

MEDICAL BIOLOGY AND GENETICS

PhD. Programme Catalogue

2026-2027

1. GENERAL INFORMATION ON THE INSTITUTE OF GRADUATE STUDIES

1.1. Establishment of the Institute of Graduate Studies

A) History and Academic Processes of the Institute of Graduate Studies

Our Institute, which provides graduate education to nearly 5,000 students across 115 programs as a result of the merger of the Institutes of Health Sciences, Social Sciences, Natural and Applied Sciences, and Educational Sciences, conducts programs aimed at awarding master's and doctoral degrees under its regulation that came into effect on February 22, 2021. Graduate institutes are higher education institutions that offer undergraduate graduates the opportunity to pursue master's and doctoral degrees. The doctorate diploma, which is the highest degree awarded by universities, is conferred by institutes. Master's and doctoral education are prestigious programs that provide undergraduate graduates with specialization experience in their respective fields. A doctoral degree not only opens the path to specialization in one's field but also serves as a key to the doors of the academic world. Academics holding this title conduct research and publish works to reach academic ranks such as assistant professor, associate professor, and full professor, thereby contributing to the development of this research culture. A doctorate is a program designed to train scientists. Universities gain prestige through the number of their master's and doctoral graduates as much as through their undergraduate graduates. At our university, the Institute of Educational Sciences first began admitting students in 2000, while the other institutes commenced education in 2007. To date, over 5,000 master's and doctoral diplomas have been awarded across a total of 115 master's and doctoral programs.

B) Educational Policy and Academic Goals

The educational philosophy of the Institute of Graduate Studies is structured to encourage research and development on the foundation of lifelong learning. In this context, the Institute of Graduate Studies has prioritized a high-quality service approach as a policy that supports and advances society in national and international environments through research- and project-oriented scientific theses. Based on quality standards, the Institute of Graduate Studies adheres to educational standards that consider ethical principles and universal values within the framework of learning standards for research and ethics education to train contemporary researchers. Furthermore, the development of team spirit is emphasized based on a collaboration policy. In order to translate these specified standards into tangible outputs in the produced theses, conferences, seminars, and projects are carried out in collaboration with various university centers as well as the Scientific Research Projects Unit.

C) Accreditation and Quality Policy

C.1) Quality Policy

The quality policy of the Near East University Institute of Graduate Studies aims at the continuous improvement of graduate education and research activities carried out in line with the principles of excellence, scientific rigor, ethical values, innovation, and internationalization. The Institute adopts a management approach based on transparency, participation, and accountability; it conducts quality assurance processes in accordance with the standards of the Higher Education Quality Council (YÖKAK) and the European Higher Education Area (EHEA) framework. The quality policy is built upon the principles of service to society and the nation, commitment to ethical standards, and effective utilization of smart learning environments in teaching and research processes. The Institute aims to institutionalize a culture of continuous improvement in educational processes by systematically evaluating the feedback of all stakeholders (students, alumni, faculty members, administrative staff, external institutions, and community representatives).

C.2) The Accreditation Process of the Institute

The Institute of Graduate Studies at Near East University conducts an accreditation process aligned with national and international quality assurance systems. Institute programs undergo regular self-evaluation, external evaluation, and monitoring processes in accordance with the quality framework established by YÖKAK. Furthermore, the Institute adheres to the principles of the Bologna Process to ensure alignment with the European Higher Education Area; accordingly, it bases its practices on the standards of the EQF (European Qualifications Framework) and the NQF-HE (National Qualifications Framework for Higher Education in Turkey). During the accreditation process, indicators such as program qualifications, learning outcomes, faculty quality, research capacity, and student satisfaction are continuously monitored and presented to the University Senate through the Quality Assurance Report updated annually. This process contributes to the Institute's vision of internationalization and multiculturalism, supporting the strengthening of international collaborations and exchange programs.

C.3.) Quality of Education

To enhance quality in graduate education, the Institute adopts a learner-centered and technology-supported teaching approach.

- ➔ **Academic Staff:** The faculty members serving at the Institute consist of academicians who are experts in their fields, highly productive scientifically, and involved in national and international projects. Faculty members regularly participate in continuous professional development trainings in line with academic growth and ethical principles.
- ➔ **Course Content and Learning Outcomes:** Program curricula are updated taking into consideration contemporary scientific developments and societal needs. Courses are supported by smart learning environments, online learning systems, and AI-supported educational technologies.
- ➔ **Assessment and Feedback:** Students' academic achievements are evaluated through project-based, seminar-based, research article-based, thesis-based, and performance-based assessment tools. Student satisfaction surveys, course evaluation forms, and alumni tracking reports are utilized as primary data sources in the continuous improvement of educational quality.
- ➔ **Educational Resources:** Access to information for students is continuously expanded through a rich digital library collection, research databases, e-journal access, and open-access resources.

In this context, the Institute integrates its vision of excellence and quality not only with academic achievement but also with an ethical, innovative, and productive research culture.

C.4) Research and Development Activities

The Institute of Graduate Studies at Near East University stands out with its R&D activities conducted in line with its vision of scientific research, innovation, and smart society transformation.

- ➔ **Projects:** Numerous projects supported by TÜBİTAK, BAP (Scientific Research Projects), the European Union (Horizon Europe, Erasmus+), Development Agencies, and international research funds are carried out.
- ➔ **Student Participation:** Master's and doctoral students are actively involved in ongoing projects, contributing directly to scientific production by taking part in research processes.
- ➔ **Publications and Patents:** Scientific works conducted by faculty members and students are published in journals indexed in national and international databases; some projects result in patents, models, and product outputs.

- ➔ **Research Environment:** The Institute supports research-based learning through the Educational Technologies, Digital Learning, Data Science, Artificial Intelligence, and Educational Management Laboratories.
- ➔ **Collaborations:** Joint research conducted with national and international institutions contributes to the knowledge-based transformation of society; research outputs are integrated into course contents and community service projects.

In line with this, the Institute's R&D policy is in full alignment with the values of scientific rigor, ethics, entrepreneurship, and societal contribution.

C.5) Continuous Improvement Process

In order to ensure sustainable quality, the Institute conducts a continuous improvement mechanism based on the Plan-Do-Check-Act (PDCA) cycle.

- ➔ **Data Collection:** Student, alumni, faculty, administrative staff, and external stakeholder feedback is planned to be gathered through satisfaction surveys, the alumni tracking system, and quality indicators.
- ➔ **Analysis and Evaluation:** Collected data is analyzed by the Quality Commission and the Institute Board of Directors; results are planned to be evaluated in the annual "Educational Quality and Research Performance Report." An annual activity report is submitted to the University Rectorship.
- ➔ **Decision-Making and Implementation:** Program contents are updated, research support is increased, and student services are improved in line with feedback received.
- ➔ **Concrete Improvement Practices:**

  - Commissioning the online thesis tracking system,
  - Strengthening the infrastructure of digital learning platforms,
  - Restructuring the student advisement system,
  - Diversifying research funds and increasing the number of projects

This process maintains the Institute's culture of excellence and quality, making its vision of smart learning environments and research-based education sustainable.

1.2. Mission, Vision, and Core Values of the Institute of Graduate Studies

A) Mission

The mission of the Near East University Institute of Graduate Studies, within the framework of the university's institute activities, is to foster collaboration between the academic world and society, conduct research services, contribute to developments in contemporary science and technologies, contribute to social life and administration by following a scientific and ethical path toward informatics and project production in smart society developments, and play an active role in national and international education and research projects.

B) Vision

Yakın At Near East University, graduate education and research activities play a major role in innovation, achieving quality, and gaining a competitive advantage. Particularly in the rapidly developing information age, ensuring change and development in education and instruction in parallel with scientific and technological advancements is possible through the functionality of the Institute of Graduate Studies, which possesses a vision for graduate education and scientific research.

Accordingly, the vision of the Near East University Institute of Graduate Studies is to provide a universal, high-quality educational opportunity in line with societal needs through its graduate education facilities and scientific research activities, and to realize the mission of a smart society and transformation by supporting scientific research in light of original topics.

