

## **Master's Degree (Second Cycle) Programme in Chemistry**

### **General Information**

Chemistry is an interdisciplinary field of various applications which include synthesis and analysis and is related in technological process to many scientific branches such as physics, engineering (Food, environment, mechanical, material, mine, geology, agriculture, genetic, pharmaceuticals and medical science.

The Chemistry Department has started its undergraduate educational activities in 1994-1995, and then started its post graduate studies (M.Sc. and Ph.D.) studies in 1995-1996 There are four fundamental areas such as Analytical Chemistry, Inorganic Chemistry, Organic Chemistry and Physical Chemistry. The lectures are expertly designed to contain the basic chemistry knowledge required for these four branches as well in biochemistry area. Research laboratories are equipped with high technological instruments required for scientific researches. These devices were obtained from projects of TUBITAK, DPT, LDV and BAP (Ömer Halisdemir University, Research Unit). The Department has young, dynamic and complete academic staff of 11 which consists 6 Associate Professors, 4 Assistant Professors and 1 Research Assistants.

Thanks to the bilateral agreements with EU countries and other countries, some of our graduate students continue their education abroad within the framework of Erasmus Program.

Students graduated from the department can work as researcher and can work at different research-development laboratories and at modern analysis and quality control laboratories. Students can also work at education area with necessary formation.

Through the Master of Science (Second Cycle) programme, students develop skills to participate in scientific activities, and share the results with scientific community and they may continue their academic career by enrolling in related Ph.D. programs of the universities in Turkey or abroad.

### **Aims and Objectives**

#### **Aims :**

- To provide the students with the required skills and knowledge of chemistry. That would make them able to solve complex problems in their specialization area and to operate and conduct inter-disciplinary studies or work with others, in professional and social settings.
- To offer advanced level of education for chemists by taking part in research and making contributions to research and development in the field of chemistry and technology
- To raise scientists that has vision, analytic thinking skill and ethical values.

### **Objectives :**

- To promote research and development studies in the fundamental areas of science of chemistry such as Analytical Chemistry, Inorganic Chemistry, Physical Chemistry and Organic Chemistry that are needed by the industry both in national and international arena
- To contribute to the universal science in the field of Chemistry
- To create knowledge and technologies that will contribute national development
- To develop scientific thinking and create projects that will enhance technological developments

### **Qualification Awarded**

Upon successful completion of this program, students are awarded with the qualification of MASTER OF SCIENCE DEGREE in CHEMISTRY.

### **Level of Qualification**

Master's Degree by research and writing up thesis in CHEMISTRY is a two-year (4 semesters) program with 120 ECTS credits. The program meets the requirements both for ECTS credits and level descriptors of the "Second Cycle" degree qualifications of the Overarching Framework of European Qualifications Framework HE (QF-EHEA) and the "7th Level" qualifications of the Turkish Qualifications Framework for HE (TYYÇ, NQF-HETR), as well as the "7th Level" requirements of the qualifications of the European Qualifications Framework for Lifelong Learning (EQF-LLL) in terms of the level descriptors.

### **Specific Admission Requirements**

Admission requirements are determined in line with the regulations set by Higher Education Council of Turkey. Information on application for graduate programs and access requirements are announced on the web page of the university at the beginning of each academic year.

### **Acceptance requirements:**

- To have a First Cycle (BSc) degree in Chemistry.
- To have ALES (Entrance Exam for Academic Personnel and Postgraduate Education) with minimum score of 60 (or equivalent GRE point)
- The candidates with a Bachelor's Degree from abroad must have the certificate of equivalence from the Council of Higher Education (YOK).
- ALES score is valid for 3 years; however, after master degree is completed or the master program is ended by itself, a new ALES point for the candidates who want to apply Master program maximum one semester later is not required.

- If the graduate score is submitted with respect to 4-point system, this score must be translated to 100-point system according to the score translation table prepared by the Council of Higher Education (YOK).

The requirement for the admission of international students for postgraduate studies is carried out according to the body of the current law and the regulations of the Senate.

For further information on the admission requirement for foreign students, please contact Nigde Ömer Halisdemir University International Office.

### **Contact:**

International Office

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### **Specific Arrangements for Recognition of Prior Learning**

With an understanding of lifelong learning, Nigde Ömer Halisdemir University recognizes the previously taken courses in another institution and exempt them from graduation credit, as long as the courses match with the learning outcomes of the registered Master's Degree (Second Cycle) programme in Department of Chemistry at Nigde Ömer Halisdemir University.

### **Profile of the Program**

Master's Degree program in Chemistry has been established to provide the students the opportunity to specialize in Analytical Chemistry, Inorganic Chemistry, Physical Chemistry and Organic Chemistry. The students also develop skills to participate in scientific activities, and share the results with scientific community and they may continue their academic career by enrolling in related Ph.D. programs of the universities in Turkey or abroad.

