

COURSES OFFERED IN ENGLISH FOR ERASMUS INCOMING STUDENTS
FALL SEMESTER 2022-2023

CHE 311 INSTRUMENTAL METHODS OF CHEMICAL ANALYSIS (6 ECTS)

Tuesday and Friday 12:00-13:30 New campus building ΘΕΕ02 room B127

Wednesday 16:00-17:00 New campus /building ΧΩΔ 02 room 103 (Tutorials 0 ECTS)

Professor Constantina Kapnissi Christodoulou ckapni1@ucy.ac.cy

The main purpose of this course is to familiarize students with the basic concepts of instrumental methods of analysis and the major issues of qualitative and quantitative analysis. The course helps the student to:

- (1) Develop a know-how in qualitative and quantitative analysis, separation and validation,
- (2) Understand the role of analytical instrumentation in different scientific areas,
- (3) Select the appropriate method for the effective analysis of samples and justify the choice of instrumentation/method based on the performance and requirements demanded by the application.

The techniques and instrumentation covered in this course will be very useful to the student's further professional career, since they form an integral part of an analytical chemist's everyday practice. In this sense, they significantly contribute to the aims of the undergraduate programme. CHE311 follows CHE111 (Chemical Equilibrium and Classical Methods of Analysis), as it places principles of analytical chemistry taught in that course, into the context of instrumental analysis. CHE311 is a pre-requisite for CHE210 (Laboratory of Instrumental Chemical Analysis), which is the corresponding laboratory course.

CHE 331 ORGANIC CHEMISTRY III (6 ECTS)

Monday and Thursday 13:30-15:00 New Campus, building ΘΕΕ02 room B128

Wednesday 17:00-18:00 New campus /building ΘΕΕ 02 room B128 (Tutorials 0 ECTS)

Professor Koutentis Panayiotis koutenti@ucy.ac.cy

This course aims to train students in classical areas of organic synthesis; concepts related to stereoelectronic, kinetic and thermodynamic phenomena in Organic Chemistry; named reactions; protecting group strategies; neighbouring group effects; natural products and total synthesis. Furthermore, the course aims to introduce students to topics related to Heterocyclic, Free Radicals, Carbohydrates, Alkaloids, B, Si and Sn and Organometallic Chemistry.

This is the third and more advanced course out of three Organic Chemistry courses offered

in the Chemistry degree. This course reiterates on cumulative knowledge from the previous two (Organic Chemistry I & II) by training students on applications of that knowledge in solving more complex, mixed mechanistic problems. The series of Organic Chemistry courses provides a strong theoretical Organic Chemistry component in the Chemistry degree and prepares students for a future career in this same field.

CHE 438 Supramolecular Chemistry (5 ECTS)

Tuesday and Friday 13:30-15:00 new campus. building ΘEE02, Room B 127

Prof. Chronakis Nikolaos nikos.chronakis@ucy.ac.cy

This course in Supramolecular Chemistry aims to: a) present the importance of intermolecular forces to define the “chemistry beyond the molecule”, b. explain how such forces may be invoked to rationalize the formation of complex nanomaterials, c. introduce the bottom-up approach to prepare complex (nanoscale) systems, d. highlight the main types of supramolecular assemblies, the main supramolecular forces involved in their formation and describe synthetic strategies for their preparation. This is an elective course offered in the 4th year of studies. It serves the programme aims by providing training to students on a specialized topic of great scientific importance, due to its correlation with the sectors of materials and nanotechnology, both of which offer important employment opportunities

We expect students to use the Online Version of the Learning agreement created though the learning-agreement.eu platform. Person responsible is the Erasmus Departmental Coordinator of the department of Chemistry Studies Professor Koutentis Panayiotis koutenti@ucy.ac.cy

Website: <https://newdev.ucy.ac.cy/chem/>