C) Core Values

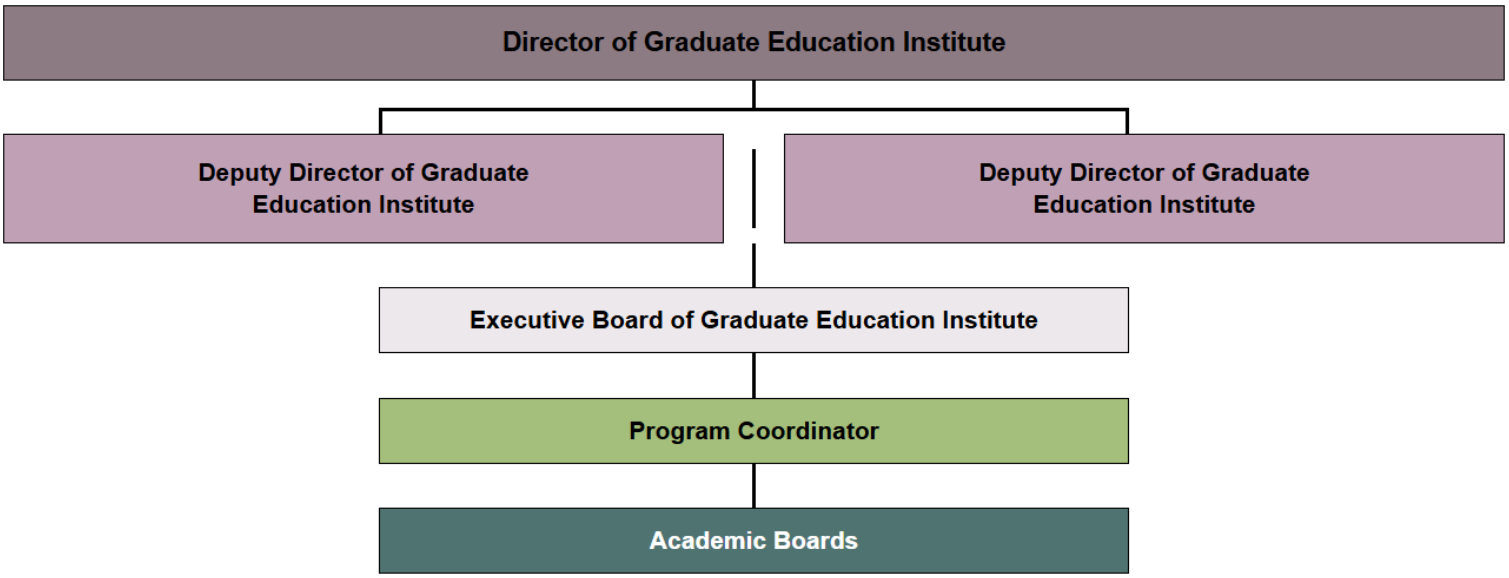
- **Transparency, Participation, and Accountability:** Our administrative activities at all levels are open, transparent, and accountable. In the management process, the opinions, ideas, and participation of all our stakeholders are highly valued.
- **Fair, Principled, and Honest Management:** All individuals serving in our university are treated fairly and ethically without any discrimination. Integrity and honesty are never compromised.
- **Competence and Merit:** It is essential that the academic and administrative staff serving in management positions at our university are competent and qualified in their respective fields.
- **Scientific Rigor and Ethics:** The studies conducted at our university are carried out on a scientific basis, and the knowledge obtained is utilized in accordance with scientific ethics.
- **Respect for the Environment and Aesthetics:** While instilling environmental awareness through educational activities, our university develops its physical spaces with aesthetic sensibility and environmental harmony.
- **Service to Society and the Country:** Educational and research activities are carried out with the priority of serving society and the nation, aiming to transform produced knowledge into value.
- **Freedom and Respect for Values:** Members of the university exercise their free will during academic research and educational activities. The boundaries of freedom are defined by human, social, and academic ethical values, as well as laws and regulations.
- **Entrepreneurship and Innovation:** It is essential for our graduating students and research staff to prioritize entrepreneurship and innovation in education, learning, and research activities.
- **Excellence and Quality:** We act with the commitment to continuous development and improvement in order to achieve excellence and provide the highest quality service in education, research, and community services.
- **Internationalization and Multiculturalism:** We aim to standardize international educational services and build collaborations based on a multicultural approach to education.
- **Research and Reflective Thinking:** Through published works and theses, we aim to deliver services in field disciplines grounded in developing students' reflective thinking skills.
- **Technological Advancement and Smart Learning Environments:** It is fundamental to support the production of knowledge with an online infrastructure based on equal educational opportunity, leveraging smart learning environments in the transformation of society through research.

1.3. Goals and Objectives of the Institute of Graduate Studies

- To develop projects and research in required fields based on national priority topics.
- To form working groups and foster collaborations in various fields and subjects related to educational sciences, social sciences, natural and applied sciences, and health sciences.
- To conduct research that helps understand, explain, and improve social and cultural structures.

- ➔ To address educational sciences, social sciences, natural and applied sciences, and health sciences as a whole, and to strive to strengthen their connections with society.
- ➔ To conduct smart social research for the benefit of society and institutions (both for-profit and non-profit) and to foster solidarity and cooperation in the field of education.

1.4. Organizational Chart of the Institute of Graduate Studies



1.5. Lisansüstü Eğitim Enstitüsünün Yönetimi

- ➔ Director: Prof. Dr. K. Hüsnü Can Başer
- ➔ Vice Director: Prof. Dr. Fahriye Altınay
- ➔ Vice Director: Prof. Dr. İlker Etikan
- ➔ Executive Board Member: Prof. Dr. İhsan Çalış
- ➔ Executive Board Member: Prof. Dr. Sezgin İlgi
- ➔ Executive Board Member: Dr. Bülent Bilgehan
- ➔ Executive Board Member: Prof. Dr. Evren Hınçal
- ➔ Executive Board Member: Prof. Dr. Zehra Altınay
- ➔ Executive Board Member: Prof Dr. Mukaddes Sakallı Demirok
- ➔ Executive Board Member: Prof. Dr. Erdoğan Ergün
- ➔ Executive Board Member: Doç. Dr. Sait Akşit

1.6. Academic Programs within the Institute of Graduate Studies

Program	Yürütücü
Guidance and Psychological Counseling	Prof. Dr. Könül Memmedova
Preschool Education	Doç. Dr. Seçil Besim Ayhan
Curriculum and Instruction	Prof. Dr. Umut Akçıl
Educational Administration, Supervision, Economics, and Planning	Prof. Dr. Gökmen Dağlı

Creative Drama in Education	Doç. Dr. Secil Besim Ayhan
Music Education	Yrd. Doç. Emine Kıvanç Öztuğ
Educational Measurement and Evaluation	Prof. Dr. Çiğdem Hürsen
Entrepreneurship and Innovation in Education	Prof. Dr. Fahriye Altınay Aksal
Computer Education and Instructional Technology	Prof. Dr. Fahriye Altınay Aksal
Art Education	Doç. Dr. Fatma Miralay
Environmental Education	Prof. Dr. Aşkın Kiraz
Special Education	Prof. Dr. Mukaddes Sakallı Demirok
Tourism Management	Prof. Dr. Nesrin M. Bahçelerli
Tourism Management	Prof. Dr. Nesrin M. Bahçelerli
Physical Education and Sports	Prof. Dr. Mehtap Tiryakioğlu
Landscape Architecture	Prof. Dr. Özge Özden
Animal Science	Prof. Dr. Dilek Arsoy
Food Engineering	Yrd. Doç. Dr. Şebnem Güler
Prosthodontics	Prof. Dr. M. Mutahhar Ulusoy
Oral and Maxillofacial Surgery	Doç. Dr. Lokman Onur Uyanık
Restorative Dentistry	Prof. Dr. Nuran Ulusoy
Endodontics	Doç. Dr. Fatma Basmacı
Orthodontics	Yrd. Doç. Dr. Beste Kamiloğlu
Pediatric Dentistry *(Pedodontics)*	Doç. Dr. Özay Önöral
Oral and Maxillofacial Radiology	Prof. Dr. Seçil Aksoy
Periodontology	Prof. Dr. Hasan Güney Yılmaz
Electrical and Electronics Engineering	Prof. Dr. Bülent Bilgehan
Mechanical Engineering	Prof. Dr. Hüseyin Çamur
Biomedical Engineering	Doç. Dr. Süleyman Aşır
Mechatronics Engineering	Yrd. Doç. Dr. Mohammad Karimzadeh
Department of Art and Design	Prof. Erdoğan Ergün, Doç. Dr. Gökhan Okur
Civil Engineering	Prof. Dr. Kabir Sadeghi
Environmental Engineering	Prof. Dr. Hüseyin Gökçekuş
Construction Management and Strategies	Doc. Dr. Fatemeh Nouban
Public Law	Prof. Dr. Yeter Tabur
Private Law	Doç. Dr. Aysun Beydola
International Law	Uzm. Merve Gertik
Surgery *(Veterinary)*	Prof. Dr. Deniz Seyrek-İntaş
Obstetrics and Gynecology *(Veterinary)*	Prof. Dr. Selim Aslan
İç HastalıklarıInternal Medicine *(Veterinary)*	Prof. Dr. Abdullah Başoğlu

Animal Science *(Veterinary)*	Prof. Dr. Dilek Arsoy
Animal Nutrition and Nutritional Diseases	Prof. Dr. İsfendiyar Darbaz
Microbiology	Yrd. Doç. Dr. Halit Şükür
Food Hygiene and Technology	Prof. Dr. Beyza H. Ulusoy
Midwifery	Doç. Dr. Filiz Yarıcı
Nutrition and Dietetics	Doç. Dr. Mustafa Hoca
Physiotherapy and Rehabilitation	Doç. Dr. Tuba Yerlikaya
Audiology	Yrd. Doç. Dr. Ebru Kösemihal
Architecture	Prof. Dr. Ayşe Gertik
Interior Architecture	Prof. Dr. Ayşe Gertik
City and Regional Planning	Prof. Dr. Ayşe Gertik
Islamic History	Prof. Dr. Mehmet Mahfuz Söylemez
Arabic Language and Rhetoric	Doç. Dr. Mustafa Kelebek
Physiology	Prof. Dr. Emine Koç
Histology and Embryology	Prof. Dr. Aysel Kükner
Medical Biology and Genetics	Prof. Dr. Haydar Bağış
Medical Microbiology and Clinical Microbiology	Prof. Dr. Emrah Ruh
Medical Biochemistry	Prof. Dr. Özlem Dalmızrak
Biostatistics	Prof. Dr. İlker Etikan
Neurosciences	Prof. Dr. Murat Özgören
Molecular Medicine	Prof. Dr. Selma Yılmaz
Anatomy	Prof. Dr. Sezgin İlgi
Media and Communication Studies	Doç. Dr. Ayhan dolunay
Basic Communication Sciences	Yrd. Doç. Dr. İbrahim Özejder
Business Administration	Prof. Dr. Şerife Eyüpoğlu
Economics	Prof. Dr. Hüseyin Özdeşer
Innovation And Knowledge Management	Prof. Dr. Fezile Özdamlı
Political Science And International Relations	Doç. Dr. Sait Akşit
Banking And Finance	Prof. Dr. Turgut Türsoy
Business Administration	Prof. Dr. Şerife Eyüpoğlu
Economics	Prof. Dr. Hüseyin Özdeşer
Innovation And Knowledge Management	Prof. Dr. Fezile Özdamlı
International Relations	Doç. Dr. Sait Akşit
Banking And Finance	Prof. Dr. Turgut Türsoy
Political Science	Prof. Dr. Nur Köprülü
International Business	Yrd. Doç. Dr. Ayşe Gözde Karaatmaca
Marketing	Doç. Dr. Ahmet Ertugan
Banking And Accounting	Prof. Dr. Aliya Işıksal

