

Master's Degree (Second Cycle) Programme in Physics

General Information

The Physics Department of the Niğde University launched its education activities in 2001, by recruiting its first graduate students, and then undergraduate students had been recruited in 1997-1998 educational term. Doctorate program in the department was started in 2007. The department has a young, dynamic and competent academic staff. 3 Professors , 4 Associate Professors , 9 Assistant Professors, 3 Research Associates are currently employed.

Also a number of projects supported by The Scientific and Technology Research Council of Turkey, State Planning Organization, are carried out by the research groups in the department. Some undergraduate students are welcome to participate and some graduate students can work as scholarship students in the projects conducted by our faculty members.

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.

The Physics department consists of 5 Divisions: Nuclear Physics, Atomic and Molecular Physics and Solid State Physics, High Energy and Plasma Physics and General Physics.

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 the skills to apply the advanced knowledge of mathematics, science and physics especially for solving complex and difficult problems in their specialization area, to operate and conduct inter-disciplinary studies and to work with others, in professional and social settings and to organize and participate creative and integrative design activities effectively
- To offer advanced level education for physicists for taking part in research and making contributions to research and development in the field of science and technology
- To raise scientists in graduate level that has vision, analytic thinking skill and ethical values

Objectives :

- To promote research and development studies in the fundamental areas of physics such Nuclear Physics, Atomic and Molecular Physics and Solid State Physics, High Energy and Plasma Physics and General Physics that are needed by the industry both in national and international arena.
- To play a role to contribute to the universal science in the field of Physics
- To create knowledge and technologies in a level 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 PHYSICS.

Level of Qualification

Master's Degree with thesis in PHYSICS 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. The following requirements are applied for both national and foreign students:

- To have a First Cycle (BSc) degree in Physics
- To have ALES (Entrance Exam for Academic Personnel and Postgraduate Education) with minimum score of 55 (or equivalent)
- To have a foreign language proficiency from national exams such as YDS (Foreign Language Proficiency Test), UDS (The Interuniversity Foreign Language Examination) or KPDS (The Foreign Language Examination for Civil Servants) or from international exams such as IELTS (International English Language Testing System) or TOEFL (Test of English as a Foreign Language) accepted by Interuniversity Board. Students who do not have a foreign language proficiency might apply yet their foreign language score is evaluated as 0.
- 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.
- The candidates must apply in person. The applications with incomplete documents will not be evaluated.

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 Nigde University International Office.

Contact:

International Office
Niğde Üniversitesi, Kampüs, Bor Yolu, Niğde, TÜRKİYE

Phone: 0 388 225 21 48

Fax: 0 388 225 23 85

E-mail: erasmus@nigde.edu.tr

Web: <http://www.nigde.edu.tr/uluslararasi/index.php?ln=en>

Specific Arrangements for Recognition of Prior Learning

With an understanding of lifelong learning, Nigde 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 Physics at Nigde University.

Profile of the Programme

Master's Degree program in Physics has been established with a vision that introducing innovative products can only be achieved by specialization and by combining creativity and physics experience. Thus program is organized to provide the students the opportunity to specialize in nuclear physics, atomic and molecular physics and solid state physics, high energy and plasma physics and general physics. 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 Physics("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 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 Physics 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 indivusal 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

Students who graduate from the program within the scope of the universality of science find career opportunities in Turkey, Europe and elsewhere. According to personal interests and preferences of our graduates biotechnology, molecular biology, botany and zoology fields of research and work in the areas of project development.

Graduates of Master of Science program in Biology can take part in national and international projects which are not routine applications of everyday research and development activities.

They can work as academic staff in higher education institutions. They can also apply to PhD programs in Nigde University and other institutions in Turkey or abroad.

Qualification Requirements and Regulations

Master's Degree program (second cycle) in Physics 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 "[Nigde 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 PHYSICS

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 Physics 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 4.00 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. The yearlong courses are included in the spring semester GPA. 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:

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 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 PHYSICS, he/she has

- Completed 120 ECTS credits with passing grades (54 ECTS credits for 7 graduate courses, 6 ECTS credits for a Seminar Course, 20 ECTS credits for 2 Special Topics Courses, and 40 ECTS credits for Thesis Studies taken at 2 consecutive semesters).
- A cumulative grade point average (CGPA) of at least 2.50 out of 4.00.
- Prepared and defended a thesis successfully.

Mode of Study:

Master of Science Programme in Physics at Nigde University is a full time / face to face programme.

Contact (Programme Director or Equivalent):

Position	Name Surname	Phone	E-Mail
Head of Department	Doç. Dr. Ahmet BAYKAL	+903882254084	abaykal@nigde.edu.tr
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