

Master of Nanoscience and Nanoengineering at Istanbul University

The objective of the Master Program of Nanoscience and Nanoengineering is to provide a necessary multidisciplinary education in high technology for novel systems related with different programs as Chemistry, Chemical Engineering, Electrical, Materials and Metallurgical, Mechanical Engineering, and Forest Industrial Engineering. Students with traditional training in these areas participate in cross-disciplinary research with a nano focus. This program combines different areas of science with nanotechnology in order to solve a wide range of issues and create novel materials.

Students for admission to the Master Program of Nanoscience and Nanoengineering:

- Must have a bachelor's degree in any of the undergraduate programs in Physics, Chemistry, Molecular Biology, Chemical Engineering, Metallurgical and Materials Engineering, Civil Engineering, Forest Industrial Engineering and Computer Engineering
- The grade point average (GPA) must be minimum 2.50 / 4 (70/100)
- To study in the graduate programs, the students are required to take an exam called "ALES" (Academic Personnel and Graduate Education Exam), which is also administered by ÖSYM, and submit this score with their application. GRE or GMAT can also be a substitute of ALES. ALES Numerical must be minimum 65 (old system GRE Quantitative must be 700, new system must be 155). Undergraduate GPA must be minimum 3.1/4 (77/100).
- Whose first language is not English are required to take the English Evaluation Test (Yükseköğretim Kurumları Yabancı Dil sınavı (YÖKDİL, YDS)) and the minimum GPA must be 65/100 or TOEFL can also be a substitute of YDS. TOEFL Internet-based score must be minimum of 80 (550 paper-based).

Nanobilim ve Nanomühendislik Yüksek Lisans Programı'na başvurabilmek için;

- Adaylar, Fizik, Kimya, Moleküler Biyoloji, Kimya Mühendisliği, Metalürji ve Malzeme Mühendisliği, İnşaat Mühendisliği, Orman Endüstri Mühendisliği ve Bilgisayar Mühendisliği, Lisans Programlarından herhangi birine ait Lisans diplomasına sahip olmalıdır.
- Adayların lisans mezuniyet not ortalaması minimum 2.50/4 (70/100) olmalıdır.
- Adaylar, Ölçme, Seçme ve Yerleştirme Merkezi (ÖSYM) tarafından yapılan Akademik Personel ve Lisansüstü Eğitimi Giriş Sınavı (ALES) Sayısal puan türünden en az 65 puan almalıdır.
- Adaylar, Yükseköğretim Kurumları Yabancı Dil sınavı (YÖKDİL, YDS) veya Üniversitelerarası Kurulca kabul edilen bir sınavdan en az 65 puan almalıdır.
- Adayların başarı notu; ALES puanının %50'si, lisans yüzlük sistem mezuniyet ortalamasının %10'u, Yabancı Dil Bilgisi Seviye Tespit Sınavı (YDS)'den aldığı puan veya Üniversitelerarası Kurul tarafından kabul edilen bir sınavdan aldığı (yüzlük sistem karşılığı) puanın % 10'u ve mülakat sınav notunun % 30'u (yüz tam puan üzerinden) alınarak hesaplanır. Başarı notunun, sıralamaya girebilmesi için en az 60/100 olması gerekir. Mülakat sınavına katılmayan adaylar başarısız sayılırlar.

COURSES

COURSE	CREDIT	AKTS	LECTURER
Seminar*	3-0-0	6	Assoc. Professor Dr. Derya Dışpınar
Advanced Mechanical Properties	3-0-0	7	Assoc. Prof. Derya Dışpınar
Academic Writing and Presentation Techniques*	3-0-0	7	Assoc. Professor Dr. Derya Dışpınar
Nano-Reinforced Aluminum Materials	3-0-0	7	Assoc. Professor Dr. Derya Dışpınar
Engineering Materials	3-0-0	7	Assoc. Professor Dr. İlven Mutlu
Nanotechnology in Building and Construction	3-0-0	7	Assoc. Professor Dr. Savaş Erdem
Molecular Self-Assembly in Nanoscience and Nanotechnology	3-0-0	7	Professor Dr. Ayben Kilislioğlu
Characterization of Nanostructures	3-0-0	7	Professor Dr. Ayben Kilislioğlu
Nanotechnological Applications For Lignocellulosic Materials And Wood-Based Composites	3-0-0	6	Professor Dr. S. Nami Kartal
Scientific Research Techniques and Publication Ethics*	3-0-0	7	Assoc. Professor Dr. Derya Dışpınar
Casting and nano materials	3-0-0	7	Assoc. Professor Dr. Derya Dışpınar
Powder technology	3-0-0	7	Assoc. Professor Dr. İlven Mutlu
Biomechanics and Implant Production	3-0-0	7	Assoc. Professor Dr. İlven Mutlu
Quantum Mechanics for Nanoscience and Nanotechnology*	3-0-0	7	Assoc. Professor Dr. İlven Mutlu
Sonochemistry	3-0-0	7	Professor Dr. Ayben Kilislioğlu
Introduction to Nanoelectronics	3-0-0	7	Assist. Professor Dr. Mustafa Dağtekin

* The course is compulsory.

Academic Staff

Ayben Kilislioglu, Professor Dr. & Head

Master Program of Nanoscience and Nanoengineering

Faculty of Engineering, Department of Chemistry, Department of Physical Chemistry

Research Areas: Nanomaterials for biomedical applications. Drug carrier nanosystems. Nanocomposites. Antibacterial Nanoparticles.

<http://aves.istanbul.edu.tr/ayben/>

S. Nami KARTAL, Professor Dr.

Master Program of Nanoscience and Nanoengineering

Faculty of Forestry, Forest Industrial Engineering, Forest Biology and Wood Protection Technology

Research Areas: Forest Industrial Engineering, Wood Protection Technology, Wood Biodegradation and Biodeterioration, Wood Consolidation, Nanoparticles in Wood Protection

<http://aves.istanbul.edu.tr/snkartal/>

Derya DIŞPINAR, Assoc. Professor Dr.

Master Program of Nanoscience and Nanoengineering

Faculty of Engineering, Department of Metallurgy and Materials Engineering

Research Areas: Casting Principles and Technologies, Non Ferrous Metal Production, Aluminum, Porosity, Casting

<http://aves.istanbul.edu.tr/deryad/>

İlven MUTLU, Assoc. Professor Dr.

Master Program of Nanoscience and Nanoengineering

Faculty of Engineering, Department of Metallurgy and Materials Engineering

Research Areas: Non-Destructive Testing, Powder Metallurgy, Corrosion and Corrosion Protection, Biomaterials, Polymeric Materials, Porous Materials

<http://aves.istanbul.edu.tr/imutlu/>

Savaş ERDEM, Assoc. Professor Dr.

Master Program of Nanoscience and Nanoengineering

Faculty of Engineering, Department of Civil Engineering, Department of Architecture

Research Areas: Concrete Technology, Reinforced Concrete Structures, Structural Engineering, Earthquake Engineering, Building Mechanics, Bridges

<http://aves.istanbul.edu.tr/savas.erdem/>

Mustafa DAĞTEKİN, Assist. Professor Dr.

Master Program of Nanoscience and Nanoengineering

Faculty of Engineering, Computer Engineering Department, Department of Computer Engineering

Research Areas: Biomedical Engineering, Printed Circuits, Thin Film, Thick Film and Hybrid Integrated Circuits, Electronic Circuits, Nanotechnology, Integrated Circuits

<http://aves.istanbul.edu.tr/dagtekin/>