Human Resources Management	Yrd. Doç. Dr. Hüseyin Baykan
Surgical Nursing	Prof. Dr. Ümran Dal Yılmaz, Doç. Dr. Burcu Totur Dikmen
Pediatric Nursing	Prof. Dr. Candan Öztürk
Obstetrics and Women's Health Nursing	Doç. Dr. Dilek Sarpkaya Güder
Medical / Internal Medicine Nursing	Doç. Dr. Ezgi Bağrıaçık
Fundamentals of Nursing and Management	Yrd. Doç. Dr. Özdem Nurluöz
Psychiatric and Mental Health Nursing	Yrd. Doç. Dr. Samineh Esmaeilzadeh
Public Health Nursing	Yrd. Doç. Dr. Dilay Necipoğlu Kalmaz
History	Prof. Dr Ali Efdal Özkul
History of Cyprus	Prof. Dr Ali Efdal Özkul
Folklore Education	Prof. Dr. Burak Gökbulut
Turkish Language Teaching	Prof. Dr. Mustafa Yeniasır
English Language Teaching (ELT)	Yrd. Doç. Dr Nüket Gündüz
Department of English Language Teaching	Yrd. Doç. Dr Nüket Gündüz
Department of English Language and Literature	Yrd. Doç. Dr. Danish Suleman
Department of Clinical Psychology	Doç. Dr. Meryem Karaaziz
Department of General Psychology	Doç. Dr. Ezgi Ulu
Department of Geography Education	Prof. Dr. Şeniz Şensoy
Department of Mathematics	Prof. Dr. Evren Hınçal
Department of Mathematics Education	Doç. Dr. Bilgen Kaymakamzade
Analytical Chemistry	Yrd. Doç. Dr. Jude Joshua Caleb
Pharmacognosy	Prof. Dr. K. Hüsnü Can Başer
Pharmacology	Yrd. Doç. Dr. Ugochukwu Chukwunyere
Clinical Pharmacy	Yrd. Doç. Dr. Junaid Asghar
Pharmaceutical Botany	Doç. Dr. Duygu Yiğit Hanoğlu
Phytotherapy	Prof. Dr. Dudu Özkum Yavuz
Pharmaceutical Chemistry	Doç. Dr. Emine Erdağ Haskoloğlu
Toxicology	Prof. Dr. Şahan Saygi
Pharmaceutical Technology	Yrd. Doç. Dr. Nailla Jiwa
Software Engineering	Prof. Dr. Fadi Al-Turjman
Computer Information Systems	Prof. Dr. Nadire Çavuş
Artificial Intelligence Engineering	Doç. Dr. Gülsüm Aşıksoy
Information Systems Engineering	Doç. Dr. Boran Şekeroğlu
Computer Engineering	Prof. Dr. Rahib Abiyev
Data Analytics Engineering - Information Systems	Doç. Dr. Amr Abdelbari
Cybersecurity Engineering	Doç. Dr. İdoko John Bush
Management Information Systems	Prof. Dr. Fezile Özdamlı

1.7. Graduation Requirements and Degree Awarded

Graduation options are available for Master's with Thesis, Non-Thesis Master's, and Doctoral (Ph.D.)

programs within the Institute of Graduate Studies. Graduates of Non-Thesis and Master's with Thesis programs earn the title of Specialist, while graduates of doctoral programs earn the title of Doctor (Ph.D.).

To graduate from a Master's program with thesis, students must complete seven courses, one seminar, and a master's thesis. To graduate from a Non-Thesis Master's program, students must complete 11 courses, which must include a research project course.

To graduate from a Doctoral (Ph.D.) program, students must complete seven courses and one seminar, successfully pass the doctoral comprehensive examination, and subsequently complete their dissertation. During the dissertation completion stage in the doctoral program, students are also required to produce a scientific publication derived from their dissertation in journals indexed under SSCI, AHCI, or SCI-Expanded.

It is also an important requirement for students to apply for and obtain ethics committee approval during the preparation stage of their scientific publications. Furthermore, achieving a passing score on exams such as YÖKDİL, YDS, or their equivalents is a required criterion for doctoral programs.
All administrative processes regarding thesis submission, advisor approval, documents to be submitted to the institute, and graduation procedures must be completed. Detailed information regarding these processes can be accessed through the Graduate Education and Examination Regulations.

- ➔ **Successful Completion of Compulsory Courses:** Students must successfully complete all compulsory courses included in the curriculum.
- ➔ **Grade Point Average (GPA):** The minimum Grade Point Average required for graduation (e.g., at least 2.50 out of 4.00) must be explicitly stated.
- ➔ **Comprehensive Examination and Thesis Process:** In doctoral programs, passing the comprehensive examination and gaining approval for the thesis proposal are required. In Master's programs with thesis and Doctoral programs, students must successfully defend the thesis prepared under the guidance of an advisor before a jury.
- ➔ **Term Project for Non-Thesis Programs:** In Non-Thesis Master's programs, the term project must be completed with the approval of the advisor.
- ➔ **Scientific Ethics and Publication Requirements:** In designated programs, students may be required to publish scientific work or present a paper at a national/international conference.
- ➔ **Foreign Language Requirement (If Applicable):** The type of diploma to be awarded upon successful completion of the program (e.g., Master's with Thesis / Non-Thesis Master's / Doctorate) should also be specified.

2. GENERAL INFORMATION ABOUT THE PROGRAM

2. 1. Brief History and Development of the Program

In accordance with the relevant approval decisions of the Ministry of National Education and Culture of the Turkish Republic of Northern Cyprus and the procedures conducted under the Higher Education Planning, Evaluation, Accreditation and Coordination Council (YÖDAK), permission was granted to establish the Ph.D. Program in Medical Biology and Genetics under the Institute of Health Sciences at Near East University. The program initiated its academic activities by admitting its first doctoral students at the beginning of the 2009-2010 academic year. Permitted to commence education and accredited through the relevant meetings and decisions of YÖDAK, the program has been transformed into a multidisciplinary research and educational structure as of January 2011 by integrating with the infrastructure of the Faculty of Medicine, Department of Medical Genetics, and the Centre of Excellence Genetics and Cancer Diagnosis Research Center.

The primary objective of the program is to raise expert scientists and researchers equipped with advanced theoretical knowledge, high-level laboratory and molecular research skills, and strong scientific research competence in the field of Medical Biology and Genetics. The program aims to train individuals capable of analyzing complex genetic and cell biology cases, hereditary disease mechanisms, and cancer genetics processes at the molecular level. By integrating recombinant DNA technologies, next-generation sequencing (NGS), cytogenetics and molecular cytogenetics (FISH), epigenetic mechanisms, and modern biotechnological advancements into its educational and research processes, the program demonstrates continuous development. Graduates assume active roles in academic institutions and advanced diagnostic/clinical centers, contributing to the literature through their scientific publications.

2.2. Mode of Education

The program is a thesis-based doctoral program conducted within the scope of formal (full-time) graduate education. The educational process is based on students' active and continuous participation in scientific research, clinical applications, and academic output, as well as acquiring advanced theoretical knowledge. The educational activities carried out in the program consist of face-to-face courses, applied/laboratory studies, clinical applications, and research activities conducted under the supervision of an advisor.

The educational structure of the program is built upon a research-based learning approach. In this context, students systematically develop skills in using scientific methods effectively, designing and conducting original research, analyzing acquired findings, and converting them into academic publications. There are no distance education or evening education applications in the educational process; all academic and applied activities are carried out within the framework of the formal education model.

2.3. Level of Qualifications

The program is a graduate program at the Doctoral (Ph.D.) level, corresponding to Level 8 of the Turkish Higher Education Qualifications Framework (TYYÇ) and Level 8 of the European Qualifications Framework (EQF). This level of education aims to enable students to acquire advanced knowledge, skills, and competencies specific to their fields through a holistic approach and to produce knowledge through original scientific research.

Within the scope of the program's level of qualification, students develop competencies in possessing advanced theoretical and applied knowledge, conducting independent and original research, effectively using scientific methods, and solving complex scientific problems with critical and analytical thinking. Furthermore, students' skills in presenting their research findings in national and international academic environments and translating them into scientific publications are supported. The program is structured in line with the principles of academic ethics, scientific responsibility, and lifelong learning, aiming to raise graduates as independent researchers and experts equipped to compete academically and professionally at both national and international levels. In this respect, the program offers a transparent and comparable qualification level aligned with the European Higher Education Area.

2.4. Medium of Instruction

The medium of instruction of the program is English.

