

## **PhD (Third Cycle) Programme in Biotechnology**

### **General Information**

The department of Biotechnology started its PhD programme in 2016-2017.

There are 8 professors, 1 associate professor, and 4 assistant professors in the department. The Department of Biotechnology conducts prestigious academic and scientific studies in the field and offers a competent education with its dynamic, innovative, and young academic staff conducting various scientific projects supported by both The Scientific and Technology Research Council (TUBITAK) of Turkey and the University of Niğde Ömer Halisdemir Research Center.

Department of Biotechnology has the capacity to provide support to work appropriate to current technology with the laboratories and equipment used for research and appliance purposes by students and academics.

Through the Doctorate of Science program, students develop skills to participate in scientific activities and share the results with the scientific community and they may continue their academic career by enrolling in related PhD. programs at universities in Turkey or abroad. PhD students will make a significant contribution to all areas related to academic life and Biotechnology.

### **Aims and Objectives**

#### **Aims :**

- To provide the students with the required skills and knowledge of biotechnology. 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 an advanced level of education for biotechnologists by taking part in research and making contributions to research and development in the field of biotechnology.
- To raise scientists that has vision, analytic thinking skill, and ethical values.

To train and provide the students with recent developments and information on health, agriculture, environmental protection, food production, and energy production in to take place research and development of biotechnology in public institutions and the private sector.

#### **Objectives :**

- To promote research and development studies in the fundamental areas of science of chemistry such as health, agriculture, environmental protection, food production, and energy production that are needed by the industry both in the national and international arena
- To contribute to the universal science in the field of Biotechnology
- To create knowledge and technologies that will contribute to 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 the qualification of DOCTORATE DEGREE in BIOTECHNOLOGY.

### **Level of Qualification**

PhD Degree by research and writing up thesis in BIOTECHNOLOGY is a four-year (8 semesters) program with 240 ECTS credits. The program meets the requirements both for ECTS credits and level descriptors of the "Third Cycle" degree qualifications of the Overarching Framework of European Qualifications Framework HE (QF-EHEA) and the "8th Level" qualifications of the Turkish Qualifications Framework for HE (TYYÇ, NQF-HETR), as well as the "8th 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 the Higher Education Council of Turkey. Information on applications 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 Biotechnology.
- To have at least 55 scores for foreign language proficiency taken from national exams or equivalent scores taken from international exams accepted by the Interuniversity Board (OSYM).
- To have ALES (Entrance Exam for Academic Personnel and Postgraduate Education) with a minimum score of 65 (or equivalent GRE score) after graduating with a master's degree with the thesis and to have at least 80 graduation points in 100 scales for the master's degree including thesis.
- To have ALES (Entrance Exam for Academic Personnel and Postgraduate Education) with a minimum score of 80 (or equivalent GRE score) for the candidates who want to

apply to the program after graduating with a BSc and have at least 80 Graduation points on a 100 scale for a Bachelor's degree.

- The Candidates with a Bachelor's or Master's Degree from abroad must have a certificate of equivalence from the Council of Higher Education (YOK).
- The ALES score is valid for 3 years; however, after the master's degree is completed or the master's program is ended by itself, a new ALES point for the candidates who want to apply Master's program maximum of one semester later is not required.
- If the graduate score is submitted with respect to the 4-point system, this score must be translated to the 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.

For further and detailed information please visit [General Admission Requirements and Registration Procedures](#) in the menu items of the Information on the Institution.

For further information on the admission requirement for foreign students, please contact to *University of Niğde Ömer Halisdemir 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 PhD Degree (Third Cycle) programme in Department of Biotechnology at Nigde Ömer Halisdemir University.

#### **Profile of the Program**

A doctorate program in Biotechnology has been established to provide the students the opportunity to specialize in Animal Biotechnology, Plant Biotechnology, Medical Biotechnology, and Microbial Biotechnology. The students also develop skills to participate in scientific activities and share the results

with the scientific community and they may continue their academic careers by enrolling in related Ph.D. programs at universities in Turkey or abroad.

The Ph.D. degree program in Biotechnology ("Third Cycle" in QF-EHEA and "8th 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: 42 – Life Sciences
- ISCED 2011 Level: 8, Orientation (Profile): 74, Subcategory: 747, Academically-oriented "Third Cycle" degree
- NQF-HETR Field of Education: 42 – Life Sciences
- NQF-HETR Profile of Education: Academically-oriented "Third Cycle" degree

#### **Learning and Teaching Methods**

The most frequently used instructional methods of the educational programs of Nigde Ömer Halisdemir University are given below. Programs 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 Ph.D. The degree programs in Biotechnology 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 nature of the biotechnologies industries ensures 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, and project development, according to their individual interests and preferences.

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

Doctorate programs in Biotechnology can take part in national and international projects. They can work as academic staff in higher education institutions.

### **Qualification Requirements and Regulation PhD.**

PhD. program (third cycle) in Biotechnology is awarded to students who have scored a Cumulative Grade Point Average (CGPA) of not less than 3.00 /4.00, defended his/her thesis successfully, and have completed all the courses (240 ECTS) with at least a letter grade of BB or S in the program.

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

### **Access to Further Studies**

Upon successful completion of a PhD. degree program, students can pursue an academic career in related fields.

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

The methods applied for assessment of the achievement of the expected program learning outcomes for the entire Third Cycle program of BIOTECHNOLOGY 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, and 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, 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 240 ECTS credits. For each course taken, the student is given one of the following letter grades and grade points:

Course score	Course Grade	Grade Points
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 a Satisfactory Student, one who obtains a CGPA of 3.00-3.49 is considered as an Honours Student, and one who obtains a CGPA of 3.50-4.00 is considered a High Honours Student.

### **Graduation Requirements**

In order for a student to graduate from Ph.D. (Third Cycle) Programme in BIOTECHNOLOGY, he/she has

- Completed 240 ECTS credits with passing grades for the candidates who have master's degrees (with the condition of taking at least 21 credits and 7 courses including seminar course, qualification exam, thesis proposal, and thesis studies for 4 semesters). On the other hand, completed 300 ECTS credits with passing grades for the candidates who have a bachelor's science degree (with the condition of taking at least 42 credits and 14 courses including seminar course, qualification exam, thesis proposal, and thesis studies for 4 semesters).
- Prepared and defended a thesis successfully.
- As of the 2015-2016 education term, in order to enter the thesis defending exam for the registered Ph.D. students in our institute, at least 1 journal paper related to the thesis must be published or accepted given as DOI number in SCI, SCI-Expanded or AHCI journal.

### **Mode of Study:**

The Doctorate Program in Biotechnology at Nigde Ömer Halisdemir University is a full-time program

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

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