor: Prof. Dr. Katalin Várnagy**

**Study of transition metal ion-peptide interactions**

The interactions of proteins involved in biological processes with essential metal ions are vital. However, if the concentration of these essential metal ions significantly changes, or if toxic metal ions enter the body, these metal ion-protein interactions can lead to development of different diseases (e.g. neurodegenerative diseases). Thus, understanding the interactions between different protein fragments and transition metal ions can contribute to understanding the chemical background of diseases related to these proteins.