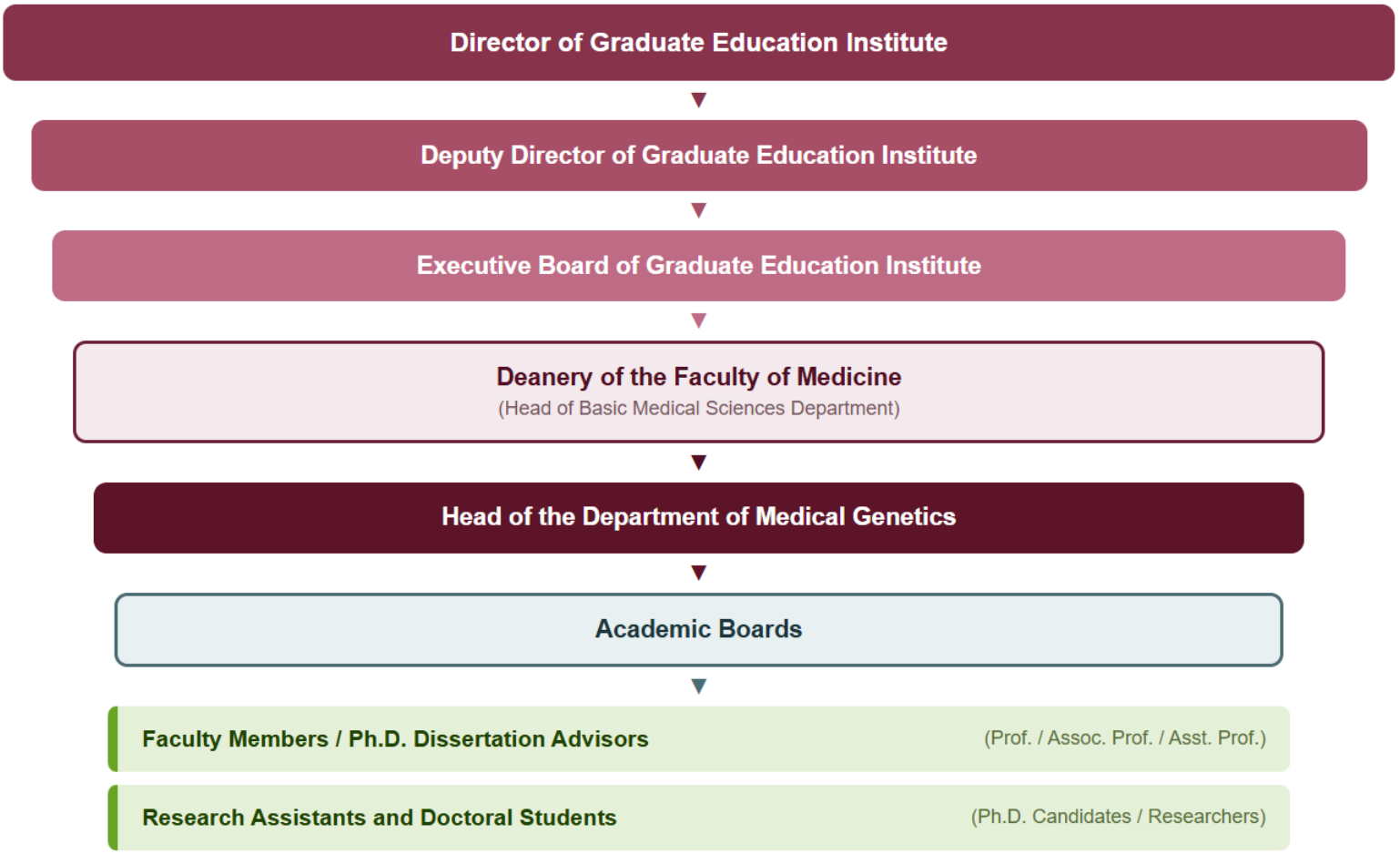
2.5. Duration of the Program

Programın The normal duration of the program is structured as 8 semesters (4 years). The educational process consists of coursework, seminar, comprehensive examination, thesis proposal, and thesis dissertation stages, with the student's active, regular, and continuous participation in these stages being fundamental throughout the program.

The first four semesters (first two years) of the program are dedicated to theoretical courses and seminar studies aimed at enabling students to acquire advanced theoretical knowledge related to their field and to develop scientific research skills. During this period, students gain competence in scientific methodology, research design, ethical principles, and current topics related to the field. At the end of the first two years, students are subjected to a comprehensive examination aimed at evaluating the academic competencies of the program. Students who successfully complete the comprehensive examination proceed to the stage of preparing and presenting a thesis proposal under the guidance of their advisor.

The final four semesters (last two years) of the program constitute the period in which students carry out their thesis research within the framework of an original research topic. During this process, students are expected to plan, execute, and analyze their research in accordance with scientific methods and ethical principles, and to transform their findings into an academic dissertation and scientific publications.

2.6. Organisational Structure of The Programme



2.7. Program Director

The program is directed by Prof. Dr. Haydar Bağış. He is responsible for managing the academic and administrative operations of the program, coordinating course schedules, organizing advisory processes, ensuring collaboration among faculty members, and monitoring the academic progress of research assistants:

- **E-mail:** haydar.bagıs@neu.edu.tr
- **Office:** Near East University, Faculty of Medicine, Department of Medical Genetics, 4th Floor

2.8. Management and Academic Staff of the Program

Program, The program is conducted with the contributions of faculty members who are experts in their fields and possess national and international academic experience. The academic staff of the program has both advanced theoretical knowledge and a strong scientific foundation in conducting field-specific scientific research.

Academics serving in the program deliver lectures at undergraduate and doctoral levels, guide students through scientific research processes, and lead national and international research projects.

Furthermore, the faculty members significantly contribute to the scientific productivity of the program through peer-reviewed journal articles, conference papers, book chapters, and interdisciplinary academic collaborations.

The scientific and professional development of the academic staff is continuously supported, with faculty members regularly participating in seminars, workshops, conferences, and professional training programs. This approach plays a crucial role in both enhancing research quality and educating students with up-to-date knowledge and practical applications.

Managemet and Academic Staff	Prof. Dr. Haydar Bağış *(Anabilim Dalı Başkanı)*
	Asst. Prof. Dr. Aybike Erdoğan Atay
	Asst. Prof. Dr. Seniye Targen Dinçeller
	Asst. Prof. Dr. Berkiye Sonüstün Taçman
	Asst. Prof. Dr. Tutku Yaraş
	Asst. Prof. Dr. Hakan Aytaçoğlu
	Research Assisstants

Note: *The table has been updated as of the beginning of the Fall Semester, 2026–2027 Academic Year.*

3. MISSION AND VISION OF THE PROGRAM

3.1. Mission

The mission of the Medical Biology and Genetics Ph.D. Program is to educate expert academics who base their work on ethical values, adopt evidence-based scientific practices, and effectively utilize advanced molecular diagnostic and research methods. The program supports specialization across a broad scientific spectrum—ranging from molecular cell biology to cancer genetics, cytogenetic processes to recombinant DNA technologies, and next-generation sequencing (NGS) systems. Based on multidisciplinary collaboration, it aims to develop students' abilities to design original scientific research, interpret laboratory findings, and disseminate results on national and international platforms. Supporting the generation of innovative biomedical and genetic approaches that contribute to public health, the program targets training researchers who possess leadership potential in both academic and clinical/laboratory fields.

3.2. Vision

The vision of the Medical Biology and Genetics Ph.D. Program is to be an education and research center that pioneers the development of innovative techniques in molecular biology and medical genetics, is nationally and internationally recognized for its scientific research, and establishes multidisciplinary research approaches as an academic standard. By supporting scientific output in areas such as advanced biotechnological infrastructure usage, cell and tissue culture, epigenetic mechanisms, and bioinformatic data analysis, the program aims to train ethical leader academics who contribute to the advancement of public health and personalized medicine applications.

4. CORE VALUES OF THE PROGRAM

- ➔ **Scientific Competence and Evidence-Based Approach:** Scientific accuracy, methodological rigor, advanced analytical thinking, and evidence-based decision-making are fundamental to all research processes.
- ➔ **Ethical Principles and Patient Safety:** Full compliance with patient privacy, data confidentiality, and biosafety protocols during research processes, as well as the collection, processing, and storage of biological samples, is a primary priority.

- ➔ **Innovation, Technology, and Continuous Development:** Encourages the use of next-generation sequencing (NGS), microarray, advanced PCR technologies, bioinformatic analyses, and modern cell culture methods; supports the scientific and technological advancement of the field.
- ➔ **Contribution to Public Health:** Focuses on safeguarding public health and developing early diagnosis models through molecular and cellular studies targeting hereditary diseases, rare disorders, complex disease pathophysiologies, and cancer genetics.
- ➔ **Interdisciplinary Collaboration:** Promotes effective collaboration with Medical Genetics, Obstetrics and Gynecology (IVF/PGT), Oncology, Pathology, Biostatistics, and other clinical/basic medical disciplines, supporting multidisciplinary research planning.
- ➔ **Leadership and Academic Responsibility:** Supports graduates' abilities to become scientific authorities in national and international academic arenas, direct research projects, and contribute to the advancement of the field of molecular medicine and genetics.
- ➔ **Lifelong Learning and Professional Currency:** Adopts an ethos of continuous learning, adaptation, and self-improvement in light of rapidly evolving genomic technologies, biotechnological innovations, and scientific literature.

5. AREAS OF ACTIVITY OF THE PROGRAM

Programın The areas of activity of the program are structured under the headings of graduate education and training, scientific research and development, academic publishing and scientific output, interdisciplinary collaboration, and public service. Through these fields, the program aims to develop students' academic competencies with a holistic approach.

Within the scope of **education and training activities**, advanced theoretical courses, seminars, practical laboratory studies, and advisor-guided individual research are included. Students are supported in effectively utilizing scientific methods, developing critical thinking skills, and accessing field-specific, up-to-date knowledge.

Research and development activities are carried out through original doctoral dissertation studies, national and international research projects, participation in scientific meetings, and interdisciplinary studies. The program encourages the translation of research outputs into high-quality scientific publications, thereby contributing to the academic body of knowledge.

Under **academic and societal contribution activities**, scientific congresses, symposia, workshops, continuous professional development events, and health awareness studies aimed at the public are conducted. Through these activities, the program aims to both enhance academic productivity and deliver sustainable contributions to public health.

6. PROGRAM OBJECTIVES AND GOALS

Goal 1– Imparting Advanced Academic and Scientific Competence

The primary goal of the program is to educate expert researchers and academics who possess in-depth theoretical knowledge and advanced laboratory application skills in Medical Biology and Genetics, can evaluate complex genetic mechanisms through a holistic approach, and can effectively implement multidisciplinary research and diagnostic processes.

Objectives:

- ➔ To impart advanced competence in current diagnostic and research protocols regarding the molecular etiology of hereditary, rare, and complex diseases.
- ➔ To develop advanced practical laboratory application skills in cell culture, cytogenetic analytics, and recombinant DNA technologies.
- ➔ To integrate laboratory management, biosafety principles, and experimental design fundamentals with evidence-based scientific approaches.
- ➔ To foster competence in the effective use of next-generation sequencing (NGS), microarray, and bioinformatic tools in research and data analysis processes.

Goal 2 – Strengthening Scientific Research and Innovative Approach Capacity

The second goal of the program is to train researchers capable of conducting original, innovative scientific research of international merit in molecular medicine and genomic sciences, as well as directing scientific data generation and evaluation processes.

Objectives:

- ➔ To impart advanced competence in genetic research methodology, experimental design, genomic analytics, and biostatistical evaluation.
- ➔ To carry out projects, experimental studies, and doctoral dissertations capable of being published in internationally peer-reviewed, high-index journals.
- ➔ To support interdisciplinary research in cancer genetics, epigenetics, tissue engineering, and personalized medicine (biomarker discovery).
- ➔ To cultivate a working culture compliant with data management, ethics committee approval processes, and academic writing standards in molecular research.

Goal 3 – Providing Professional Leadership and Academic Contribution

The third goal of the program is to ensure that graduates develop as individuals capable of serving as role models in academia, contributing to the advancement of life sciences and medical genetics through scientific productivity, and assuming national and international academic and laboratory leadership roles.