Master's Degree program in Chemistry ("Second Cycle" in QF-EHEA and "7th Level" in TYYÇ ) is an academically-oriented program giving access to degree and non-degree research programs and professional practice demanding advanced levels of knowledge, skills and competencies. The program can be classified in regards to ISCED (The International Standard Classification of Education) 2011 and NQF-HETR (The Turkish Qualifications Framework for HE) profiles and fields of education as follows:

- ISCED Field of Education: 44 – Physical Sciences

- ISCED 2011 Level: 7, Orientation (Profile): 74, Subcategory: 747, Academically-oriented "Second Cycle" degree
- NQF-HETR Field of Education: 44 – Physical Sciences
- NQF-HETR Profile of Education: Academically-oriented "Second Cycle" degree

### **Learning and Teaching Methods**

The most frequently used instructional methods of the educational programs of Nigde Ömer Halisdemir University are given below. Programmes commonly apply these methods as appropriate instructional approaches in accordance with their aims and objectives.

The instructional methods applied for achieving the goal of meeting the expected learning outcomes of the Master's Degree program in Chemistry program at large are indicated in the section of 'program learning outcomes', and those methods utilized for individual course units are indicated in the relevant section of "description of individual course unit".

### **Learning and Teaching Methods**

- Lecture & In-Class Activities
- Land Surveying
- Group Work
- Laboratory
- Reading
- Assignment (Homework)
- Project Work • Seminar
- Web Based Learning
- Implementation/Application/Practice
- Thesis Work
- Field Study
- Report Writing

### **Occupational profiles of graduates with examples**

The global natures of the chemistry industries ensure many career opportunities in Turkey as well as in Europe and beyond. Our graduates can be engaged in many fields such as research and development, design, production, marketing, after-sale services, project development, according to their individual interests and preferences.

The employment opportunities for our graduates may be in Small and Medium Enterprises, in large scale companies and multinational companies including laboratories.

Graduates of Master of Science program in Chemistry can take part in national and international projects. They can work as academic staff in higher education institutions. They can also apply to PhD programs in Ömer Halisdemir University and other institutions in Turkey or abroad.

### **Qualification Requirements and Regulations**

Master's Degree program (second cycle) in Chemistry is awarded to students who have scored a Cumulative Grade Point Average (CGPA) of not less than 2.50 /4.00, defended his/her thesis successfully, and have completed all the courses (120 ECTS) with at least a letter grade of CB or S in the program.

For detailed information: Please see " Ömer Halisdemir University's Rules & Regulations for Graduate Education"

### **Access to Further Studies**

Upon successful completion of this programme, students may apply to doctorate (third cycle) degree programmes in or related fields of CHEMISTRY.

### **Examination Regulations, Assessment and Grading**

The methods applied for assessment of the achievement of the expected program learning outcomes for the entire Second Cycle program of CHEMISTRY are shown below and those for the individual course units are given in the relevant section of the course description with their contribution to the final grades.

- Mid-Term Exam
- Final Exam
- Make-up Exam
- Homework Assessment
- Presentation of Report
- Computer Based Presentation
- Presentation of Thesis

- Presentation of Document

Mid-term and final examinations are conducted in dates, places and times determined and announced by the University. The students' final semester grade is given by their instructors based on mid-term examination, homework evaluation, final examination results taking into account the students' compliance with attendance to the course activities.

The contribution of assessment grades of the in-term activities to the final grade is 40% and that of the final exam is 60% for all the course units.

### **Grading:**

The success of a student for each assessment (in-term and final) defined for each course unit is evaluated by the instructor. Evaluations are made over a scale of 100 points and converted to the letter grades at the end of the semester.

A student is considered to be successful in a course if he/she gets one of the following grades: AA, BA, BB, CB or S (Successful). The student's academic standing is calculated in the form of a Grade Point Average (GPA) out of a scale of 100 and announced at the end of each semester. The total grade point of a course is obtained by multiplying the grade point by the course ECTS credit. The semester GPA is calculated by dividing the total amount of grade points of courses gained in that semester by the total amount of ECTS credits of courses taken in the semester. Cumulative Grade Point Average (CGPA) is calculated by dividing the total amount of grade points of all the courses in the curriculum to be taken by the total amount of 120 ECTS credits. For each course taken, the student is given one of the following letter grades and grade points:

<b>Course score</b>	<b>Course Grade</b>	<b>Grade Points</b>
90-100	AA	4.00
85-89	BA	3.50
80-84	BB	3.00
75-79	CB	2.50
70-74	CC	2.00
65-69	DC	1.50
60-64	DD	1.00
50-59	FD	0.50
0-49	FF	0.00

### **Classification of the qualification**

A student who obtains a CGPA of 2.00-2.99 is considered as a Satisfactory Student, the one who obtains a CGPA of 3.00-3.49 is considered as a Honours Student, and the one who obtains a CGPA of 3.50-4.00 is considered as a High Honours Student.

### **Graduation Requirements**

In order for a student to graduate from Master's Degree (Second Cycle) Programme in CHEMISTRY, he/she has

- Completed 120 ECTS credits with passing grades (56 ECTS credits for 7 graduate courses and 21 credits; 6 ECTS credits for a Seminar Course; 2 ECTS for thesis study; 6 ECTS credits for Special Topics Courses taken at 3 consecutive semesters, and 60 ECTS credits for Thesis Studies taken at 2 consecutive semesters).
- Prepared and defended a thesis successfully.

### **Mode of Study:**

Master of Science Program in Chemistry at Nigde Ömer Halisdemir University is a full time program

### **Contact (Programme Director or Equivalent):**

<b>Position</b>	<b>Name Surname</b>	<b>Phone</b>	<b>E-Mail</b>
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