Objectives:

- ➔ To develop academic communication and presentation skills to a level enabling presentation at national and international scientific congresses.
- ➔ To ensure graduates acquire the qualifications necessary to serve as faculty members, researchers, laboratory supervisors, or R&D coordinators in academic institutions.
- ➔ To strengthen skills in scientific ethics, academic responsibility, and scientific project leadership..
- ➔ To impart competence in multidisciplinary research planning and academic team management.

Goal 4 – Contributing to Public Health and Enhancing Clinical Service Quality

The fourth goal of the program is to develop scientifically grounded models and research outputs aimed at preventing genetically inherited diseases, developing early diagnostic models, and sustainably enhancing the quality of biotechnological services in society.

Objectives:

- ➔ To develop public-benefit scientific projects focusing on genetic screening strategies, cancer risk analyses, and rare diseases.
- ➔ To disseminate quality control standards, accurate data reporting, and long-term data security-oriented approaches in laboratory services.
- ➔ To provide academic contributions to national health policies, rare disease awareness initiatives, and expert consultation in the fields of medical biology and genomics.

7. PROGRAM COMPETENCIES

7.1. Program Qualifications

PQ 1. Analyzes the molecular, cellular, and genetic mechanisms underlying normal biological processes and human diseases at an advanced level, and synthesizes the complex relationships among these mechanisms in original research.

PQ 2. Formulates original hypotheses to expand scientific boundaries in the field by thoroughly evaluating genome structure, organization, and function, as well as gene expression, epigenetic regulation, mutation, and DNA repair mechanisms.

PQ 3. Critically interprets Mendelian and non-Mendelian inheritance patterns in the context of their roles in the pathogenesis of hereditary and complex diseases; develops innovative approaches to analyze complex genetic disease models.

PQ 4. Differentiates chromosomal and genomic anomalies and their associated syndromes; independently interprets complex genomic data obtained through advanced cytogenetic and molecular genetic techniques to develop differential diagnostic models.

PQ 5. Evaluates the molecular pathophysiology of cancer, aging, and other multifactorial diseases in light of universal literature, and executes original research designs targeted at biomarker discovery and therapeutic goals in these areas.

PQ 6. Possesses top-tier knowledge regarding state-of-the-art methods, advanced technologies (NGS, microarray, bioinformatics, etc.), and clinical applications in medical biology, biotechnology, and genetic diagnostics; creatively integrates these technologies into research problems.

PQ 7. Independently designs, plans, and executes laboratory/experimental processes for an original scientific study in medical biology and genetics; analyzes and interprets large-scale, complex data using advanced biostatistical methods to bring innovation to the literature.

PQ 8. Manages strategic decision-making processes and provides leadership in team-based, multidisciplinary, and interdisciplinary national or international research and project environments.

PQ 9. Critically analyzes, synthesizes, and evaluates complex scientific data, figures, and current literature; publishes original research outputs in national/international peer-reviewed journals (SCI-Expanded) and presents them to scientific communities using effective communication tools.

PQ 10. Fully adopts the principles of lifelong learning and professional development, tracks scientific and technological advancements on a global scale, and contributes academically to society's progression as a sustainable knowledge society.

PQ 11. Establishes advanced written, spoken, and visual academic communication using English at a minimum of Common European Framework of Reference (CEFR) C1 Level, independently conducting scientific discussions at an international level.

PQ 12. Acts in accordance with the highest academic integrity, ethical responsibility, and professional standards across scientific research, publishing, laboratory management, and biosafety processes; leads the resolution of societal and ethical issues encountered.

7.2. Relationship Between Program Qualifications and NQF-HE (TYYÇ) Qualifications

Turkish National Qualifications Framework for Higher Education (NQF-HE) - Level 8 / Health Field			PQ 1	PQ 2	PQ 3	PQ 4	PQ 5	PQ 6	PQ 7	PQ 8	PQ 9	PQ 10	PQ 11	PQ 12
Knowledge	Factual - Theoretical	Based on Master's level qualifications, develops, deepens, and reaches original definitions that bring innovation to the field with up-to-date and advanced knowledge through original thought and/or research at an expert level.	5	5	4	4	4	5	5	3	4	**3**	**2**	**4**
		Grasps the interdisciplinary interaction related to the field; reaches original results by using knowledge requiring expertise in the analysis, synthesis, and evaluation of new and complex ideas.	4	4	4	4	5	4	4	5	4	3	2	3
		Possesses advanced knowledge regarding domain-specific devices and instruments, as well as computers and other technological tools required by the health field.	3	3	2	4	3	5	5	2	4	4	1	3
		Knows the importance of ethical principles and ethics committees for individuals and society.	2	2	2	3	2	2	4	3	3	3	1	5
		Possesses knowledge of statistical methods continuously used in health research studies.	3	3	3	4	3	4	5	2	4	2	1	2
Skills	Cognitive-Practical	Systematically evaluates and utilizes new information in the field.	5	4	4	4	4	4	5	3	5	4	3	3
		Develops a new idea, method, design, and/or application that brings innovation to the field, or applies a known idea, method, design, and/or application to a different field; researches, grasps, designs, adapts, and implements an original subject.	4	5	4	4	4	5	5	3	5	**3**	**2**	**4**
		Writes a report on research conducted/participated in and publishes it in nationally/internationally accepted peer-reviewed journals, and presents it at scientific meetings.	4	4	3	3	4	4	5	3	5	3	4	4
		Performs critical analysis, synthesis, and evaluation of new and complex ideas.	4	5	4	4	4	4	4	4	5	4	3	4
		Possesses high-level skills in using research methods in field-related studies.	4	4	3	5	4	5	5	3	4	3	2	4
		Conducts necessary examinations using domain-specific devices/instruments and computers at an advanced level required by the health field, developing creative new solutions to problems.	3	3	2	4	3	5	5	2	4	**3**	**1**	**3**
Competencies	Competency to work Independently and take responsibility	Contributes to progress in the field by independently conducting an original study that introduces innovation, develops a new idea, method, design/application, or applies a known approach to a different domain.	4	4	4	4	4	5	5	3	5	**3**	**2**	**4**
		Performs statistical analyses at a level capable of evaluating a scientific manuscript.	3	2	2	3	2	3	5	1	4	2	1	2
		Expands the frontiers of knowledge in the field by publishing at least one scientific paper related to the discipline in national and/or international peer-reviewed journals.	4	4	3	3	4	4	4	2	5	3	4	4
		Demonstrates leadership in environments requiring the resolution of domain-specific and interdisciplinary problems.	3	3	3	3	3	3	4	5	4	3	2	4
	Learning Competency	Develops new ideas and methods related to the field using high-level mental processes such as creative and critical thinking, problem-solving, and decision-making.	4	5	4	4	4	4	5	3	5	4	2	3
		Follows evidence-based practices and conducts research that creates evidence in their professional domain.	5	4	4	4	4	4	5	3	4	4	2	3
		Applies principles of advanced professional development and lifelong learning in health-related endeavors.	3	3	3	3	3	3	4	3	4	5	3	4
	Communication and Social Competency	Critically examines and improves social relationships and governing norms, managing actions to alter them when necessary.	2	2	2	2	2	2	2	4	3	4	3	4
		Defends original viewpoints during discussions of field-related topics with experts and communicates effectively, demonstrating professional domain competence.	4	4	4	4	4	3	4	4	4	3	4	3
		Communicates and debates in written, oral, and visual formats at an advanced level using a foreign language at a minimum of CEFR C1 Level.	3	3	2	3	3	3	3	3	4	3	5	2
	Field Specific Competency	Contributes to society's progression as a knowledge society by promoting scientific, technological, social, or cultural advancements in the health field.	3	3	3	3	3	4	4	3	4	5	3	4

		Establishes functional interactions in resolving field-related issues by utilizing strategic decision-making processes.	4	4	4	4	4	3	4	4	4	3	2	3
		Contributes to the resolution of societal, scientific, cultural, and ethical issues encountered in health-related matters and supports the development of these values	2	2	2	2	2	2	3	3	3	4	2	5
		Possesses experience working collaboratively with other health disciplines.	4	3	3	4	4	3	3	5	3	2	2	3
		Selects, applies, and accurately interprets correct statistical methods in health-related studies; performs critical analysis and synthesis.	3	3	3	4	3	4	5	2	4	2	1	2
		Utilizes current developments and knowledge in the health field for public benefit, aligned with child, family, national values, and national realities.	3	3	3	3	3	3	3	3	3	4	2	4

7.3. Course Matrix (Relationship of Courses to Program Outcomes)

Course Code	Course Title	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12
Compulsory Courses													
TBG 707	Medical Genetics	5	5	5	4	4	3	3	2	3	4	2	3
TBG 704	Seminar	3	3	3	3	3	4	4	4	5	5	5	5
TBG 700	Thesis	5	5	5	5	5	5	5	4	5	5	5	5
TBG 703	Molecular Cytogenetic Approaches to Diseases and Applications	5	4	4	5	5	4	5	2	3	4	3	4
GCC602	Education for Learning	1	1	1	1	1	2	2	4	4	5	4	4
GCC 603	Research Methods and Ethics	3	3	2	2	2	5	5	4	5	5	4	5
SEÇMELİ DERSLER													
TBG 630	Basic Medical Immunology	4	3	2	4	4	3	3	2	3	3	3	2
TBG 701	Advanced Biotechnological Methods	4	4	2	4	3	5	5	2	4	4	4	3
TBG 714	Mutagens and Teratogens	4	4	4	3	5	3	3	1	3	3	3	4
TBG 706	Molecular Methods and Applications in Medical Genetics	4	5	4	5	3	5	5	2	4	4	4	4
TBG 731	Bioinformatics	3	4	3	4	2	5	5	3	4	5	4	3

* 1 En Düşük, 2 Düşük, 3 Orta, 4 Yüksek, 5 En Yüksek

8. COURSE LIST

8. 1. Distribution Tables of Semester-based and Elective Courses Belonging to the Program

YEAR 1 – FALL SEMESTER						
Course Code	**Prerequisites**	**Course Title**	**Theoretical Hours**	**Practical Hours**	**National Credits**	**ECTS**
GCC 602	-	Education for Learning	3	0	3	7.5
TBG 707	-	Medical Genetics	3	0	3	7.5
TBG 701	-	Advanced Biotechnological Methods	3	0	3	7.5
TBG 706	-	Molecular Methods and Applications in Medical Genetics	3	0	3	7.5
					Total	30

YEAR 1 – SPRING SEMESTER						
Course Code	**Prerequisites**	**Course Title**	**Theoretical Hours**	**Practical Hours**	**National Credits**	**ECTS**
GCC 603	-	Research Methods and Ethics	3	0	3	7.5
TBG 703	-	Molecular Cytogenetic Approaches to Diseases and Applications	3	0	3	7.5
TBG 714	-	Mutagens and Teratogens	3	0	3	7.5
TBG 704	-	Seminar	3	0	0	7.5
					Total	30
YEAR 2 – FALL SEMESTER						
Course Code	**Prerequisites**	**Course Title**	**Theoretical Hours**	**Practical Hours**	**National Credits**	**ECTS**
TBG 731	-	Bioinformatics	3	0	3	7.5
TBG 701	-	Advanced Biotechnological Methods	3	0	3	7.5
TBG 706	-	Molecular Methods and Applications in Medical Genetics	3	0	3	7.5
TBG 704	-	Seminar	3	0	0	7.5
					Total	30

YEAR 2 – SPRING SEMESTER						
Course Code	**Prerequisites**	**Course Title**	**Theoretical Hours**	**Practical Hours**	**National Credits**	**ECTS**
TBG 630	-	Basic Medical Immunology	3	0	3	7.5
TBG 714	-	Mutagens and Teratogens	3	0	3	7.5
Elective Course			3	0	3	7.5
Elective Course			3	0	3	7.5
					Totall	30

YEAR 3 – FALL SEMESTER						
Course Code	**Prerequisites**	**Course Title**	**Theoretical Hours**	**Practical Hours**	**National Credits**	**ECTS**
TBG 700	Proficiency	Thesis	0	10	3	30
					Totall	30

YEAR 3 – SPRING SEMESTER						
Course Code	**Prerequisites**	**Course Title**	**Theoretical Hours**	**Practical Hours**	**National Credits**	**ECTS**
TBG 700	Proficiency	Thesis	0	10	3	30
					Totall	30

YEAR 4 – FALL TERM						
Course Code	**Prerequisites**	**Course Title**	**Theoretical Hours**	**Practical Hours**	**National Credits**	**ECTS**
TBG 700	Proficiency	Tez	0	10	3	30
					Totall	30

YEAR 4 – SPRING TERM						
Course Code	**Prerequisites**	**Course Title**	**Theoretical Hours**	**Practical Hours**	**National Credits**	**ECTS**
TBG 700	Yeterlilik	Thesis	0	10	3	30
					Totall	30

8.2. Common Compulsory Courses Offered University-Wide

The common courses within the scope of the Institute of Graduate Studies (IGS)—**GCC 602 Education for Learning** and **GCC 603 Research Methods and Ethics**—aim to develop students' academic, scientific, and professional competencies through a holistic approach in graduate education. Through these courses, students acquire a theoretical foundation in learning theories and instructional approaches; gain competence in scientific research design, data collection and analysis methods, and research ethics; and simultaneously enhance their skills in defining field-specific research problems, critical thinking, literature synthesis, and producing original scientific work. Thus, the IGS common courses offer a strategic structure that supports students in acquiring an interdisciplinary perspective, conducting scientific output adhering to ethical principles, and establishing a solid foundation for their academic careers.

9. PRINCIPLES OF ASSESSMENT AND EVALUATION OF THE PROGRAM

9.1. Examination Rules

Examinations are conducted within the framework of the following rules established to protect the reliability of educational processes, academic ethics principles, equality, and fairness. All students are obliged to read and comply with these rules prior to participating in examinations.

1. General Principles

- ➔ An examination taken by a student who does not have the right to sit for it is invalid. The student cannot claim any rights in this situation.
- ➔ Examinations are prepared by the doctoral course instructor, and all responsibility belongs to the relevant department.
- ➔ The location and time of the examinations are announced by the department at least 1 week in advance.

2. Exam Participation and Required Documents

- ➔ Students must bring their exam entrance permit, identification card, and all necessary equipment required for the exam.
- ➔ Bringing mobile phones, smartwatches, headphones, tablets, digital devices, or electronic storage units into the exam room is strictly prohibited.
- ➔ If a student is found to have entered the exam with prohibited devices, their examination will be deemed invalid, and disciplinary action will be initiated if necessary.

3. Examination Room Entrance Rules

- ➔ Students must be present in the examination room at least 15 minutes before the exam begins.
- ➔ Entry is permitted within the first 15 minutes after the exam starts; after this period, no student will be admitted.
- ➔ Bags, books, notebooks, USB drives, headphones, smartwatches, tablets, mobile phones, or other digital or portable storage devices cannot be brought into the examination room.
- ➔ Seat changes cannot be made without the supervisor's permission.

4. Rules to be Followed During the Examination

- ➔ Talking, looking at someone else's paper, signaling, or attempting to cheat during the examination will result in the invalidation of the exam and disciplinary action.
- ➔ Students cannot leave the examination room within the first 30 minutes of the exam period.
- ➔ Identification details and all requested fields on the question booklet and answer sheet must be completed entirely.
- ➔ Failure to comply with the invigilators' instructions falls under the scope of disciplinary action.
- ➔ During the examination, students cannot modify computer screen, keyboard, or system settings. (Changing brightness, splitting the screen, opening new tabs, taking screenshots, etc. are prohibited.)
- ➔ At the end of the examination, students must hand in their papers to the invigilator and leave the examination room quietly.

5. Administration of Examinations and Announcement of Results

- ➔ The relevant department or course instructor is responsible for conducting the examinations and organizing the administrative processes.
- ➔ The course instructor is responsible not only for administering the exam but also for announcing the exam results accurately and in a timely manner.

6. Post-Examination Procedures

- ➔ At the conclusion of the examination, students are required to hand in all exam materials.
- ➔ The exam of a student who fails to submit their answer sheet will not be evaluated.
- ➔ It is prohibited to use marks, symbols, etc., instead of identification on exam materials.

7. Right to Appeal

- ➔ Students have the right to appeal the examination result by submitting a petition to the dean's office within 1 week following the announcement of the result.
- ➔ Students whose appeals are deemed valid will be notified by the coordinator of the relevant exam within a maximum of 5 business days.
- ➔ Necessary corrections are made when clerical errors, incorrect questions, or evaluation mistakes are identified.

8. Disciplinary Provisions

- ➔ Disrupting exam order, cheating or attempting to cheat, and possessing unauthorized devices require disciplinary action.
- ➔ In these cases, the provisions of the **Higher Education Institutions Student Disciplinary Regulations** shall apply.

9. Additional Provisions

- ➔ These rules may be updated by the academic board when necessary.
- ➔ In cases not specified herein, the relevant directives of the institute and university regulations shall apply.

9.2. Letter Grade Conversion Chart

For each course taken, students are assigned one of the following letter grades by the faculty member as the end-of-semester course grade. The grade point equivalents (multipliers) of the letter grades and their corresponding ranges out of 100 points are shown below. The table below provides information regarding letter grades, grade points, and ECTS equivalencies:

SCORE RANGE	LETTER GRADE	WEIGHT / MULTIPLIER	ECTS GRADE
90-100	AA	4.0	A
85-89	BA	3.5	B*
80-84	BB	3.0	B*
75-79	CB	2.5	C*
70-74	CC	2.0	C*
60-69	DC	1.5	D
50-59	DD	1.0	E
49 and below	FF	0.0	F

**For starred letter grades, the higher multiplier is applied.*

In the doctoral program, students must achieve a minimum grade of **BB** to be considered successful in any course. For courses not included in the cumulative grade point average (CGPA), students must receive an **S (Satisfactory)** grade. Additionally, each local letter grade has an equivalent ECTS grade, supporting inter-institutional mobility. The table above is used for all courses within Near East University (NEU / YDÜ).

Apart from these letter grades, the following special letter grades are also recorded on student transcripts:

I	Incomplete
S	Satisfactory Completion
U	Unsatisfactory
P	Successful Progress
NP	Not Successful Progress
EX	Exempt
NI	Not included
W	Withdrawal
NA	Never Attended

I (Incomplete): Given to students who, due to a valid reason acceptable to the course instructor, fail to fulfill the requirements of a course by the deadline of the relevant semester. Students receiving an I grade must complete all missing requirements no later than one week after the deadline for submitting semester grades. However, in exceptional circumstances, this period may be extended up to two weeks prior to the start of the next semester by the decision of the head of the academic unit and the administrative board. The I grade of students who fail to fulfill their obligations by the assigned date will automatically convert to FF or U.

S (Satisfactory): Awarded to students who successfully complete non-credit courses.

U (Unsatisfactory): Awarded to students who fail non-credit courses.

P (Successful Progress): Awarded to students who demonstrate expected performance within the semester for courses that span across multiple semesters and are not included in the CGPA.

NP (Not Successful Progress): Awarded to students who fail to demonstrate expected performance within the semester for multi-semester courses not included in the CGPA.

EX (Exempt): Awarded to students who are exempt from a specific course in the curriculum.

NI (Not Included): Assigned for student performance in courses taken that are not included in their cumulative grade point average (CGPA). These grades are indicated on the transcript but are not counted toward the required courses within the registered program framework.

W (Withdrawal): Assigned if a student withdraws from a course after the add/drop deadline and up to 10 weeks into the semester, upon recommendation of their academic advisor and permission of the course instructor. Students cannot withdraw from any course during their first two semesters in the program. Furthermore, students who previously received a W grade in a course cannot withdraw from the same course again. Associate degree students may withdraw from a maximum of two courses, and undergraduate students from a maximum of four courses. The student must retake the withdrawn course in the first semester it is offered.

NA (Never Attended): Assigned to students who fail to fulfill the attendance requirements for a designated course and forfeit the right to participate in end-of-semester evaluations. The NA grade is not included in the average calculation.

10. ADMISSION AND REGISTRATION REQUIREMENTS

Candidates applying to Ph.D. programs must fulfill the following requirements:

- **Diploma and Graduation Requirements:** To be admitted to the Ph.D. program, candidates must hold a degree from a Faculty of Medicine, Dentistry, Pharmacy, or Veterinary Medicine (Bachelor's/Master's degree), or a Master's Degree with Thesis from Molecular Biology and Genetics, Biology, Biomedical Engineering, Biochemistry, or similar relevant departments of Faculties of Science, Science and Letters, or Health Sciences. The graduation GPA of candidates applying to the Ph.D. program must meet or exceed the minimum threshold determined by the Institute and Department Board (at least 3.00 out of 4.00 or its equivalent).
- **ALES Score:** Candidates with Republic of Turkey citizenship must achieve a minimum standard score of 55 (fifty-five) in the Quantitative (Sayısal) score type of the Academic Personnel and Postgraduate Education Entrance Exam (ALES) for the program they are applying to. The ALES requirement is not applicable to third-country nationals and citizens of the Turkish Republic of Northern Cyprus (TRNC).
- **Foreign Language Exam:** The language of instruction for the Ph.D. program is English. Candidates applying to the program are required to obtain a minimum score of 55 from centralized foreign language exams recognized by the Council of Higher Education (YÖK) or ÖSYM (such as YDS, YÖKDİL, etc.), or an equivalent score from international foreign language exams whose equivalency is recognized by ÖSYM (such as TOEFL iBT, etc.). The validity period of national exams accepted by the Council of Higher Education is five years, while international exams without a specified validity period are valid for three years.
- **Application Announcement and Document Process:** The Rectorate of Near East University announces the names of graduate programs opened by the Institute, required documents for application, application deadlines, and other relevant details via official announcements. Such announcements are issued at the beginning of each semester for student admissions. Candidates submit their applications to the institute within the announced application period along with their ALES result certificate, foreign language certificate, copies of diplomas, and transcripts. Master's degree transcripts must explicitly state that the program included a thesis.

For diplomas obtained abroad, an equivalency or recognition certificate from YÖDAK or YÖK is required.

- ➔ **Additional Evaluation Documents:** Candidates completing preliminary registration for graduate programs may also be requested to attach explanatory documents and statements to their application petitions, such as academic letters of recommendation and a letter of intent (statement of purpose) outlining their motivation for pursuing graduate education.
- ➔ **Interview and Scientific Examination Evaluation:** In student admissions to the Ph.D. program, candidates are evaluated based on their submitted letters of recommendation, letter of intent, undergraduate/graduate graduation GPA, ALES score, as well as the results of the interview (oral evaluation) and written scientific examination conducted by the departmental jury. Following the written scientific exam and oral interview, the candidate's domain knowledge, inclination toward scientific research, and suitability for Ph.D. education are scored to determine the final merit ranking. Candidates eligible for final registration are announced upon the decision of the Institute Administrative Board.

11. EVALUATION AND RECOGNITION OF PRIOR LEARNING

- **General Principles:** Equivalence conditions within the scope of YÖK (Council of Higher Education), NEU (Near East University) Institute of Graduate Studies regulations, and the academic board decisions of the Faculty of Medicine are applicable. Candidates are required to meet the current transfer requirements set by the Institute of Graduate Studies.
- **Horizontal Transfer Conditions:** Students who have successfully completed at least one semester in another relevant Department within the university or in an equivalent graduate program of another higher education institution may be admitted to the Medical Biology and Genetics Ph.D. Program via horizontal transfer.
- **Course Exemption Limits:** Horizontal transfer applications are evaluated and decided upon by the academic board. Courses taken and passed by the student at their previous institution may be transferred up to a maximum of 2/3 of the total credit load, and exemption from course requirements may be granted accordingly.
- **Thesis Phase Restriction:** Students who have completed only their coursework at another university are not permitted to transfer horizontally solely for the purpose of thesis writing under this program. Integration into the department's research culture and involvement in laboratory projects is essential.
- **Comprehensive Examination Rule:** Doctoral comprehensive (qualification) examinations passed by horizontal transfer students at another university are not accepted at NEU; candidates are required to retake the NEU Medical Biology and Genetics Ph.D. Comprehensive Examination after fulfilling the foreign language and academic requirements prescribed in the institute regulations.

NEAR EAST UNIVERSITY POSTGRADUATE EDUCATION INSTITUTE
DIPLOMA SUPPLEMENT

Diploma No:	*Date of Diploma:*

fi. INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

1.1. Family name(s):	*1.3. Place and date of birth:*
1.2. Given name(s):	*1.4. Student identiffcation number:*

2. INFORMATION IDENTIFYING THE QUALIFICATION

2.1. Name of the qualiffcation and (if applicable) the title conferred Doctor of Philosophy (PhD) in Medical Biology and Genetics	*2.4. Name and type of institution administering studies* Same as 2.3.
2.2. Main ffeld(s) of study for qualiffcation Medical Biology and Genetics	*2.5. Language(s) of instruction/examinations* English
2.3. Name and status of awarding institution Near East University, Private University	

3. INFORMATION ON THE LEVEL OF THE QUALIFICATION

3.1. Level of qualiffcation Third Cycle (Doctorate / PhD Level)	*3.2. Offfcial length of program* Minimum 4 years (8 semesters), full-time, equivalent to 240 ECTS credits

3.3. Access requirement(s)
Admission requires a recognized Master's degree (or equivalent) in Molecular Biology, Genetics, Biology, Medicine, Dentistry, Pharmacy, or related fields, successful completion of the Graduate Entrance Examination (ALES for Turkish citizens, min. 55 score), English language proficiency (min. 55 from centralized exams like YDS/YÖKDİL, or TOEFL iBT equivalent), and satisfactory performance in the departmental written science exam and oral interview.

4. INFORMATION ON THE CONTENTS AND RESULTS GAINED

4.1. Mode of study Full-Time	*4.2. Program requirements* A student must successfully complete all compulsory and elective coursework (minimum 7 courses, 1 doctoral seminar, corresponding to 60 ECTS) with a minimum cumulative Grade Point Average (cGPA) of 3.00/4.00 and no grades below BB. After coursework, the student must pass the comprehensive Doctoral Proficiency Examination, present and defend a thesis proposal, execute original laboratory research, publish at least one peer-reviewed scientific paper in a cited international index journal (SCI/SCI-Expanded), and successfully defend the doctoral dissertation before an academic jury (180 ECTS)

4.3. Objectives

- The Doctor of Philosophy (PhD) Program in Medical Biology and Genetics at Near East University aims to train advanced independent researchers and clinician-scientists. The program provides deep theoretical knowledge and supreme laboratory competence in human genetics, molecular oncology, cytogenetics, epigenetics, recombinant DNA technologies, and bioinformatics. Graduates are prepared to lead international research projects, develop molecular diagnostic models for complex human disorders, and pursue successful academic careers in higher education.

4.4. Program details and the individual grades / marks obtained

YEAR 1 - FALL TERM							
KOD	DERS ADI	CODE	COURSE NAME	M/E	LC	ECTS	Grade
GCC 602	Öğrenme için Eğitim	GCC 602	Education for Learning	M	3	7.5	
TBG 707	Tıbbi Genetik	TBG 707	Medical Genetics	M	3	7.5	
TBG 701	İleri Biyoteknolojik Yöntemler	TBG 701	Advanced Methods in Biotechnology	E	3	7.5	
TBG 706	Tıbbi Genetikte Moleküler Yöntemler	TBG 706	Molecular Methods and Applications in Medical Genetics	E	3	7.5	
				TOTAL	12	30	

YEAR 1 - SPRING TERM							
KOD	DERS ADI	CODE	COURSE NAME	M/E	LC	ECTS	Grade
GCC 603	Araştırma Yöntemleri ve Etik	GCC 603	Research Methods and Ethics	M	3	7.5	
TBG 703	Hastalıklara Moleküler Sitogenetik Yaklaşımlar ve Uygulamaları	TBG 703	Molecular Cytogenetic Approaches to Diseases and Applications	M	3	7.5	
TBG 714	Mutajen ve Teratojenler	TBG 714	Mutagens and Teratogens	E	3	7.5	

TBG 704	Seminer	TBG 704	Seminar	M	0	7.5	
				TOTAL	9	30	

YEAR 2 - FALL TERM							
KOD	**DERS ADI**	**CODE**	**COURSE NAME**	**M/E**	**LC**	**ECTS**	**Grade**
TBG 731	Biyoinformatik	TBG 731	Bioinformatics	E	3	7.5	
TBG 701	Ileri Biyoteknolojik Yöntemler	TBG 701	Advanced Biotechnological Methods	E	3	7.5	
TBG 706	Tıbbi Genetikte Moleküler Yöntemler	TBG 706	Molecular Methods and Applications in Medical Genetics	E	3	7.5	
TBG 704	Seminer	TBG 704	Seminar	M	0	7.5	
				TOTAL	9	30	

YEAR 2 - SPRING TERM							
KOD	DERS ADI	CODE	COURSE NAME	M/E	LC	ECTS	Grade
TBG 630	Temel Tıbbi İmmünoloji	TBG 630	Basic Medical Immunology	E	3	7.5	
TBG 714	Mutajen ve Teratojenler	TBG 714	Mutagens and Teratogens	E	3	7.5	
Seçmeli	Seçmeli Ders	Elective	Elective Course	E	3	7.5	
Seçmeli	Seçmeli Ders	Elective	Elective Course	E	3	7.5	
				TOTAL	12	30	

YEAR 3 - FALL TERM							
KOD	DERS ADI	CODE	COURSE NAME	M/E	LC	ECTS	Grade
TBG 700	Tez	TBG 700	Thesis	M	0	30	
				TOTAL	0	30	

YEAR 3 - SPRING TERM							
KOD	DERS ADI	CODE	COURSE NAME	M/E	LC	ECTS	Grade
TBG 700	Tez	TBG 700	Thesis	M	0	30	
				TOTAL	0	30	

YEAR 4 - FALL TERM							
KOD	DERS ADI	CODE	COURSE NAME	M/E	LC	ECTS	Grade
TBG 700	Tez	TBG 700	Thesis	M	0	30	
				TOTAL	0	30	

YEAR 4 - SPRING TERM							
KOD	DERS ADI	CODE	COURSE NAME	M/E	LC	ECTS	Grade
TBG 700	Tez	TBG 700	Thesis	M	0	30	
				TOTAL	0	30	

4.5. Grading scheme, grade translation and grade distribution guidance

Student performance in the Doctor of Philosophy (PhD) Program in Medical Biology and Genetics is evaluated using a letter grading system in accordance with the regulations of the Near East University Postgraduate Education Institute. Course grades are assigned based on written examinations, coursework, scientific seminars, and independent research performance. The grading scale is expressed in letter grades with corresponding numerical values on a 4.00 scale and is fully compatible with the European Credit Transfer and Accumulation System (ECTS).

A minimum Cumulative Grade Point Average (cGPA) of 3.00/4.00 is required to successfully complete the doctoral coursework phase. **In order to be considered successful in any doctoral course, a student must obtain a minimum grade of BB (3.00).**

Doctoral dissertation work, scientific seminars, and comprehensive qualifying examinations are assessed on a Pass/Fail/Progressing basis using specific non-numerical grades. Grade distribution guidance is determined by institutional policies and academic regulations, ensuring consistency, transparency, and international comparability of academic performance. Grade translation into ECTS grading tables is carried out by the university based on the statistical distribution of grades and cohort performance.

The local letter grades, their numerical coefficients, and the corresponding ECTS grades are structured as follows:

GRADE INTERVAL	LETTER GRADE	COEFFICIENT	ECTS GRADE
90-100	AA	4.0	A
85-89	BA	3.5	B*
80-84	BB	3.0	B*
75-79	CB	2.5	C*
70-74	CC	2.0	C*
60-69	DC	1.5	D
50-59	DD	1.0	E
49 and below	FF	0.0	F

4.6 Overall classiffcation of the award

Successful

5. INFORMATION ON THE FUNCTION OF THE QUALIFICATION

5.1. Access to further study

Enables access to post-doctoral research opportunities (Post-doc fellowships), academic appointments (Assistant Professor, Associate Professor), and senior research positions at national/international biomedical institutes.

5.2. Professional status conferred

This degree grants the formal academic title of Doctor of Philosophy (PhD) in Medical Biology and Genetics, qualifying the holder to direct molecular research laboratories, act as principal investigators, or perform advanced scientific consultation.

6. ADDITIONAL INFORMATION

6.1. Additional information	*6.2. Sources for further information*
The curriculum is strictly split between a 2-year advanced coursework phase (incorporating institutional ethics, biosafety guidelines, and methodology) and a final 2-year independent laboratory dissertation phase.	Faculty web site: YDÜTıpFakültesi-neu.edu.tr University web site: https://neu.edu.tr/ Higher Education Council of North Cyprus: https://yodak.gov.ct.tr/ Higher Education Council of Turkey: https://www.yok.gov.tr/en

7. CERTIFICATION OF THE SUPPLEMENT

7.1. Certification Date	
7.2. Name and signature	Prof. Dr. Hüsnü Can Başer
7.3. Capacity	Director of Postgraduate Education Institute
7.4. Official Stamp or Seal	

8. INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM

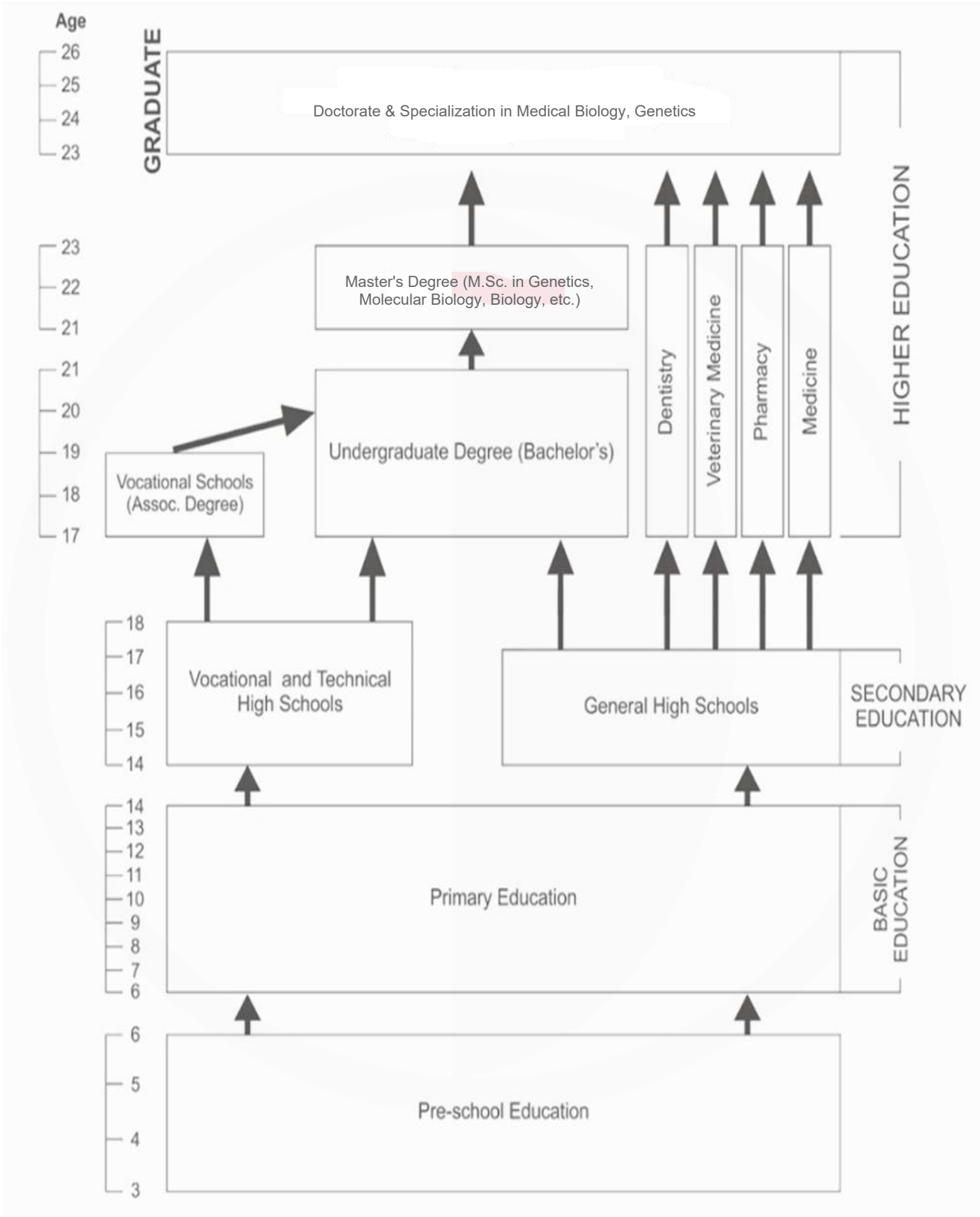
The basic structure of the North Cyprus Education System consists of four main stages: pre-school education, primary education, secondary education, and higher education, as depicted below. Pre-school education consists of non-compulsory programs whereas primary education is a compulsory 8-year program for all children beginning from the age of 6. The secondary education system includes "General High Schools" and "Vocational and Technical High Schools".

The Higher Education System in North Cyprus is regulated by the Higher Education Planning, Evaluation, Accreditation and Coordination Council (Yükseköğretim Planlama, Denetleme, Akreditasyon ve Koordinasyon Kurulu – YÖDAK). Established in 1988, the Council regulates the activities of higher education institutions with respect to research, governing, planning, and organization. Higher education institutions are established within the framework of the Higher Education Law. All programs of higher education should be accredited by YÖDAK. Higher education in North Cyprus comprises all post-secondary higher education programs, consisting of short, first, second, and third cycle degrees in terms of terminology of the Bologna Process. The structure of North Cyprus higher education degrees is based on a two-tier system, except for dentistry, pharmacy, medicine and veterinary medicine programs which have a one-tier system. The duration of these one-tier programs is five years except for medicine which lasts six years. The qualifications in these one-tier programs are equivalent to the first cycle (bachelor's degree) plus secondary cycle (master's degree) degree. Undergraduate level of study consists of short cycle (associate degree) – (ön lisans derecesi) and first cycle (bachelor's degree) – (lisans derecesi) degrees which are awarded after the successful completion of full-time two-year and four-year study programs, respectively.

The graduate level of study consists of second cycle (master's degree) – (yüksek lisans derecesi) and third cycle (doctorate) – (doktora derecesi) degree programs. The second cycle is divided into two sub-types named master without thesis and master with thesis. Master programs without thesis consist of courses and semester projects. The master programs with a thesis consist of courses, a seminar, and a thesis. Third cycle (doctorate) degree programs consist of completion of courses, passing a qualifying examination and a doctoral thesis. Specializations in dentistry, accepted as equivalent to third cycle programs, are carried out within the faculties of dentistry. Specialization in medicine, accepted as equivalent to third cycle programs are carried out within the faculties of medicine, and university hospitals and training hospitals operated by the Ministry of Health.

Universities consist of graduate schools (institutes) offering second cycle (master's degree) and third cycle (doctorate) degree programs, faculties offering first cycle (bachelor's degree) programs, four-year higher schools offering first cycle (bachelor's degree) degree programs with a vocational emphasis and two-year vocational schools offering short cycle (associate degree) degree programs of strictly vocational nature.

Second cycle degree holders may apply to third cycle programs if their performance at the first cycle degree level is exceptionally high and their national central Graduate Education Entrance Examination (ALES) score is also high, and their application is approved. The doctoral degree is conferred subject to at least one publication in a cited and referred journal.


Age
26
25
24
23
GRADUATE
Doctorate & Specialization in Medical Biology, Genetics
23
22
21
Master's Degree (M.Sc. in Genetics, Molecular Biology, Biology, etc.)
21
20
19
18
17
Vocational Schools (Assoc. Degree)
Undergraduate Degree (Bachelor's)
Dentistry
Veterinary Medicine
Pharmacy
Medicine
HIGHER EDUCATION
18
17
16
15
14
Vocational and Technical High Schools
General High Schools
SECONDARY EDUCATION
14
13
12
11
10
9
8
7
6
Primary Education
BASIC EDUCATION
6
5
4
3
Pre-school Education